

Towards Adequately Accessible Museums: People with Visual Impairment and Museum Accessibility in Egypt

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Abstract

Persons with visual impairment represent a significant part of people with disabilities and museums' potential public. Growing attention has been paid to them globally as well as in Egypt in the last decades. The new museum's definition places much emphasis on accessibility, inclusiveness, and promoting diversity. Egypt's strategy, Vision of Egypt 2030, and legislation on different levels also show clear interest in asserting their rights and the state's commitment to social inclusion through supporting accessibility in various aspects of life, including the cultural life and museum experience. As important public cultural institutions, museums have sought to make themselves and their services accessible to visitors with visual impairment in accordance with the state's goals and global orientation. Consequently, in view of current legislation and the new museum's definition, to what extent are museums in Egypt accessible to people with visual impairment? This is the research question that this paper sought to answer. The study depended upon intensive observation of museum settings and their facilities and programs, in addition to semi-structured interviews with senior officials of the Museums Sector's General Administration of Museum Education for People with Special Needs and staff members of museums' Departments of Museum Education for People with Special Needs. The findings reveal that although museum accessibility is clearly and repeatedly recognized, the enforcement, however, is the crux of the matter. Many museums have some accessibility-related features, but there is a clear absence of integrated vision and uniformity, and some museums still have nearly nothing. To achieve adequate accessibility, it is then vital to identify clear standards of targeted accessibility and accordingly develop a well-studied strategic plan to qualify all museums for realizing these standards. Besides, a systematic comprehensive training plan for all staff involved, and specified sufficient funding allocated to museums' application of adequate accessibility are indispensable. This is believed to enhance the opportunities of people with visual impairment's inclusion into society.

Keywords: Museum accessibility; people with visual impairment; the blind; tactile exploration; touch experience; braille; disability-related legislation; Vision of Egypt 2030; social inclusion

1. Introduction

Museums are distinguished institutions of various benefits to society. Their benefits go much beyond the apparent role of preserving and displaying artefacts. Since the late 20th century, the vision of museums and their potential as facilitators of experience and agents

of social inclusion has been particularly reinforced. Museums have thus increased their attention to working with people's needs (Sandell, 1998; Silverman, 2003). Museums of different types are potentially able to take part in achieving social equality and are even responsible for doing so. All museums, as argues Sandell (1998, 2003), have to some extent a social responsibility based on their ability to participate in fighting social inequality and developing more inclusive societies. They are largely expected to accommodate the public and fit in with their needs by providing them with an accessible environment for learning, cultural participation, and ultimately enhancing their lives (Zakaria, 2020).

The new museum's definition, approved by the International Council of Museums ICOM in 2022, asserted such essential meaning by stating that:

a museum is a not-for-profit, permanent institution in the service of society that researches, collects, conserves, interprets and exhibits tangible and intangible heritage. Open to the public, accessible and inclusive, museums foster diversity and sustainability. They operate and communicate ethically, professionally and with the participation of communities, offering varied experiences for education, enjoyment, reflection and knowledge sharing (ICOM, 2022).

According to the definition then, museums are in the service of society, and this requires them to be accessible to the public of different kinds and to be inclusive through supporting diversity. They also have the responsibility to encourage community participation through a variety of offered experiences that provide pleasure, learning, and knowledge sharing for various groups. Accordingly, it is then vital for museums to address issues of inequalities and exclusion in a proactive way that prevents them and rather enhances accessibility, participation, and inclusion (ICOM, n.d.).

At the core of this domain lies the issue of museums' accessibility for people with disabilities and the related social inclusion. People with disabilities have been subject to social inequality and exclusion from the museum environment, with much less attention paid to them than that paid to non-disabled museum audiences. They, as well as their needs, clearly vary according to the type of impairment they suffer from. Museums are supposed to fit in with their varying needs, regarding them an important segment of their audience and encouraging them to participate confidently in public life. Besides, museum programs can be well used as a good means to instill in them confidence and skills leading them to a better quality of life (Sandell, 2003). Therefore, to be truly manifesting the definition, museums have to be actually accessible and inclusive, providing people with disabilities the appropriate experience that respects their distinctness and fits in with their needs.

Vision is no doubt a very important and influential sense in everyone's life. It is “the most dominant of the five senses... We take vision for granted, but without vision, we struggle to learn, to walk, to read, to participate in school and to work” (WHO, 2023). Societies are even believed to be established around the ability to see since many aspects of life are sight-dependent and many everyday activities are affected by the sense of vision (WHO, 2019).

Consequently, people with visual impairment have their own lifestyle and way of interacting with things around them. They often need to experience the environment in multisensory terms. Additionally, they mainly depend upon the use of touch as a substantial tool for exploring the surroundings, finding their way, and feeling things. Tactile practices and haptic interaction with the surroundings are thus an essential component of their lives.

According to the World Health Organization (WHO)'s estimation, about 2.2 billion of the world's population suffer from a near or distance vision impairment. Moreover, it demonstrates that vision loss can happen to people of all ages, although the majority of recorded cases of vision impairment and blindness are more than fifty years old (WHO, 2023).

The researched category of people with visual impairment includes a wide range of people with visual difficulties. The spectrum of visual impairments comprises those with moderate low vision, others with profound low vision, the partially blind, and the totally blind. In the relevant literature, we find other terms referring to varying degrees of visual disability such as the sight-diminished, partially sighted, people with partial vision, people with a near vision impairment, and people with distance vision impairment. In the current study, the term “people with visual impairment” is used to refer generally to this wide range and these varying degrees, for “visual impairment” is, as suggests Candlin (2003), a more descriptive term of majority state.

The relationship between people with visual impairment and museums, as significant cultural institutions, has received little attention from the academic literature. Little research has tackled the museum experience made available to them and the accessibility provided in museums so that they can engage into an accessible and fruitful experience. The current paper seeks to fill this gap in the literature and add to knowledge in this important area so that we can improve the role played by museums in Egypt and enhance the museum experience of people with visual impairment in a way that encourages their inclusion into society.

2. People with visual impairment and their rights in Egypt

A- Facts and statistics

According to official statistics, there are in Egypt about 10.7 million people with disabilities (جريدة المصري اليوم، 2023). In 2022, they represented 11% of Egypt's population, while the percentage in the urban area was 12.1% whereas it was 10.1% in the countryside. They include the different known types of impairments and are also classified according to the degree of disability. The visual difficulty represented in these statistics the second highest percentage among the different types of disabilities known in Egypt (جريدة المصري اليوم، 2023).

The state, represented in its leading officials, shows growing interest in protecting and supporting people with visual impairment among the other groups. Several services, facilities, and advantages are supposedly provided to them in different aspects to improve

the quality of their lives (وزارة التضامن الاجتماعي، 2020). However, visual impairment has not been paid adequate attention. In fact, mobility-related disability has been given in Egypt the highest attention with regard to awareness, facilities, and services. It may be moreover the stereotypical image of disability in the minds of people. Visual impairment on the other hand does not enjoy the same status.

People with visual impairment have their own characteristics, way of life, and accordingly needs that require to be met suitably. Among these is their need, and actually their right, to access various facilities and resources, including cultural ones. As a part of society, they should have the right to access society's cultural resources on an equal basis with others. Such equality in experiencing a nation's heritage is thought to enhance feelings of identity, belonging, and inclusion.

