



## **Assessing “the Revival of the Egyptian Museum Initiative” for the People with Special Needs as an Approach for Social Sustainability**

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### **Abstract**

Disability is one of the greatest challenges faced by the societies. Recent statistics from the World Health Organization indicated that the percentage of people with special needs with different disability problems is around 13% globally and exceeds 10% at the local level.

Despite the many national laws and codes that seek to make people with special needs have corresponding life to that of others, there are still barriers to their involvement in the society adequately, especially their use of the social infrastructure, and public and cultural buildings like museums.

Museums are one of the most important establishments that must be suitable for the use of every person including people with special needs. They are catalysts for culture, history, art and science as well as their representation of the progress and renaissance of countries and societies.

The Egyptian Museum with its 19th century neoclassical style has been one of the most prominent landmarks of downtown Cairo for more than 100 years. It has the largest collection of works of ancient Egyptian history and art. Despite its status as one of the most important museums in the world, it has suffered a great deterioration over several decades, which reflected the building and the exhibits negatively. As a result, “The Revival of the Egyptian Museum Initiative” was launched in May 2012 to define the national and international future role of the museum. It aimed to study the current situation of the museum and develop a comprehensive plan for rehabilitation.

The paper discusses and assesses “The Revival of the Egyptian Museum Initiative” and its suitability for the people with special needs as an approach to achieve social sustainability. Moreover, the paper analyzes the appropriateness of the Egyptian Museum for the use of people with special needs and its comparison with a similar global example to come up with a set of recommendations to increase the efficiency of the Egyptian museum and its surrounding area.

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### **Keywords**

Museums; Disability; Special needs; Egyptian Museum

## **1. Introduction**

Sustainability provides a decent life for all human beings while preserving these factors in the future and it is divided into 3 domains

Environmental sustainability, economic sustainability and social sustainability, and this three domain could express

a model for defining sustainability. Social sustainability concept includes topics such as, justice, equality, safety, community development, human rights, social responsibility, social justice and resilience, and human adaptation.

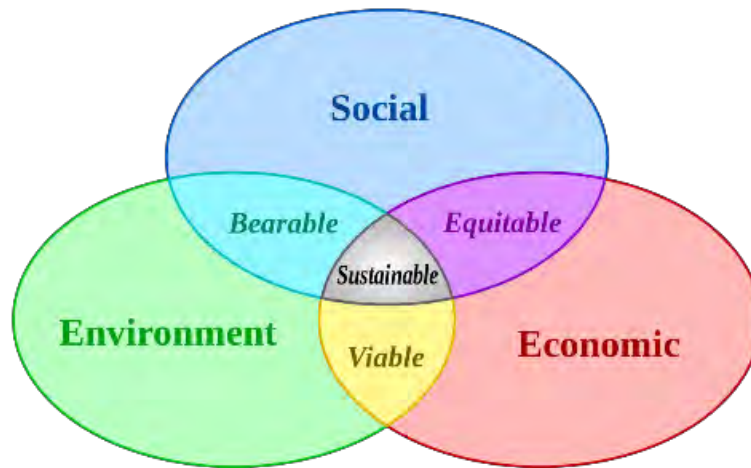


Figure 1. Sustainability diagram

Social sustainability can be defined as "a process for creating sustainable, successful places that promote wellbeing, by understanding what people need from the places they live and work in".

As a result, social sustainability will be ongoing activity that aims to improve the quality of life for all groups of society today and in the future. This activity is the spirit of community and comprehensive cooperative care by individuals and institutions in society for the benefit of the state and society as a whole.

Social sustainability requires that society as a whole reaches a stage where they accept differences and regard them as the source of strength and excellence that achieve growth and well-being for all.

To classify any building as a sustainable building must regard the social aspect and to be suitable for all users.

The problem of disability is one of the most serious problems faced by the communities and one of the most important segments that shouldn't be ignored in the design of any building. Considering the museum building as a reflection of the culture of peoples and their degree of development was necessary to be suitable for use with all users while achieving the criteria of sustainability in general terms And community sustainability in its own concept.

The paper analyzes and evaluates the experience of reviving the Egyptian Museum through the extent to which it achieves community sustainability and is suitable for the use of people with special needs to try to find a way to verify the sustainability of the museum and preserve the cultural and social role.

Following the introduction, the paper is divided to seven sections; it ends with a conclusion and recommendations.

## 2. Methodology

The study combines the inductive, analytical and applied method, which includes all the general and detailed elements related to the subject of the scientific paper. Trying to formulate a method of improving the efficiency of the spaces to achieve social sustainability and the compatibility of the use of people with special needs And focus on the principle of "accessibility" as the most important factor to achieve social sustainability to improve the efficiency of museum spaces and increase their effectiveness for all users.

