

BODAH PROJECT

FLOW MANAGEMENT MODEL



CENTRO DE ESTUDOS E INVESTIGACIÓNS
TURÍSTICAS (CETUR)

July 2022

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0. INTRODUCTION

The BODAH project aims to strengthen a more holistic sustainable development of tourism and citizen flows and the redistribution of socio-economic impacts through the use of smart data and technologies.

Understanding tourist flows and how to manage them is, of course, a fundamental task facing all tourist destinations at the beginning of the 20th century. Now that the worst of the pandemic has passed, we find ourselves in a scenario marked by a return to situations very similar to those that existed before this great disruption.

Among the activities proposed in the BODAH work plan is the development of a flow management model based on the data generated in the four case studies, which correspond to the cities of Santiago de Compostela, San Sebastián-Donostia, Cork and Pau.

As is evident, these are tourist destinations with quite different characteristics. Santiago de Compostela and San Sebastian are Spanish cities in southern Europe, where tourism has played an important role for many decades. We can say that they are consolidated urban tourism destinations.

A somewhat different situation can be found in the case of the Irish city of Cork and the French city of Pau, where tourism is much more recent and has not attained nearly the same quantitative and qualitative importance as in the two previous cases.

This report consists of two parts. Although it is jointly conceived by members of CETUR (Centro de Estudios e Investigaciones Turísticas of the University of Santiago de Compostela), the first part is carried out by professors of Applied Economics and Quantitative Methods. It consists of a quantitative analysis and interpretation of the numerical data provided by the members of the BODAH project consortium.

The work team that has prepared this report is aware of the difficulty that the different *partners* have had in obtaining reliable data on visitors, tourist profile

and many other items, as designed in the dynamics of the project work. Undoubtedly, the fact that the implementation of the project has coincided with the worst moments of the pandemic has notably conditioned the development of the work in progress.

After careful analysis of the information available, and in agreement with all parties, it was decided to analyse only the data relating to Santiago de Compostela, where cluster analysis results are presented from the quantitative work with the data series.

The work dynamics included a videoconference with Demoscopia staff, who carried out the fieldwork at the time, in order to learn in detail about the characteristics surrounding the data collection and to comment on some methodological issues where further information was needed.

The second part of the report is carried out by professors of Geography who also belong to CETUR, and proposes a qualitative flow management model that is valid and suitable for the project's case studies. Based on the conclusions of the first part, it was decided to develop a qualitative and tourism governance approach to mobility flows in tourist destinations.

This report has been carried out in collaboration at all times with Dr. Giancarlo Fedeli and John Lennon, who have offered us support and have mediated communications with the different project partners. Likewise, the collaboration of Turismo de Santiago (INCOLSA) has been fundamental to the success of the project.

PART I. QUANTITATIVE ANALYSIS OF BODAH PROJECT DATA

TOURIST CARRYING CAPACITY IN THE CITY OF SANTIAGO DE COMPOSTELA. ANALYSIS OF PERCEPTIONS BASED ON SURVEYS

This section analyses tourist saturation in the historic centre of Santiago de Compostela based on the perceptions of visitors and residents. To this end, surveys were carried out with both groups in August and October 2021.

The methodology used consisted of a descriptive statistical analysis, inferential statistical analysis, factor analysis and multivariate cluster analysis to classify both visitors and residents according to perceptions related to the feeling of saturation, security, cleanliness and hygiene, perception of the state of conservation of the heritage and perceptions related to trade and hospitality. The data obtained were processed with SPSS software (vers. 25.0).

1. Visitors' perception of the tourist load in the city

Fieldwork was carried out through surveys to address the following indicators:

- Index of post-experience perception of **saturation** feelings
- Post-experience **security** perception index
- Post-experience perception of **cleanliness and** hygiene index
- Index of post-experience perception of the **state of** heritage **conservation**
- Post-experience perception index for **trade and services**

The indicators were approximated on a likert scale of 1 to 5 (where 1 means "very dissatisfied" and 5 means "very satisfied") by asking visitors about their satisfaction with the above questions.

The fieldwork was carried out in August and October 2021. A total of 307 valid questionnaires were obtained. Table 1 shows the main characteristics of visitors to the city of Santiago de Compostela, as well as some characteristics related to the trip.

Table 1: visitor and trip characteristics

Variable	Description	N	
Sex	Male	186	60,6
	Female		39,4
	Total	307	100,0
Age group	Between 16 and 24 years old		5,2
	Between 25 and 34 years old		20,8
	Between 35 and 44 years of age		15,6
	Between 45 and 54 years old	75	24,4
	Between 55 and 64 years old		21,8
	65 and over		12,1
	Total	307	100,0
Source	From Galicia		5,9
	From other Autonomous Communities	146	47,6
	From a European country	101	32,9
	From a non-European country	42	13,7
	Total	307	100,0
Travel Company	Alone	104	34,6
	Two people		39,2
	More than two persons	79	26,2
	Total	301	100,0
Main destination	Yes	239	77,9
	No		22,1
	Total	307	100,0
Visitor typology	Tourist	218	71,0
	Hiker		29,0
	Total	307	100,0
Period	August	162	52,8
	October	145	47,2
	Total	307	100,0

In relation to the analysis of the items related to the tourist carrying capacity of the city, table 2 shows the most relevant descriptive statistics, which are limited to the historic centre of the city of Santiago de Compostela.

Table 2: Perceptions related to the city's tourist load

	Average rating	% Very dissatisfied (rating: 1)	Very satisfied (rating: 5)
State of conservation of monuments and tourist assets	4,2	0,0	12,7
Level of congestion in terms of tourist flow (waiting times, access, etc.)	3,3	5,7	3,7
General state of cleanliness	4,3	0,0	31,6
Security during the visit to the city	4,1	0,0	9,9
Quantity and variety of trade	3,5	3,5	8,1
Quantity and variety of hotel and restaurant offerings	4,6	0,4	58,1

As can be seen from the data in the table, the aspects most highly rated by tourists were the "quantity and variety of the hotel and catering offer", the "general state of cleanliness" and the "state of conservation of monuments and tourist assets" in the historic centre of the city of Santiago de Compostela. While the "quantity and variety of shops" and the "level of tourist congestion" obtained the lowest scores.

It should be noted that **satisfaction with the level of congestion in the Old Town in terms of the influx of tourists (waiting times, access, etc.) received the worst rating**: less than 4% of visitors said they were "very satisfied" with this item and, on the other hand, around 6% said they were "very dissatisfied" with it. **It should be borne in mind that the surveys were carried out in an "atypical" year in which tourism had not yet returned to normal, so that a longitudinal study should be carried out in order to check whether there is an improvement in the ratings or, on the contrary, the level of satisfaction with this aspect decreases as tourism returns to normal.**

A bivariate statistical analysis was carried out in order to find significant statistical differences in perceptions related to tourist saturation of the city, depending on the characteristics of the visitors and the characteristics of the trip itself, as shown in table 1.

We have found that **the tourist season is the variable that generates the greatest differences in visitors' perceptions**. Specifically, perceptions of cleanliness, safety and the retail sector were much more positive among visitors in October than among those who visited the city in August, in the middle of the high season. Similarly, **the perception of congestion in public spaces was much higher in August than in October. Tourist seasonality, therefore, is shown to be a decisive variable in the sustainable development of destinations**. Reducing tourist seasonality, with a more equitable and

homogeneous distribution of visitors throughout the year, will also mean reducing perceptions of tourist congestion and saturation.