B- Disability-related legislation in Egypt

Legislation in Egypt showed clear interest in handling the issue of people with disabilities, their rights, and their inclusion and integration into society. In 2008, Egypt ratified the United Nations Convention on the Rights of Persons with Disabilities, which had been approved in 2006 and signed in 2007 in New York (United Nations, 2007; الجريدة الرسمية، 2008). Such ratification embodied Egypt's commitment to applying the content of the convention. This was reflected in Egypt's strategy, titled Vision of Egypt 2030, which has given the issue a great push with adopting “equity and accessibility” as one of the strategy's four guiding principles and “social justice and equality” as one of its six strategic goals. One of the enablers that should make the state able to achieve such goals, as the strategy maintains, is creating a “supportive legislative and institutional environment” (Ministry of Planning and Economic Development, 2023). Therefore, legislation on different levels in Egypt has sought to assert the rights of people with disabilities, based upon the right to equal opportunities, and emphasize the commitment of the state and its different bodies to achieving social inclusion of this community through ensuring accessibility and facilitation.

In accordance with that, Egypt's current constitution emphasizes in many articles the state's responsibility for guaranteeing equality and supporting the rights of people with disabilities, including those with visual impairment. “Sovereignty is only for the people that practices it ... and protects its national unity, which is based upon the principles of equality, justice, and maintaining equal opportunities for all citizens” (مجلس النواب، 2019، مادة 4). And “the state is committed to achieving the equality of opportunities among all citizens, without discrimination” (مجلس النواب، 2019، مادة 9). Moreover, “citizens are equal in law's view; they are equal in rights, forms of freedom, and public duties; and no discrimination can exist among them due to religion, creed, ..., or disability... and the state is committed to adopting the measures necessary to annihilate all forms of discrimination” (مجلس النواب، 2019، مادة 53). As for children, “the state guarantees the rights of children with disabilities and their qualification and inclusion into society” (مجلس النواب، 2019، مادة 80). Focusing more clearly on people with disabilities, “the state is committed to guaranteeing the rights of people with disabilities and dwarfs as for matters of health-related, economic,

social, cultural, recreational, sporting, or educational nature ... and adapting public facilities and the environment around them... and their inclusion with other citizens, thus implementing the principles of equality, justice, and maintaining equal opportunities” (مجلس النواب، 2019، مادة 81).

In addition to what is stated in the constitution, the law no. 10 of the year 2018, known as the Law of the Rights of People with Disabilities, was specifically dedicated to this issue with much detail handled by its 58 articles. The objective of this law was asserted in its first article as “protecting the rights of people with disabilities, guaranteeing they fully enjoy all human rights and essential forms of freedom in the same way as other people, reinforcing their dignity, including them into society, and ensuring them a decent life” (الجريدة الرسمية، 2018: 3). In Article 4, the state's commitment to protecting the rights of this group is emphasized with a number of such rights particularly indicated. Among them are: “respecting differences and accepting people with disabilities as a part of human diversity”; “enabling them to enjoy their rights to learn, work, have recreation, use public facilities and services, and obtain information”; “building and developing the capabilities of those who deal with people with disabilities in governmental and non-governmental bodies, making them able to communicate with them and qualified to deal with them in all fields”; and “taking necessary measures that ensure people with disabilities' ability to access to and use the surrounding physical environment, and means of transportation, information, communication, and technology in a way that augments their capabilities and skills” (الجريدة الرسمية، 2018: 7-9).

The second chapter of the fifth part of the aforementioned law was dedicated to people with disabilities' “right to accessibility and facilitation.” Here in Articles 29 and 31, the law sets the commitment of the administrative bodies responsible for planning and regulating building works to adopting, when issuing licenses for new buildings, the provisions of the Egyptian Engineering Code of Designing External Spaces and Buildings for Enabling Use by People with Disabilities. As for the already existing buildings, the aforementioned bodies are committed to modifying them to be easily usable by people with disabilities. Moreover, to encourage such modification, these buildings are to be exempted from the fees usually needed for issuing a modification license (الجريدة الرسمية، 2018: 20-21).

The law's seventh part, titled culture, sport, and recreation, handles the advantages given to people with disabilities in these particular areas. Under this title, Article 43 focuses on the commitment of the Ministry of Tourism and Antiquities to “support and prepare the cultural, societal, spatial, and technological environment for promoting people with disabilities' tourism; enhance the level of tourist services provided to them in all tourist places to ensure enabling them to easily visit and enjoy these places through putting into effect the accessibility code technologically, spatially, and culturally.” The ministry's commitment also extends to “the use of guiding signs in a suitable communication way within tourist places” (الجريدة الرسمية، 2018: 25-26).

The law's executive regulations detailed and explained the mechanism of putting into effect the rights of people with disabilities stated by the law's articles. In the second article

of the Prime Minister's decree no. 2733 of 2018 by which the executive regulations were issued, it is stated that all ministries concerned with the law no. 10 of 2018 are committed to issuing the relevant regulatory decisions necessary for its enforcement (الجريدة الرسمية، 4 ب: 2018). In Article 7 of the executive regulations, the appropriate means of communication with regard to people with disabilities were identified as the assistive means, new technologies, and relevant languages that comprise easily usable means and devices of information and communication technology, touch-based communication, large print, human-based reading, and braille language. Governmental and non-governmental bodies are then committed, according to Article 8, to using assistive technologies to make services and information accessible for people with disabilities (الجريدة الرسمية، 18 ب: 2018).

In Article 73 of the executive regulations, realizing the accessibility of new and already existing buildings for people with disabilities was explained. As for new buildings, the administrative bodies responsible for planning and regulating building works in addition to the ministry of local development and its subject bodies are committed to not issuing a license unless the aforementioned Egyptian Engineering Code's requirements are met. On the other hand, they are committed to applying reasonable facilitative arrangements to the already existing buildings in collaboration with relevant ministries and entities, so that they become easily usable by and inclusive environments for people with disabilities, who should enjoy there their rights on an equal basis to others until such buildings get completely accessible for them within five years from the date of issuing these executive regulations of the law. In addition, already existing public buildings have to conform to the code with regard to a number of requirements that include: providing at least one entrance especially dedicated and prepared for people with disabilities, being accompanied with indicative signs; making corridors and passages barrier-free; providing at least one elevator in multi-story buildings; providing at least one toilet in every floor of the building; the flooring has to be of materials that do not cause slipping and at the same time has to be flat without any jutting elements; and the walls' edges have to be flattened so as not to harm people with disabilities while navigating the place (الجريدة الرسمية، 59-60 ب: 2018).

Of great importance here is Article 83 of the executive regulations that handles the commitment of the ministry concerned with antiquities, now titled Ministry of Tourism and Antiquities, to doing what is required to facilitate the participation of people with disabilities in cultural and archaeological programs and activities. This comprises: enabling accessible and facilitated participation of this group in the ministry's activities; qualifying museums to show and perform their cultural and archaeological activities in such a way that enables people with disabilities to visit them and enjoy their services; enhancing and qualifying the cultural, societal, spatial, and technological environment so as to promote tourism of people with disabilities into museums; improving the quality of services provided to them in museums; enacting the Engineering Code for realizing accessibility technologically, spatially, and culturally in museums subject to the ministry's authority; using guiding signs in ways of communications that are appropriate for people with disabilities; and providing training programs in collaboration with the Ministry of Social

Solidarity for building capacities of museums' staff members to be able to communicate and interact with people with disabilities (66-65:ب:2018، الجريدة الرسمية).

