

## Article

# Accessibility to Cultural Tourism: The Case of the Major Museums in the City of Seville

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**Abstract:** The present work contains an evaluation of the accessibility of museums in the city of Seville, as part of the tourism offerings of the city from a cultural perspective. From an evaluation questionnaire on the city's museums, we obtained an aggregate indicator of compliance with accessibility regulations. The instrument was designed based on the legal requirements in force at the EU (European Union) level, as well as international standards such as ISO 170.001 and accessibility conventions such as those from the United Nations Organization (UN). In a complementary manner, a questionnaire with open and semi open questions was designed and used for interviews carried out with the personnel responsible for the museums examined. A variety of quantitative and qualitative information of great value was obtained for setting guidelines or priorities for action in this area. At the level of the political powers and other interest groups involved, our results allow for homogeneous evaluations that can facilitate the setting of priorities in the planning and development of tourism accessibility policies for all types of families.

**Keywords:** cultural tourism; accessible tourism; accessibility to museums; museology; UNE 170001

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## 1. Introduction

In the Manila Declaration of 1980, the World Tourism Organization (UNWTO), associated tourism and accessibility for the first time. The document recognized that tourism is a fundamental and necessary right for human development.

In 1989, as a result of the “Tourism for All” report prepared by a group of British experts on tourism and disability, the need to promote the design of tourist services for all audiences, without distinction of age or disability, was widely acknowledged.

Accessible tourism or “Tourism for All” can be considered a form of social tourism, as it seeks to overcome obstacles that prevent an individual from exercising their right to partake in tourism, travel, and experience other regions and countries, this being considered a universal right according to the opinion of the European Economic and Social Committee on “Social Tourism in Europe” (2006/C 318/12).

Accessible tourism involves collaborative processes between stakeholders, enabling people who have specific access requirements, including those related to mobility, vision, hearing and cognitive access dimensions, to function independently and with equity and dignity through the provision of products, environments and tourist services that are universally designed.

This definition stems from an approach where people benefit throughout their lives from the provision of accessible tourism. This includes people with permanent and temporary disabilities, elderly individuals, obese individuals, families with young chil-

dren, and people who work in safer and socially designed environments [1] (pp. 10–11).

In addition to those listed above, Devile [2] suggests that this group includes people who, for various reasons, have movement difficulties, such as parents with baby carriages and even people with heavy luggage.

Additionally, according to Devile [2], the number of people with some type of disability totals approximately 50 million people in Europe (that is, 10% of the population), and it is estimated that in one of every four European households, there is a person with some type of disability.

Globally, some 1 billion people, or 15% of the world's population, experience some form of disability, and the prevalence of disability is higher in developing countries. Between 110 million and 190 million people, or one-fifth of the total population in the world, experience considerable disability [3].

If we consider the already widely known demographic trends of aging in Western societies (which constitute the main source markets in tourism) and if we also consider the people who accompany individuals with a disability [4], there is no doubt about the current and future relevance of this group of people as a segment of the tourism market.

In relation to the latter, it is important to note that adapted spaces and products are not used only by people with disabilities, and the commitment to universal accessibility should be conceived as an investment in the quality of life of the entire population, even more so if we take into account that, in a few years, a significant proportion of the population of the developed world will be more than 65 years old. According to data from the United Nations [5], in 2050, 21% of the world's population will be over sixty years of age. In the European Union, the figure will be higher, as 40% of the population will be over sixty years old and 10% will be over eighty. Thus, opting for universal design not only benefits people with disabilities, but also increases the quality of life for all people.

On the other hand, and in accordance with the vision of the National Cooperative for the Support of the Handicapped [6], "accessible tourism" is clearly framed within a perspective of "quality tourism", by requiring that tourist offerings not only take into account simple proposals regarding the natural conditions for the access and enjoyment of the visitor but also effectively seek to satisfy the needs of potential clients by considering their requirements, travel conditions and wishes. This requirement corresponds, basically, to the marketing perspective that focuses on achieving the objectives of an organization through the satisfaction of the needs of its audience [7]. For the public (or market segment) in question, the quality requirement presupposes total accessibility.

According to Espinosa and Bonmatí [8] accessibility is fundamental for 10%, necessary for 40% and comfortable for 100% of the population. To this 40%, we could also add 15.8% of people with obesity; 14% of children under fourteen years of age, who may have a lower capacity to access the contents of the museum because of their height, their knowledge or because of the psychology of their age; 3% of adults of very short stature and another 3% of adults of very tall stature; parents of children under five years of age (these represent 5% of the population), who must transport them in a chair or in their arms, breastfeed them, change their diapers, or simply ensure that they enjoy the visit in some way.

To all of the above, we would have to add people of a different culture, language or race than the majority, or at risk of social exclusion (such as those serving time in prison, to give an example).

So, what is "normality"? As stated in Spain's First National Accessibility Plan 2004–2012, diversity is the norm and not the exception in the human dimension. If we go further, we will see that family members and friends of people in the groups we have mentioned are also affected by the lack of accessibility.

Accessible museology is a right for everyone, it is fair, it is socially and economically profitable, it strengthens the museum's image of quality and prestige, and reinforces its social value. Furthermore, it is competitive because it is adapted to the present and,

above all, to the future (let us bear in mind the progressive aging of the European population).

The main objective of this study was to determine the degree of universal accessibility and adaptation to people with disabilities of museums in Seville. Specifically, the following museums were studied and analyzed:

Fine Arts Museum

Archeology Museum

Popular Arts and Customs Museum

Naval Museum (Torre del Oro)

Military History Museum

Antiquarian

Andalusian Center of Contemporary Art

House of Science

As our work focuses on evaluating the accessibility of museums in the city of Seville, we will first address accessibility from the perspective of tourism, which has experienced an important boom in the last decade.

Next, we consider tourism accessibility from the perspective or typology used in the cultural field, where we review the existing literature, as well as the main national and international references (standards, best practice manuals, protocols, etc.). From here, we constructed an evaluation questionnaire that we applied to eight museums in Seville in order to obtain an aggregate indicator of compliance.

The results shown below were obtained after the questionnaire had been applied to the eight museums, and finally, the main conclusions reached by this research are presented.

## 2. Review of the Scientific Literature and Contributions of the Work

A review of the literature on accessibility in tourism and, more specifically, cultural tourism identified more than twenty works which we grouped into heritage accessibility [9,10], transportation accessibility [11–14], limitations faced by tourists with disabilities [15,16], approaches to addressing discrimination against disability [17,18], comparative studies of countries [19], accessible tourism and sustainability [20], experiences of people with disabilities [21], tourist destination accessibility [22–28], hotel accessibility [26], and infrastructure assessments of cultural buildings [29].

In relation to museum cultural tourism, there are also various published research works; a review allows us to identify studies on topics, such as accessible design [30], the use of technological interfaces to support information and communication [31–34], website and information area accessibility [35–38], comparisons between countries [39], and innovation in service [40].

Below, a summary table of previous works that have used a methodology similar to ours and a summary of the factors studied in accessibility to museums or other cultural or tourist facilities is presented in Table 1.

**Table 1.** Important studies on museum accessibility.

Authors	Objective	Number of Cases Studied	Methodology Used	Result
AEVAL (State Agency for the Evaluation of Public Policies and the Quality of Services) [41]	Evaluation of the accessibility of state-owned museums	14	The information used in the evaluation process comes from documentary and organizational sources, user surveys, interviews and the application of direct observation techniques.	The Archaeological museum, Sorolla museum, Casa de Cervantes, and Decorative Arts Museum lack adapted access. The Museum of Anthropology only allows access to the first floor since it lacks elevators. The remaining museums have adapted or alternative access.
Generalitat de Catalunya [42]	To determine the levels of accessibility the Catalan tourist industry offers, including accommodation, resources and tourist services.	18	Diagnosis of the situation through the “Tourism Accessibility Plan” analysis tool.	Accessible tourism in Catalonia is a tangible reality.
Prieto and García [43]	To study the accessibility status of the Museum of Fine Arts in the Principality of Asturias.	1	With the information obtained in the assessment of the accessibility of establishments and institutions, a descriptive document of the different spaces studied was created based on the accessibility law of the Principality of Asturias.	The museum does not have an accessible website, no employee knows Spanish sign language, there is no information in Braille, there are no audio guides or sign guides, and there is only one wheelchair available for use in case of need.
Reich, Lindgren-Streicher, Beyer, Levent, Pursley, and Mesiti [44]	This study sought to describe the experiences of visitors who are blind or have low vision, who visit art museums.	7	Focus groups were chosen as the primary data collection method.	Desire to create accessible programs and museum design that incorporate assistive technologies, tactile opportunities, and safe and clear exhibition and architectural designs. Value the positive feelings gained at museums from being socially involved, intellectually and emotionally stimulated, welcomed, and enabled to explore independently.
Fernández Alles [45]	Empirically testing universal accessibility at the Guggenheim Museum.	1	Singular contemporary case study of holistic character (single unit of analysis). Exploratory, descriptive and explanatory study.	It was the first organization in the country to receive a UNE certificate accrediting a global accessibility management system and the first company to comply with DALCO requirements, guaranteeing total accessibility for people with reduced mobility.
Pérez Alcalde [46]	To analyze spatial accessibility in the Museum of Nature and	1	Case study method	The “Museo de la Naturaleza y el Hombre” (Museum of Nature and Man) gives much relevance to univer-