Motivations also proved to be a determining factor in visitors' perceptions. Thus, visitors who came to the city for religious and spiritual reasons and to walk the Camino de Santiago and enjoy the city's heritage were less satisfied with the level of congestion and the general state of cleanliness of the city.

A longitudinal and stratified study according to the type of visitor, the time of the interview and other variables such as the visitor's location, would surely reveal the existence of significant statistical differences between excursionists and tourists. Rodríguez, Martínez-Roget and González-Murias (2018), in a study on the city of Santiago de Compostela, showed that staying overnight or not, and in the case of staying overnight, the length of stay, are fundamental elements for sustainable development of cities through tourism. The authors concluded that the lower the weight of excursionists in the total number of visitors, the higher the net impact of tourism on urban areas. On the one hand, excursionists, or day visitors, spend less than tourists, since they do not stay overnight at the destination and spending on accommodation is one of the most important expenditure categories. On the other hand, visitors who do not stay overnight tend to concentrate their visits in smaller spaces, visiting the places of interest or "most touristy" places, which generates pressure on resources and in particular on the main attractions.

Based on these findings, a hierarchical cluster analysis was carried out in order to identify homogeneous groups of visitors in relation to their perceptions of the city's tourism load and the fulfilment of their expectations. Specifically, the scores given by visitors to the city to the six items related to the city attributes analysed above were used.

We employed hierarchical cluster analysis using Ward's clustering method. Based on an iteration process and visualisation of the dendrogram, we identified three homogeneous groups of visitors. The first group would comprise 19% of the sample, the second group would comprise 33% and group 3 would comprise the remaining 49%.

From an ANOVA analysis, significant statistical differences were found between the three groups in terms of levels of satisfaction with "congestion in the old town", in terms of "quantity and variety of shops in the old town" and in terms of "quantity and variety of the hotel and restaurant offer in the old town".

Group 2 members were the least satisfied with "congestion in the old town" with an average score of 1.86 for this item. On the other hand, those in group 3 were the most satisfied with the item with an average score of 4 points, on a scale of 1 to 5.

Visitors in group 1, with an average score of 2.12, were the least satisfied with the "quantity and variety of shops in the old town" and those in group 3 were the most satisfied with the local shops with an average score of 3.97.

Similarly, the greatest differences in perceptions related to the "quantity and variety of the hotel and restaurant offer in the historic quarter" were between group 1 and group 3. Group 1 gave a score of 3.81 for this item and 4.70 for group 3.

Contingency tables and chi-square tests were used to characterise each of the three groups. **We found that the members of group 2, who, as mentioned above, had perceived greater congestion in the historic centre, travelled mainly in August. This group is also characterised by a greater predominance of religious and spiritual motivations when visiting the city. On the other hand, the members of group 3, who are the most satisfied with this issue, visited the city mostly in the month of October.**

The members of group 1, who are the least satisfied with the "quantity and variety of commerce" and with the "quantity and variety of the hotel and restaurant offer" are characterised by visiting the city motivated to a greater extent by the enjoyment of the city and its heritage and to a lesser extent to do the Camino.

Table 3. **Cluster Visitors**

GROUP 1	GROUP 2	GROUP 3
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(18,6%)	(32,9%)	(48,5%)
Less satisfied with the quantity and variety of trade Less satisfied with the quantity and variety of hotel and restaurant offerings	Less satisfied with congestion in the Old Town	More satisfied with congestion in the Old Town More satisfied with the quantity and variety of trade More satisfied with the quantity and variety of hotel and restaurant offerings

Greater predominance of motivation related to the enjoyment of the city and its heritage. Less predominance of Camino-related motivation	They visited the city most in August. Greater predominance of religious and spiritual motivations	They visited the city most in October.
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2. Residents' perception of the tourist burden in the city

In order to elaborate the perception indicators dependent on the surveys, 251 interviews were carried out with a proportional distribution of the city's population by sex and age. The interviews were carried out in the Old Town with the population residing in any part of the city.

Table 3 shows the main socio-demographic characteristics of the sample.

Table 4: **Socio-demographic characteristics of the sample of residents**

Variable	Description	N	
Sex	Male		45,6
	Female	204	54,4
	Total	375	100,0
Age group	Between 16 and 24 years old	31	8,3
	Between 25 and 34 years old		20,5
	Between 35 and 44 years old		19,2

	Between 45 and 54 years old	56	14,9
	Between 55 and 64 years old		17,3
	65 and over		19,7
	Total	375	100,0
Years residing in the city	Under 15 years old	102	28,3
	From 16 to 30 years old	92	25,6
	From 31 to 45 years old		20,3
	Over 45 years old	93	25,8
	Total	360	100,0
Employment status	Salaried	108	31,2
	Civil servant		3,2
	Self-employed		43,1
	Unemployed		4,6
	Housework		1,2
	Retired/Pensioner	58	16,8
	Total	346	100,0
Period	August		66,7
	October	125	33,3
	Total	375	100,0

The questions used to approximate the perception indicators related to tourism saturation, formulated on a Likert scale from 1 to 5, where 1 means "very dissatisfied" and 5 means "very satisfied", are presented below.

E3) I.4.2. Post-experience perception index: feeling of saturation:

- *How would you assess the level of congestion in the Old Town, in terms of the influx of tourists?*

E3) I.5.2 Perception of safety post-experience:

- *How would you rate your satisfaction with the security you feel in the Old Town (fear of robbery or mugging)?*

(E3) I.6.2. Post-experience perception index: cleanliness and hygiene

- *How do you assess the general state of cleanliness of the historic centre of Compostela?*

(E3) I.7.1. Post experience perception index: state of conservation of the heritage

- *How do you assess the state of conservation of monuments and tourist assets in the Old Town?*

(E3) I.8.1. Post-experience perception index: perception of trade and services

- *How do you rate the amount and variety of commerce in the Old Town?*

The aspect with which respondents were least satisfied was the "number and variety of food shops" and the "number and variety of shops in general" in the old town. On the other hand, the most highly rated aspects were the "number and variety of hotel and restaurant offerings".

On the other hand, 82% of those interviewed stated that they "fairly" or "strongly agree" with the statement "*Tourism is beneficial for Santiago de Compostela*", giving this item an average score of 4.1 on a scale of 1 to 5. Similarly, residents gave a score of 7.4 (on a scale of 1 to 10) to their level of satisfaction with their experience in the Old Town.

Subject to possible limitations of the sample, we found significant statistical differences in residents' perceptions according to several socio-demographic characteristics.

Age

The 55-64 age group is the least satisfied with the state of conservation and the general state of cleanliness of the Old Town, while residents in the 25-34 age group are the most satisfied with both aspects.

People over 55 years of age are the least satisfied with safety in the city, while those under 35 years of age are the most satisfied with safety in the city.

People in the middle age group (35-54) are the most dissatisfied with the "number and variety of food shops" and the "number and variety of shops in general", while those in the most extreme age groups (under 24 and over 64) are the most satisfied with this item. Older people are also the most dissatisfied with the "quantity and variety of the hotel and catering offer", while younger people are more satisfied with this offer.