Finally, the interest in supporting and including people with disabilities into society was augmented by establishing the National Council for Persons with Disabilities, which replaced in 2019 an earlier body that had been created in 2012 and known as the National Council for Disability Affairs. As stipulated by the law no. 11 of 2019, the newer council is an independent entity that “aims to protect the constitutionally acknowledged rights and dignity of persons with disabilities, foster them, and contribute to ensuring practicing them” (مادة 1:2019، الجريدة الرسمية). To achieve such aims, the council is entitled to perform a number of roles that comprise “suggesting the state's general policy of rehabilitating, including, and empowering persons with disabilities and dwarfs; monitoring the implementation of this policy; and evaluating it.” The council's roles also include “coordination with all the state's ministries and parties concerned for implementing the provisions of the UN Convention on the Rights of Persons with Disabilities” (الجريدة الرسمية، مادة 5:2019). In view of that, it is evident that the council is able to make a great addition to ensuring and supporting the rights of people with disabilities in different aspects of life in Egypt including the cultural life.

Accordingly, it is concluded from investigating the relevant legislation the gradual attention paid to asserting the rights of people with disabilities, including those with visual impairment, and the state's growing interest in supporting them that conforms to its strategy Vision of Egypt 2030. From general principles to closely related specific privileges, such legislation secures, as targeted by the Vision, a good climate for their support and inclusion into society within different aspects of life including cultural life and experiencing museums. Consequently, in view of current legislation and the new museum's definition, to what extent have such stated rights been actually put into effect with regard to experiencing museums? And to what extent are museums in Egypt accessible to people with visual impairment? Answering these research questions is to be achieved in the following sections.

3. Methodology

The current study tackles museum accessibility for people with visual impairment in Egypt through investigating different facilities and services of accessibility provided in museums to enhance their experience. The majority of museums in Egypt are under the central administration of the Ministry of Tourism and Antiquities' Museums Sector. Besides these museums, the study also covers a number of other museums that are not under the Museums Sector's jurisdiction, namely the National Museum of Egyptian Civilization and the Grand Egyptian Museum. In collecting data, it depended upon intensive observation of museum settings and their facilities and programs in addition to semi-structured interviews with responsible senior officials of the Museums Sector's General Administration of Museum Education for People with Special Needs as well as with staff members of museums' Departments of Museum Education for People with Special Needs.

4. Establishing the General Administration of Museum Education for People with Special Needs

As stress the interviewed senior officials, the establishment in January 2020 of a particular administration under the Museums Sector to be dedicated to people with special needs, namely the General Administration of Museum Education for People with Special Needs, was an important landmark. This can be regarded as an outcome of promulgating law no. 10 of 2018 with the rights of people with disabilities that it imposed. Although museums' efforts were directed to engage people with disabilities in their activities for a long time before this date in the framework of museum education in general, but the establishment of a new dedicated administration has given the matter greater importance. This resulted in the creation of a related department in every museum to achieve the new administration's goals. Such Departments of Museum Education for People with Special Needs have since sought to enhance museums' accessibility and create there an accessible and inclusive environment for different groups with special needs including people with visual impairment.

5. Museum accessibility for people with visual impairment

The issue of inclusiveness and accessibility for different groups of people has been a vital matter in museum-related theory and practice. Museums show growing interest in providing equitable access to cultural heritage and being easily accessible for all. However, they can be as if unconsciously preventing people from coming and visiting them through unintentionally created barriers against visitors (Ambrose & Paine, 2006). An attribute stressed by the museum's new definition as aforementioned, removing these barriers and becoming truly accessible for different groups of people has therefore been a main objective of museums. They seek to enhance access to their programs and resources for different users including those with visual impairment, who are among museums' potential visitors. However, accessibility still finds difficulty to stabilize itself in museums, and still faces internal resistance that hinders its progress to become a core issue in museums' organizational culture (Ciaccheri, 2022).

One of the principal reasons behind people not visiting museums is that they expect they will not be comfortable there so that some of them may not even have thought in visiting museums (Ambrose & Paine, 2006). As contends Ciaccheri (2022), accessibility should be adopted as a constant process strongly rooted in museums' institutional culture so that they can include the widest possible range of people. Such cultural process should moreover aim to meet visitors' various needs within a strategic framework, which reflects and supports the embraced policies. Accordingly, museums' ensuring of their inclusiveness and accessibility to people with visual impairment, among others, becomes crucial and of high priority. Every museum has to guarantee that its premises, resources, and services are as accessible as they can be to people who cannot, or find it difficult to, see. Those visitors are supposed to find there a receptive and welcoming environment where they can feel at home and enjoy a suitably prepared experience of the museum's resources. To achieve that,

museums have to provide two forms of accessibility: physical or spatial accessibility in addition to cognitive accessibility.

A- Physical accessibility

Ensuring the museum's physical accessibility is the first step in providing such a welcoming environment. Museums have the responsibility to provide appropriate physical access for visitors with visual impairment and help them use their spaces easily and navigate comfortably through their facilities, resources, and services. Many people with visual impairment usually depend upon the characteristic long cane or the guide dog for obtaining information about the immediate environment such as whether steps or a thing are blocking one's way. On the part of museums, providing the shortest route to walk, avoiding steps, and providing direction by using specific surfaces underfoot such as tactile tiles, cobbled pavements, or grassed areas can be useful actions in this regard. However, even in developed countries, accommodating visitors with visual impairment often receives less attention than that paid to accommodating visitors with mobility-related disability (Kusayama, 2005). A number of studies identified frequent shortcomings in museums' physical accessibility in this respect, including defects related to orientation and mobility (e.g. Argyropoulos & Kanari, 2015; Mesquita & Carneiro, 2016; Small *et al.*, 2012).

Supporting physical accessibility for people with visual impairment in Egypt's museums is actually varying from one museum to another. In the Egyptian Museum, which is one of the most important in Egypt, is provided a braille plan of the museum and list of objects that constitute the specific visit path that such visitors can suitably enjoy (figure 1). The plan and list are placed close to the entrance and through them visitors can know directions, the main divisions of the museum, and the location of the entrance and staircases leading up to the upper floor. A model of the building can be similarly useful here and in all other museums in Egypt. Drayton Hall, which is a national historic house in Charleston, the US, for example, uses a tactile model that enables visitors with visual impairment to perceive and imagine the house's entire construction (American Association of Museums, 1992).

In addition, guiding signs, in both braille format and high-relief Arabic and English writing, are employed in the Egyptian Museum to tell visitors the location of different sections and collections as well as facilities like toilets and the elevator (figure 2). Visitors with visual impairment who don't know Arabic or English writing can read the directions written in braille, while those who do, perhaps due to losing sight in later phases of their lives, can benefit from the high-relief writing in Arabic or English as well as the braille writing.

In order to keep visitors with visual impairment safe from collision with some projecting objects or ones that are exhibited in a hall's middle, the Egyptian Museum uses around such objects metal enclosures whose outside corners were purposefully flattened (figure 3). The showcases there, as in many other museums, are usually made of wood and their edges and outside corners are flattened as well so as not to harm any of such audience (figure 4).