Man (Tenerife).			sal design and the establishment of appropriate accessibility measures.
Urpí, Garro y Domeño [47]	To study accessibility at the University of Navarra Museum.	1	Case study through questionnaires and interviews with three people with motor and visual disabilities.
			The museum requires a clear economic investment for the acquisition of materials and technological resources, as well as training and continuing education of the professionals involved, from the museum's management team to the administration and services staff, in order to be able to adapt to people with disabilities.
Martínez Carrillo [48]	To determine the degree of universal accessibility and adaptation to people with disabilities, both physical and sensory, of each of the spaces and infrastructures of the Museum of Natural History of Rouen (France)	1	Compilation of current legislation related to accessibility and equal rights and non-discrimination of people with disabilities both at the international European level and in France. Secondly, this study compiled a series of technical information sheets on accessibility, which allowed for the collection of both general and specific information on the different infrastructures and facilities of the Museum of Natural History of Rouen.
			It does not comply with all the accessibility indicators set out in ISO 21542:2011 Building. Accessibility of the built environment.
Molina Hoyo [49]	To validate the role of universal accessibility in museums. The case of COSMOCAIXA in Barcelona.	1	Triangulation methodology, and the use of various research techniques (interview, visual methods, survey and observation) provided a holistic and integral vision in the creation of a model of accessibility validation for museums.
			The results show a high degree of accessibility for people with physical disabilities or reduced mobility and a medium degree for those with hearing disabilities and intellectual or mental disabilities. The Museum does not have sufficient accessible facilities and services for the visually impaired, blind or low vision.
Villarín Díaz [50]	To analyze the level of accessibility of the School and Church of Santa Isabel (Marchena).	1	Once all the information had been compiled and analyzed, and both the regulations and the guides or projects had been studied, the current planimetry, and the photographs obtained in each visit were taken as a basis, and a detailed study of all elements that required modification or that needed some type of improvement was commenced.
			The School and Church of Santa Isabel lacks an accessibility plan; many elements do not comply or present some deficiency in relation to the accessibility regulations.
Flores Ron-	To analyze accessibility in 4 and 5-star tourist	70	A thorough literature review on the subject was carried out and a
			The participants consider that the accommodations are accessible for those

cero[51]	accommodations in Seville.		survey was conducted.	with reduced mobility, hearing impairment and intellectual disability, but not for those with visual impairment.
Martínez Carrillo, M.J. [52]	To assess the degree of accessibility of museums in Caen (France).	3	Study of indicators in terms of universal accessibility following the determinations of the International Standard ISO 21542:2011 building construction-accessibility and usability of the built environment.	Museums are not fully universally accessible to all people with disabilities.
Pablos y Fontal [53]	To determine the state of accessibility in museums in Spain for people with ASD (autism spectrum disorders).	141	Firstly, surveys were carried out as an instrument for collecting information; secondly, the OEPE (Observatory of Heritage Education in Spain) inventory form was filled in; the last instrument used was the questionnaire.	Sixty percent of the museums stated that they did not carry out any inclusive initiative. Only 19.6% of the museums stated that they carried out approaches that responded to a conscious and meditated process of reflection and work in favor of the groups that came to the museum.

Source: own elaboration.

With our work, we seek to progress the field of study, configuring a measurement instrument that we use to assess the degree of accessibility of Sevillian museums as unique tourist products belonging to the cultural heritage industry. Additionally, we contribute to the literature on accessibility and cultural tourism that is so pertinent in cities such as Seville, which is more than 2000 years old.

The accessibility study carried out provides an updated and complete checklist that serves as an evaluation tool for all museums. This instrument, together with the interviews carried out with management personnel, provides an array of valuable quantitative and qualitative information for setting guidelines or priorities for action in this area. The instrument can be used with some adaptation in other areas of cultural tourism (religious sites, monuments or archaeological sites). Thus, for political powers and other interest groups involved, it allows for homogeneous evaluation that can facilitate the setting of priorities in the planning and development of tourism policies.

Additionally, we intend to assess the level of accessibility of museums in Seville through an indicator of compliance with legal requirements and the most demanding standards that currently exist.

In short, the work contributes to the literature on accessibility as an evaluation instrument in the field of cultural tourism; for decision makers in the city of Seville, it provides proposed guidelines to help determine future actions in terms of cultural tourism accessibility.

### 3. Accessible Tourism

Accessible tourism has become a multidisciplinary field in both its practical development and related research. In a dynamic social context, other scientific disciplines have incorporated diverse research on accessibility, influenced by the fields of geography, aging and disability studies, economics, and public policies, among others [54].

Today, tourism and leisure are considered basic elements of daily life in our society. In developed countries, relevant rights are considered; however, there are certain groups of people or families who have some type of disability, have reached a certain age or, for other reasons, such as families with small children, cannot enjoy and access cultural infrastructure and facilities on equal terms.

Tourism accessibility deals with the elimination of social, physical and economic barriers, among others, so that all families and people can use and enjoy facilities dedicated to leisure and tourism activities.

From the perspective of the political will of governments, accessible tourism has become an evolving field, in which, some governments have focused their policy and marketing efforts. For example, the European Union has been investing in accessible tourism for the past three decades [55], Australia had some of the first accessible tourism initiatives [56], and Argentina has had a specific law on accessible tourism since 2002 [57].

From another point of view, accessibility is considered as a way to increase the competitiveness of tourist destinations [58–65].

Porto and Rucci [61], collected data from six Latin American countries (Argentina, Brazil, Chile, Paraguay, Uruguay and Venezuela) in the 1990–2015 period. The data were organized into an index of political willingness to ensure accessibility (PWTAI) as the first step of an exploratory and descriptive methodology. Eleven variables were chosen to determine the political will of a country regarding accessible tourism based on the evaluated situation of each country and taking into account what governments have done to improve the access that people with disabilities have to their rights, focusing on tourism and its related services. As a result, it was found that Argentina and Brazil have achieved the greatest improvements over the years.

Medeiro Barbosa [60], Domínguez et al. [58], and Porto and Rucci [61], established the basis for the development of the Tourism Accessibility Index (TAI) used in many investigations, such as that of Porto et al. [66]. The index is a step forward in regard to data collection and compilation and the methodology is based on all the reference literature.

According to the World Bank [3], approximately 15% of the world's population (1000 million) has some type of disability, and the prevalence of disability is higher in developing countries; between 11% and 19% of people with disabilities have a considerable level of disability.

On the other hand, population aging is also very relevant, especially in developed countries. For example, indicators such as vegetative growth show worrying trends.

For this reason, the analysis of tourist accessibility is of great importance, since, according to the World Health Organization (WHO), it is estimated that there are more than one billion people who are affected by some disability, which represents 15% of the world's population [67]. This means that at least one billion people will face some disadvantage when traveling due to their disability, so the adaptation of tourist infrastructure is an important factor for improving the quality of this service.

As explained in a study carried out by the National Statistics Institute (INE) in 2015 titled "Spain in Figures", "if current demographic trends were maintained, Spain would lose one million inhabitants in the next 15 years and 5.6 million in the next 50 years, according to population projections" [68]. This study shows that the percentage of the population over 64 years of age would go from 18.1% to 24.9% in 2029 and to 38.7% in 2064.

According to the Simon Darcy (a researcher on tourist accessibility and professor at UTS (University of Technology Sydney, Australia), in one of his studies, he specifies that at least 30% of the current population will suffer from some type of disability throughout their lives [69]. Therefore, acting reactively towards problems related to accessibility may be inadvisable, since we all age and/or will suffer from some type of disability (either temporary or permanent) that will prevent us from carrying out normal daily or leisure activities.

However, this market is not only extremely important for economic and business reasons, but it also plays a significant social role. Thus, in considering this segment as a business opportunity, it is necessary to take into account two key premises that help combine effective business and tourists' rights: marketing accessibility requires a comprehensive approach that includes accessions on the national, regional and local levels, and a focus on accessibility is not an end in itself, but rather a tool for the enhancement of

positive elements such as a higher quality service, reductions in the effects of seasonality and the creation of a single sales proposal [70]. Access to tourism resources and services is not an act or a state; rather, it refers to freedom of choice in terms of how to intervene in, address, report or make use of a situation. Participation under conditions of equality can be a reality if equal opportunities to participate are guaranteed through measures that improve accessibility [71].

The authors Brinckmann and Wildgen, in a study on the construction of an inclusive society through accessible tourism [72], support the theory that a culturally diverse society better accepts people with functional differences and will help their integration through more accessible tourism.

According to the study by Yaohua Sua and Weichen Teng [73], a growing number of museums offer special accessibility services for people with disabilities and elderly individuals. The British Museum is a good example of such services, including providing free escort tickets, welcoming guide dogs, upgrading the sound system, and providing a British Sign Language guide, a guide in large print, driving sessions, and touch tours.

#### 4. Evaluation of Museum Accessibility in the City of Seville

##### 4.1. Seville under the Prism of Accessible Cultural Tourism

The city of Seville has been home to a multitude of cultures throughout its history, being considered one of the most important cities in the history of Spain. That history stretches from the time of the Tartessians to becoming a Roman and Arab city and eventually becoming the economic center of the Spanish Empire after the discovery of the Americas. At which point in time, Spain began to monopolize the transoceanic trade, and the “Casa de Contratación” was created to control people and merchandise that went to or came from the Americas. However, beyond the golden age of the city, there were times of great economic and demographic decline. For example, during the seventeenth century, navigation on the Guadalquivir was difficult due to the increase in the size of the ships, so the entire American trade system became controlled by Cádiz.