Those under 45 are the most dissatisfied with the "level of congestion in the Old Town in terms of the influx of tourists", while those over 45 are the least critical of the congestion.

Finally, people in the middle age group (between 25 and 54 years old) are those who least agree that "Tourism is beneficial for Santiago de Compostela", while the youngest (under 25 years old) and the oldest (55 years old and over) are those who agree the most.

Sex

Women are generally more critical and less satisfied than men on the following items related to the Old Town:

- The state of conservation
- The general state of cleanliness
- The number and variety of food shops
- The level of congestion

Years living in Santiago de Compostela

Neighbours who have lived in Santiago de Compostela for the shortest time are the ones who feel the safest in the Old Town in terms of fear of robbery or mugging, for example. On the other hand, people who have lived in the city for the longest time (over 45 years) are the least satisfied with the level of security.

Employment status

We basically distinguish between self-employed and employees because they are the two largest groups in the sample. In general, employees are less satisfied than the self-employed on the items related to the "state of conservation" and the "level of congestion and influx of tourists", while the self-employed are less satisfied than employees on the "number and variety of food shops", on the "number and variety of shops in general" and on the overall assessment of the "experience in the Old Town".

Based on these results, we performed a cluster analysis using as inputs the scores on the items used to approximate the tourist load in the city. That is, residents' satisfaction with the state of conservation, with cleanliness, with safety, with the number and variety of food shops, with the number and variety

of shops, with the number and variety of hotels and restaurants, and finally, with the level of congestion in the Old Town in terms of the number of tourists.

We employed hierarchical cluster analysis using Ward's clustering method. Based on a process of iteration and visualisation of the dendrogram, we identified three homogeneous groups of residents. The first group would comprise 25% of the sample, the second group would comprise 36% and group 3 would include the remaining 39%.

From an ANOVA analysis, significant statistical differences were found between the three groups in terms of levels of satisfaction with all the items used to approximate the tourist load of the Old Town.

The members of group 1 were the most satisfied with all the items mentioned above and were also the most satisfied with the experience in the Old Town and the ones who believed to a greater extent that tourism was beneficial for the city. Contingency tables and chi-square tests have allowed us to characterise this group and to reach the conclusion that it is made up to a greater extent of older people, who have been living in the city for a greater number of years, and with a greater proportion of retired people.

Group 2 respondents showed intermediate levels of satisfaction with the hotel and restaurant industry and with the experience in the Old Town. This group also showed a medium level of agreement that tourism is beneficial to the city. However, members of this group were **least satisfied with the state of conservation of the Old Town, the cleanliness, safety, the number and variety of food shops, and with commerce in general**. This group is made up of middle-aged residents, who have been living in the city for between 16 and 34 years, are more likely to be men and have a higher proportion of self-employed workers.

The members of group 3 are the **least satisfied with the level of congestion in the Old Town in terms of the influx of tourists, with the quantity and variety of the hotel and restaurant offer, the least satisfied with the experience in the Old Town and the least satisfied with the fact that tourism is beneficial for Santiago de Compostela**. This group is made up of younger residents who have been living in Santiago de Compostela for

fewer years, mostly women, who were interviewed mainly in the month of August and with a predominance, in comparison with the other groups, of salaried workers, civil servants and unemployed people.

Table 5. Residents Cluster

GROUP 1 (25,1%)	GROUP 2 (36,4%)	GROUP 3 (38,6%)
More satisfied with conservation	Less satisfied with conservation	Less satisfied with congestion
More satisfied with cleanliness	Less satisfied with cleanliness	Less satisfied with the hotel and catering industry
More satisfied with security	Less satisfied with security	
More satisfied with food shops	Less satisfied with food shops	
More satisfied with trade	Less satisfied with trade	
More satisfied with the hotel and catering industry		
More satisfied with congestion		
More satisfied with the experience in the Old Town		Less satisfied with the experience in the Old Town
More agreement that tourism is beneficial		Less agreement that tourism is beneficial
Older persons	Middle-aged persons	Younger people
More years residing in the city	Between 16 and 34 years of age residing in the city	Fewer years residing in the city
	Increased weight of men	More weight for women

Increased weight of retirees	Increased weight of the self-employed	Greater weight of salaried employees Higher weight interviewed in August
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3. Divergent perceptions of visitors and residents on the city's tourism burden

To evaluate the existence of statistically significant differences ($\alpha < 0.05$) in the perceptions of visitors and residents in relation to the tourist load of the historic centre of Santiago de Compostela, we carried out an ANOVA test.

These tests reveal that there are significant differences between residents and visitors in perceptions of the "state of conservation of monuments and tourist assets", in perceptions of the "general state of cleanliness", in perceptions of the "level of safety of the city" and in perceptions related to the "quantity and variety of commerce".

In general, visitors' perceptions are more positive than those of residents, with the greatest differences in perceptions related to cleanliness, the amount and variety of commerce and the state of conservation of monuments and tourist assets.

The differences in the perceptions related to the "level of congestion of the historic city centre in terms of the influx of tourists" and in those related to the "quantity and variety of the hotel and restaurant offer" are not statistically significant.

Table 6. **Differences in the perceptions of visitors and residents**

	Average satisfaction		Significant level
	Residents	Visitors	
State of conservation of monuments and tourist assets	3,6	4,1	0,000
Level of congestion in terms of tourist inflow	3,4	3,3	0,264
General state of cleanliness	3,7	4,3	0,000

Level of security in the city	3,8	4,1	0,000
Quantity and variety of trade	3,0	3,5	0,000
Quantity and variety of hotel and restaurant offerings	4,3	4,5	0,063

4. Conclusions

From the work carried out, a series of conclusions can be drawn that will help in decision-making related to the management of tourist flows in the city.

First and foremost, as seems evident, there are significant differences between visitors and residents on several aspects related to tourist saturation or congestion. In general, the ratings are more positive in the case of visitors than in the case of residents. Residents are aware of the importance of tourism for the city, but this does not prevent the development of tourist activity from generating a series of negative impacts on the development of daily life.

Among the aspects included to evaluate the perception of saturation, the best rated by visitors were the "quantity and variety of the hotel and restaurant offer", the "general state of cleanliness" and the "state of conservation of monuments and tourist assets" of the historic centre of the city of Santiago de Compostela. On the other hand, satisfaction with the level of congestion is the lowest rated aspect. It will be necessary to monitor these perceptions over time to check the evolution of this indicator. The surveys were carried out in a year in which pre-pandemic normality had not yet fully returned, so perceptions may not have been stable either. It will be necessary to check whether, over time, there is an improvement in the ratings or, on the contrary, the level of satisfaction with this aspect decreases as tourism returns to normal.

Visitor perceptions are not homogeneous. We found a group of visitors with more negative perceptions in relation to congestion in the Old Town. The members of this group travelled to a greater extent in the month of August. It seems clear that the seasonal nature of tourism is a factor that conditions perceptions of tourist saturation, which is why measures aimed at reducing this tourist concentration should continue to be promoted, allowing for an increasingly more even distribution of tourism throughout the year.

82% of the residents in the sample agreed "quite a lot" or "strongly agree" with the statement "Tourism is beneficial for Santiago de Compostela", giving this item an average score of 4.1 on a scale of 1 to 5. In the same vein, they rated their level of satisfaction with their experience in the Old Town as 7.4 (on a scale of 1 to 10). The results show, therefore, a good predisposition of the local population towards tourism.