Alexandria's Greco-Roman Museum is one of the oldest among Egypt's current museums and it was reopened in October 2023 after a large renovation and development project. Its two-floor building is equipped with an elevator that facilitates going up and down. Toilets here are available for visitors in the two floors. The Coptic Museum, the National Museum of Egyptian Civilization, and the Grand Egyptian Museum are as well equipped with elevators, in addition to an escalator in the latter, making it easier for visitors with visual impairment to reach the different floors or levels of their buildings (figure 5). Similarly, an escalator can be found in Sohag National Museum, one of the recently opened museums in Upper Egypt. As for the Egyptian Museum, which consists of two floors, it also has an elevator that is made available for different visitors with special needs, including those with disabilities. Although it is useful for carrying such visitors to and from the upper floor, it appears useless in enabling them to reach toilets that are located on a middle level between the two floors. Accordingly, visitors with visual impairment are obliged here to use the staircases to get up to toilets, a state that probably makes them prone to slipping. Although the National Museum of Alexandria has an elevator, it is unfortunately out of service due to some bureaucratic problems that have to be settled with local administrative authorities.

In the Museum of Islamic Art in Cairo, which was reopened in 2017 after restoration and development, the display design and distribution of showcases, mainly on or close to the walls, allow for wide spaces that facilitate comfortable movement for visitors with visual impairment. Toilets can be found in the same ground floor and a few steps can be encountered while moving between halls. However, visitors still have to ascend the staircase to reach the entrance to the historic building.

A creative solution for facilitating museum experience of people with visual impairment in Egypt through enhancing physical accessibility was suggested in a distinguished article. In her paper, Elgueziry (2022) suggested augmenting the accessibility of Egypt's museums for such audience through employing a special lane equipped with a tactile paving similar to that used in some platforms of train stations and outdoor footpaths dedicated to pedestrians with visual impairment. The suggestion, which is thought to enable these visitors to have autonomous tours with the help of other tactile aids, depends upon using in this tactile paving specific textured bars that are able to be felt underfoot. These tactile bars can tell them the way and act as indicators with different meanings, giving them directions, alerting them, and guiding them to the braille labels interpreting museum objects. Such paving is moreover suggested to be in yellow to be distinguished by other visitors, thus preventing any possible obstruction or collision.

The Grand Egyptian Museum, which was built on a vast area and still awaits official opening, introduces a new service to facilitate the movement of different visitors with special needs, including those with visual impairment. According to an interviewed official, golf cars are planned to be provided at their disposal to enhance physical accessibility and help them enjoy an accessible experience within such a majestic museum.

One of the obstacles against securing appropriate physical access for visitors with disabilities in general and those with visual impairment in particular is that many of Egypt's

museums are being housed in old historic buildings. Such buildings, which were erected many decades ago, were not designed with the needs of such visitors in mind. Their historic status moreover adds to the difficulty of making the required modification to accommodate the needs of such visitors. On the other hand, the newly built museums and those under construction are indeed much easier to make accessible to them, following the accessibility standards that have grown widely recognized. It is essential here to assert the importance of the enforcement of what is stated in disability-related legislation in this regard. Many obligations are stated in such legislation for the sake of persons with disabilities, but their enforcement remains most important.

Another hurdle against improving museums' physical accessibility for visitors with visual impairment is the general stereotypical image of disability, which mainly focuses on its mobility-related form. When handling disability, the first image that comes to mind is that of wheelchair users. This stereotypical view dominates in museum work as in other fields, and this has been reflected in the domain of improving museum accessibility. Making museums accessible to visitors with mobility-related difficulties usually receives more attention and effort than what is given to other types, including visitors with visual impairment. Providing ramps, wide entrances, and wide toilets usually represents the most common feature of accessibility provided in accessibility-seeking museums. Consequently, more awareness concerning the variety of disability types is strongly needed.

B- Cognitive accessibility

Facilitating cognitive access for people with visual impairment is no less important than ensuring physical accessibility. Visitors with visual impairment, as in their usual daily life, need to experience museum resources in multisensory terms away from the intervention of eyesight. They mainly depend upon using their hands to locate their position, find their way, and explore and understand the world around them. They therefore need in their interaction with the museum to engage in tactile practices and hands-on activities. Additionally, those who still have some low vision capacities tend to look at objects more closely. The sense of hearing plays here a vital role as well, and so they require some aural explanation to enhance their experience. This different way of perceiving the surroundings does not mean they are different in their motivations for visiting museums from other visitors who can see naturally. They nearly share the same motivations of the sighted, which may include loving art, being interested in monuments, being engaged in art-related profession, wishing to socialize with friends or family members, and liking to enjoy quiet. The matter has nearly nothing to do with being blind. The museum system, however, views people with visual impairment as a homogenous group of uniform characteristics mainly defined with regard to the lack of sight, ignoring the fact that they belong to all society's classes and to different educational and cultural backgrounds (Candlin, 2003).

The fact that museums are principally ocular-centric settings (Candlin, 2004) and that museum exhibitions are mainly designed to be only visually experienced (Ginley, 2013; Johnson, 2018) reflects a major barrier against museums' accessibility to people with visual impairment. This nearly leaves a tiny opportunity for engagement with objects in a way

other than the visual one (Vaz *et al.*, 2018) and causes these people to be regarded as a marginal group while their impairment actually does not (Candlin, 2003). This is probably the reason why only 5.5% of people with visual impairment in Europe visit museums (Vaz *et al.*, 2018). Consequently, the provision of tactile experiences that enable this segment of museum's audience to engage with museum resources through haptic interaction is doubtless essential.

According to Howes (2014), the amount of recent research tackling the role of the sense of touch in museums reflects the significance being given to that topic in museum studies, which in turn represents an outstanding example of the strong turn of attention on the sensorium in humanities and social sciences. Touch is frequently considered a feature of an ideal museum not only for the visually impaired but also for all visitors (Hirose, 2013), as it can provide an influential communicative and interpretive resource for museum visitors in general. It is also argued that it makes the audience more interested and leads to more and deeper engagement and interaction with exhibits (Christidou & Pierroux, 2018). The matter of course becomes more vital and fruitful for people with visual impairment. Much of the literature asserts the vitality of touch for their intellectual access to and comprehension of museum objects (e.g. Cachia, 2013; Candlin, 2003, 2004; Hetherington 2002; Johnson, 2018). In addition to providing a description in a touch-oriented language focusing beside educational information on the shape, texture, feeling, and roughness of an object, the haptic interaction facilitates building a perceivable mental image of the object in such visitors' minds in a way that substitutes visual perception enjoyed by others who can see (Candlin, 2003; Vaz *et al.*, 2018). It can be said that people with visual impairment see with their hands or, in the words of an interviewee, “their hands are their eyes.”

The late years of the 20th century witnessed an increasing tendency to employ touch in museums that resulted partly of the attempts made by the organizations for people with visual impairment to attain complete access to museum resources (Candlin, 2010). This in turn contributed to the then general movement to augment museums' interactivity and engagement of visitors (Anderson 2004; Hooper-Greenhill, 1994). By the first decades of the 21st century it became clear the increasing stressing on museum objects' need to be experienced multisensorially and on the need to facilitate visitors' direct experiencing of exhibits and their characteristics (Dudley, 2010; Howes, 2014). Senses, as expressed by Howes (2014), “are making a comeback” in the 21st century museum.

