

# A Proposal to Categorize Cultural Sustainability Elements for the Management of World Cultural Heritage Sites

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Different interpretations have been proposed of how culture is related to the concept of sustainability. Culture has been described as the fourth dimension of sustainability, together with the economic, environmental and social dimensions; it has been considered a mediator that enables a balance among the other three dimensions; it has also been seen as the very foundation for achieving sustainability goals. However, the elements that make culture a fundamental part of sustainability interventions are neither yet clearly defined nor equally implemented. In tourism, when it comes to World Cultural Heritage Sites (WCHSS), the issue of cultural sustainability should be considered both from the position of the management and from the position of visitors: do WCHSS managers consider cultural sustainability dimensions when developing sustainability strategies for their site? Are visitors' experiences and images of the site influenced by elements related to cultural sustainability? A study is presented here, which aimed at answering these questions, analysing both faces of the coin. First, the different interpretations proposed to explain the relationship between culture and sustainability have been considered, to identify key descriptive elements. Then, a sample of online travel reviews about visitors' experiences at UNESCO WCHSS has been analysed, to see if such key elements were part of visitors' stories and evaluations. Finally, managers and specialists of WCHSS in Switzerland have been interviewed, to see if they agreed on the identified key descriptive elements. Results allowed us to categorize 24 elements related to cultural sustainability, to aggregate them into five dimensions, and finally to organize them in a conceptual framework.

*Keywords:* cultural sustainability, World Heritage Sites, categorization, tourists, site managers, online travel reviews



<https://doi.org/10.26493/2335-4194.16.9-22>

## Introduction

In the last decades, the development of Information and Communication Technologies (ICTS) has become the backbone of the networked society, just as power grids were essential in industrial society (Castells, 2005). The fast technological development they allowed has created concerns in society through questioning its ability to ensure sustainable development (Haarstad, 2017; Höjer & Wangel, 2015). The concept of sustainability is related in much of the literature to the development of the social, economic and environmental context of a given territory. There is a wide debate about the role of culture in sustainability (Chew, 2009; Hawkes, 2001; Suntikul, 2016) and the concept of cultural sustainability has been defined in different ways. Some authors claim that culture can be seen as a specific dimension of sustainability (Maggiore & Velleco, 2012; Throsby, 2016). Others claim that it can be integrated with the social dimension, thus resulting in a socio-cultural dimension (Aydin & Alvares, 2016; Ranasinghe, 2018). Some researchers argue, then, that culture serves as a central pillar for the development of the other dimensions (Hawkes, 2001; Soini & Birkland, 2014).

In the field of tourism, the issue of sustainability has been a hot topic for some years. However, while the perspective of managers and their actions regarding sustainability have frequently been highlighted, the tourists' perspective has barely been studied (Aydin & Alvarez, 2016). Tourists generally assess the sustainability of destinations based on those aspects that affect their own experiences most. Thus, they do not directly perceive some sustainability actions taken by the territory, creating challenges for destinations to develop strategies on how to communicate these actions to the tourist efficiently.

On some social platforms for travel and tourism, such as *TripAdvisor*, tools have been implemented that allow users to identify establishments committed to sustainability principles. TripAdvisor's Green Leaders stamp is highlighted for accommodations that are committed to sustainable practices such as recycling waste, organic food, and electric car charging stations. The focus is, however, mostly on environmental issues. Hopefully, in the future, user comments and evalua-

tions might include more sustainability elements (Aydin & Alvarez, 2016).

Visitors' evaluation of their experiences at cultural heritage sites can suggest the elements that the management should focus on to increase awareness of the cultural elements and to increase their satisfaction during the visit. Tourism could in this way strengthen a positive connection between residents, tourists, and managers within a society and help to point out the central role of culture in sustainability issues (Terkenli & Georgoula, 2021).

In the specific case of wCHSS, understanding visitors' awareness of the cultural aspects of heritage that need to be considered for sustainable management is even greater. Since a site is inscribed in the UNESCO World Heritage List, there is, on the one hand, an increase in visitation interest that can expand the potential for knowledge and preservation while, on the other hand, the site may suffer from over-tourism and external cultural influences that might directly affect the preservation of cultural elements (Tan et al., 2020; Oliveira et al., 2022). It is the responsibility of the site management to ensure that cultural elements of heritage are maintained and enhanced through tourism, maximizing positive impacts and minimizing negative impacts (Sonuç, 2020).

This study aims to identify the elements of cultural sustainability that wCHS visitors recognize in the visitation experience, to classify them in comparison with the elements put forward by heritage managers and, on this base, to elaborate a conceptual framework of cultural sustainability for heritage cultural sites.

