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INCLUSIVE DESIGN STRATEGIES FOR MUSEUMS. TARGETS AND REMARKS FOR WIDER ACCESS TO CULTURE

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ABSTRACT: Museums are repositories of culture, knowledge and values that everyone should be able to access. To this end, specific attention should be paid to disability when designing or operating such facilities. Despite increased awareness of the issue, many designers still lack full understanding of both the complexity of people's needs and the question of inclusion. By exploring the changing concept of diversity and how design can make the built environment enabling or disabling, this chapter aims to develop a cognitive framework fit to address the issue and help museum spaces flourish. This contribution focuses on the European context: its historical cities and cultural heritage. It is argued here that accessibility must be balanced with conservation, adding an extra layer of complexity. Finally, the museum as an institution is examined from the perspective of inclusivity, highlighting vital issues and providing suggestions regarding tools for overcoming problems that hinder efforts to foster universal access to culture.

KEYWORDS: inclusion; accessibility; disability; cultural heritage

1. Introduction

In contemporary society, museums play a new role that goes beyond the mere development of collections. In the statute of the International Council of Museums (ICOM) (2017), "museum" is defined as "a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment" (Art. 4, Sec. 1). Two fundamental questions arise from this definition. Who are the recipients of cultural values stored in museums? And what are the different forms through which cognitive processes can take place?

Culture has been acknowledged as a fundamental right (United Nations General Assembly, 1948) that every individual should be able to enjoy. In a broader framework, where background factors need be taken into account, one specific matter is that of disability. Multiple definitions and interpretations of this term have been developed over the past sixty years, including bio-medical perspectives focused on impairment, and sociological ones that establish disability as a social construct (Burchardt, 2004; Mitra, 2006). These and other models have increased awareness of the subject, as expressed in documents such as the "International Classification of Functioning, Disability and Health" (World Health Organization, 2001) and the "Convention on the Rights of Persons with Disabilities" (United Nations, 2006). This cultural process can be thus summarized as a reinterpretation of diversity, which is no longer seen as an objective quality but a relative expression resulting from interactions between people and contextual factors.

This has translated into the development of multiple design approaches, which recognize the enabling or disabling role of the built environment, for example: Universal Design (Steinfeld & Maisel, 2012; Null, 2013), Design for All (European Institute for Design and Disability, 2004; Accolla, 2009) and Inclusive Design (Commission for Architecture and the Built Environment, 2006; 2008). Despite being developed in different times and places, they share a common goal: social participation for the greatest number of people through full usability of spaces and the artefacts on display. Specifically, one major change concerns the role of people in the design process, with focus shifting to their needs instead of physical characteristics, cognitive abilities or cultural background.

Thanks to the above, it has been possible to envisage the complexity of circumstances that may occur in a museum. This paper aims to provide a deeper understanding of disability and people's needs, which may help museums flourish. Both tangible and intangible needs are accounted for in order to outline the requirements of inclusive design. Focusing on the European context, this chapter examines historic cities, where museums are often found, and their cultural heritage.

2. From exclusion to inclusion: Who do we design for?

Although no binding definition of inclusion has been established in the field of design, one frequently recalled expression is the answer to the question of who we design for: "the greatest possible number of people." In order to achieve this goal, the term "people" needs to be elucidated,

along with design methods used to implement architectural solutions. Three distinct phases can be discerned in the process of defining users' specifics and needs (Del Zanna, 2005).