The 20th century was a time of special development in Seville. The Ibero-American Exhibition was hosted in 1929, a point at which Seville was undergoing a modernizing urban development project. However, in 1992, when the city underwent one of its largest infrastructural reforms, better roads were created, new bridges were built and avenues were widened.

According to statistics from the Seville City Council [74], the majority of tourists who visit the city are young people between 18 and 34 years old with a university education (Table 2).

**Table 2.** Composition of tourists by age group and training.

	University Students	Professional Training	High School	Elementary Studies	Total
Under 18 years	0.24%	0.00%	1.07%	0.12%	1.43%
18–25 years	21.05%	0.00%	0.00%	0.00%	21.05%
26–34 years	31.75%	0.12%	1.31%	0.00%	33.17%
35–44 years	17.12%	0.00%	0.00%	0.00%	17.21%
45–54 years	14.98%	0.00%	0.36%	0.24%	15.58%
55–64 years	9.51%	1.66%	0.48%	0.00%	11.65%
65 years and older	0.00%	0.00%	0.00%	0.00%	0.00%
Total	94.65%	1.78%	3.21%	0.36%	100.00%

Source: Tourism Consortium, 2018.

The cultural tourism offerings in Seville are an important travel motivation for tourists, with monuments and museums being the main cultural products [74]. This work



also discovered that the information channel most used by those who visit the city is recommendations by family and friends. The same occurs in people with functional diversity, since they tend to prepare their trip in more detail and require more information. The thinking behind this is that if others in circumstances similar to yours have had a good experience with their visit, the chances that you will also visit or consume those same products increases.

Currently, the city of Seville has a fairly diverse transport network with several bus lines, taxis, a fairly extensive cycle path network, horse carriages, a metro system and trams. However, despite this diversity, not all of these transport modes have great accessibility, as we were able to demonstrate in our previous work [75].

In most of the buses in Seville, one can find access signs for people with reduced mobility, but the tools intended for their use by these people are in a state of deterioration or do not work in many cases.

Seville, one of the main stations in Andalusia, has had a metro service since April 2009, although it only has one line that covers a large territory. Not only is the equipment in the carriages adequate, but the stops are also conveniently signposted and have elevators with glass doors or adapted transparent material (these are large to facilitate the entry of wheelchairs, bicycles and other packages). There are audible signals that indicate the opening and closing of the doors, and there are also service personnel at the stations.

Seville also has a tram line that is accessible to people with reduced mobility and accessible pedestrian signs for blind people. The stops are located on high ground and have access ramps. They also have recharging centers, all of them located 1.28 m from the ground to facilitate access for people of short stature or with reduced mobility.

The city also has a large network of bike lanes that is located at ground level and painted green or red to differentiate them from the pedestrian zone; accessible pedestrian signs are provided at ground level for the visually impaired and consist of metal circles with a symbol of a bicycle inside. These lanes are used not only by cyclists, but also by people with reduced mobility who use motorized vehicles or by people in wheelchairs.

In addition to the existing transport infrastructure, the city has several well-known parks, among which we highlight “María Luisa Park” and “Prado Park”, located next to the metro station with the same name. Within the first of the aforementioned parks, there are paths for walking and riding bikes, as well as two of the most important museums in the city, the Archaeological Museum of Seville and the Museum of Arts and Popular Customs, which we analyzed in this study. The park also has wooden ramps that facilitate access by bike, wheelchair or people with baby carriages.

In both parks, there are a large number of benches, although somewhat fewer in “María Luisa Park”. There are large walkable areas through which people in wheelchairs and other pedestrians can comfortably pass, but in some cases, access to fountains is limited due to the existence of stairs.

With regard to tourist accommodations, some particularly interesting cases that stand out in terms of accessibility are presented. We refer to an important segment of accommodations located in the historic city center whose buildings have a certain urban qualification that limits the actions that can be taken that aim to improve accessibility. As an example, one of the best and oldest hotels in the city (Alfonso XIII five-star) has serious access limitations for people with reduced mobility.

## 4.2. Empirical Work

### 4.2.1. Sample

The sample used in the research is eight museums that cover the most relevant museum offerings in the city of Seville and fall into the categories of fine arts, archeology, popular arts and customs, naval (Torre del Oro), military history, antiquarian, contemporary art, and science. Quantitatively, the sample represents more than 75% of the rec-

ognized and permanent museums in the city (temporary exhibition halls are excluded), and the vast majority are publicly owned.

#### 4.2.2. Evaluation and Measurement Instrument

Our priority objective was to determine the degree of accessibility of the museums. After carrying out a review of the literature, we constructed an accessibility evaluation instrument aimed at permanent exhibition spaces.

The measurement instrument was designed and validated, using the Delphi methodology, by three professors from the University of Seville with a deep knowledge of the subject (accessibility and cultural tourism). Similarly, the questionnaire designed for museum managers was validated and mostly focused on qualitative aspects such as real commitment in terms of budget, general strategy (values) and actions in the field of Corporate Social Responsibility (CSR).

In a complementary manner, a technical sheet was designed where all the quantitative and qualitative data and information that defined each museum were collected, which allowed us to carry out segmentation and other relevant statistical relationships. This file included data such as dependent entities, annual budget, specific budget dedicated to accessibility, the urban classification of the building, exhibition area, number of rooms, and building floors.

The accessibility evaluation questionnaire (checklist) was drawn up with consideration of current legal regulations in Spain, as well as those of the European Union and other internationally recognized regulations. Additionally, we relied on voluntary standards, agreements, institutional resolutions, good practices, etc., that emanated from very diverse institutions and organizations. By way of example, we considered the obligations included in Royal Decree 1/2013, which, as previously stated, consolidated the main Spanish accessibility standards, guidelines of the Convention on the Rights of People with Disabilities [76], the UNE standards of the 170,000 series on universal accessibility [77], and other voluntary Spanish standards such as UNE 139802 regarding web content accessibility [78].

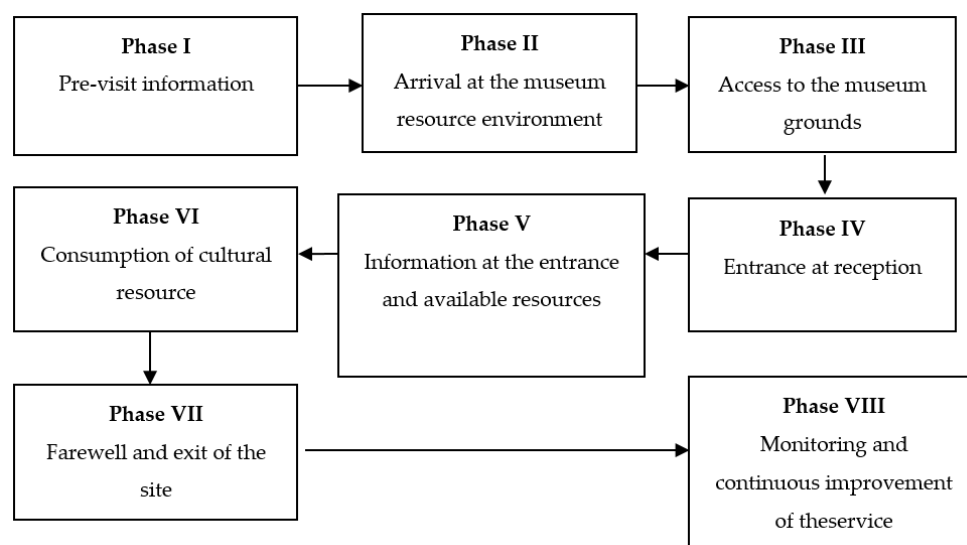
The checklist includes 67 items grouped into a total of five measurement areas depending on the type of disability concerned. These were general aspects of the museum or monument (location and provision of an accessibility certificate, an accessible website, and signage); people with reduced mobility; people with limited vision; people with functional hearing limitations; people with mental and intellectual limitations; other types of accessibility concerns (offering workshops for children, toilets with changing tables, parking for baby carriages, etc.).

Visits were then made to the different museums to carry out the field work of verification and control in situ of the different aspects that will allow us to evaluate the degree of universal accessibility for people with disabilities.

To facilitate field work, each criterion was indicated as an observable/measurable element or as requiring an interview with those responsible for the museum.

As there were criteria that were difficult to measure or that could not be observed directly, the collaboration of personnel from the museums was needed.

To design the structure of the questionnaire, we simulated the steps followed by anyone wishing to access and enjoy an exhibition space such as a museum. In the following figure, we show these steps or phases of consumption of the cultural service (Figure 1).



**Figure 1.** Process of visiting a museum. (Source: own construction).

The observation dates of the different museums, as well as the interviews with managers and personnel responsible for the museums analyzed, occurred in the month of March 2018.