## Literature Review

### The Role of Culture in Sustainability

The concept of sustainability originated as an evolution of the concept of development. The concept of development originally highlighted the economic and productive activities that provide employment, consumption and wealth to a society. Gradually, it expanded its scope to human development, including values and social goals such as life expectancy, education, equity, opportunity and well-being (Maggiore & Velleco, 2012).

The concept of sustainable development or sustain-

ability was presented in 1987 by the World Commission on Environment and Development (WCED). In very rough terms, it focuses on satisfying the needs of the present society without compromising the needs of future generations (Hawkes, 2001; Soini & Birkeland, 2014).

This concept was further elaborated by Throsby (2016) when defining some basic principles that should characterize sustainability: continuity, intergenerational and intragenerational equity, diversity, a balance between natural and cultural ecosystems, and interdependence between the cultural, social, ecological and economic dimensions.

It should be noted that the principle of interdependence between the four dimensions and, especially, the role of culture in sustainability are much debated in the literature and sometimes controversial. There is a consensus that sustainability is composed of three basic dimensions: economic, social and environmental (Hawkes, 2001; Maggiore & Vellecco, 2012; Soini & Birkeland, 2014; Suntikul, 2018; Weng et al., 2019). The dimensions were agreed upon in 2002 during the Sustainable Development Congress (Soini & Birkeland, 2014) and later reaffirmed by the United Nations in 2005 (Suntikul, 2018). This division ended up expanding a debate about the role of culture within sustainability, which still remains undervalued compared with the other dimensions (Chew, 2009; Hawkes, 2001; Suntikul, 2018).

Culture can be seen as composed of three aspects: the values and aspirations of a society, its forms of development and transmission, its tangible manifestations (physical structures, works of art and places of great cultural value) and intangible ones (ideas, practices, beliefs and traditions), that help to create cohesion within a specific group (Hawkes, 2001; Maggiore & Vellecco, 2012).

As far as sustainability is concerned, there are some specific characteristics of culture that foster its development, namely: the valuing of cultural identity (Chew, 2009; Hawkes, 2001; Maggiore & Vellecco, 2012), knowledge (Maggiore & Vellecco, 2012; Aydin & Alvarez, 2016), social empowerment (Throsby, 2003; Chew, 2009; Ranasinghe, 2018), cultural capital (Murzyn-Kupisz, 2012), diversity (Hawkes, 2001;

Throsby, 2003), creativity and innovation (Hawkes, 2001; Maggiore & Vellecco, 2012) and finally, technology (Maggiore & Vellecco, 2012).

In summary, Dessein et al. (2015) state that culture can participate in the concept of sustainability by taking three different roles. The first role characterizes culture as *support* for sustainability, that is, it is seen as a fourth dimension of the model together with the economic, social and environmental dimensions. The second role of culture would be *connection and mediation*, serving to balance the relationships between the three other dimensions. Finally, the third role highlights culture as the *main element* for the achievement of sustainability objectives. The last perspective is based on the understanding that culture creates all moral and ethical values of a society that will serve as the main goals to be achieved by sustainability. The authors believe that, depending on the circumstances and objectives, one or the other perspective might better explain the role of culture in sustainability.

In the case of WCHSS, it is questioned which of the three roles highlighted by Dessein et al. (2015) could better represent culture in the sustainability discourse from a tourism perspective. Understanding the perspective of the managers and that of the tourists who visit those places can shed light on this issue.

#### Cultural Sustainability in Tourism

Tourism can be considered a fundamental activity for the development and cultural preservation of a society, ensuring benefits for future generations (Ranasinghe, 2018). However, if not well managed, tourism can negatively affect the culture of a society, generating problems such as excess demand (García-Hernández et al., 2017; Murzyn-Kupisz, 2017; Yeniasir & Gökbulut, 2018), loss of values and traditions (García-Hernández et al., 2017; Jamal et al., 2010), lack of respect between tourists and residents (Jamal et al., 2010) and poor receptivity of tourists by the population (Ranasinghe, 2018; Yeniasir & Gökbulut, 2018).