The aspect with which residents were least satisfied was the "number and variety of food shops" and the "number and variety of shops in general" in the Old Town. On the other hand, the most highly rated aspects were the "quantity and variety of the hotel and restaurant offer". Despite the limitations of the sample, the results seem to show the need to strengthen the commitment to expanding the range of shops and businesses in the Old Town.

As in the case of visitors, we also found significant differences between groups of residents. Younger residents, those who have been living in Santiago de Compostela for less time, women and those interviewed in the month of August, are the least satisfied with the level of congestion in the Old Town in terms of the influx of tourists. It will therefore be necessary to take decisions aimed at improving tourist flows and facilitating coexistence between visitors and this profile of residents.

Finally, a longitudinal and stratified study according to the type of visitor, the time of the interview and other variables such as the visitor's location, would surely reveal the existence of significant statistical differences between excursionists and tourists. It seems to be proven that the lower the percentage of excursionists, the greater the net impact of tourism in the form of economic income and less pressure on the city's main tourist attractions (Rodríguez, Martínez-Roget and González-Murias, 2018).

Bibliography:

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PART II. FLOW MANAGEMENT MODEL

INTRODUCTION

In the second part of this report, we will take a qualitative approach to the study of tourist flows in the cities under study in the BODAH project. Our objective will be to start from the individual characteristics of each of them in order to detect a series of common problems associated with tourist flows in general, based on the specific cases in particular.

Bearing in mind that the aim of this report is to propose a model for the management of tourist flows, it seems logical to begin by identifying the main problems associated with historic cities, which clearly condition tourist flows and their management. The location of the cities themselves, their location, the characteristics of the roads and many other factors will be dealt with in this section.

Once the main problems have been detected, we specify the flow management model based on the proposed solutions. Urban planning and the management of tourist and historic cities have developed valuable tools to address the main problems associated with the organisation, limitation or correct distribution of tourist flows in space and time.

CONCEPTUAL ISSUES

It is an obvious fact, but at the same time it must be pointed out: there is no tourism without transport and mobility. Tourism always involves a journey from one place of residence to a different place where the tourist activity itself takes place. As we know, tourism also implies an overnight stay away from one's own home. Therefore, it is necessary to move from point A to point B, and for this it is necessary to have a means of transport, or several means of transport.

But transport not only enables mobility from source markets to tourist destinations. In addition, the different means of transport make mobility possible once tourists have arrived at the destinations. Starting with the journey from the airport, train or bus station, the tourist has to move around the destination. And they will need to make constant journeys to travel to different attractions, points of interest, tourist attractions or simply to walk around.

On this last point it is necessary to stop: there is a tourist mobility that can be called "transport as tourism", as has been highlighted by different authors such as Henning-Smith and others. Walking is one of the simplest forms of "transport as tourism", a concept that refers to the fact that there are tourism products or practices that are largely based on travel. In all these cases, the tourist finds pleasure and enjoyment in mobility itself. It is the movement itself, and often the means of transport used, that is a fundamental part of the tourist practice itself. In addition to walking, we can mention many other practices such as tourist trains, cycle tourism, horseback riding, helicopter tours, steam trains, visits to railway or transport museums, etc. In all these cases, transport and movement are key elements in the tourist experience and constitute not only a means but an end in itself for the tourist.

Pilgrimages are perhaps the most evolved example of this type of tourist practice "in itinere". They consist of structuring the tourist's space and time around constant mobility. The pilgrim is constantly on the move, in such a way that the tourist flows themselves define the tourist practice. These tourist practices have a clear and specific destination, which is usually a sanctuary or a pilgrimage centre, and everything else is subordinated to this. However, it is the continuous movement itself that gives meaning to the experience, which is itself mobile and varied. In an increasingly sedentary world, pilgrimages are an effective escape valve, allowing a break from the daily routine.

On the other hand, transport and mobility are a fundamental strategy in the management of all tourist destinations today. All urban and tourism plans now consider mobility as a management tool, and not just as an end in itself. Proper mobility management is necessary for housing policies to work, for social inequalities to be mitigated, for commerce to be alive and, of course, for tourism to develop.

There is a growing consensus that careful and continuous mobility management is necessary in a tourist destination, and that this requires constant monitoring. Total permissiveness towards the circulation of motorised vehicles is just as negative as the imposition of heavy restrictions. Examples in different Spanish cities such as Seville of heavy restrictions have resulted in negative consequences, and the measures have had to be reversed. Trade, residents and even emergency vehicle traffic need flexibility measures that do not impede the total circulation of vehicles. Mobility management should therefore be a dynamic process and not a set of fixed and immutable prescriptions. Observation and monitoring should be at the basis of any mobility policy in a tourist destination.

At this point, it is worth noting the distinction between transport, mobility and accessibility. These are three words that are often used interchangeably, but have different meanings.

Transport refers to the fact of "carrying beyond", from an etymological point of view. It is the reference word that has traditionally been used. Nowadays, when we think of transport, we think of objects, heavy lorries or large infrastructures. Mobility, on the other hand, is a friendlier word, and refers above all to people, to human beings. Objects are transported, but people move and are mobile. It is the ability we have to move across the territory, and the type of mobility and its characteristics are influenced by personal variables and circumstances.

This is why mobility is generally the subject of study by the social sciences, while transport is a traditional subject of study for engineers, architects or economists. For several decades now, first the energy crisis and then the context of climate change and environmental emergency have brought mobility to the centre of the political discourse. Ministries of transport have been renamed ministries of mobility. We no longer talk about transport policies but about mobility policies.

Logically, the tourism sector is interested in the proper management of transport (especially to get from the origin to the destinations) but also of mobility, understood as the tourist's ability to move around the destination. This is why, in historic cities, we generally speak only of "mobility policies", and

reserve the concept of "transport" for journeys between source markets and destinations.

Finally, the concept of accessibility is a conceptual innovation that is likely to become increasingly important. Accessibility goes beyond the traditional concept of transport and also beyond the concept of mobility. Accessibility refers to the ease with which a person (in general) or a tourist (in particular) can access a location where a service can be provided. Instead of focusing on the ability to move, the focus is on the time and cost of travel. That is, the ease with which a tourist can satisfy a need or desire. Accessibility is therefore closely related to quality of life and satisfaction with the tourist experience. The most successful tourist cities are planned in such a way that mobility is minimised and tourists can satisfy their demands quickly and conveniently, with little effort in terms of time and money.

Indeed, in the current context of the energy and climate crisis, reducing mobility is constantly emerging as one of the major objectives of all public policies. We cannot ignore the clear tendencies towards decrease and reduction of consumption and emissions of polluting gases. It is clear that transport is today the main emitter of greenhouse gases in the countries of the global North, which will undoubtedly lead to a scenario of containment.

TOURIST FLOWS

Tourist flows are the focus of analysis in this report, and are given by the spatial and territorial materialisation of tourist movements. In a context where urban and cultural tourism destinations have been booming for decades, the study and knowledge of tourist flows and their main characteristics is necessary for the correct planning of destinations. The COVID-19 pandemic represented an abrupt halt in a context of growing "overtourism", as analysed by many authors, and broke the trend towards continuous growth in tourist flows. Today, the progressive overcoming of the most critical phases of the pandemic is leading to a "return to normality" with a rapid recovery of tourism flows in the main destinations. This brings back to the table the main challenges and the need for planning and management of tourism flows.