Inductive Approach: Based on the reports issued by the Ministry of Antiquities in addition to the reports that monitor the process of re-reviving the Egyptian Museum by the General Mobilization and Statistics Authority and the statistics showing the census of people with special needs and their proportions and grades.

Analytical Approach: Analyzing the experience of reviving the museum and its suitability for social sustainability and its suitability for people with special needs, as well as analyzing a global experience that succeeded in achieving community sustainability in community buildings.

Applied Methodology: The applied approach depends on the field visits, monitoring and surveying of a number of users and their surveying about their suitability with the use of all users and trying to compare them with the global models visited by the users of the museum.

### 3. Sustainability

The name sustainability derived from the Latin *sustinere* Sustain means "maintain", "support", or "endure". Initially, the concept of sustainability was an expression of environmental sustainability.

Attempting to reduce the risks resulting from the inappropriate use of natural resources and then expanded to include all environment, economic and community aspects as a part of the concept sustainable development.

United Nations defined sustainability, as "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Social sustainability defined according to the Western Australia Council of Social Services (WACOSS) "Social sustainability occurs when the formal and informal processes, systems, structures, and relationships actively support the capacity of current and future generations to create healthy and livable communities. Socially sustainable communities are equitable, diverse.

### 4. Disability

Disability is a problem in the function or structure of the body that inhibits the individual's ability to perform a task or work, while restricting participation in the individual's problem in society. It also defined as a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Thus, disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives.

The concepts differed in determining the meaning of disability, its types and degrees, cancel these entire try to provide a life equivalent to their owners enabling them to engage in the community without the help of someone else to overcome the obstacles they face.

The division of people with disabilities (special needs) into groups that are similar or vary according to a specific characteristic, so that they help determine the nature, quantity and type of service that each category needs. The classification of the disability according to the subjective, medical, educational and social criteria, External to different senses identified in four main branches.

- Mental disability:
- Sensory Disability:
- Motor disability (physical)
- Unseen disabilities

The paper focuses on the type of motor disability and every invisible disability that hinders the users' use of the museum to visit and benefit from the cultural role of the museum.

The problem of disability is one of the most serious problems now and the role of integration of the disabled in society is one of the most important roles that must be within the requirements of the construction of any building.

The percentage of people with special needs is increasing significantly, which leads us to reflect more and try to address the obstacles that may prevent their participation fully effectively in their society on an equal footing with others.

- In 1986, it reached about 500 million disabled people, representing 10% of the world's total population.
- The percentage increased to 600 million by 13% of the world's population in 2000.
- Then increased to reach 650 million by 13.5% of the population in 2006.
- Up to one billion people that reached 15% of the world's population in 2011.
- And their percentage in Egypt exceeded 10% of the total population.

Despite the multiplicity of instruments and covenants, there are still barriers to the participation of people with disabilities around the world as members of the society on an equal basis with others.

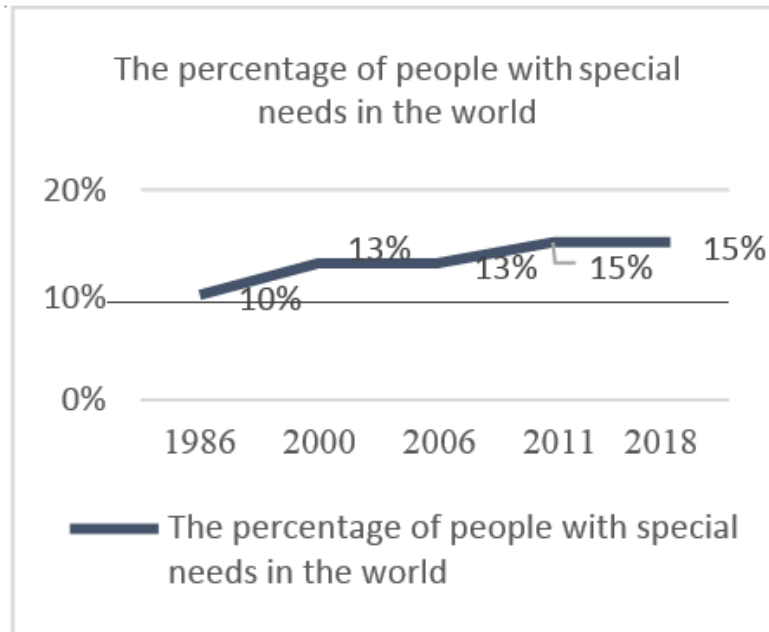


Figure 2. According to the researcher from UN statistics

## 5. The museum

It is a permanent exhibition aimed to preserve monuments and presenting them in a way that preserves their educational and artistic value, therefore, these institutions play a very important role in the social development.