Based on the principles of sustainability outlined by Throsby (2016), on the other hand, there are several ways in which tourism can positively impact culture. First, the cultural exchange helps visitors' access to the reality of residents (Aydin & Alvarez, 2016). Also, it

might involve inhabitants in guiding tourists and promoting local products through communication channels and encouraging green actions, cultural knowledge and pre-trip preparation on cultural elements (Jamal et al., 2010). Second, sustainable tourism might positively impact well-being, guaranteeing an inclusive, empowered and happy society. What is good for the economy is not always good for society (Hawkes, 2001). The city must be good for the resident and the tourist; therefore, one must think of means such as controlling the number of visitors or limiting congestion (Throsby, 2016). Third, tourism might impact the quality of life, which brings as a consequence the improvement in community needs, such as aesthetic, spiritual, cultural and leisure elements (Murzyn-Kupisz, 2012). In addition, it enables greater economic gains, as tourists spend not only on heritage but also on services around the spaces (Murzyn-Kupisz, 2012), increasing local income, employment (Yeniasir & Gökbulut, 2018) and direct, indirect and induced impacts on the economy (Maggiore & Vellecco, 2012). The fourth impact is related to strengthening cultural perception (Yeniasir & Gökbulut, 2018), enabling investments in cultural heritage (Murzyn-Kupisz, 2012). Finally, the last impact is connected to ethical issues, focused on the understanding that physical and cultural space are correlated (Jamal et al., 2010).

To enhance the benefits of considering and managing cultural aspects in heritage sites, it is recommended that managers make use of cultural elements in an integrated way with heritage (Eversole, 2006). In this case, managers are perfectly aware of all cultural elements of society (authenticity, history, lifestyle), including them completely in space, without damaging the territory. Heritage development processes tend to be participatory and inclusive, presenting solutions that benefit several dimensions. However, it often happens that heritage sites that push tourism undergo several changes in their original elements, usually stressing only some isolated cultural elements for promotion. The principle is that the story shown is authentic, but with no direct connection between the initiative and the cultural context. The community, despite knowing the context, does not fully identify with what is produced without participating in its production or

using local skills. The worst case scenario is the one when the manager invents non-existent spaces within the space for the exclusive use of tourism, without connection with cultural aspects of the region. It can even generate the creation of a new local identity, but is focused on external consumption and is unrelated to local needs.

Culture is recognized as an essential part of the tourism activity, and understanding the ways it can positively or negatively impact the tourism experience might help in the development of effective strategies for the management of heritage. How, though, do tourists conceive the culture of the place they visit? Which elements of the place relate to the cultural dimension? Do such elements influence their experience and, if yes, how? The study presented here aimed at answering these questions, focusing on the experience of tourists at WCHSS.

### Research Methodology

2,750 comments published by visitors to WCHSS on the online platform TripAdvisor were collected and analysed. TripAdvisor provides not only data of users' ratings, but also comments about tourist attractions, allowing owners and managers of these spaces to know about positive and negative aspects of visitors' experiences (Torres, 2013). Data were collected using the web scraping technique, that is, using automated tools to extract data from digital platforms, transforming them into a structured database (Marres & Weltevrede, 2013).

The choice of the sites to be included in the sample was based on the analysis of WCHS that had dedicated pages on TripAdvisor. 504 attractions (as of 4 April 2020) were identified, having on average 4,354 comments each. To collect the greatest diversity of heritage, the main attraction of each of the countries that had at least the total number of the above-average comments was selected; following this criteria, Gibraltar, the Czech Republic and French Polynesia were disregarded. In the case of the United States, two attractions were selected, since the country has different WCHSS spread over its territory, which increased diversity. The final database was composed of 22 attractions from 21 countries: Robben Island

Datacomment: 2019-09-01

Rating: 5

Title: When in Seoul, this is a MUST (unicity)!

Comment: The palaces are beautiful and the grounds are well-landscaped. The original buildings (authenticity) were burned by the Japanese during their occupation of Korea, so these are recreations, but feel ancient (authenticity). The guides (local guides) at the library are very kind and helpful (attendance) providing very interesting information (local information). Take your time, there is a lot to see (freedom of visitation). It is also common to see people dresses in the garb of that time period (local costumes) witch really adds to the atmosphere as you wander the grounds. There is so much history here. And if you are in the summer, bring the sun umbrellas. Is is hot and rain frequent at that time of year. The little cafe (support infrastructure) has limited offerings, so you may want to bring food. Note of caution: If you take the Hop On Hop Off bus (transport access), the drop you off a quite a ways from the entrance. It is better to get off at the stop prior, it is much closer to the entrance.