Various patterns of using hands and fingers in touching artefacts as well as common tactile practices were identified in the relevant literature (e.g. Christidou & Pierroux, 2018). In their tactile exploration of museum objects users put hand(s) or parts of them like fingertips or palms on the object with no space left in-between and apply particular movements to explore it and get to know its attributes like the form, volume, material, texture, and formation process. It is of great importance to know how people with visual impairment touch. Actually, they need remarkably more time to perceive things with their hands than other people need to perceive them with eyesight. Additionally, their use of touch in perceiving and comprehending art needs a higher degree of concentration than

that needed in using it in usual daily activities. Moreover, this should be accompanied, at least at the start, by some explanation and direction on how to approach and handle the piece (Candlin, 2003). As a result, the knowledge acquired through this multisensory way of engaging with art should be valuable and fruitful when considering museums and learning. And as museums aim to be inclusive of diverse groups of people, incorporating multiple senses facilitates reaching this goal.

As for two-dimensional exhibits, such as paintings, using touch in their exploration is indeed useless and adds nothing to their accessibility to people with visual impairment. Consequently, the role of the accompanying description and interpretation, whether provided by a guide or any other means, becomes more essential with a high degree of proficiency required (Candlin, 2003).

According to the literature, the opportunity for touching can be allowed to museums' visitors with visual impairment in tactile sessions commonly held as pre-planned events. These sessions mainly depend upon objects' replicas or duplicates and seldom comprise pieces other than these (Hetherington, 2002). Enabling to touch original exhibits is relatively uncommon (Christidou & Pierroux, 2018). This is mainly a result of the longstanding conflict between enabling touch and conservation traditions (Chatterjee, 2020). Despite the value and benefits acknowledged to be gained from integrating the sense of touch into the museum experience (Henderson & Lingle, 2023), the confrontation between the “do not touch” and “please touch” approaches has been ongoing, resulting in a dichotomy of aiming to safeguard heritage and at the same time wanting to augment social engagement with it (Chatterjee, 2020). Besides tactile sessions, some museums and galleries organize touch tours whether guided and provided permanently on a regular basis according to a specified schedule, or self-conducted by visitors when dropping in (Candlin, 2003). Drop-in provision can also include audio-guides where available. Such touch tours are particularly valued by these visitors due to being more suitable for their needs. To be more fruitful, however, such tours should always be supported with help and direction from the museum's staff to show visitors how to touch objects. A lot of people with visual impairment face difficulties in touching objects, particularly those who have never seen and consequently have never got any visual information or perception related to these objects. Therefore, help and direction on how to touch and move the hands from one part to another are actually needed (Candlin, 2003).

The fieldwork data collected through observation and semi-structured research interviews revealed some variation among Egypt's museums with regard to facilities of cognitive accessibility made available to visitors with visual impairment. Accordingly, such facilities can be classified as follows:

1) A dedicated visit path with touchable objects and braille labels

One of the most important facilities made available for visitors with visual impairment is a dedicated visit path, which comprises a number of specific touchable objects accompanied by braille labels that present objects' description and interpretation in braille

format. This can be experienced in Cairo in the Egyptian Museum, Museum of Islamic Art, Royal Carriages Museum, and Cairo International Airport Museum - Terminal 3 as well as in Alexandria's National Museum and Greco-Roman Museum and in regional museums as Tanta, Kafr el- Sheikh, Mallawi, Luxor, and Mummification Museums (figures 6-10). The chosen objects for this path, which are actually of the mainstream display, are hard-material original objects specifically selected so that they can be touched without being prone to deterioration or corrosion. They are usually made of such solid stones as granite, diorite, basalt, or the like. In addition to original objects, the path may include 3D models or replicas of the museum's originals that cannot be touched due to being made of less solid materials, displayed inside closed showcases, or being too large to be perceived and imagined through touch. In the last case, therefore, a small-scale model is made available to be more suitably perceived through touch as is the case with the Apis Bull statue in the Greco-Roman Museum (figure 11).

The Egyptian Museum moreover provides close to the entrance, as aforementioned, a braille list that demonstrates the objects to be experienced in such a visit path. In addition to original objects like the triad statues of King Menkaure, the sphinx of King Amenemhat III, the statue of King Amenhotep II with Meret-Seger, and statue of Amenhotep son of Hapu, the path includes also a 3D replica of the Narmer Palette (figure 12). In both Museum of Islamic Art¹ and Cairo International Airport Museum - Terminal 3, however, the visit path for visitors with visual impairment entirely depends upon 2D models of each museum's masterpieces due to the difficulty of enabling originals to be touched (figures 13 & 14). In the Coptic Museum, unfortunately, there are no touchable objects nor replicas at all, and visitors with visual impairment can find only one label in braille, which explains the statue of the Good Shepherd. The museum is however planning to provide some replicas to be accompanied by braille labels so that such visitors can enjoy a suitable experience. In view of this lack, the staff of the Department of Museum Education for People with Special Needs voluntarily make available stucco models of some Coptic friezes, on which typical floral decorations were engraved. However, it should be indicated that this is a voluntary effort by them and at their own expense.

The National Museum of Egyptian Civilization is one of Egypt's outstanding museums and it is outside the jurisdiction of the Ministry of Tourism and Antiquities' Museums Sector. Although it was recently opened after long years of construction and preparation, such a prominent museum does not have any touchable objects nor replicas. Moreover, it does not provide any braille labels for visitors with visual impairment. The Grand Egyptian Museum is similarly outside the jurisdiction of the Museums Sector and is designed to be a magnificent institution and an icon of the Egyptian civilization. It is intended to include in each of its main halls a tactile table carrying 3D touchable models of the hall's masterpieces, which summarize the hall's theme and which would be accompanied by

¹- For some detail on the museum's 2D models, see Abdelrazik's (2021) paper.

braille labels so that visitors with visual impairment can engage into an accessible experience of the museum's exhibits.

2) The talking pen

The Egyptian Museum and the Greco-Roman Museum are uniquely fortunate to be provided as well with the so-called “talking pen,” a tool giving audio description and interpretation of museum objects, which was provided to both museums according to a project in collaboration with the Museo Tattile Statale Omero in Italy, as indicated an interviewed high official in the Museums Sector. The braille labels of the visit path are here equipped with sensitive points in red color, which can be detected by sensors embedded in the talking pen, thus triggering audio tracks with explanations of the objects to be listened by the audience, who can select from three available languages: Arabic, English, and Italian. Museum staff members accompanying visitors usually perform this process (figure 15) to offer a variety of methods enhancing visitors' cognitive access to exhibits and facilitating an accessible museum experience.

3) Museum catalogue in braille

Another type of the facilities made available to visitors with visual impairment is the museum catalogue in braille. This can be experienced in Tanta, Gayer Anderson, Manial Palace, and Mummification Museums. The catalogue usually contains an introduction about the museum, its importance, and its construction history (جريدة الوطن، 2023) in addition to a concise description and explanation of its objects, all in braille. In some cases, it can be equipped with images of the exhibits printed in relief so that it can be felt and perceived through touch (figure 16).

In a similar vein, there was an attempt in the National Museum of Egyptian Civilization to produce and make available a braille version of the museum's brochure. However, it was a limited attempt with little effect.

4) Explanatory panels in braille

In the Manial Palace and Gayer Anderson Museums, visitors with visual impairment can benefit from explanatory panels printed in braille, which give descriptions and explanations of the main halls and sections of both museums. Moreover, visitors can learn from these panels the history of these museums, their significance, and the circumstances related to their establishment (figure 17).