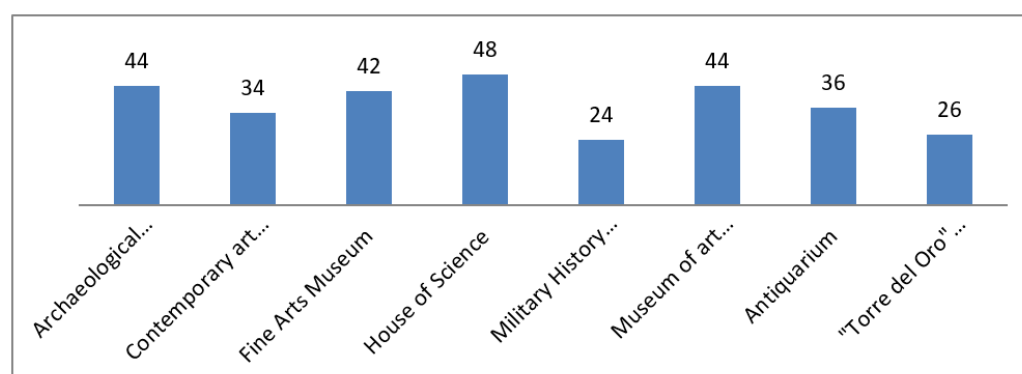
#### 4.2.3. Analysis of the Results

Once all the information and pertinent data were collected in the visits and the corresponding technical sheets and appropriate checklists were completed, we entered everything we collected in an Excel sheet for the purpose of processing the data and obtaining results.

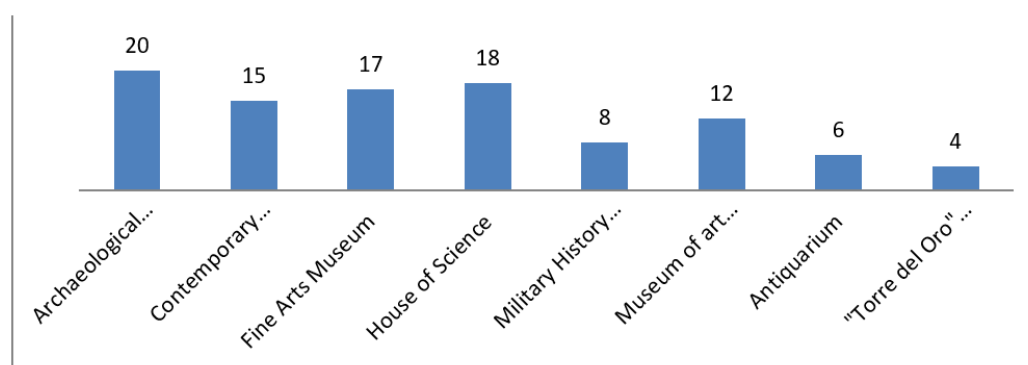
This paper includes the basic descriptive statistics that allowed us to obtain the accessibility indicators for each of the museums by taking into account the different types of disability included in this work, as well as a multiple correspondence analysis, the subsequent analysis of hierarchical clusters, together with the corresponding ANOVA analyses.

It is worth mentioning, that the analyzed museums had a variety of infrastructure characteristics and so some results maybe excessively negative due to the legal consequences of altering or accommodating all people with a type of disability.

The contents of Figures 2 and 3 corroborate the singularities found in each museum to the extent that we were only able to rigorously measure a certain number of accessibility aspects, ranging from a maximum of 48 in the House of Science to a minimum of 24 in the Museum of Military History.



**Figure 2.** Accessibility aspects analyzed. (Source: own construction).



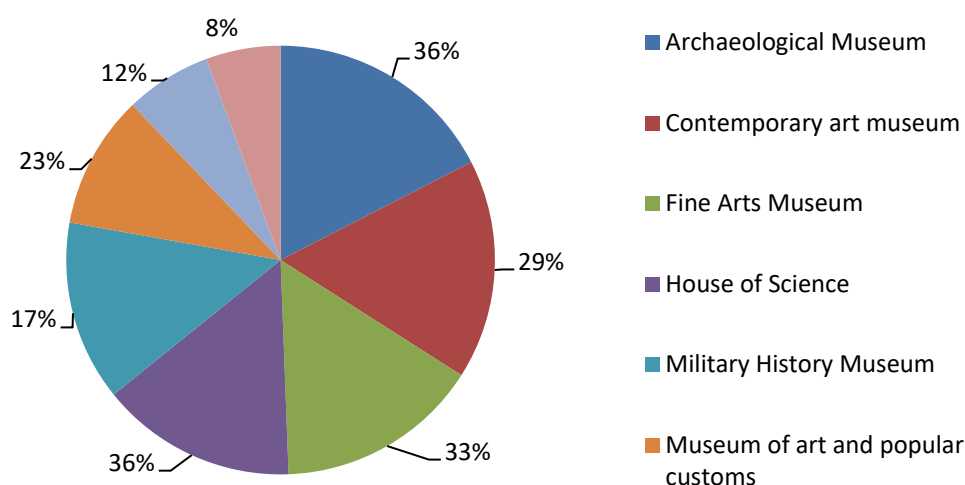
**Figure 3.** Compliance percentages. (Source: own construction).

It has been observed that the aspects or measurement elements that have appropriate policy and development plans for accessibility obtain higher levels of compliance. In this sense, the Archaeological Museum of Seville obtains the best results, followed closely by the House of Science and the Contemporary Art Museum. At the opposite end, the “Torre del Oro” Naval Museum and the only private museum analyzed stand out. It should be noted, with respect to the naval museum, that it is located in a tower next to the Guadalquivir River that is from the 12th century and has architectural and public protection characteristics that make almost any action in the field of accessibility impossible. This situation is not present in the aforementioned private museum, which, on the other hand, is less than 5 years old and, curiously, is also located on the banks of the river.

Comparing the number of criteria that the analyzed museums meet with the total number of applicable criteria, we obtained the results shown in Figures 4 and 5. It is notable, that none of the museums reached 40% compliance, which implies that less than half of the suggested criteria for accessibility policies and actions are met.

If we look at those that are actually met (first bar of the graph—blue), the Archaeological Museum and the House of Science stand out, being the only ones whose number of criteria that are met exceed their number of criteria that are not met (third bar—green). If, on the contrary, we take into account the criteria that are not met, the “Torre del Oro” Naval Museum and the Antiquarium stand out notably, which places them last in terms of the ranking of accessible museums.

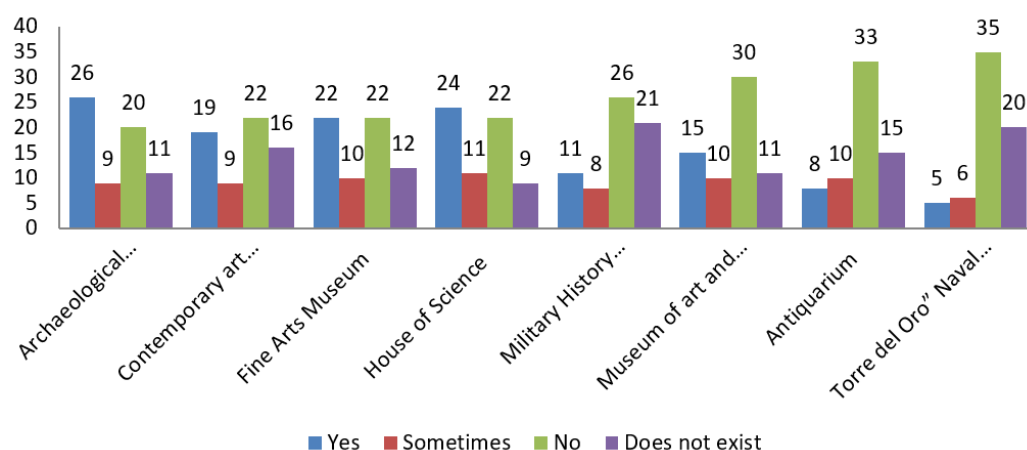
On the other hand, the elements that are partly or occasionally in compliance or (second bar—red) are relatively consistent across all museums, unlike the criteria where no efforts have been made (last bar—purple), which vary depending on the museum. This is largely because not all buildings have the same architectural characteristics or facilities. For example, only two of them have a cafeteria (House of Science and Museum of Contemporary Art), and it is almost impossible to imagine an elevator being installed at the “Torre del Oro” Naval Museum.



**Figure 4.** Total criteria. (Source: own construction).

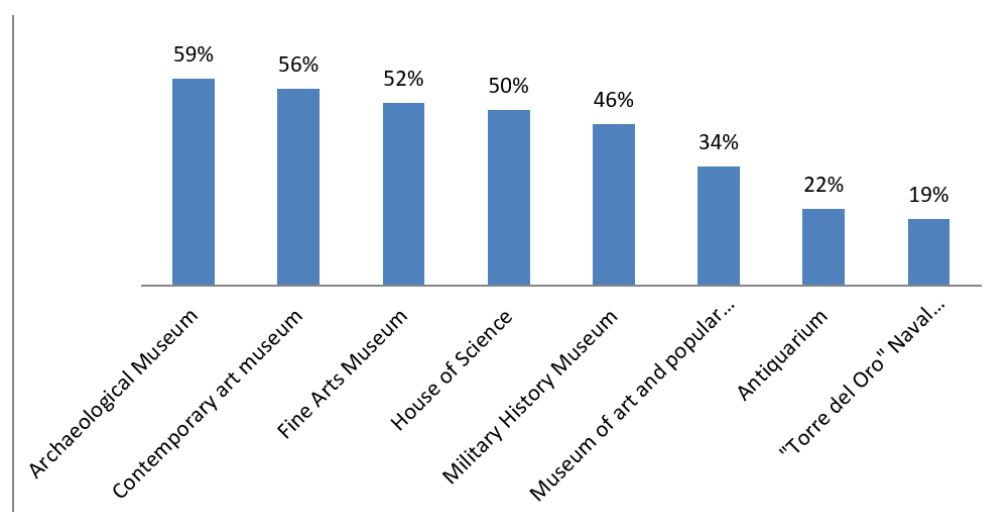
On the other hand, based on the descriptive results obtained, it is possible to rank the museums in terms of compliance with the accessibility aspects, highlighting that the archaeological museum has a larger and better infrastructure than the rest of the museums. The corridors are passable, and many of the museum's objects can be touched, which facilitates understanding for those with impaired vision. Many of the other criteria, such as changing facilities in both toilets and glass elevators, are also met. At the opposite end, is the Naval Museum in the Torre del Oro, which is the oldest monument of those analyzed, followed by the Antiquarium; the others were all built in the 20th century.