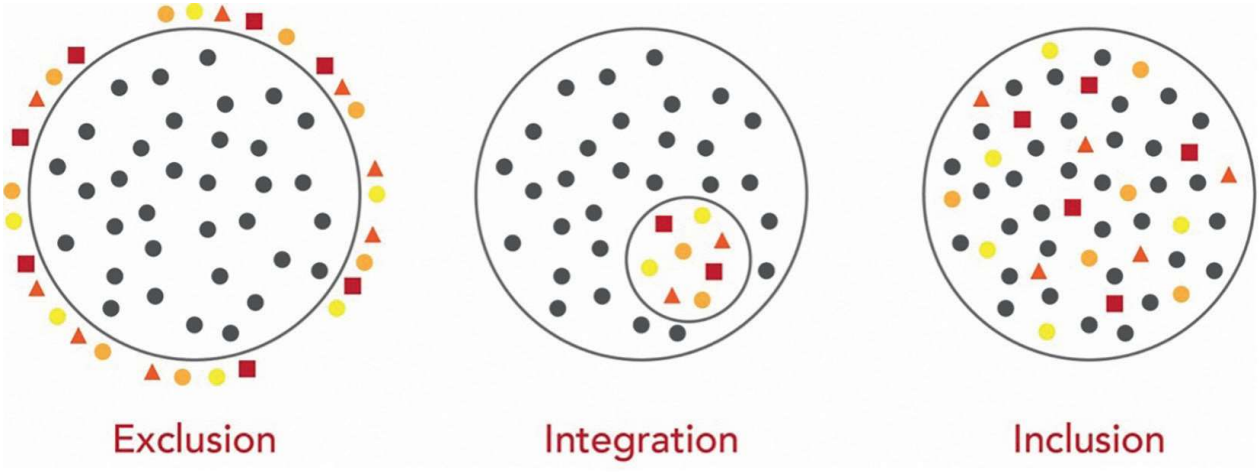

Fig. 1. Graphical representation of audience participation in three different approaches to disability in design.

Prior to the rise of disability rights movements, the main point of reference was the perfectly average user. However, as Da Vinci's "Vitruvian Man" or the more recent "Modulor" by Le Corbusier show, for example, the standardized image has always been that of an adult man: fully capable, alert and knowledgeable. Today, it is understandable that this vision is detached from reality and unable to meet people's complex needs, excluding those who fail to conform to this ideal.

Due to increased social awareness of disability, this approach has been supplanted by one focused on developing "barrier-free" environments. Although considering specific needs of people with various impairments was an important step forward, this perspective is criticized for reducing and simplifying disability. Similarly, to the standards-based approach, "barrier-free" design brought solutions geared toward specific needs of certain user groups. In this sense, despite being a form of integration, such solutions could result in "social discrimination, functionally accessible" (Accolla, 2009), generating discriminatory circumstances, where specially designated spaces actually fail to foster equal participation.

To develop a fully inclusive design approach it was fundamental to shift focus from users' abilities to their needs, including desires and expectations. The idea to address real people enables one to recognize and manage the complex and evolving reality that eludes all standards (Laurìa, 2003; Norman, 2011). An expanded user base becomes the new target – a qualitative reference point in the design process. While it is impossible to meet every demand, this notion supports making products and environments suitable for as many people as possible, without resorting to later adjustments or special projects. As opposed to integration, inclusion values diversity and provides equal opportunities for all, regardless of their abilities or the support systems they rely on. In practice, guaranteeing and enhancing the usability of goods and spaces for people requires developing conditions for autonomy, safety, comfort and satisfaction.

3. Culture and Heritage: The meaning of inclusion and its vital challenges

A further premise that needs to be added to these considerations concerns the environmental setting of museums. This contribution focuses on the European context, which is characterized by numerous historic cities and rich cultural heritage. Museums, in particular, are often located in buildings that have their own history and are thus part of the exhibition. This adds additional layers of complexity to cultural participation and its development.

After acknowledging the significance of cultural heritage as well as recognizing for whom we need to protect it, cultural goods can be easily qualified as common goods: ones meant for everyone (Council of Europe, 2005). Thus, it becomes paramount to understand what it actually means to make cultural heritage more inclusive, along with the knowledge it contains. Two interpretations can be given: the first one regards common "physical accessibility," while the second concerns "conceptual accessibility" that affects the understanding and interpretation of cultural contents (Marconcini, 2019).

Having the opportunity to move around and interact with objects within the built environment may seem like a prerequisite, but it does not necessarily help people to engage with cultural heritage. In the context of museums, a key role is played by perception. First and foremost, visitors must be able to orient themselves as well as communicate with and relate to people and objects. Certainly, in connection to disabilities, this implies performing such activities regardless of sensorial and cognitive capabilities. Additionally, a support system is needed to comprehend and interpret the messages and values deposited in cultural heritage. Therefore, the goal of inclusion should be to foster active participation as a knowledge-sharing process that allows anyone to access culture and use it as a resource to achieve well-being and fulfilment.