Dataexperience: August 2019

Attraction: Changdeokgung Palace

City: Seoul

Country: South Korea

url: [a href="https://www.tripadvisor.com/ShowUserReviews-g294197-d320359-r706138269-Changdeokgung\\_Palace-Seoul.html"](https://www.tripadvisor.com/ShowUserReviews-g294197-d320359-r706138269-Changdeokgung_Palace-Seoul.html)class="location-review-review-list-parts-ReviewTitle\_reviewTitleText--2tFRT"

**Figure 1** Example of Classification of Expressions in Visitors' Comments Related to Cultural Sustainability

Museum (South Africa), Cologne Cathedral (Germany), Sydney Opera House (Australia), Schonbrunn Palace (Austria), Grand Palace (Belgium), Corcovado – Christ the Redeemer (Brazil), Mutianyu Great Wall (China), Changdeokgung Palace (South Korea), Alhambra (Spain), Statue of Liberty and San Jose Mission (United States), Eiffel Tower (France), Acropolis (Greece), Kinderdijk (Netherlands), Taj Mahal (India), Naqsh-e Jahan Centre (Iran), Baha'i Gardens (Israel), Gallerie Degli Uffizi (Italy), Atomic Bomb Dome (Japan), Tower of London (United Kingdom), Bern's Historic Centre (Switzerland) and Hagia Sophia Museum (Turkey).

Within each comment, those expressions that corresponded to elements aimed at cultural sustainability and the visitor's experience as a whole were classified. The elements of culture that foster sustainable development taken out of the literature (i.e. valuing of cultural identity, social empowerment, knowledge, cultural capital, diversity, creativity and innovation, technology) were used as references to identify such expressions and to aggregate similar concepts. Each comment was read individually and the classification of the sentences was done manually by three independent coders.

In total, 7,340 expressions related to cultural as-

pects of the sites were identified and classified into 49 categories. Figure 1 provides an example of how the expressions in each text were classified; each category is described in brackets after the respective (underlined) expression. The three coders then, compared their analyses and agreed on reducing the 49 categories into 24, and later to aggregate them into 5 dimensions, based on similarities among each other. The entire procedure was performed using the Atlas software. The software allows for classifying words that are repeated throughout one or more texts, manually or automatically, so to assist in the investigation of linguistic patterns within the texts.

## Results

Table 1 shows the 49 categories defined on the basis of the characteristics of sustainable development in culture, later reduced to 24 and then aggregated into 5 dimensions. Table 2 shows the weight of each category in the sample.

A definition of each category was elaborated and agreed upon by the three coders, so as to have a reliable classification procedure for users' comments. The following is the working definition of each category:

- *Quality of information*: capacity of the site to create strategies to pass on historical and cultural information so as to expand visitors' knowledge. Information can be given through information panels, signposts, audiovisual technologies, training tour guides, and storytelling. Regardless of the format, it must be ensured that visitors understand the given information in a clear and non-tiring way, in addition to having the possibility to answer their questions and solve their doubts.
- *Photo availability*: capacity of the attraction to foster photographs by visitors which point out elements that value the local cultural production, supporting its dissemination. Many visitors are motivated by the possibility of taking good photos as travel records and later sharing them in their social circles. In this way, attractions that encourage the practice and have strategies to value the participation of their visitors

Table 1 Cultural Sustainability's Dimensions and Categories

Dimension	Final category	Preliminary category
Information and Communication	Quality of information	Lack of information
		Time-consuming information
		Excessive information
		Wrong information
		Local information
		Information boards
		Signboards
		Translation
		Self-guided tour
	Photo availability	Photo availability
	Technological devices	Technological devices
	Quality of service	Quality of service
		Attendance
Cultural Enhancement	Uniqueness	Uniqueness/Unicity
		Unesco
	Authenticity	Authenticity
	Conservation and preservation	Conservation
		Preserved structure
	Cleaning	
Vitality of the offer	Quality of artworks	
	Quality of cultural events	
Facilities	Support structure	Support structure
	Mobility	Mobility/transport access
	Accessibility	Accessibility

*Continued on the next page*

with photographic records, help in creating the image of the destination. The images also help in valuing cultural aspects and symbols, in addition to providing information that can be essential in the choice of travel for prospective visitors and a form of loyalty during the post-trip period.

- *Technological devices*: use of electronic equipment as a means to improve the quality of the information received by tourists before, during and after their visit to the attraction, in addition to enabling online shopping and greater interaction between the observer and the observed

object. Equipment such as online ticketing sites or mobile applications can facilitate visitors' entry and assist with prior information. The use of audio guides and films helps to create narratives during the visit, passing on reliable information, clearly and educationally, helping the visitor to better understand the story behind the object. In addition, games and other technological means of interaction make it possible to attract different profiles of audiences to the space, serving as entertainment and adding value to the product. It is important to emphasize that visual technologies such as projection screens and other elements can

Table 1 Continued from the previous page

Dimension	Final category	Preliminary category
Cultural Integration	Local guides	Local guides
	Value for money	Value for money
	Networked attractions	Networked attractions
	Integration of local products	Local products
		Souvenirs
	Local immersion	Presence of tourists only
		Presence of locals
		Local costumes
Cultural restrictions (clothes/religion)		
Environmental connection	Environmental connection	
	Water recycling	
Respect for minorities	Religious diversity	
	Sexual diversity	
	Female equality	
Organization	Visitor capacity	Visitor capacity
	Waiting time	Waiting time
	Security	Insecurity
		Hostile residents
		Safety procedures
Problem-solving	Problem-solving	

be used without overlapping the original aspects of the space.