Figure 5 shows the ranking of the degree of accessibility of the museums of Seville, since this represents the result obtained after measuring all the requirements that are effectively fulfilled within the check-list among the total measurable criteria.



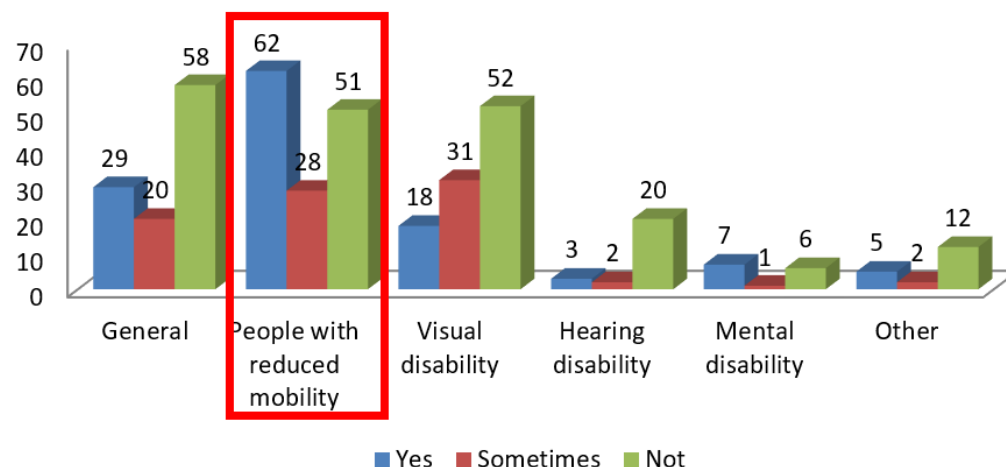
**Figure 5.** Degree of compliance with accessibility aspects. (Source: own construction).

The Figure 6 shows ranking of the degree of accessibility of the museums of Seville.



**Figure 6.** Ranking of the degree of accessibility of the museums of Seville.(Source: own construction).

Finally, by inquiring about the singularities or special needs that each type of disability requires and that are covered by the museums of Seville, we can conclude that criteria related to people with reduced mobility are the ones that receive the most attention (highlighted in red in Figure 7). The remaining categories are much less well addressed by museums, with hearing disabilities being those that received the least amount of attention or have the most accessibility limitations (Figure 7).



**Figure 7.** Accessibility coverage according to disability typologies. (Source: own construction).

Criteria related to people with reduced mobility are the ones that receive the most attention (highlighted in red).

In relation to the multiple correspondence analyses, we can say that each of the measurement scopes is defined by several items that, in some way, define the museums that have been included in the analysis. These items are multiple nominal variables that describe each of the museums. Conceptually, no cause–effect relationships were detected between the items. We can use these to assign scores to each of the museums in the sample in a double dimension. With these scores, we can then visualize on a plane the proximity or distance between the museums themselves with respect to the area of measurement considered. We can form groups of museums defined by their proximity in terms of the area of measurement considered. With these types of variables, the best tool

to carry out the proposed objective is the Multiple Correspondence Analysis method (Greenacre and Blasius[79], Greenacre [80]). The Multiple Correspondence Analysis highlights types of sample elements which have similar profiles in terms of the attributes that describe them.

We carried out this Multiple Correspondence Analysis in each measurement area and for each of the items that are part of the chosen area, discarding those items that did not present variability. From the two-dimensional graphs we propose groupings between the different museums in the sample. We show the results in a more comprehensive way for the first measurement area, and in a briefer way (simply indicating the groupings that occur) for the rest of the areas.

First area of measurement (general aspects of the museum or monument).

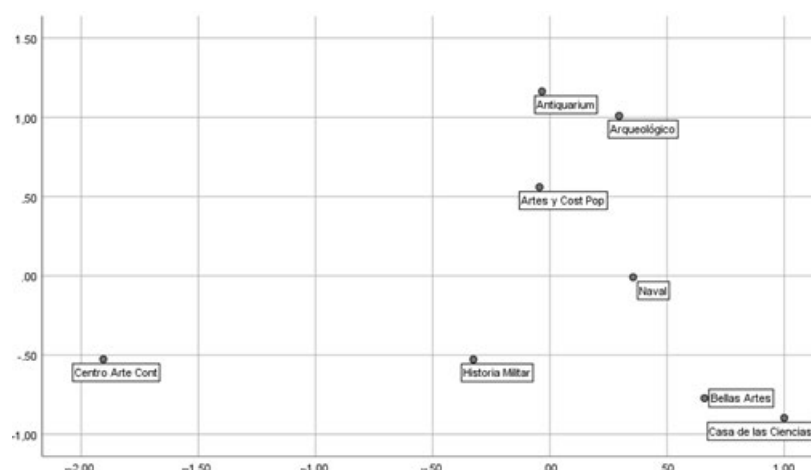
In Table 3, we observe the percentages of variances of the items represented in the two dimensions (Greenacre [80] maintains that the analysis is valid if each dimension exceeds 30% of the explained variance). Additionally, the Cronbach's alpha reliability coefficients for both dimensions exceeds 0.800.

**Table 3.** Proportion of variance explained by each dimension.

	Cronbach's al- pha	Total (Eigenvalue)	Variance Accounted for Inertia	% Variance
1	0.880	4.991	0.454	45.375
2	0.803	3.702	0.337	33.655
Total		8.693	0.790	
Average	0.847	4.347	0.395	39.515

Source:own construction based on museum data.

The scores assigned to the museums through this analysis allowed us to create a two-dimensional graph of them (Figure 8).



**Figure 8.** Two-dimensional map with the situation of the museums according to the first two dimensions corresponding to “general aspects of the museums”. (Source: own construction from the analysis of multiple correspondences.).

Observing the location of the museums on the map (Figure 8), we grouped museums according to proximity. These groupings were confirmed by hierarchical cluster analysis and ANOVA tests, comparing the means between the groups formed. We observe that the Centro de Arte Contemporáneo (Andalusian Center of Contemporary Art) is isolated, very far away from the rest. Bellas Artes (Fine Arts Museum) and Casa de las Ciencias (House of Science) are close to each other and far away from the rest. A third

group formed from the Antiquarium, Arqueológico (Archeology Museum) and Arte y Costumbres Populares (Popular Arts and Customs Museum). Finally, another group was formed—with a certain distance between them—by the Historia Militar (Military History Museum) and Naval (Naval Museum (Torre del Oro)).

In summary, the four groups that we defined from the first measurement area (general aspects of the museum or monument) are:

Group 1: Bellas Artes (Fine Arts Museum) and Casa de las Ciencias (House of Science).

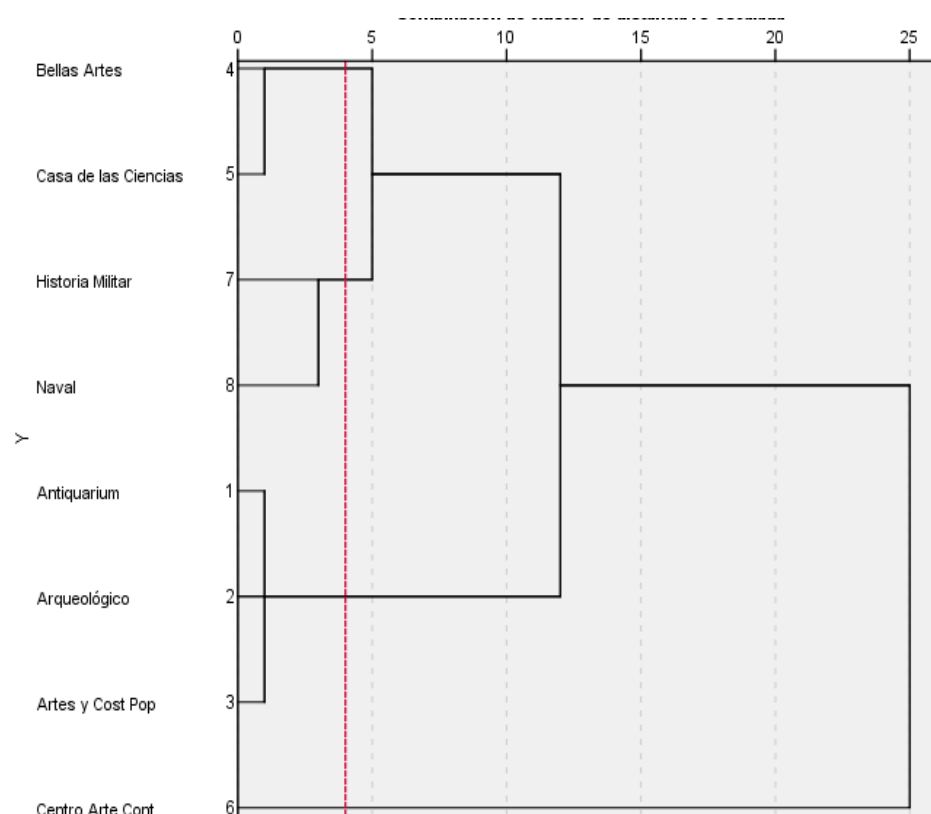
Group 2: Historia Militar (Military History Museum) and the Naval Museum (Torre del Oro).