Stemming from these considerations, one further remark is necessary. It concerns today's role of museums and their different activities. Over time, the concept of museum has evolved, with a variety of often contradictory visions emerging: from semiotic approaches to ones attentive to the educational values of such sites (Witcomb, 2003). Nevertheless, one cannot overlook how museums have become a venue for sharing and dialogue, engaging people in many participatory processes (Clifford, 1997). Museums are no longer just vessels but offer a range of activities and services which need to be accounted for to ensure inclusivity and equal involvement.

4. Assessment of inclusivity in museums

In the development of inclusive environments it is impossible to avoid defining the overall cognitive framework for recognizing both "present" architectural barriers as well as "absent" qualities (Laurìa, 2012). To achieve this goal, part of research presented here is based on interpretations of Italian and international legislative documents; assessments of physical, sensorial and cognitive needs frameworks; and finally, suggestions emerging from current practices and disciplinary approaches.

The museum is defined not only by its building but also by its relations with the surroundings and the services it offers. For this reason, assessment of inclusion cannot rely solely on parameters that measure its spatial features, but must also account for its intangible dimensions.

Based on these premises, the level of inclusion provided by a museum should be evaluated from the perspective of expected performances. Such a solution makes it feasible to bring together different components, whether they concern spatial or management issues, that could provide better access to culture.
On the basis of such considerations and user experiences, four levels of museum analysis can be established in relation to inclusion: communication and information gathering, urban environment, building and services.

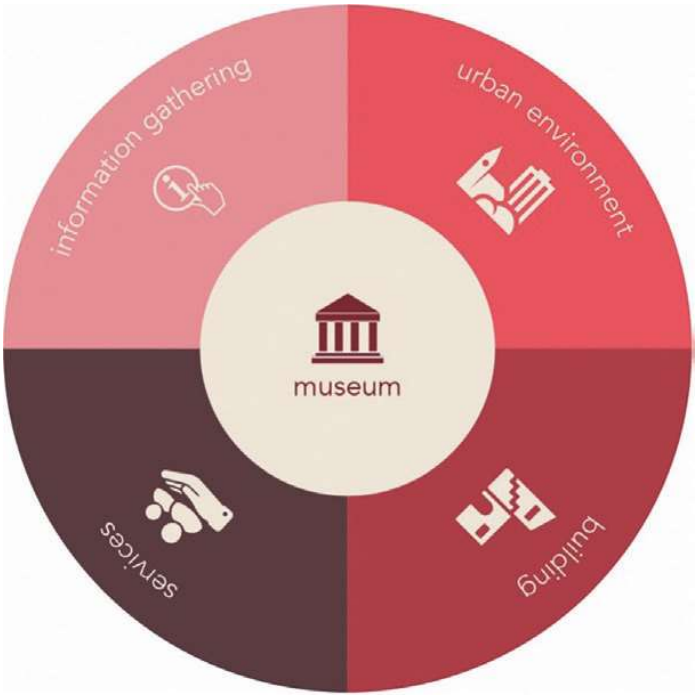

Fig. 2. The four design dimensions of museums. Each one needs to be analyzed and considered from the perspective of accessibility to ensure fully inclusive environments.

The possibility of obtaining information about a museum, especially using information technologies, is the first issue to be addressed. Given the key role that information plays in fostering people's mobility (consider for example digital maps and rating apps for different interests), sharing facts about the accessibility of facilities and services enables museums to flourish. For this reason, it is necessary to examine whether websites and/or applications that promote particular places provide specific practical information alongside general descriptions. Specifically, museum communication should not only be comprehensive but also offer appropriate assistive solutions to improve its accessibility.

Fig. 3. Communication and information gathering – issues that need to be addressed in order to foster broader enjoyment of museums.

Once the visitor has organized their movements and activities according to their needs and the information collected, opportunities to approach selected points of interest become crucial. This specifically concerns the possibility to reach the site using various means of transport, the features of pedestrian connections, and ways of accessing the structure itself.