5) Pre-planned events, activities, and workshops

The Departments of Museum Education for People with Special Needs existing in all museums usually prepare a plan of events and activities to be held during a coming period of one to three months so that it can be approved by the General Administration of Museum Education for People with Special Needs before implementation. Other independent museums that are outside the jurisdiction of the Museums Sector also organize similar activities and events. In general, these pre-planned special events and activities take the following forms:

i) Artistic workshops

Departments of Museum Education for People with Special Needs organize artistic workshops for people with visual impairment. To include them into the cultural and museum environment, these workshops usually depend upon employing their sense of touch and imaginative abilities in producing models of artistic and architectural works. Following a tour through a museum's dedicated visit path, the audience is required to make a clay model of any of the experienced objects such as the head of Serapis, for example. Handling previously-made models of some well-known architectural monuments like Qaitbey Fort can also be the subject of such workshops (figure 18). The Coptic Museum makes available in some of its workshops a number of molds and clay from Aswan so that participants can form and feel models of Coptic art items like grapes and fishes.

The participants in these workshops are selected in specified numbers through advertisements on museum's social media pages, or through contacting an-Nour Schools for visually impaired students or any of the societies concerned with the community of the visually impaired. Sometimes, it is these schools and societies that contact museums to organize a visit by their visually impaired members and accordingly the museum begins the needed arrangements for receiving the visit in a planned date. According to an interviewed museum staff member, "the higher number of participation requests than what is determined in workshops' advertisements reflects the success and positive impact of the museum's programs in this domain."

ii) Temporary exhibitions

Frequent temporary exhibitions are organized by Departments of Museum Education for People with Special Needs under themes related to disabilities, including visual impairment. Some of these temporary exhibitions are built on museum objects related in their own to disability. Other exhibitions are based on artistic products made by visitors with visual impairment during their participation in the artistic workshops held by the museum. Both are of great importance in their inclusion into society and cultural life. The Egyptian Museum, for example, organized in December 2023 an exhibition of disability-related artifacts from ancient Egypt within the celebration of the International Day of Persons with Disabilities.

iii) Celebrated events

Among their efforts to tackle the issue of including people with visual impairment into society, museums have used to celebrate a number of relevant events. On top of these events is the World Braille Day, celebrated annually on 4th January to commemorate the birth of Louis Braille, who invented the distinguished writing and reading system named after him to be used by people with visual impairment, and to shed light on the issue of including this community into society. In addition, the International Day of Persons with Disabilities is another important day celebrated annually by museums in Egypt as in other countries of the world on 3rd December. Besides the two aforementioned events, which are actually on the United Nations agenda, museums in Egypt celebrate another world event,

namely World White Cane Day, every year on 15th October to emphasize the rights of people with visual impairment, of whom the white cane is a characteristic symbol.

In these events, as maintained by many of the interviewees, museums hold various activities that range from exhibitions to artistic workshops, parties, lectures, and guided tours. The activities may be in the specific day of the celebrated event or may be extended to cover the whole month in which the day falls. The National Museum of Egyptian Civilization, for example, celebrated the World White Cane Day three years ago by organizing a tactile session for people with visual impairment who were then able to handle some models of the museum's masterpieces, which were borrowed from the gift shop, in addition to pieces of raw materials such as stone and wool. The museum moreover organized a lecture for museum staff on dealing with visitors with visual impairment, which was delivered by a museum expert who was himself visually impaired. However, such activities are intermittently held. As stated by one interviewee involved, such events, activities, and workshops are not recurring in the National Museum of Egyptian Civilization.

iv) Online communication

The activities directed to people with visual impairment also comprise online communication with them through social media platforms. The General Administration as well as the Departments of Museum Education for People with Special Needs usually use their official pages on social media platforms, mainly Facebook, to communicate with their audience through disseminating audio-visual material that handles museums' history, collections, facilities, and services. It can also cover some topics of history, architecture, or archaeology related to the museum and its collection.

Social media pages moreover provide an effective means for advertising the different activities, workshops, and events to be organized by museums and recruiting the numbers required to participate in such planned activities. In addition, they present a noticeable space for the General Administration and the Departments to disseminate and publicize their implemented activities and events, so as to attract more members of the visually impaired community and widely spread awareness among the general public concerning their rights and their required inclusion into society.

v) The Blind School in the Egyptian Museum

One of the outstanding and unique works in providing accessible museum experience for people with visual impairment has been “the Blind School in the Egyptian Museum” or, as more commonly known, the “Archeological Awareness School for the Blind.” It was established in the Egyptian Museum in 2004 by Wafaa as-Seddeeq, the experienced figure in museum education and the then Director General of the museum. In addition, the school was supervised by Tahany Zakariya Noah, one of the prominent figures in the Museums Sector for many years and a pioneer in the field of facilitating museum experience for people with disabilities in general and the visually impaired in particular. The staff comprised a number of visually impaired persons, who naturally had experience in dealing

with the visually impaired due to being members of this community. Besides, they had previous training and experience from participating in a project led by the French Cultural Centre in Cairo in 2002 for explaining ancient Egyptian artefacts to blind students through touchable replicas (جريدة الأهرام، 2017).

The main aim of the school has been to provide archaeological awareness and historical and artistic culture to visually impaired schoolchildren, university students, and members of societies and institutions related to visual impairment. Achieving that comes through giving lessons or simplified lectures on topics of the Egyptian civilization such as daily life, agriculture, handicrafts, architecture, language, and religion in ancient Egypt. Subsequently, guided tours are conducted to explore the museum objects connected to such topics. The objects that can be touched are of course explored through touch, otherwise replicas brought from the Administration of Archaeological Replicas are utilized. Moreover, the school organizes artistic workshops where its audience can manifest what they have learnt and touched into models and artistic products using clay and other suitable materials. Another means of educating such audience and including them into cultural life has been organizing performances, in which they can themselves role-play as, for example, characters from the Egyptian history or individuals in a daily life scene from ancient Egypt while wearing the typical clothes of the relevant era (figure 19). Furthermore, the school makes available for its audience a library of books in Egyptian history, archaeology, art, and civilization that are printed in braille format. In addition, the school organizes journeys to and guided tours in outdoor historical and archaeological sites, and sometimes its staff goes to such audience in their places or establishments, where the planned activities are then held. In this way, the Blind School in the Egyptian Museum has sought to include people with visual impairment into society and the cultural life, implementing its program that embraces the slogan “art beyond sight.”

6. Training for museum staff

The staff of the Departments of Museum Education for People with Special Needs are mainly from archaeological or historical backgrounds and accordingly their educational past is often irrelevant to dealing with people with disabilities. Therefore, the need to equip such staff with the relevant and appropriate training, which qualifies them to properly deal with museum visitors with disabilities, is essential.

Many of the interviewees mentioned that they receive training from time to time on dealing with visitors with different disabilities in general. However, training directed to how to deal with visitors with visual impairment in particular appears to be limited and unsystematic. Almost one training course was specifically recalled by some of the interviewees, and which was provided by the Museo Tattile Statale Omero of Italy. The State Tactile Museo Omero, as is named in English, is a tactile museum specially designed, but not reserved, for the visually impaired and so it mainly depends upon providing tactile experiences (Museo Tattile Statale Omero, n.d.). In December 2022, it organized in Egypt

a training course for the staff of Departments of Museum Education for People with Special Needs. For nearly a month, an experienced curator from the Italian museum, who was himself a man with visual impairment, gave them training on how to explain different objects to visually impaired visitors and how to guide their hands to tactilely explore them, besides other relevant topics.