As indicated above, tourism flows can be classified into different typologies.

1. Tourism flows from the place of residence (outbound markets) to the place of destination (tourist destinations). These are the tourism flows most closely related to the transport sector in general, and in particular to aviation and rail transport. They fall within what Page calls "transport for tourism", i.e. a type of transport that tourists use exclusively for travel, and which is valued in terms of travel time and economic cost. Hence the success of low-cost airlines or high-speed trains.

2. Tourist flows at destinations. Once the tourist has arrived at his/her destination, he/she first has to travel from the transport terminal (airport, train or bus station) to the place where he/she is staying. This is the first contact with mobility at the destination, which will be necessary for the duration of the stay. In most cases, this mobility will be pedestrian, because tourists often walk as part of their tourist experience. However, in other cases, the tourist uses different local transport systems such as buses, trains, taxis, etc. Sometimes, this type of transport will be exclusively utilitarian, but in other cases there will be a use with a certain interest in the characteristics of the vehicle itself, the service or the type of mobility: historic trams, horse-drawn carriages, metros with historic stations, double-decker buses, etc. This is why we can say that these types of flows are often both "transport for tourism" and "transport as tourism". From restaurant trams in Helsinki to panoramic cable cars, from steam trains or sightseeing trams in Lisbon to boat cruises on the Seine in Paris, the range of possibilities is immense.

3. A final typology is given by tourism products and experiences related to and linked to movement. As mentioned above, pilgrimages are perhaps the clearest example, but there are many other types of tourism flows based on mobility, such as cruise tourism, cycle tourism or Interrail.

FLOWS IN OPEN AND ENCLOSED SPACES

From the point of view of urban tourism, it is interesting to establish different typologies of flows in order to better analyse and plan their

management. There are many possibilities and they can be based on different criteria. Most authors establish a key differentiation based on the open or closed nature of the places where tourist activity takes place.

A clarification is necessary. By enclosed space we should not only mean a place deprived of direct contact with the atmosphere, such as a museum, a theatre, etc. The concept used in English is "precinct", and refers to a space that is physically isolated from the rest of its surroundings, with restricted and controlled access, through a series of doors or limited accesses. Thus, a garden or a park may be an outdoor space but fall into the category of "precincts" or enclosed spaces, as they are not freely accessible. By contrast, there is a multitude of private spaces in direct contact with the atmosphere where no mobility restrictions apply, and where access is free and unrestricted. Examples are a shopping centre or a bus station.

Having made this clear, we will now go on to describe the main features of each of these spaces.

(a) Open spaces

Most of the journeys made by tourists take place in open spaces and have the following characteristics:

- Difficulty of recording, counting and statistics. In order to count flows of people in open spaces, aerial photographs and estimates are often used to calculate the number of people in open spaces. This is similar to the methodology used to calculate the number of people attending a demonstration. Another possibility is to carry out manual counts, i.e. gauging. However, this is very time-consuming and involves a large budget to pay for the corresponding fieldwork.
- The vast majority of movements take place in public spaces: flows can be signposted, regulated or restricted, but must be subject to approval by the authorities. It is difficult to operate in open public spaces, such as a square, a street or an esplanade, without the permission of the authorities. As the vast majority of these are public spaces, municipal by-laws and regulations must be respected. In the case of a historic city,

restrictions are often even greater. In the case of Santiago de Compostela, there is a Special Plan for the Historic Centre that regulates in great detail the activities and actions in exteriors and buildings in historic centres.

- They can often lead to conflicts with traffic, the local population and the normal functioning of the city. In many cities, tourism and tourist movements are superimposed on already complicated mobility and traffic. Tourist mobility is not only made up of pedestrians. Tourists in many cities also use their private vehicles. In other cities, tourists use bicycles or other vehicles. Ultimately, there is a struggle for space and for the use of public space in which there must be a correct redistribution of burdens and rights so that tourists and residents can coexist.
- They give rise to problems leading to "overtourism". Derived from the above, in some specific cases, problems of overtourism can occur. Known in Anglo-Saxon literature as "overtourism", excessive numbers of visitors can become a problem in certain areas and at certain times of the day, week or year. In some very touristy cities, the constant presence of visitors leads to rejection behaviour among the local population. Butler's diagram of the life phases of tourist destinations already anticipates that there may be times when the local population may feel rejection or animosity towards tourism and tourists. This is something that, logically, territorial planners and managers must avoid at all costs, anticipating and seeking solutions before the problem appears and becomes irreversible.
- They can cause the carrying capacity limit to be exceeded in any of its dimensions: social, economic or environmental. When this happens, we say that a tourist destination is saturated and that it is necessary to implement corrective measures. These measures usually involve establishing some kind of flow control, either spatial or temporal restrictions. In other cases, the solution is to introduce a tax or levy that filters visitors, limiting the number of people accessing a certain place.

In any case, in heavily visited urban tourism destinations, large crowds of visitors can occur, easily exceeding the carrying capacity. This can generate not only a problem of loss of quality of the visit experience, but can also entail security problems and put the physical integrity of visitors at risk. The presence of constant traffic jams, queues or queues implies a loss of quality of the tourist experience that requires attention from territorial planners and managers.

Faced with this problem and the need to contain and regulate tourist flows, it is possible to implement static or dynamic management. Static management basically involves implementing restrictive measures, with physical obstacles to mobility. The most popular are bollards or the temporary closure of certain spaces. In any case, when dealing with open spaces, it is very difficult to turn them into de facto "closed" spaces with physical barriers.

Over all these decades, what has become evident is that parking regulation is one of the most effective tools to fight against the excessive proliferation of visitors and their spatio-temporal concentration. To the extent that parking is restricted or made more difficult, the number of visitors will tend to decrease.

In many urban-cultural and outdoor tourism destinations, visitor car parks tend to be located at a distance of more than 1 km from the resource, in order to discourage visitors who are not really interested in visiting the resource. This measure does not prohibit or prevent access to anyone, but rather discards a large part of the demand that is not sufficiently motivated to walk a minimum distance, which can be done without any problem with a normal level of physical fitness. For people with mobility problems, it is of course necessary to set up an official alternative mobility system so that their rights are not violated.

Another measure that is often implemented is the installation of physical obstacles such as bollards, stone blocks or planters, which can provide an effective barrier to prevent cars from passing. Similarly, there are easily reversible barrier systems such as chains or barriers that can be raised to allow vehicles to pass and then lowered. In some shopping streets in the UK, these types of containment measures have become popular in recent years, in specific sections of streets and with limited opening hours, differentiating between shopping and non-business hours.

In any case, if no parking ban or parking restriction measures are put in place, cars will most likely drive right up to the resort itself, with a consequent loss of quality of the tourist experience.

(b) Enclosed spaces

In contrast to open spaces, in enclosed spaces we can measure, control and therefore directly restrict the entry of people because there is a well-defined perimeter and a number of limited access points.

Enclosures are therefore spaces that allow for a systematic and planned control of flows. This category includes museums, shopping centres, amusement parks, certain urban parks and sports facilities.