Relations between buildings and their surroundings differ vastly. To ensure that all visitors can enjoy free access, it is fundamental to address their specific needs. First, they concern urban mobility, since arrival should be possible by various means of transport, both private and public. The former necessitate parking areas close to the museum, especially properly designed parking spaces for people with disabilities, while the latter require not only verifying public transport options, but also ensuring that information about them is provided with appropriate inclusivity. After arriving as close as possible to the museum, the pathway to the entrance must be continuous, safe and comfortable for pedestrians. In fact, this refers to all connections that allow one to move closer to the building. Once appropriate pathways are separated from traffic and therefore safe, the first factors that must be assessed are the spatial and material features. There must not be any architectural barriers along the entire length of the pathway. Subsequently, maintenance of surfaces and equipment must be considered to ensure that, in case of no design limitations, lack of the latter does not constrain functionality. In addition, particular attention should be given to wayfinding solutions, especially by supporting localization and orientation through different communication channels adapted to the needs of people with sensorial and cognitive impairments. Since the relation between a building and its surroundings ends at the threshold, the final element that requires assessment is the presence of an easily identified and accessible entrance, possibly coinciding with the main point of access to the building.

Fig. 4. Urban environment: issues that need to be addressed in order to foster broader enjoyment of museums.

At this stage, it is possible to move to the analysis of museums' internal fruition, which entails considering multiple facets that can be ascribed to the following macro-categories: reception area, horizontal circulation, vertical connections, and outdoor spaces.
The welcoming space provides the first occasion to interact with services and activities offered by the facility. For this reason, appropriate dimensional features and information tools must be used. First, the dimensions of the reception area should be suitable for all kinds of users, including the features of equipment installed there. Second, wayfinding solutions are fundamental to guide people, especially those with sensorial and cognitive impairments, toward the main information point featuring accessible solutions and multiple communication channels.
After examining the reception area, the focus may shift to the interior, meant both as the main and distributed spaces. The major issue to consider here is horizontal circulation, both inside and outside, for which a set of conditions must be met to enable everyone to move freely in these spaces, all this while retaining a sense of autonomy and security. To guarantee this, corridors and main rooms must be of appropriate dimensions to ensure they are accessible to everyone and pose no architectural barriers. Further, the characteristics of the furnishing must be suitable for the needs of various users. Particularly, rest areas must be placed along longer routes. Having verified these specifics, another factor that needs to be addressed concerns the sensorial and cognitive needs framework, in particular the wayfinding solutions that assist orientation. In the case of buildings with more than one floor accessible to the public, alternative solutions to vertical connection should be offered. It is particularly important to install at least one properly designed elevator that connects all levels.

Fig. 5. Building: issues that need to be addressed in order to foster broader enjoyment of museums.

Services represent the final key component of the museum. It is mandatory to ensure that everyone can benefit from them. Starting from the reception area, staff trained to identify and meet everyone's needs is the first essential feature that greatly helps users, including disabled ones.
The other key issue is connected with sharing cultural content. Information and communication methods are mentioned above as important for orientation, but they are also fundamental for sharing knowledge. Consequently, a range of tools must be offered, both physical (e.g., tactile maps and volumetric models) and/or digital/intangible (e.g., multichannel communication, simple and intuitive language, etc.). In addition, all proposed activities (e.g., workshops, educational laboratories, etc.) must always be intended for everyone.
Finally, all aspects defined above require a management plan for the museum, ensuring that appropriate maintenance measures are implemented to enhance accessibility.

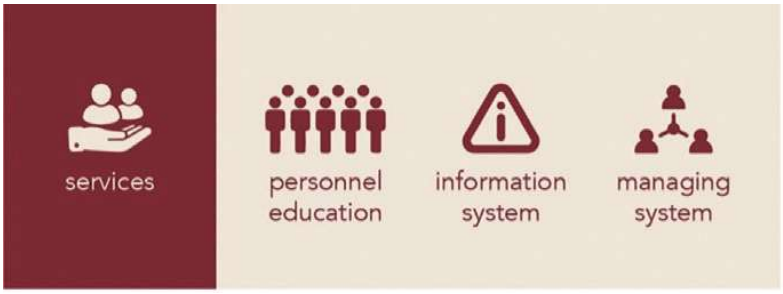

Fig. 6. Services: issues to be address in order to foster broader enjoyment of museums.

Despite being only a summary of what should be explored in greater depth (also in relation to issues such as security and emergency), this overview aims to convey the complexities that need to be addressed for the purpose of achieving inclusive design in museums. In addition to providing a set of tools for verifying design practices from the perspective of broader fruition, the goal has been to show that unresolved issues should not be linked with the features of historical artefacts, but with the lack of comprehension of people's needs and with insufficient knowledge of alternative tools that ensure inclusivity.