- *Quality of service*: how employees and other professionals at the attraction meet the needs of visitors in a clear, respectful and friendly manner, ensuring good hospitality for visitors.
- *Uniqueness*: a unique feature of the heritage that distinguishes it from other heritage sites, which may be the history, cultural values, architecture, special certifications or other elements that make the visitor understand that the space is unique. The visitor is more motivated to visit spaces where he can see unprecedented elements that are difficult to find elsewhere. The space must seek ways to highlight its peculiar and iconic characteristics, valuing the authentic cultural elements

that can convey the idea of uniqueness to its visitors. Thus, the attraction will be considered an unmissable tour by people who visit the region.

- *Authenticity*: the capacity of the attraction to express its historical and cultural role, creating a sense of connection for visitors with its intended purpose. The most important thing is to guarantee an emotional experience and less so material originality since most of the attractions have changed over the years. Even so, it is necessary to transmit to the visitor an experience close to originality, whether from recreation or in an informative way, comparing the original differences with the current historical aspects, and emphasizing the relevance and cultural identity of the attraction for society.

Table 2 Weight of Each Category on the Sample of Comments

Category	Percentage
Quality of the information	31.5
Uniqueness	31.4
Local guides	22.6
Authenticity	21.7
Conservation and Preservation	20.2
Support structure	16.6
Visitor capacity	16.1
Value for money	14.1
Network attractions	13.3
Mobility	13.3
Vitality of the offer	11.4
Photo availability	9.5
Integration of local products	7.5
Waiting time	6.9
Technological devices	6.5
Local immersion	4.7
Quality of service	4.5
Safety	3.8
Accessibility	3.6
Problem-solving	2.4
Freedom of visitation	1.9
Environmental connection	1.6
Tourist behaviour	1.5
Respect for minorities	0.1

- *Conservation and preservation*: maintenance of works and space, in addition to ensuring that the environment is clean, both for the organization of the attraction and for the visitors. It also includes the preservation of the original characteristics of the cultural elements in restoration processes. These processes can limit visitor access and vision in some spaces and works, so visual alternatives that minimize the impact of non-visitation are essential, such as information panels, digital visual experiences or the possibility of visualizing the restoration process itself. It reduces the visual pollution of the interventions and guar-

antees a satisfactory experience for the visitor.

- *Vitality of the offer*: offer of quality materials, works and cultural artefacts, avoiding reproductions and representing the local diversity for the visitor. Organizing or supporting rich cultural presentations and events that value traditional elements and community participation as part of the attraction. Adding value to the visit with quality elements and cultural presentations makes the visitor value the experience more and get closer to local customs.
- *Support structure*: provide the attraction with quality services that help well-being during the visit, such as spaces for food, bathrooms, a visitor centre, souvenir shops and parking lots, among others. The support structure, in addition to ensuring greater comfort, makes it possible to add value to the cultural asset and generates possibilities for inclusion into the local culture of the products and services offered. It is recommended to ensure that support structures are accessible to different audiences with different access needs and consumption profiles. It is also valid to promote services for visitor use, in addition to adding value to experiences, especially gastronomic and product purchases.
- *Mobility*: availability of viable and quality transport access for the arrival of the visitor at the site and possible displacement within the attraction. In addition, depending on the type of transport available, it is possible to add information about the attraction and the local culture before arrival or add the means of transport as part of the cultural experience for the visitor. During the visit, alternative means of transport can be used to facilitate the mobility of visitors and be offered as an added product, providing new experiences such as the use of boats, bicycles or some typical local means of transport.
- *Accessibility*: capacity of the attraction to guarantee a quality tourist experience for people who need special care, such as parents with children, the elderly and disabled people, among others. The attraction must have the necessary equip-



ment and be in good condition so that visitation is facilitated.