The possibilities for controlling and managing flows in enclosed spaces are greater than in open spaces, and can be summarised as follows:

1. Signposting. As these are in most cases private spaces or spaces that are more easily managed than open spaces, it is easier to establish predetermined itineraries for visitors to follow. The ability to set up signposting mechanisms in a museum or commercial facility means channelling flows directly, as is done in the installations of the Swedish multinational IKEA or Tiger.

This signage does not necessarily have to be fixed, and can in fact be changed at will depending on the type of activity taking place in the particular space. Another emblematic type of signage can be found in check-in queues or at airport security checkpoints, where roll-up tapes are used to create itineraries for channelling tourist flows. Rather than physical obstacles, these tapes mark the places to pass through. Such easily transportable and reversible devices are used for access to many tourist resources and facilities of all kinds, including restaurants and shops.

2. Physical obstacles. A further step in the channelling of flows is the installation of physical obstacles that cannot be crossed. Metal barriers, screens

or even removable plastic barriers are a particular case in which tourist flows can be channelled. They are particularly suitable for large-scale events.

3. Pre-booking system by time slots. The generalisation of the Internet to society as a whole has made it possible to set up advance booking systems with great ease and effectiveness. In Spain, the Alhambra in Granada was the pioneer tourist site in establishing a pre-booking system, developed before the generalisation of the Internet to society as a whole. Before 2000, in order to gain access to the Alhambra in Granada, it was necessary to purchase a pass in advance, which was sold at BBVA bank branches. In this way, it was possible for the organisers to distribute the flow of visitors in space and time, and to organise periods of access that optimised the visit to the resource. With the generalisation of the internet at the user level, everything has become much easier. Visiting the Louvre or any other major museum is now much easier and more convenient thanks to the establishment of a maximum number of tickets per time slot.

4. Spatial fragmentation of visitable spaces. If we look at any open or closed tourist area, we can see that there are different parts with very different meanings, characteristics and interests for visitors. Returning to the example of the Alhambra in Granada, the main area of interest and the most visited are the Nasrid Palaces and, in particular, the Patio de los Leones. On the contrary, the Alcazaba or the Palace of Charles V register a lower number of visitors. Therefore, a correct strategy to disperse tourist flows is to offer the possibility of a fragmented visit. In this way, a ticket can be purchased to visit only part of the complex or a ticket can be purchased for the whole complex. Something similar happens in large tourist sites such as the Palace of Versailles, where you can buy a ticket to visit the Palace, the gardens or both at the same time (the whole complex).

5. Establishing visitor categories. Managers of enclosed spaces know that the impact of an individual visit is not the same as that of a group. And within groups, a small group of 5 people is not the same as a small group of 20 or 50 people. In enclosed spaces, groups tend to behave as a single entity and easily cause blockages in the overall circulation of the space. Moreover, the speed at which a group travels is much slower than that of individual visitors

and tends to produce crowds at very specific points: entrances, ticket offices, toilets, specific milestones of the visit, souvenir shops, etc. This is why another of the strategies implemented is the differentiation between individual visitors and groups. In addition, as is done in the Alhambra in Granada, a third miscellaneous group can be set up (for visits by authorities, unexpected visits or protocol visits) as a wild card.

MAIN PROBLEMS IN URBAN TOURISM DESTINATIONS

As mentioned above, we will now turn to the main mobility-related problems that can be identified in urban tourism destinations bearing in mind the early proposal of Gutiérrez Puebla (1998).

As we have indicated, it is necessary to bear in mind that most of the tourist areas that are visited in cities tend to correspond to areas of a historical nature. Thus, in many cases, talking about urban tourism is equivalent to talking about tourism in historic centres, although this is not always the case, of course.

1. Special features of urban layout and streets

Most of the areas dedicated to urban tourism, at least in Europe, tend to correspond to historic city centres, which are of the greatest historical and heritage interest due to their historical footprint and the unique characteristics of their built heritage. The mark of the centuries is visible in city centres not only in these buildings and monuments, but also in the layout of the streets themselves, which are often winding and unsuitable for the traffic needs of today's society.

In the south of Spain, most of the historic towns and villages still have a layout based on irregular and narrow streets, as a result of the legacy of the Islamic cities. This type of urban planning was characterised by very narrow and narrow streets, with irregular and - from today's point of view - chaotic layouts. Although most of the buildings have not been preserved, the layout maintains the traditional alignments.

Something similar happens in a large part of the historic centres of cities of medieval origin. Although the layout of the streets is not as irregular and narrow as in the previous case, it is again clearly dysfunctional in relation to the needs of present-day traffic.

As can be easily imagined, these road characteristics complicate not only the circulation of conventional vehicles (cars and passenger cars), but also of goods delivery vehicles, taxis and all types of vehicles integrated within the value chain of the tourism sector. A particularly important aspect is the unequal opportunities for accommodation establishments located in these sectors of the cities in relation to parking supply. Hotel guests in the historic city centres often complain that they do not have easy access with their private cars, which complicates the loading and unloading of luggage. The same is true for tourists arriving on organised bus tours, but with even greater difficulties. This shows how difficult it is to reconcile all interests in the management of historic tourist towns.

In non-historic cities, the problems are often of a lesser magnitude. However, this does not prevent the existence of conflicts due to the overuse of roads and public spaces. The difficulties are concentrated in loading and unloading of goods and vehicle access, as in the previous cases. In these cases, the coexistence between local tourist flows and those of tourists and visitors becomes the main problem to be solved.

2. Concentration of tertiary activities in city centres

City centres generally perform several functions, i.e. they are multi-functional. Within this wide range of activities, tourism is one of them, superimposed on other more traditional activities such as residential, commercial and many others. In general, in today's cities, the recovery of the city centre for tertiary functions is an established fact, which increases the symbolic and real value of the city centre within the city as a whole.

We can therefore affirm that this new value of the city centre has led to a strengthening of its tertiary functionality. This functionality is not only oriented towards tourism, but is also aimed at local residents. Shops of all kinds, hotels

and restaurants, doctors' surgeries, government offices, etc. now choose the city centre. This has clear implications in terms of attracting and generating local population movements, which are superimposed on tourist mobility flows.

3. Concentration of buildings of heritage and tourist interest in city centres.

This characteristic of urban centres explains why city centres are the main spaces that attract cultural urban tourism. Urban cultural tourists visit city centres because they are home to the main tourist landmarks, most of which have a proven heritage value. It would be a mistake to continue to identify tourist landmarks today exclusively with heritage landmarks, but at the same time the effect of attraction and the magnetism they exert on tourists is indisputable.

This location of buildings with heritage and tourist value in the central areas of cities can be explained not only by historical evolution, but also by the accumulation of cultural and historical symbolic capital that occurs in central urban spaces. According to all urban theorists, in Western Europe, city centres have a much higher use and exchange value than the rest of the cities. The situation is quite different in territories such as North America, for example. However, in Western European cities, the city centre is the focus of all attention and interest.

Proof of this is also the fact that the owners and management companies of tourist flats are also looking to city centres as prime, sought-after areas in order to increase their offer in the global tourist market. Nowadays, the city centre is a disputed space where many points of view converge and where there is a clash of interests. The difficulty of resting in many cities as a result of the generalisation of AirBnb and similar types of accommodation has led various cities to take measures to solve these problems.

However, the difficulty in enforcing the law and the bureaucratic obstacles that impede swift processes of sanctioning and closure of establishments delay conflicts in many city centres over time and create unease among neighbours. The more or less developed phenomenon of rejection of

tourism can then appear, especially when the right to a good night's rest is threatened.