It is argued here that systematic training programs according to a fixed plan should be made available to the staff of these departments in all museums. Such training, moreover, should cover two sides. First, the psychological side of approaching the visually impaired, dealing with them, attracting them into the museum environment, and making them feel socially included with no barriers just like other members of society. Connected to this is making them, in a sensitive way and through mind mapping, imagine and feel familiar with the setting of the tour. Second, the technical side of how to employ suitable techniques in explaining and interpreting museum objects using the appropriate language, and in guiding visitor's tactile exploration of objects. As emphasized by one experienced interviewee:

when explaining an object, we have to let them know where to begin from. The beginning point is essential. The explainer should be holding the hand of the visually impaired person from the beginning point and directing it towards the specific part being explained, and so on step by step till the end... After that, they should be left to touch on their own and enhance their understanding by reading the braille label.

Using a descriptive touch-oriented language in explaining to visitors with visual impairment is a vital requirement that should be mastered by museums staff. In Winterthur Museum, Garden, and Library in the US, for example, staff members who guide tours of this audience are trained to use tangible words and to relate what they describe to things, which are familiar in these people's daily life (American Association of Museums, 1992). Another relevant technique in this context is that related to how to employ the voice in the explaining process. As maintained by one interviewee, the explainer's voice should be highly expressive through showing diverse emotions and reactions in a way that is relevant to what is being explained and stimulates imagination in the audience's minds. The tone of voice can moreover be so helpful in this context so as to transfer the meaning and contents of the scene to the visitor in a way that substitutes for the sight missing. Consequently, training programs that cover all these sides are indispensable. In a similar vein, training and qualifying specialized tour guides to conduct tours with such audience of people with visual impairment in a way that is relevant and satisfying to them is argued to be a great addition to heritage and museum accessibility as well as to the tour guiding profession.

7. Conclusion

People with visual impairment represent a big category of people with disabilities and museums' potential visitors. Being with special needs due to their special characteristics should not lead to their marginalization and exclusion from the cultural life including the

enjoyment of the museum experience. Instead, their needs should be accommodated through making available the appropriate facilities, which make the museum setting a welcoming environment where they can enjoy an accessible experience. Following the ratification in 2008 of the UN Convention on the Rights of Persons with Disabilities, Egypt's strategy, Vision of Egypt 2030, has given the issue a great push with adopting “equity and accessibility” as one of the strategy's four guiding principles and “social justice and equality” as one of its six strategic goals. One of the enablers that should make the state able to achieve such goals, as the strategy maintains, is creating a “supportive legislative and institutional environment.” Consequently, legislation on different levels in Egypt has sought to assert the rights of people with disabilities, based upon the right to equal opportunities, and emphasize the commitment of the state and its different bodies to achieving social inclusion of this community through ensuring accessibility. Furthermore, the new museum's definition increased momentum by placing much emphasis on accessibility and inclusiveness. Although museum accessibility to people with disabilities, including those with visual impairment is clearly and repeatedly recognized, the enforcement, however, is the crux of the matter.

The establishment in 2020 of the General Administration of Museum Education for People with Special Needs and its related departments in all museums was a significant initial outcome of such emphasis. They have worked for realizing accessibility in their domains and they frequently refer to it. However, scrutinizing the current state of museums' physical and cognitive accessibility to people with visual impairment has led to important findings. Museums as a whole in Egypt have a variety of accessibility-related features with a clear absence of uniformity. Besides, some museums still have no facilities of accessibility with regard to people with visual impairment.

Consequently, to achieve adequate accessibility in museums, it is recommended that the aforementioned administration has to identify clear and fixed standards of targeted accessibility and accordingly develop a well-studied strategic plan to qualify all museums for realizing these standards. This has to be comprising adaptations, which result in both physical and cognitive accessibility of the existing museums. As for new museums to be established, it will be easier to apply there these standards of accessibility in such an early phase. In a similar vein, it is vital to have a systematic comprehensive training plan for all museums' staff, particularly members of the Departments of Museum Education for People with Special Needs, which systematically enhances their competence in providing a high-quality experience to visitors with disabilities, particularly those with visual impairment. Accordingly, the outcomes to be reached are believed to be better than the current unplanned spontaneous efforts that depend upon circumstances. In addition, a specified sufficient portion of the Ministry of Tourism and Antiquities' budget has to be allocated to financing museums' application of and maintaining adequate accessibility. This is to be more effective than mainly depending upon sporadic individual efforts or grants offered by different donors like foreign entities or non-governmental organizations.

Different forms of accessibility facilities are utilized in Egypt's museums. Although they are somewhat useful in their totality, it is contended that using tactile flooring and the expansion in enabling touch and in providing audio explanation of objects would lead to impressive results with regard to facilitating more accessible and autonomous museum experiences for people with visual impairment and highly integrating them into society.

In view of that, it is argued that following this would lead to providing museums in Egypt with uniform, standardized, well-studied, and well-programmed accessibility to visitors with visual impairment, who then can enjoy there truly accessible experiences. This in turn would enhance the opportunities of their inclusion and integration into society.

Research in this area is still little. Further research is actually needed to form a thorough understanding of the different aspects of how people with visual impairment can make best use of the museum experience. Of particular significance is the need to understand these visitors' own perception of different facilities and activities made available to them in museums. In addition, the employment of assistive technology applications in Egypt's museums and their ability to enhance the experience of visitors with visual impairment is indeed a vital area that should be investigated as well. Finally, training and qualifying specialized tour guides to conduct tours with such audience in a way that is relevant and satisfying to them and that accommodates their specific needs is believed to be a vital topic that would add much to this area.

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Figures



Figure 1. A braille plan of the Egyptian Museum and a list of objects of the dedicated visit path.



Figure 2. Guiding signs in braille format and high-relief Arabic & English writing, the Egyptian Museum.



Figure 3. A metal enclosure with flattened outside corners to prevent collision with an object exhibited in a hall's middle, the Egyptian Museum.



Figure 4. A wooden showcase with flattened edges and outside corners so as not to harm visitors with visual impairment, the Egyptian Museum.



Figure 5. A glass elevator with a panoramic view and an escalator, the Grand Egyptian Museum.



Figure 6. A touchable object with a braille label from the dedicated visit path for visitors with visual impairment, Mallawi Museum. (2022، بوابة الأهرام).