- *Local guides*: the possibility of hiring local tour guides, to favour the region's economy in addition to strengthening knowledge of the culture on the part of the local community. It can also strengthen relationships between the community and tourists, enabling a more authentic visiting experience. From the local tour guide, tourists can learn about peculiarities, stories and attractions that are outside the usual itineraries. Therefore, the guide must be properly trained, have an adequate professional attitude, treat visitors with respect and pass on reliable information. The good relationship and motivation of these professionals result in better visitor satisfaction. It is expected that the professional's role will be legalized, guaranteeing security for the tourist and generating tax collection, favouring new policies for the sector, and the elaboration of strategies to encourage the hiring of these professionals must be developed.
- *Value for money*: feeling that the price charged for services on the site is following what is offered by the market, fulfilling visitors' expectations. Provide more viable forms of access for people in the community, encouraging them to attend attractions more constantly.
- *Networked attractions*: strategies that encourage and facilitate visitors' access to other attractions or services around the attraction, enabling a better economic distribution within the territory, in addition to encouraging the visitor to learn more about the characteristics of the local culture. In addition, it gives the possibility of redistributing the tourist in several places, reducing the chance of having an excessive number of visitors concentrated in one place only. Campaigns to promote other attractions or the creation of vouchers that make it possible to purchase tickets from different spaces with discounts can be valid initiatives.
- *Integration of local products*: incentives to sell local products, aiming to develop the economy of the community, in addition to valuing the way of

reproducing the local culture. Enable traditional elements to be incorporated into the sale of souvenirs and for visitors to have information about the products, encouraging them to discover local shops and markets, strengthening contact with the community. Local products add value to the culture and enhance the visitor experience. It is necessary to foster actions that encourage the production and purchase of local products, such as ways of promoting products, tasting and supporting events and markets in the city.

- *Local immersion*: provide integration between visitors and the local culture, encouraging the presence of the community in everyday life and also as visitors to the attraction. Ensure that the tourist experiences the attraction from the perspective of traditions and cultural values of the community during the visit, be it the gastronomy, way of life, or typical clothes, among other cultural elements. Provide strategies that make tourists interested to experience local life. Ensure that the visitor has enough information before visiting, e.g. if the space has any cultural restrictions for visitation, such as the wearing of appropriate clothing.
- *Environmental connection*: possibility of synergy between the material elements of the heritage with the scenic elements of the landscape, such as local fauna and flora, encouraging environmental sustainability and helping the contact between visitors and territory. The existence of these elements enriches the experience at the site, in addition to enabling educational actions that generate quality of life for the community.
- *Respect for minorities*: means allowing access and non-discrimination of visitors by gender, race or colour, in addition to ensuring diversity in the employability of the population in tourist attractions. In addition, it is possible to encourage cultural programmes that foster debates and the participation of minority groups.
- *Visitor capacity*: ensuring that the visitation space is sufficient for the visitor's experience, without the feeling of being overwhelmed. An excessive

number of people can cause problems in conservation, in addition to making it difficult for the visitor to understand information. It can also favour behaviour conflicts among visitors, residents and attraction staff. Therefore, it is necessary to establish ways to avoid excess demand, such as coordinating groups of visitors, monitoring the flow in and out of spaces or using reservations in advance.

- *Waiting time*: capacity of the attraction to reduce the waiting time of visitors at the entrance and in its possible visitation spaces. Develop strategies that can minimize waiting time, such as encouraging reservations in advance, and favouring entries with local tour guides, in addition to providing adequate structure for waiting in lines, especially for visitors with mobility needs or health problems. The strategies prevent the visitor from entering the attraction in a harsh manner and minimize conflicts between visitors and staff during the visit.
- *Security*: ensure that the visitor is not embarrassed by harsh approaches from residents such as street vendors, who approach with initial good intentions to apply future scams. Make sure that the security procedures for entering the attractions are explained clearly, avoiding problems and doubts for visitors to the spaces.
- *Problem-solving*: Ensuring that the steps before, during and after the visit occur smoothly and clearly for the visitor. Ensuring that the services provided are of high quality and that the visitor does not have the feeling of being helpless or without solutions in the event of problems within the site, especially unforeseen ones. This makes visitors have a good experience and share it with acquaintances.
- *Freedom of visitation*: guarantee that the visitor has enough time and freedom of movement within the space so that they can learn from it and feel close to the cultural aspects offered. In the case of guided tours, organize them so that some contemplation by the visitor is possible and explain to the visitor in advance the places where

access is prohibited so that expectations are met.

- *Tourist behaviour*: tourist awareness of their behavior during the visit, avoiding situations such as lack of respect for employees, the community and other tourists, in addition to the depredation of goods, accumulation of garbage and noise pollution. Manage spaces in a way that the flow of people does not induce predatory behaviour, occurring calmly.

## The Perception of Swiss WCHS Managers

### Method

A face-to-face semi-structured interview was carried out with 8 managers and specialists of Swiss WCHSS, to check if their perception of cultural sustainability corresponded to the classification proposed on the basis of visitors' comments. Switzerland was chosen because it was easy for researchers to access the managers of these heritage sites, based on ongoing projects during this research.