4. Connection between the airport and the city centre

Within the tourist's overall journey, the transfer from the transport terminal to the city centre (often to their accommodation) is a key aspect, particularly because of its qualitative importance. Indeed, the transfer from the airport to the city centre is the tourist's first contact with the destination and inspires his first impression. Similarly, the last journey of the trip when leaving the destination for the airport will determine their final impression and will condition their memory of the tourist experience and of the destination.

On the other hand, bottlenecks in tourist mobility between the airport and the city centre can pose a serious practical problem for authorities in relation to the destination's reputation. In an age where social media and internet forums of all kinds spread opinions and information of all kinds at high speed, maintaining a positive digital reputation is critical for any destination.

Maintaining a quality transport service between the airport and the city centre is therefore essential for any destination. It is worth investing in it even if the service is not strictly financially profitable. In terms of digital and social reputation, it is a strategic service that should be pampered and cared for with the utmost care.

In certain urban tourism destinations, problems are caused by the non-existence or infrequency of public and collective transport services from the airport to the city centre. In some cases, the timetable of these services is very short and ends too early or starts too late in the morning. Finally, in other city tourism destinations, bottlenecks occur in relation to taxi services. In certain countries and in particular cases, the taxi sector is often heavily regulated and there is not always sufficient availability of taxis at the airport taxi rank. At other times, the number of taxi licences

5. Large concentrations of visitors

The existence of a very significant volume of tourists in a destination is one of the major problems facing many tourist cities today. The explosion of urban tourism in recent decades has had several causes, among which are undoubtedly the generalisation of low-cost airlines, which have democratised the possibility of flying. Together with this, easy access to the internet and the elimination of intermediaries in the different stages of travel organisation have led to a considerable increase in tourist flows in recent decades.

The outbreak of the COVID-19 pandemic was undoubtedly a historic pause in this expansive and constantly growing situation. However, now that the worst of the pandemic has passed, the recovery of visitor flows is now an indisputable fact in most tourist destinations. The pre-pandemic situation is returning and many of the problems that the most popular and most frequented tourist destinations had already been suffering are being repeated.

Large concentrations of visitors are characterised by their great variety and typology. There are destinations in which tourist saturation occurs throughout the year or most of the year, so that we cannot strictly speak of deseasonalisation of concentrations. The major tourist capitals such as Paris, London, Rome, Venice, etc. would fall into this category. Moreover, in these urban tourism destinations, the area in which these large concentrations of visitors are registered is usually large and with a high density distributed homogeneously.

On the other hand, in other urban cultural tourism destinations, the concentrations of tourist flows can take on a greater variety over time and space. In many tourist cities, including San Sebastian and Santiago de Compostela, the presence of major tourist concentrations is limited to specific times of the year and to specific areas. It is therefore not possible to speak of a global tourist saturation as in the previous cases.

In general, the presence of tourist crowds can have negative effects on the space available for the enjoyment of the local population. In many cases the problem does not arise in an absolute and obvious way, but lies more in the local population's perception of the densities of occupation of public roads and the relationship established between the local population and tourists.

In any case, it is clear that when studying the impacts of crowds, we must distinguish between individual visitors and groups. It is groups - and especially large groups - that have the greatest impact on the occupation of public space. It is often said that most tourists behave in an environmentally friendly manner, and that the problem is caused by the "Law of Large Numbers". 1% of 100 is 1, but 1% of 1,000,000 is 1,000. Therefore, if only 1% of tourists behave inappropriately, in highly saturated destinations, it may be enough to exceed the limit of the perceptual carrying capacity of the local population.

6. Public and collective transport systems poorly adapted to the needs of tourists.

Local authorities and local mobility managers often design transport lines only with the needs of the local population in mind. This is relatively understandable, as it is the citizens who pay their taxes and democratically elect the authorities. Therefore, they owe it to the citizens and should be attentive to their needs and demands.

However, even if they do not pay taxes, tourists use public transport systems. Not taking into account the needs of tourists means exacerbating the general mobility problems the city may have. Whether we like it or not, tourists have mobility needs, and it is better to take them into account when designing a city's public transport system.

The fact that they do not pay taxes and do not contribute directly to the maintenance of public transport systems should not serve as a justification for not taking them into account in general transport and mobility planning. The implementation of a tourist tax is precisely a compensatory mechanism that is becoming increasingly popular in most tourist destinations and seems to us to be the right way to try to involve tourists in the good governance of the tourist city.

7. Information systems for unsuitable tourists

The lack of adequate information for tourists stems to some extent from the above. Signage in cities is often designed exclusively for the local population. Furthermore, it tends to be designed for motorists, who are a very restricted part of the population moving around a city. Resident motorists, therefore, are the main target group for signage in a city.

It seems logical that residents themselves make the least use of signage, since they live in the city and are familiar with it. Tourists are precisely those who have the greatest demand for information on streets, directions, travel times, main landmarks to visit, etc., and a significant part of the signage should be aimed at them.

On the other hand, tourists in a destination have to use pedestrian mobility fundamentally. This places us in a scenario in which this type of mobility must take precedence over the car or motorised mobility. Being aware of this implies changing to a large extent the current trends in the treatment of signage and tourist information.

8. Lack of and deficiencies in pedestrian routes

Automobiles have not always been consubstantial with the city. Until the end of the 19th century, the city was essentially a space lived in and travelled through by pedestrians, in addition to "blood-drawn" vehicles (horses and other animals).

The huge impact of the automobile on cities in the 20th century explains why a large part of urban public space is dedicated to its circulation, in the form of streets, squares, avenues and so on. At the same time, car parks occupy significant spaces in city centres and contribute to denying pedestrian space with large surface extensions, access and generating more hectic traffic around city centres.

Creating and adapting pedestrian routes must be a necessity for cities more than a fifth of the way through the 21st century. German and Dutch cities were the first to incorporate pedestrian routes into urban planning, humanising and pedestrianising streets previously taken over by cars. But it is not just a matter of pedestrianising; the implementation of pedestrian routes must be

based on a network of coherent routes connected to other urban transport systems.

9. Visual and aesthetic impact and conflicts over public space. Trivialisation of public space and the tourist experience.

The struggle for public space in cities clearly results in conflicts of all kinds. Residents often complain that tourists trivialise public space. Some Italian cities have introduced "anti-panini ordinances", which prohibit outdoor picnics.

The accusation that it is not aesthetically pleasing or that it is banal to eat in squares and on public roads often hides the desire to ensure the dependence of tourists on local hospitality businesses. It is very delicate to reconcile the interests of the private sector with those of tourists' rights, as the management of public space and tourist space is in itself a very complex, subjective and delicate matter.

Similarly, the regulation of the occupation of the public highway with musical performances, mime shows, etc. tests the limits of coexistence between residents and tourists.

But it is undoubtedly the so-called "terraces" that are currently the most controversial. The COVID-19 pandemic led to an extraordinary development of terraces, which gained ground at the expense of public space. The terraces represent a semi-privatisation of public space, although it is true that it is very pleasant to sit quietly at a table with a drink and watch the city and passers-by at leisure. It is an activity that can be practised by tourists and residents alike, and it is clear that all the positive aspects of terraces in urban life should be emphasised.