The purpose of the museum is to create a space that preserves the exhibits, in a vacuum to provide an attractive and exciting environment that complements the idea and philosophy of these exhibits.

Museums hold moveable cultural heritage, and the identity of the community. They can also be a place of inspiration for all from the ordinary public to specialists or any other person seeking enlightenment and a place to learn new skills from infancy to old age.

Interest in museum buildings in Egypt began in the late 19th century until it became a state plan to preserve its historical holdings at the beginning of the 20th century at the time when the Egyptian Museum was built.

## 6. Museums and sustainability

The great role played by the museum building makes it necessary for museums to be sustainable buildings that integrate all their environmental, economic and social principles.

In addition, trying to reflect these concepts on the community and all buildings that reflect it to serve both current and future, and making this vision to a general trend for governments trying to achieve.

### 6.1. The Egyptian museum

The Egyptian Museum considered one of the national museums that presents a certain era of history in a specialized style.

The Egyptian Museum was designed using the Roman style on 13600 m<sup>2</sup> in the center of Cairo and was open in 1890.

The museum is currently displaying 63,743 monuments. There are 53,722 monuments not exhibited. The technical workshop and the stores are located in separate buildings. There is also a museum garden in front of the museum. Containing some of the original pieces that weren't influenced by weather conditions.



Figure 3. The Egyptian museum Cairo Museum, early 1900s Photo by: The American Colony and Eric Matson Collection

### 6.2. Description of the museum

The Egyptian Museum was the first museum in Egypt designed with large interior spaces to accommodate large numbers of sub-monuments. The building consists of two symmetrical structures on either side of a main north-T axis in the form of a vertical southern letter, with the central hall, which lined with rows of arches and columns on either side.

The gallery extends (Honorary hall) vertically on this axis parallel to the southern facade of the museum and designed in the form of a series of rectangular and circular double-edged spaces extending from east to west, with a rounded hall in the middle after the main entrance of the museum directly. It is located on either side of the central hallway.

The large series of seven grand halls, which are double-storey rooms with taller lighting.

These halls connected to each other through two indoor and outdoor galleries located in the two halls of the museum. The seven halls surrounded by the two sides and the galleries connect the two sides of the museum.

With the expansion adopted by the country in the construction of a number of museums throughout the Republic to accommodate the newly discovered and stored objects, especially the Egyptian Grand Museum, the Egyptian Museum still, continually holds its cultural and community role.

Despite the creativity of the design, it lacked the needs of people with special needs, which were not required to design museums at that time. The changes that took place in the museum throughout different decades did not take into account the museum's suitability for people with special needs.

## 7. The changes that flew on the museum

The Egyptian Museum had deserved attention for many years. Transportation and infrastructure projects in the region were one of many several factors that resulted in permanent physical damage to the museum's structure and caused deterioration in the surrounding environment that seemed irreparable. This disregard caused painful harm to everyone who use it.

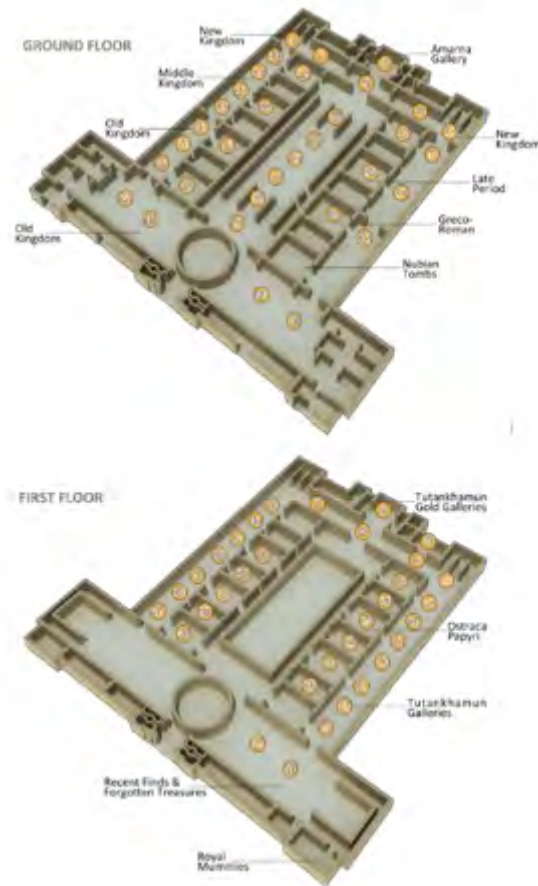


Figure 4. The Egyptian museum isometric plans

The changes of the museum building in its current status over the past decades, most of which contributed to the damage of the general harmony of the building and architecture, both on the level of the inner perimeter of the building and the outside perimeter.