5. Conclusions: Quality and equity in the museum experience

Inclusion is complex and can be achieved only through transversal action spanning different fields and scales. However, above analyses make it possible to identify two key principles that every designer should follow when striving to make museums more inclusive: equal opportunity and fulfilling experience.

Equity is affirmed in the principles of Universal Design and Inclusive Design, which require seeking equivalent solutions whenever possible (Commission for Architecture and the Built Environment, 2006; Steinfeld & Maisel, 2012). As regards cultural heritage, conservation requirements must be considered. In some cases it is impossible to guarantee full accessibility. One common example is the introduction of a separate entrance to ensure that anyone can enter the building. Such challenging situations should be taken as opportunities to foster a creative design approach, enhancing these secondary paths so that they present heritage in alternative ways (Sørmoen, 2016). It is the quality of experience offered to users that decides whether a museum is inclusive or not. For this reason, it is crucial for museums to offer spaces where people can comfortably access culture with appropriate tools, without resorting to special solutions. Only in this way museums can be truly inclusive.

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7. References

Accolla, A. (2009), *Design for all. Il progetto per l'individuo reale*, Milano: Franco Angeli

Burchardt, T. (2004), "Capabilities and disability: the capabilities framework and the social model of disability", in *Disability & Society,* vol. 19, no. 7, pp. 735-751

Clifford, J. (1997), "Museums as contact zones", in Clifford, J., *Routes. Travel and Translation in the Late Twentieth Century*, Cambridge: Harvard University Press

Commission for Architecture and the Built Environment (2006), *The principles of inclusive design. (They include you)*, London: Commission for Architecture and the Built Environment

Commission for Architecture and the Built Environment (2008), *Inclusion by design. Equality, diversity and the built environment*, London: Commission for Architecture and the Built Environment

Del Zanna, G. (2005), *Progettare l'accessibilità*, Palermo: Grafill

European Institute for Design and Disability (2004), *The EIDD Stockholm Declaration*, Stockholm: European Institute for Design and Disability

Council of Europe (2005), *Framework Convention on the Value of Cultural heritage for society (Faro Convention), CETS 199*, Faro

International Council of Museums (2017), *ICOM statues. As amended and adopted by the Extraordinary General Assembly on 9 June 2017*, Paris: ICOM

Laurìa, A. (ed.) (2003), *Persone reali e progettazione dell'ambiente costruito. L'accessibilità come risorse per la qualità ambientale*, Dogana: Maggioli Editore

Laurìa, A. (ed.) (2012), *I piani per l'accessibilità. Una sfida per promuovere l'autonomia dei cittadini e valorizzare i luoghi dell'abitare*, Roma: Gangemi Editore

Marconcini, S. (2019), "Inclusion, identity and cultural heritage: A bond of reciprocity", in Marconcini, S., Caramaschi, S., Marinaro, L. (eds.), *Exploring Identities. Perspective from a a cross-disciplinary dialogue*, QU3 – iQuaderni di U3, Macerata: Quodilibet

Mitra, S. (2006), "The Capability Approach and Disability", in *Journal of Disability Policy Studies*, vol. 16, no. 4, pp. 236-247

Norman, D. A. (2011), *Living with complexity*, Cambridge: The MIT Press

Null, R. (2013), *Universal Design. Principles and Models*, Boca Ranton: CRC Press

Sørmoen, S. (2016), "Accessibility to the message. An accessibility rethink", in Arenghi, A., Garofolo, I. & Sørmoen, S. (eds.), *Accessibility as a key enabling knowledge for enhancement of cultural heritage*, Franco Angeli, Milano.

Steinfeld, E., Maisel J. L. (2012), *Universal Design. Creating inclusive environments*, Hoboken: John Wiley & Sons

United Nations (UN) 2006, *Convention on the Rights of Persons with Disabilities*, New York: United Nations

United Nations General Assembly (1948), *Universal Declaration of Human Rights*, Paris: United Nations

Witcomb, A. (2003), *Re-Imagining the Museum. Beyond the Mausoleum*, London: Routledge

World Health Organization (WHO) 2001, *International Classification of Functioning, Disability and Health*, Geneva: World Health Organization