In any case, as always, it is a question of balancing public and private interests. The tactical urbanism implemented in many cities at the height of the pandemic has also developed interesting proposals for the creation of public spaces where it is not necessary to consume anything or pay to enjoy the open air and public space in the city.

MAIN SOLUTIONS IN URBAN TOURISM DESTINATIONS

Having analysed the main problems, we will now focus on the most relevant solutions that can be provided to try to improve mobility conditions in urban public spaces.

Once again, it is necessary to take into account the great diversity of situations that can be found in the different cities and the differences depending on multiple variables that can be established in the different urban tourism destinations.

1. Implementation of peripheral or edge car parks

The creation of car parks on the edges of central city areas and historic city centres is one of the most effective measures to contain the generation of large vehicle flows.

If we take into account that a large part of the historic and tourist centres of cities are pedestrianised or highly humanised, it is necessary to provide parking spaces close enough to the landmarks of tourist interest, but at the same time far enough away from the city centre so as not to disrupt the life of the citizens and the normal functioning of the city.

Edge car parks can therefore be located just outside the perimeter of historic cities, as long as they do not interfere with traffic and the general mobility of the city. Another solution is to locate them on the outer edge of the compact city, in the second ring within the city centre, and connect them to the city centre via a shuttle system. This is the case in Évora, where a shuttle transport system for tourists, called Linhazul, has been developed.

In most tourist cities, solutions that try to reconcile these two routes are chosen, and sometimes hectometric systems are used to facilitate the mobility of tourists. As the name suggests, hectometric systems cover several hundred metres, and include devices such as escalators, escalator belts and walkways, lift lifts, etc.

The case of Toledo is particularly well known. More than a decade ago, buses carrying tourists and visitors would arrive in the heart of the compact city, specifically in the Plaza de Zocodover. There they dropped off tourists and tried to manoeuvre in chaotic conditions characterised by insecurity and informal regulation.

To remedy this situation, a bus parking space was created on the flood plain of the Tagus River in the lower part of the city. As it was a flood-prone area, it was not built on and the land had little economic or real estate value. Although on the map of the city this space was located next to the historic centre, the problem was due to a steep slope that prevented access.

The solution developed by Bernhard Winkler, the architect in charge of drawing up the corresponding plan, was the construction of a hectometric system known as the "Remonte de Recaredo". This lift consisted of a system of escalators connecting the car park with the building of the Toledo Provincial Council, in the heart of the historic centre of the city. The hectometric system was designed in such a way as to minimise its impact on the landscape, as the stairs were camouflaged with an architectural intervention to that effect.

At present, buses park in the Tajo river valley and tourists can comfortably access the escalators to the historic centre of Toledo without any mobility conflicts due to the presence of large buses in the city.

2. Dynamic regulation and pricing of parking spaces

As mentioned above, one of the most important measures to act on mobility regulation is parking management. Having free or low-cost parking in central spaces is the biggest lure that can be used to attract large volumes of cars in a city. This is why urban mobility experts have long known that parking restrictions are one of the most effective measures to reduce motorised mobility.

Parking regulation and pricing has a long and important tradition in European cities. ORA or OTA type systems are effective solutions that should implement systems to control turnover, so that there are no motorists who patrimonialise parking spaces.

3. Reorganisation of traffic directions

The central position that tourist and historic areas in general have in the plan of cities implies that in addition to tourist mobility, they are characterised by many other flows of transit mobility that are easily avoidable.

Urban planning and management of historic cities has developed sufficient elements in recent decades to prevent flows through historic city centres. The creation of traffic loops that eject vehicles to the outer ring roads or the prohibition of crossing through central spaces are very valid tools that have achieved satisfactory results.

4. Establishment of permits and traffic categories

Another major measure that works and which is applied in most historic tourist towns is the establishment of stop and go permits for vehicles that meet a number of characteristics. In most historic town centres, residents, family members of residents with health problems, taxis, delivery vehicles and emergency vehicles are allowed to pass.

As discussed above, total restriction of mobility is not a good solution. If we want historic centres to be living spaces, we must make it easier for residents to have a normal life, with the same rights as residents in other parts of the city. They must be able to load and unload their shopping when they go to the hypermarket; they must be able to have parking spaces for residents; they must be able to circulate to carry or bring light goods, etc.

As far as delivery vehicles are concerned, it is most common to set a loading and unloading timetable that must be scrupulously observed. The main idea is not to mix vehicles, and to this end, the timetable for the circulation of loading and unloading vehicles should be limited to the shortest possible time, and as early as possible. In Santiago de Compostela, for example, the loading and unloading timetable is from 7 a.m. to 10.30 a.m. in the morning, in order to interfere as little as possible with tourist flows.

5. Promoting pedestrian mobility

As mentioned above, the promotion of pedestrian mobility is strategic. Most tourists are pedestrians and act as such. A proper promotion of pedestrian mobility implies the improvement of existing pedestrian routes and their enhancement. Pedestrian routes should be uninterrupted and pedestrians should have priority over other vehicles.

Pedestrian routes can often be combined with green routes for sports or wellness-related activities. In any case, a pedestrian route should be conceived as a "pedestrian highway" where pedestrians should be able to circulate safely and continuously without risk or difficulty.

6. Implementation of tourist-oriented transport services

Urban transport in a tourist city must serve not only residents, but also tourists. We have already referred to this need, which must be taken on board in general. Good mobility management for tourists will lead to an improvement in the overall mobility of the city.

In large tourist cities, there are cards and season tickets dedicated exclusively to tourists. In medium-sized and small cities, the focus should be on information and the adaptation of existing services to the demands of tourists. To this end, it is important to carry out mobility studies and identify the main points of origin and destinations that constitute the main mobility patterns in the city.

7. Improved tourist signage

Signage and tourist information is still one of the weakest points in many tourist cities. As mentioned above, there is an excessive orientation of signage and information towards the resident population and, within that, towards motorists.

It is important to put ourselves in the tourists' shoes and assume that when we do tourism we have a constant demand for information. Furthermore, tourist signage should be based on the premise that tourists' mobility is

fundamentally pedestrian. Physical tourist signage should also be complemented by digital information, in the form of websites and apps that are easily accessible to everyone.

CONCLUSIONS

In this report we have reflected on the importance of the concepts of transport, mobility and accessibility. Although they are different, there tends to be some confusion between them. In today's tourist cities, accessibility is a key concept that allows us to achieve a better quality of life. Accessibility means being able to easily meet our demands and achieve greater satisfaction in the tourist experience.

In any case, in urban and tourism planning today, the concept that is commonly used is that of mobility. In contrast to the more traditional and classical implications of transport, thinking about mobility is a step forward because it focuses on the human being and his or her personal circumstances and conditioning factors.

Managing mobility in a tourist destination is equivalent to managing tourist flows. In this report we have started from the differentiation between open and enclosed spaces to present the main planning and management mechanisms. Although open and enclosed spaces have very different characteristics, there are important nuances to be aware of when managing mobility in both.

The city being conceived as a very complex environment where conflicts of interest occur, we were interested in detecting the main problems that flow management poses on a day-to-day basis. Once identified and analysed, we provided a series of solutions, some of which had already been identified in the previous analysis.

We have thus come to propose a model for the management of tourist flows based on the detection of the main problems and the suggestion of a series of good practices to overcome them and achieve optimal management of mobility in urban tourist areas.

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