### 7.1. First: For the exterior of the museum

The establishment of several projects near the museum is a constant problem facing it since its inception, in some cases affecting the structure of the museum. The vibrations resulted from these activities, such as tunneling during the construction of metro lines, and traffic fluctuations near the museum in “Tahrir Square” and the construction of the sixth bridge of October caused cracks in the walls of the museum and influenced the monuments.

By 1949, the British military barracks southeast of the museum removed, adding a larger area of public land to the museum. Five years later, in 1954, Cairo Governorate seized a large piece of land to establish the headquarters of the Arab League in the west and south of the museum, in the addition of the establishment of the Nile Hilton Hotel (now the Nile Ritz-Carlton) and a private building in Cairo Municipality.

After that in 1962 Nasser decided to establish the headquarters of the Arab Socialist Union on the land of the museum which changed by the late President “Sadat” to the headquarters of the National Democratic Party in 1978.

In the last years of the 1970s, the ministry established number of transportation and tourism development projects as 6th of October Bridge and the Ramses Hilton Hotel in the “Abdel Moneim Riad Square” which doesn’t take into the account the museum’s development needs and its overall plan.

The eastern side of the museum expand the adjacent road, while the gardens in the south removed and a bus station, which demolished in the 1980s during the construction of a tunnel station in Tahrir Square.

## 7.2. Second: Regarding the interior of the museum

There are currently 89 showrooms, although the museum already had 100 showrooms. The shortage in the showrooms resulted from the conversion of some exhibition spaces to storage facilities, which increased over time. The interior round hall on the ground floor is no longer open to the public and has been converted to a storage space. The library and the administrative offices have separate entrances on the western and eastern sides of the southern façade of the museum. The Egyptian Museum from the beginning represented a series of architectural and constructional challenges for the construction contractors.

During the museum construction, they modified the museum roof to achieve natural ventilation, lighting. Moreover, it was decided that the ground floor of the central hall should be constructive in lower level to be suitable to accommodate statues and monuments.

Over the years, the museum exposed disregard because of many factors which negatively affected the museum. After the 1967 war, the government decided to build concrete roofs over the museum to protect the museum from possible air strikes. Without taking into account the excessive load on the museum's roof structure. Moreover, the reflected sense which required to be achieved through natural lighting and ventilation.



Figure 5. Roof modifications after 1967 war to protect it from air strikes (Photo by EQI report for reviving of the Egyptian museum in 2014)

The building of the Egyptian Museum has been classified as a protected monument and has been under the protection of the Ministry of Antiquities since 1983 for its unique architectural style. Law No. 117 states that protected not only the museum but also can control all buildings surrounding the museum in a circle of circumference 500 meters. The Protection Act allows for alterations on the premises of the museum building, which means that at least the land occupied by the former National Museum building annexed to the museum. The granting of this piece of land to the Ministry of Antiquities will greatly support the rehabilitation of the museum in accordance with its revitalization initiative.

## 8. Initiative to revive the museum

The Ministry of Antiquities is implementing the initiative to revive the museum in partnership with “Environmental Quality International” (EQI), in May 2012. The initiative aims to restore the museum to its original design by the French architect “Marcel Dornillon” in the 19th century.

The initiative includes works in architecture, restoration, maintenance and conservation. The initiative also includes works to develop the liberation area and the surrounding area of the museum.

In an interview with “Mohamed El Sayed”, who is in charge of the museum’s restoration He explained that the revival of the museum divided into 3 phases

- First phase: From the beginning of the project in 2012 until 2016 and was in the development of the upper halls of the museum.
- Second phase: From 2016 until 2018 which include the restoration of the Tut passage of Khamon and the it’s halls.
- Third phase starts from February 2018 and takes 30 months which include the entire revival of the museum.

When we asked about the tasks assigned to him for the development of the museum, he explained that the company’s tasks are concerned with the restoration of the museum, including walls, floors and ceiling, and does not includes the development of the museum to be accessible for people with special needs.



Figure 6. Photo for the Revival process in the first floor (Taken by the author on 2/6/2018)

The development strategy is based on three axes

- Performing architectural restoration work to rehabilitate and rehabilitate the museum building with the help of newly graduate university graduates with the appropriate skills under supervision, training and appropriate guidance.
- Provide technical and administrative training for the staff of the museum to enable them to preserve the effects and upgrade the process of visiting the museum to all visitors.
- Provide educational activities and awareness-raising activities to achieve community involvement in development processes.