Group 3: Antiquarium, Arqueológico (Archeology Museum) and Arte y Costumbres Populares (Popular Arts and Customs Museum).

Group 4: Centro de Arte Contemporáneo (Center of Contemporary Art).

Here, we show that the dendrogram is associated with the hierarchical cluster analysis for the variables that define the two dimensions extracted in this first area of measurement, namely, the “general aspects of the museum”. Using these scores, we used a hierarchical cluster analysis to the group museums according to the characteristics of the first dimension, “general aspects of the museum or monument”. Drawing a division line in the re-scaled distance, equal to four on the resulting dendrogram, we deduced that the considered museums can be grouped into the four clusters or groups already established.

In the dendrogram (Figure 9), it can be seen how—after a minimum distance—the Antiquarium, Archaeological Museum and Popular Art and Customs Museum are associated. Then, by expanding the distance a little more, this association extends to the Fine Arts Museum and House of Science. Extending this distance even further, the Military History and Naval Museums become associated, and lastly, the Center for Contemporary Art remains isolated until the end.



**Figure 9.** Dendrogram generated by hierarchical cluster analysis, together with a vertical dashed line to establish the groups. (Source: own construction based on museum data).



To complete confirmation of the groupings made, the ANOVA analysis (Table 4) confirms the existence of significant differences in the means of the four groups defined by the cluster:

**Table 4.** Results of the ANOVA analysis for the two dimensions generated by the multiple correspondence analysis.

		ANOVA				
		Sum of Squares	Gl	Quadratic Mean	F	Sig.
Object Scores Dimension 1	Between groups	5.024	3	1.675	18.373	0.008
	Within groups	0.365	4	0.091		
	Total	5.389	7			
Object Scores Dimension 2	Between groups	4.302	3	1.434	16.904	0.010
	Withingroups	0.339	4	0.085		
	Total	4.641	7			

Source: own construction based on museum data.

Therefore, according to the general aspects of the museums, they are divided into four well differentiated groups, where the assignment of the museums to each group is established above.

From here, we repeated the analysis with the remaining measurement domains.

The second measurement area is made up of 22 items (people with reduced mobility). The 17 items that presented variability were considered. In this case, four groups were formed:

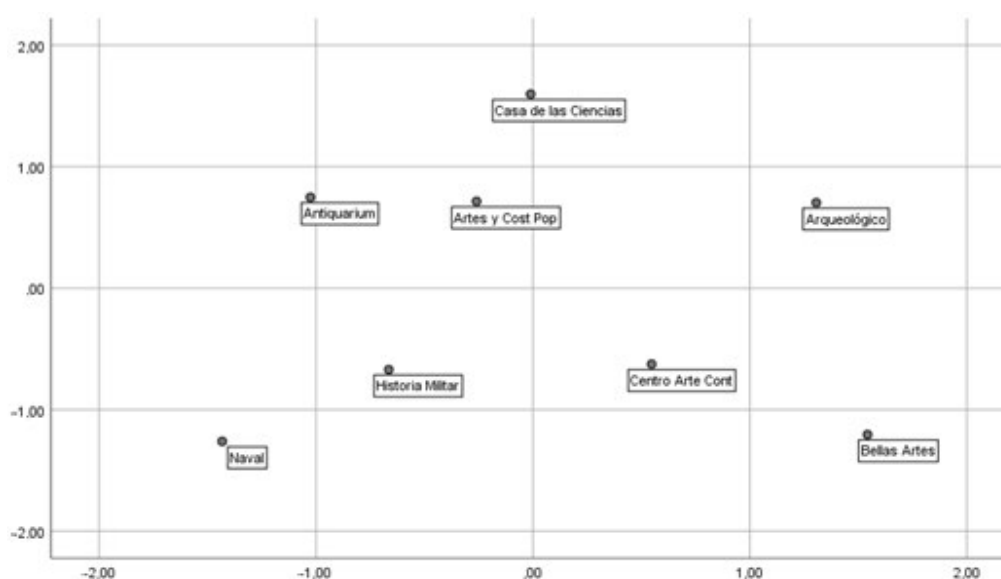
Group 1: Bellas Artes (Fine Arts Museum) and Centro de Arte Contemporáneo (Center of Contemporary Art).

Group 2: Historia Militar (Military History Museum) and the Naval Museum (Torre del Oro).

Group3: Antiquarium, Arte y Costumbres Populares (Popular Arts and Customs Museum) and Casa de las Ciencias (House of Science).

Group 4: Arqueológico (Archeology Museum).

Here (Figure 10), we show the two-dimensional plane associated with the items that define this second area of measurement (people with reduced mobility).



**Figure 10.** Two-dimensional map with the situation of the museums according to the first two dimensions, corresponding to “people with reduced mobility”. (Source: own construction from the analysis of multiple correspondences).

The hierarchical cluster analysis and subsequent ANOVA confirmed this division into four groups according to this second area of measurement.

In the third area of measurement (people with limited vision), five groups were formed:

Group 1: Arte y Costumbres Populares (Popular Arts and Customs Museum) and the Naval Museum (Torre del Oro).

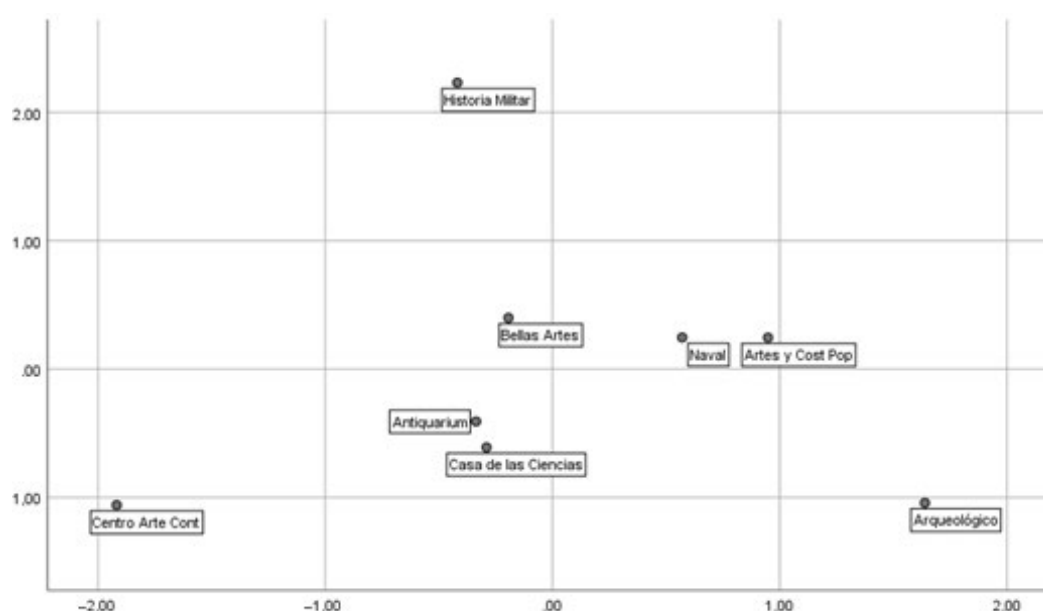
Group 2: Historia Militar (Military History Museum).

Group 3: Antiquarium, Bellas Artes (Fine Arts Museum) and Casa de las Ciencias (House of Science).

Group 4: Arqueológico.

Group 5: Centro de Arte Contemporáneo (Center of Contemporary Art).

We have shown, in the Figure 11, the two-dimensional plane associated with the items that define this third measurement area (people with vision limitations).



**Figure 11.** Two-dimensional map with the situation of the museums according to the first two dimensions, corresponding to “people with limited vision”. (Source: own construction from the analysis of multiple correspondences.).

Fourth measurement area (people with functional hearing limitations).

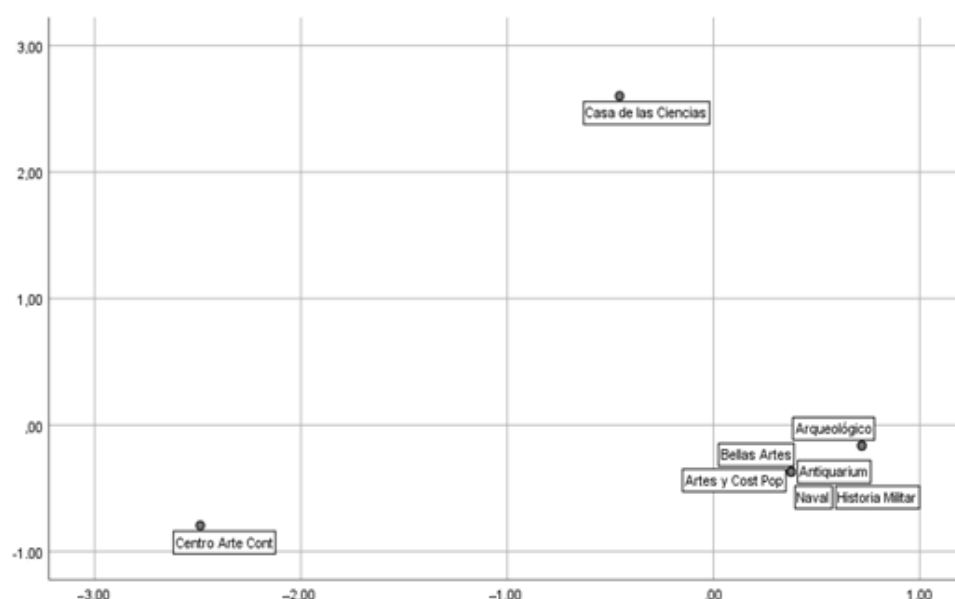
In this case, three groups were formed.