The choice of the interviewees was based on managers and specialists that work with tourism in WCHSS. Data collection was carried out in October 2021. The interviews lasted, on average, one hour and were conducted in two languages: English and Italian.

The questions were asked using the method known as *card sorting*. This method allows the interviewer to better understand how the interviewees classify certain concepts and categories, using cards (Spencer, 2009). The card classification method was based on a hybrid format where the interviewee received 24 cards with the categories of cultural sustainability and was asked to classify them according to 5 cards representing the dimensions in Table 1. If the interviewee did not find a dimension in which they believed they could classify a category, they could create new dimensions. The interviewee could also associate the same category to more than one dimension or exclude categories from the classification, giving them the freedom to interpret all the elements of the card in a non-induced way.

### Results

The *Organization* dimension had the highest number of classified categories among all the other dimen-

Table 3 Cultural Sustainability Categories by Dimensions According to Swiss wchs Managers

Dimensions	Categories
Information and Communication	Quality of information
	Photo availability
	Technological devices
	Networked attractions
Cultural Enhancement	Uniqueness
	Authenticity
	Conservation and preservation
	Vitality of the offer
	Environmental connection
Facilities	Accessibility
	Mobility
	Visitor capacity
Cultural Integration	Local immersion
	Integration of local products
	Respect for minorities
	Local guides
	Tourist behaviour
Organization	Problem-solving
	Waiting time
	Quality of service
	Support structures
	Freedom of visitation
	Security
	Value for money

sions, followed by *Information and Communication*, *Facilities*, *Cultural Integration* and *Cultural Enhancement*. The classification of categories into dimensions made by wchs managers mostly corresponded to that proposed by the authors; in particular, the categories classified in the dimensions *Facilities*, *Cultural Integration* and *Cultural Enhancement*. The final division of categories by dimensions based on the interview with Swiss managers is presented in Table 3.

The following question of the card sorting activity asked to create a ranking with the 10 most relevant categories. The ranking was free-form, which resulted in rankings with fewer than 10 categories or rankings

with categories ranked in the same position. To calculate the final result, 10 points were given to each interviewee for the category classified in 1st place, 9 points for the category classified in 2nd place, and so on up to 1 point given for the category classified in 10th place. In the case of categories classified in the same position, they were given the same point value. The points received by each category were added up and divided by the number of respondents. The categories *Conservation and preservation*, *Authenticity*, *Uniqueness*, *Quality of information*, *Network attractions*, *Vitality of the offer*, *Accessibility*, *Environmental connection*, *Quality of service* and *Technological devices* resulted in being the top 10.

Then, interviewees were asked to create a ranking of the 5 categories they believed to be least relevant in terms of cultural sustainability of the site. The categories *Waiting time*, *Freedom of visitation*, *Photo availability*, *Visitor capacity* and *Value for money* resulted in being the least relevant to cultural sustainability.

Finally, interviewees were asked to point out if there was any category on the list that they believed could not be managed directly by managers. In this case, they were not asked to score the categories. Respondents pointed out that *Tourist behaviour* is not a manager's responsibility. However, some of them did not specifically mention any category, thereby reinforcing the notion that managers are involved in various tasks, including partnerships, collaborations, and monitoring, as integral aspects of their roles.

## Discussion

The analysis of visitors' comments and the interviews with wchs managers aimed at identifying categories of elements of the sites that are related to cultural sustainability. Having made clear which are such elements and which of them are the most important to ensure that the culture of a site is acknowledged, valued and respected by visitors, can support managers in developing sustainable management strategies. Some categories – such as those grouped in the dimensions *Cultural integration*, *Cultural enhancement* and *Information and communication* – directly refer to cultural elements, while others – such as those grouped in the dimensions *Facilities* and *Organization* – are indirectly