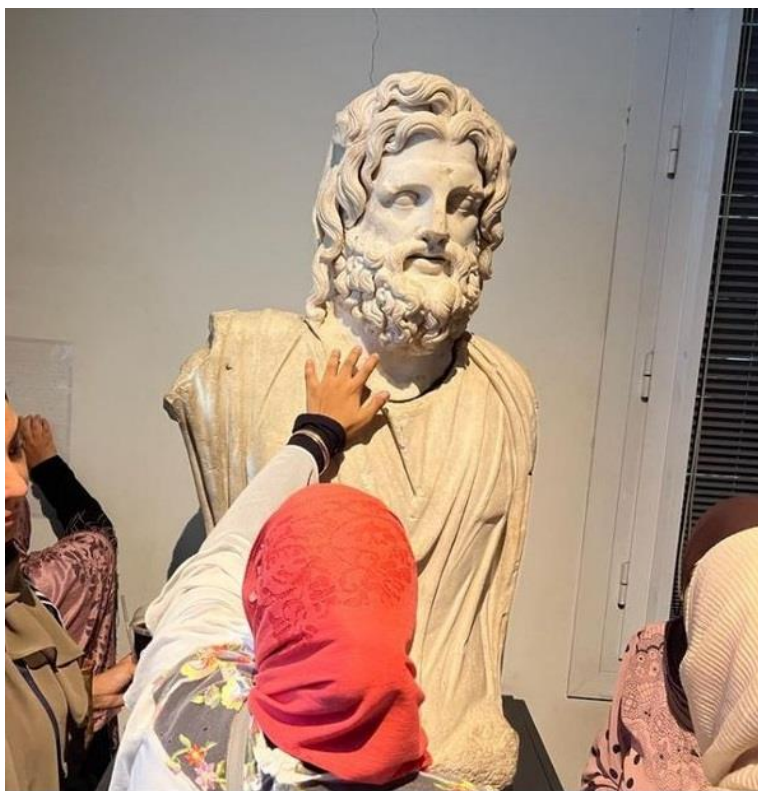


Figure 7. A visitor with visual impairment touches an object of the dedicated visit path, Alexandria National Museum. (Source: the official Facebook page of Museums Sector Ministry of Tourism and Antiquities).



Figure 8. A visitor with visual impairment reads with fingertips a braille label of a touchable object of the dedicated visit path, Alexandria National Museum. (Source: the museum's official Facebook page).



Figure 9. A touchable object of the dedicated visit path for visitors with visual impairment, Luxor Museum. (Source: the official Facebook page of the General Administration of Museum Education for People with Special Needs).



Figure 10. A child with visual impairment handles a touchable object of the dedicated visit path with the help of museum staff, Royal Carriages Museum. (Source: the official Facebook page of the General Administration of Museum Education for People with Special Needs).



Figure 11. A visitor with visual impairment reads a braille label and feels a touchable small-scale model of the Apis Bull statue, the Greco-Roman Museum. (Source: the museum's official Facebook page).



Figure 12. A 3D replica of the Narmer Palette with a braille label, and a group of schoolchildren ready to touch it in a tactile tour guided by a museum staff member, all with visual impairment, the Egyptian Museum. (Source: the museum's official Facebook page).



Figure 13. 2D models of masterpieces with braille labels to be tactilely explored by visitors with visual impairment, the Museum of Islamic Art.



Figure 14. 2D models of masterpieces with braille labels to be tactilely explored by visitors with visual impairment, Cairo International Airport Museum- Terminal 3. (Source: the official Facebook page of Museums Sector Ministry of Tourism and Antiquities).



Figure 15. Sensitive points in red color on braille labels, which can be detected by sensors in the talking pen, the Egyptian Museum (left) & the Greco-Roman Museum (right; Source: The Greco-Roman Museum's official Facebook page).



Figure 16. A visitor with visual impairment reads with fingertips the museum catalogue in braille, Tanta Museum. (Source: the official Facebook page of Museums Sector Ministry of Tourism and Antiquities).



Figure 17. Explanatory panels in braille, giving descriptions and explanations of the museums' main halls, Manial Palace Museum (left) & Gayer Anderson Museum (right). (Source: the official Facebook page of Museums Sector Ministry of Tourism and Antiquities).



Figure 18. A group of an-Nour School students in an artistic workshop, feeling with hands models of Qaitbey Fort and the Ancient Roman Theater with the help of a museum professional. (Source: the official Facebook page of Museums Sector Ministry of Tourism and Antiquities).



Figure 19. Some activities of the Blind School in the Egyptian Museum, including a guided touch tour (left) and a theatrical performance by persons with visual impairment (right). (Source: the official Facebook page of the Blind School in the Egyptian Museum).

نحو متاحف ذات إتاحة كافية: ذوو الإعاقة البصرية وإتاحة المتاحف في مصر

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ملخص

يمثل الأشخاص ذوو الإعاقة البصرية جزءاً هاماً من ذوي الإعاقة أو ذوي الاحتياجات الخاصة ومن جمهور المتاحف المحتمل. ونجد اهتماماً متزايداً بهم في العقود القليلة الأخيرة عالمياً وفي مصر أيضاً. فالتعريف الجديد للمتحف يضع الكثير من التأكيد على قضايا الإتاحة والشمول وتعزيز التنوع. كما أن خطة مصر الاستراتيجية، رؤية مصر 2030، والتشريعات على اختلاف مستوياتها تظهر اهتماماً واضحاً بالتأكيد على حقوقهم وعلى التزام الدولة بتحقيق الدمج الاجتماعي عبر دعم وتعزيز الإتاحة في مناحي الحياة المختلفة، ومن بينها الحياة الثقافية والتجربة المتحفية. وبوصفها مؤسسات ثقافية عامة ذات أهمية، فإن المتاحف قد سعت لإتاحة مواردها وخدماتها للزائرين ذوي الإعاقة البصرية وفقاً لأهداف الدولة وللتوجه العالمي. وبالتالي، في ضوء التشريعات الحالية والتعريف الجديد للمتحف، إلى أي مدى تعد المتاحف في مصر اليوم متاحة لذوي الإعاقة البصرية؟ هذا هو سؤال البحث الذي سعت هذه الورقة البحثية إلى الإجابة عليه. وقد اعتمدت الدراسة على الملاحظة المكثفة للمتاحف ومرافقها وبرامجها، بالإضافة إلى المقابلات مع كبار المسؤولين بالإدارة العامة للتربية المتحفية لذوي الاحتياجات الخاصة التابعة لقطاع المتاحف بوزارة السياحة والآثار ومع المتحفيين العاملين بأقسام التربية المتحفية لذوي الاحتياجات الخاصة بالمتاحف المختلفة. توصلت النتائج إلى أنه على الرغم من الإقرار الواضح والمتكرر بمفهوم الإتاحة في المتاحف، إلا أن التنفيذ والتطبيق هو جوهر الأمر. يوجد لدى كثير من المتاحف بعض السمات أو الخصائص المتصلة بالإتاحة، لكن هناك غياب واضح للرؤية المتكاملة والاتساق وتوحد الجهود، ولا يزال هناك بعض المتاحف التي لا تملك شيئاً تقريباً في هذا الصدد. لتحقيق الإتاحة الكافية، فمن المهم جداً إذاً تحديد معايير واضحة للإتاحة المستهدفة وبناء على ذلك يتم وضع خطة استراتيجية مدروسة لتأهيل كافة المتاحف لتحقيق هذه المعايير. بالإضافة إلى ذلك، لا بد من وضع وتنفيذ خطة تدريب منهجية وشاملة لجميع المتحفيين المعنيين وكذلك تخصيص تمويل محدد وكاف من الميزانية لتطبيق المتاحف للإتاحة الملائمة. هذا من شأنه أن يعزز فرص دمج الأشخاص ذوي الإعاقة البصرية في المجتمع.

الكلمات المفتاحية: الإتاحة في المتاحف؛ ذوو الإعاقة البصرية؛ المكفوفون؛ الاستكشاف اللمسي؛ التجربة اللمسية؛

طريقة برايل؛ التشريعات المتعلقة بالإعاقة؛ رؤية مصر 2030؛ الدمج الاجتماعي