Group 1: Centro de Arte Contemporáneo (Center of Contemporary Art).

Group 2: Casa de las Ciencias (House of Science).

Group 3: Arte y Costumbres Populares (Popular Arts and Customs Museum), Naval Museum (Torre del Oro), Historia Militar (Military History Museum), Antiquarium, Arte y Costumbres Populares (Popular Arts and Customs Museum) and Bellas Artes (Fine Arts Museum).

We show, in the Figure 12, the two-dimensional plane associated with the items that define this fourth measurement area (people with functional hearing limitations).



**Figure 12.** Two-dimensional map with the situation of the museums according to the first two dimensions corresponding to “people with functional hearing limitations”. (Source: own construction from the analysis of multiple correspondences).

In this case, we observed that two museums were well differentiated from the rest: Casa de las Ciencias (House of Science) and Centro de Arte Contemporáneo (Center of Contemporary Art), both of which are situated far apart.

Fifth area of measurement (people with mental and intellectual limitations)

In this case, five groups were formed:

Group 1: Naval Museum (Torre del Oro) and Centro de Arte Contemporáneo (Center of Contemporary Art).

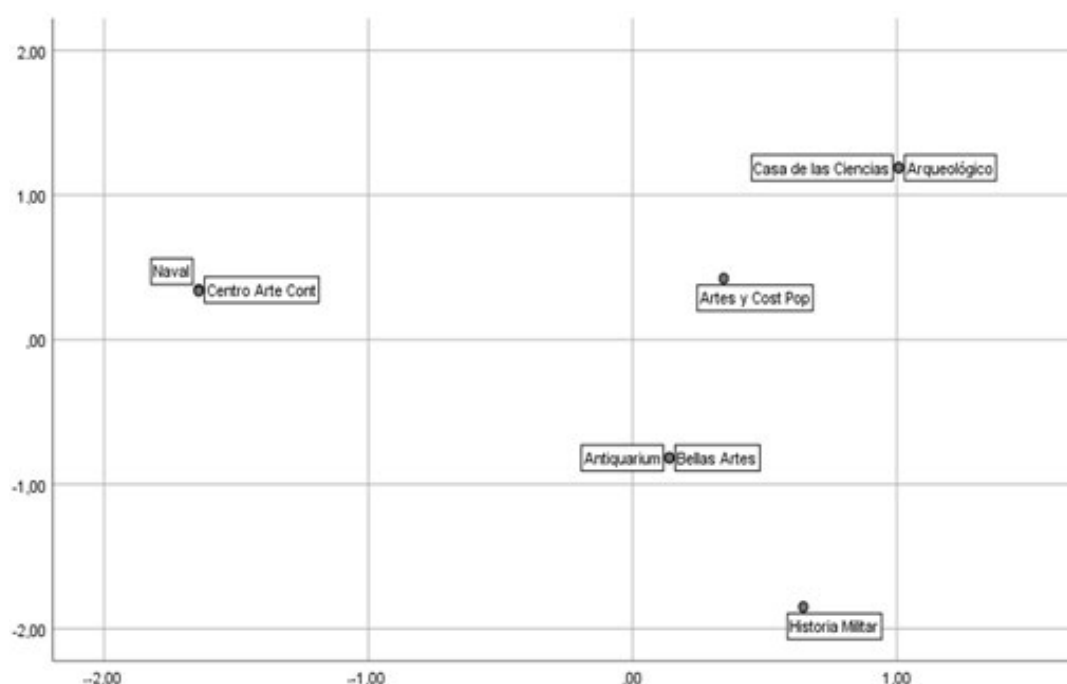
Group 2: Historia Militar (Military History Museum).

Group 3: Casa de las Ciencias (House of Science) and Arqueológico (Archeology Museum).

Group 4: Arte y Costumbres Populares (Popular Arts and Customs Museum).

Group 5: Antiquarium and Bellas Artes (Fine Arts Museum).

Here, we show, in the figure 13, the two-dimensional plane associated with the items that define this fifth area of measurement (people with mental and intellectual limitations).



**Figure 13.** Two-dimensional map with the situation of the museums according to the first two dimensions, corresponding to “people with mental and intellectual limitations”. (Source: own construction from the analysis of multiple correspondences).

We observed the almost perfect coincidence of three pairs of museums with respect to this field of measurement, “people with mental and intellectual limitations”: Naval Museum (Torre del Oro) and Centro de Arte Contemporáneo (Center of Contemporary Art). On the one hand, Casa de las Ciencias (House of Science) and Arqueológico (Archaeology Museum) and the Antiquarium and Fine Arts Museum represent the third couple. These museums are isolated—separated from the rest and isolated from each other.

#### Sixth area of measurement (other types of accessibility)

The variables comprising this sixth area have a large number of zeros, which prevents adequate calculations from being performed.

The multiple correspondence analysis, in addition to the subsequent analysis of hierarchical clusters, together with the corresponding ANOVA analyses allowed us to group museums by virtue of the different measurement fields. Here, we obtained between three and five groups. The group generated by the fourth measurement area (people with functional hearing impairments) is especially striking as all the museums, except two, are very close to each other. A characteristic that we highlight of these groups, is the minimal coincidence of museums with each other when moving from one measurement area to another. For example: the Museum of Fine Arts—the most important museum in the city in terms of number of visits and content—is associated with Casa de las Ciencias (House of Science) in the first area; with Centro de Arte Contemporáneo (Center of Contemporary Art) in the second area; with Casa de las Ciencias (House of Science) (again) and Antiquarium in the third area; with all the museums except Casa de las Ciencias (House of Science) and Centro de Arte Contemporáneo (Center of Contemporary art) in the fourth area; with Antiquarium in the fifth area. This confirms the different policies and lack of uniformity applied by these museums in terms of the measures taken with respect to accessibility. As mentioned above, the most common occurrence (six museums out of a total of eight) is in the fourth measurement area (people with functional hearing limitations).

## 5. Discussion

Museums have become the main centers of attraction for cultural tourism and on many occasions, they have not only been incorporated into the main tourist circuits, but have also become the driving force behind them.

Universal accessibility is based on the definition of the functional conditions that must be met by the different elements that make up the building to ensure full access, use, and enjoyment, without discriminating against people with disabilities and in conditions of safety and autonomy.

From the analysis and review of the literature we can affirm that research on accessibility to museums is a field of scientific study that is underdeveloped.

The vast majority of studies reviewed reach the same conclusion: there are very few museums with universal accessibility. We have corroborated this with our own research, where we found that only one of the major museums in Seville guarantees such universal accessibility. For example, of the 1071 (one thousand seventy-one) Spanish museums, only 42 can be considered accessible museums according to Fernández Alles [45], and of these, only three have the Universal Accessibility Certificate, granted by Spanish Association for Standardization and Certification (AENOR).

The main objective in the design and management of an accessible museum should be to meet the needs of each visitor without compromising the needs of the rest; this is especially important for safety conditions.

It is imperative that museums are connected to accessible public transportation services as well as reserved parking spaces. In order to access and enjoy the museum, characteristics involving the connection with the exterior, horizontal and vertical circulations, signage and communication, as well as correct evacuation procedures in the case of an emergency, must be taken into account.

The built environment should be designed, constructed and managed in such a way as to facilitate orientation to enable finding the correct route, avoiding obstacles that could cause hazards, and knowing when the destination has been reached. There should be an accessible point of care connected by directional pavement strips that are integrated into a routing system from the museum entrance and staffed by personnel who are trained in dealing with people with disabilities. It is important to have adapted lockers so that all visitors can make the visit without carrying any heavy and/or bulky objects. Inside, the rooms and exhibition spaces must not have protruding or overhanging elements that could pose a risk to visitors, and the free width between pieces must allow for comfortable and safe ambulation. The installation of resting places, benches with backrests and armrests, ischiatic supports, etc., under the criteria of universal design and ergonomics, makes the visit more pleasant and comfortable, allowing the great majority of visiting tourists to contemplate the exhibited work in a more relaxed way.

It is essential to have hygienic-sanitary spaces that are properly designed for use by people with disabilities, especially for visitors using wheelchairs, for whom the use of support products will facilitate their use. All accessible toilet rooms must have a device that transmits a call for assistance in case of an emergency, which can be accessed from the toilet or, where appropriate, by a person lying on the floor. This alarm must be connected to an emergency help point or to a place where a member of staff is available to provide assistance. Light switches should be located inside all accessible toilet cubicles or should be activated automatically when the user enters the cubicle, and under no circumstances should timed light switches be installed.

Undoubtedly, for a visit to the museum to be meaningful and satisfactory, visitors must not only be able to circulate in these spaces, but must also be able to access the content on display. To this end, information panels should be installed with information on the exhibition elements that are appropriate and accessible in terms of location, design, text size, contrast, etc. Such information panels should take into account the needs of approach and height in showcases, bringing the content closer to visually impaired users and even making it easier to touch the work when possible, without damaging the

originals. For example, models, scale models or didactic sheets could be implemented that allow the content of the originals to be identified.