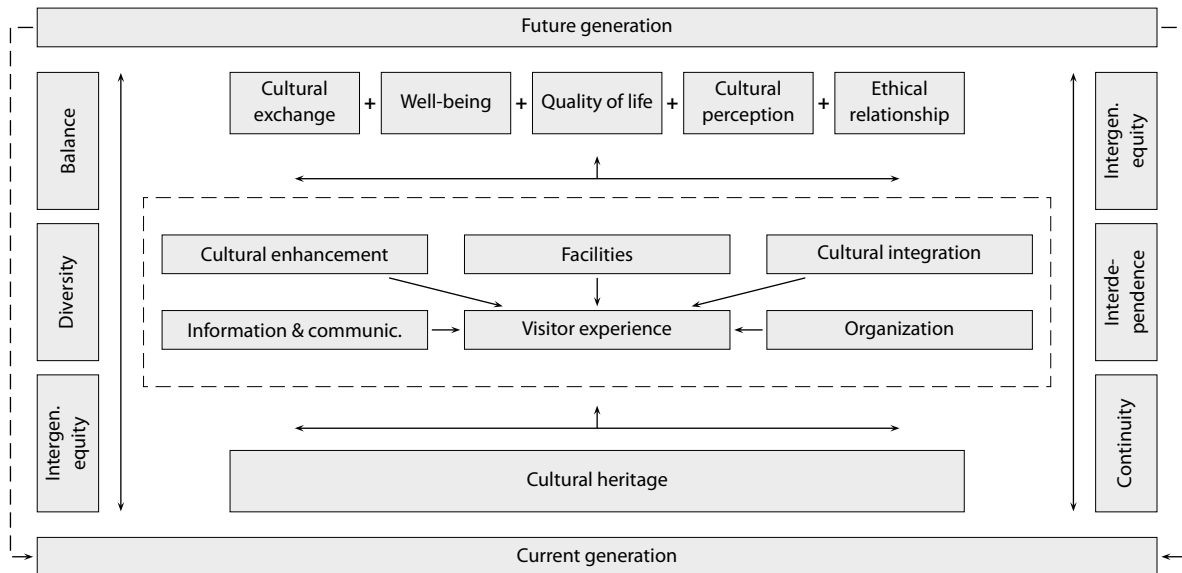


Figure 2 Cultural Sustainability Framework for Cultural Heritage Sites Based on Visitor Experience

related to a site's culture; even so, access to facilities and services as well as a good organization of the site, facilitate visitors' experience and helps to integrate culture into material and logistic elements of the site.

The classification of categories into dimensions proposed by the authors on the basis of visitors' comments was mostly validated by managers, with only some adjustments which made it more coherent with their perspective. As for categories that were considered less relevant, the possibility of integrating them with other categories should be considered in future studies, so to acknowledge the relevance ascribed to them by visitors.

Visitors' experiences at heritage sites might be enhanced by management strategies developed according to the five dimensions that this study pointed out. According to the dimension *Information and communication*, the understanding and transmission of knowledge of the local culture to visitors should be fostered, and greater interaction with the space should be guaranteed. The *Cultural enhancement* dimension stresses elements that add value to the heritage, such as authenticity and uniqueness, representing the local culture in a trustworthy and representative way. The dimension *Facilities* stresses that fact that struc-

tures and services should help to widen access and enable the inclusion of cultural elements in basic activities of the attraction, such as the connection of culture by means of transport and space for selling souvenirs, among others. The *Cultural enhancement* dimension aims at guaranteeing the visitor's integration in the local community, stimulating them to get to know other attractions in the territory, in this way broadening their connection with the spaces. Finally, management interventions that take into account the *Organization* dimension should help to make the visitors experience pleasant, minimizing conflicts that may occur between visitors and residents or encouraging good visitor behaviour. In addition, they should favour the application of fair prices, allowing visitation by a wider public.

Enacting these dimensions in management strategies should bring benefits to the local society, both present and future generations. As described in the literature review, the benefits generated by sustainable management that is based on cultural dimensions, include cultural exchange (Aydin & Alvarez, 2016), well-being (Hawkes, 2001; Throsby, 2016), quality of life (Murzyn-Kupisz, 2012; Yeniasir & Gökbulut, 2018; Maggiore & Vellecco, 2012), cultural perception (Yeni-

asir & Gökbulut, 2018) and ethical relationships (Jamal et al., 2010). Finally, all these elements in turn, will make, cultural heritage strengthen the principles of sustainability, as described by Throsby (2016), from the elements of continuity, intergenerational and intragenerational equity, diversity, a balance between natural and cultural ecosystems and interdependence between the cultural, social, ecological and economic dimensions. This dynamic is illustrated in the framework in Figure 2.

The framework, together with the categorization of cultural sustainability elements, can help managers to understand the issue of cultural sustainability and suggest the main actions that should be carried out to improve the visitation experience to enhance culture as an element of sustainability.

### Conclusion

The procedure used and the results obtained by the study presented in this paper can inform future research aimed at developing indicators for cultural sustainability in heritage sites, as well as the elaboration of a concept of cultural sustainability for the sector. It needs to be noted that this work only considered comments made about tangible assets, but since culture is a mix of tangible and intangible elements, future research should analyse comments on non-tangible assets, so as to validate, refine and integrate definitions, categories and dimensions. Finally, the perception of managers from different countries or heritage types should be considered, so to build a more robust conceptual framework that can be used in different contexts.

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