It is true that museums increasingly use multimedia devices that allow dynamic access to the museum contents. The most commonly used products are audio and video guides that facilitate access to information for all visitors, especially those with sensory disabilities. The contents should be offered in various formats including: sign language, audio descriptions of the work on display, formats that are easy to read with subtitles, and if possible, in several languages. Alternatively, information can be offered through two-dimensional codes, such as quick response (QR) or near field communication (NFC) technology. This technology allows for the development of automatic activation systems so that visitors with impaired vision or blindness, as well as people with mobility problems in their hands, do not have to activate them at the different information points. In any case, consultation computers or interactive screens must be accessible.

In view of the above, it is necessary that museums or spaces containing exhibition elements, as places of recreation and knowledge, guarantee a quality visit to all people, promoting both the accessibility of the spaces and the contents.

According to Abuín, Aedo et al. [81], we are all disabled in one way or another. Some can see regularly, others cannot hear as well as they used to, others have difficulties in moving around. These are usually the result of age, but we must be very aware that human limitations are not limited to special groups. Accessibility is for everyone and should be an absolute priority for museums.

Some important Spanish museums, such as the Prado, Thyssen and Reina Sofia, are beginning to employ people in their education departments who are dedicated to accessibility issues. Several associations and groups have also begun to present projects in museums of this type, with the aim of welcoming not only people with disabilities, but also groups of immigrants, people from dysfunctional families, in addition to people who are marginalized by language and other social/cultural conditioning factors, such as gender, abuse and purchasing power. In all cases, the concern to approach the social and emotional connections of these groups and ensure that the museum offers them a vision and participation in society is one of the key objectives.

According to Zúñiga [82], implementing accessibility in museums means meeting the needs of their visitors. For example, allowing a blind person to reach the contents through the perception of other senses, such as touch and hearing. Alternatively, allowing a deaf person to communicate interactively through sign language or subtitling the sounds of a video. Allowing a person with reduced mobility to move around with complete autonomy and safety by eliminating physical barriers in their environment; designing a visit with easy language for children with Down Syndrome, etc. All of these examples are encompassed under accessibility, and benefit everyone. Therefore, there is an urgent need to convert museums and exhibition centers into accessible spaces. "Design for all is design that takes into account human diversity, social inclusion and equality". Examples could include designing spaces so that everyone can use them with freedom and autonomy; designing audio guide integrated solutions for all (voice, sign language, audio description, subtitles, etc.); or installing a gently sloping ramp, with protective skirting, double-height handrails, with podotactile signage (which can be used by the vast majority of people: wheelchair users, cane users, seniors, children, etc.).

## 6. Conclusions

By the term "universally accessible museum" (museum of all and for all), we mean one that eliminates physical, sensory and intellectual/cognitive barriers to ensure optimal accessibility, both to its facilities and its contents.

Accessible museums have no barriers and thereby offer specific activities and bring culture closer to people with special needs in order to improve their quality of life and facilitate their integration into society.

The main conclusion that we can draw from this evaluation, is that museums in the city of Seville have limited accessibility. None of the museums in Seville can be considered universally accessible.

This implies that areas of discrimination are still present in cultural tourism in the city, which fails to uphold the essential principle that knowledge and culture must be universal and accessible to all people, regardless of whether they have a certain handicap.

In this article, we have discussed accessibility as an inclusive element. Accessibility is about analyzing and enabling museums so that everyone, including people with permanent and temporary disabilities, the elderly, obese individuals, and families with small children, can experience cultural tourism without barriers of any kind, available for the enjoyment of both individuals and families/groups.

According to Hermida [83], accessibility is a challenge for the whole society, spanning very diverse areas. It is fantastic to see physical barriers being torn down, but very frustrating to see the lack of understanding shown by some people towards how other people may be disadvantaged in the context of accessing cultural tourism. Spaces with incomprehensible instructions for people with autism, places where the sensory load is so high that people with a high sensitivity or a different sensory integration struggle to stay for 5 minutes, and so many daily barriers repeatedly keep families with people with functional diversity away from tourist and cultural spaces.

The idea that museums are for everyone is something that in practice is not true. Not all citizens have the same opportunities to access museums and enjoy their spaces and collections. Universal accessibility, inclusion and design should be the common standard in museums, as well as the education and training of their staff to meet the requirements of a diverse society.

Access to tourism resources and services is not a singular act or a state of being, but rather refers to freedom of choice in terms of how to intervene in, address, inform or make use of cultural heritage. Participation under conditions of equality can be a reality if the same opportunities to participate are guaranteed through measures that improve accessibility [71].

According to Hernández-Galán, Borau Jordán et al. [84], the desire to travel is an element that is incorporated into the way of life of our current society—especially in developed countries—and makes no distinction of social class, gender, age or other factors. Therefore, in addition to tourists who travel and who become accessibility seekers on a temporary basis, there are people who have permanent access needs, such as the elderly, families or people with disabilities, who are also consumers of tourism services.

Tourism is the main driver of the economy in many countries and is an important source of income in different areas. Solving accessibility requirements related to tourism favorably expands the possibilities and opportunities of the sector, increasing the market share and providing a factor of diversification of services and products in destinations in tourism development strategies.

By analyzing the major museums in Seville, with the vast majority of them being owned or managed by public administrations, our recommendations are largely aimed at such administrations, since they are the ones with a real and effective responsibility for improving the accessibility of the exhibition spaces analyzed.

There are clear links between sustainability and accessibility, that have their origin in the contributions of the United Nations, as regards sustainable development. In this sense, the term sustainable development, coined by the United Nations in the report issued by the Brundtland Commission, is based on three essential pillars: economic growth, environmental protection and protection of social equity [85]. Although this concept largely tries to provide a social sense to the concept of sustainability, subsequent scientific developments have mainly focused on the economic and environmental dimensions, to the detriment of the social perspective of sustainability [86,87]. Nevertheless, the UN itself set a clear social perspective among its sustainable development goals, where most

of the goals included constitute the essential social pillar of sustainable development [88]. In this line, institutions such as Spanish Committee of Representatives of Persons with Disabilities (CERMI) in Spain, have developed research aimed at finding cross-cutting factors that help or enhance the fulfillment of these goals. Thus, there are cross-cutting factors that positively or negatively affect the achievement of the sustainable development goals. One of these is, undoubtedly, increased or decreased levels of accessibility, which can increase or limit the exercise of rights of various people; especially—but not exclusively—people with disabilities [88].

In our research, we were able to observe that these factors are not met in order to achieve the objectives of sustainable development, since—as has been shown in the development of the article—none of the museums studied in the city of Seville meet all the criteria to be considered an accessible museum.

We believe it would be wrong for public authorities and administrations managing cultural heritage to continue considering accessibility an expense instead of what it truly is: an investment in the present and future.

The business growth strategies determined from the strategic direction must establish an inclusion scheme that is committed to exalting the value of the client, without distinction, and eliminating differences in the quality of the treatment, product or service that is offered. This design should send a positive message to customers and society with the aim of generating a driving force for business growth [89].

On the other hand, the awareness and knowledge of professionals in the sector is a key factor to take into account. It is necessary to invest in specialized education to be able to produce qualified professionals who, in turn, contribute to the creation of a more inclusive society, in which all people fit and collaborate together regardless of the physical or mental diversity that they possess.

As we have mentioned throughout the study, accessibility consists not of adapting facilities or services to a specific group, but of ensuring that all people can enjoy said facilities and services in the same way, expanding the market without creating ghettos or focusing solely on one type of customer.

The elimination of barriers in museums through the incorporation of measures aimed at achieving universal accessibility implies a series of important advantages, among which the following are worth mentioning:

An improvement of the social image of the museum and, with it, of its attractiveness, by offering a product that is accessible to all, without discrimination.

Accessibility is associated with a higher quality of this tourist resource, providing museums with a better strategic positioning.

Accessibility implies greater ease of use for the entire population, since the spaces are larger, access is more comfortable and there are fewer obstacles. The organizations and entities in charge of the management and financing of museums have to work in a joint and coordinated manner, since, during the preparation of the study, discrepancies in competence were found that make it impossible to adequately manage accessibility in museums.

The adaptation of classical museums in monumental buildings is not only costly and difficult, but also a pending subject. Installing ramps, handrails, elevators, marking the floor, stairs, adapting toilets and transforming showcases, lights, signs and audiovisual or computer programs is not only an arduous task, but often clashes with the criteria of some museum curators, who fear that the historical or conceptual path of the collections will be broken. Finally, among the actions to be taken, we propose the following: promoting the use of new technologies; correctly signaling access points at monuments, in museums and in entertainment venues; incorporating removable ramps or lift platforms in places with stairs; adding braille text and tactile signage to informational signs; increasing the number of taxis with the capacity to transport people with reduced mobility; offering places to park bicycles; training tourism professionals on accessibility matters; offering guides in sign language; ceasing to be afraid of what is different.



Differences enrich the culture of a society and, therefore, the destinations in that society. Cultural differences create societies that are more tolerant and better prepared to face changes. The necessary change is not about discarding one's own culture to integrate another, but rather accepting the other culture and learning from it in order to offer a quality service without disturbing the harmony of tourist destinations.

Not only should we focus our actions on adapting museums and monuments, but the space that houses such entities must be suitable for all people.

We are only partway along the path of making tourism services accessible to all. It is necessary to continue investigating and working so that accessibility becomes a reality, and we must not despair in the attempt, but achieve small objectives to eventually arrive at the goal: accessibility to all people regardless of their physical or mental qualities.

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