As for building work, the initiative focuses on four key principles in its implementation

- Sound environmental management and commitment to the best energy saving practices.
- The use of prevention as an advanced means of preserving the effects.
- Work with labor-intensive methods.
- Making the most of the training of young university graduates participating in the restoration work.

The initiative to revive the Egyptian Museum suggests following simple rules in the proposed construction on the western side of the museum to replace the land of the national party.

It is expected that the museum will benefit from the special constructions in this area of various activities Cultural, scientific and economic, including permanent or temporary galleries, new restoration laboratories , offices ,administrative and other museum facilities.

The commercial buildings established in the western square of the museum will remain in place while maintaining their current functions and revitalizing these functions (library, shop, gifts and restaurant)..

The proposed new facilities will be built on the western side of the museum around a pharaonic park designed in the style of ancient Egyptian gardens. The Pharaonic Garden is surrounded by a colonnaded corridor with open rooms for the public, including temporary display areas, as well as restoration plants.

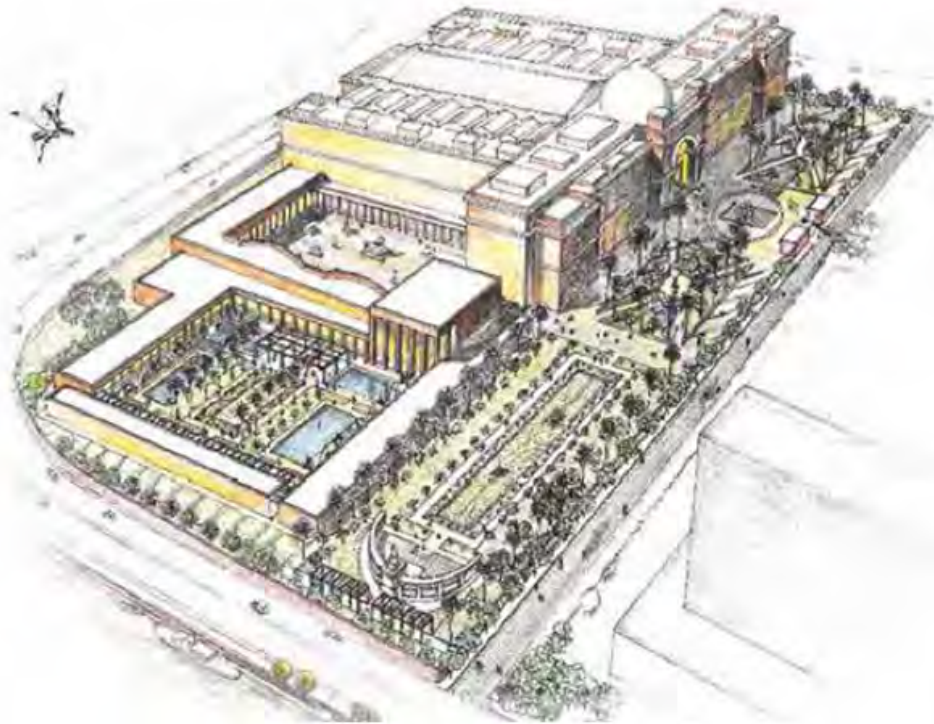


Figure 7. The conceptual design for the extension of the Egyptian museum by EQi

The initiative also proposes the establishment of a tunnel to link the museum to the river, allowing visitors to enter and exit the museum site from its western façade overlooking the river and restore the capacity of the museum to transfer its holdings across the Nile River as it was estimated when it was built.

It is also proposed to extend a botanical garden as an encyclopedia of ancient Egyptian vegetation extending from the inside of the museum to Tahrir Square.

Moreover, the initiation will extend to develop all downtown area after improving the Egyptian Museum and its surroundings.

In spite of the importance of the role-played by the initiative to revive the museum and the impact of the monument, it is missing the special needs.

Although the Ministry of Housing, Utilities and Urban Communities issued the "Egyptian Code for the Design of External Spaces and Buildings for the Use of Persons with Disabilities" in 2003, the Initiative to revive the museum did not comply with the requirements contained in the Code, which is reflected in the participation of persons with special needs in society on an equal basis with others. Which is contrary to the general principles assumed by the initiative of revival and not achieving the sustainability concept by missing one of the most important component, which is social sustainability.

## 9. Accessibility of people with special needs (Case study)

The Egyptian Museum considered as one of the most important museum in the world and the most important museum on the local level in addition to the Revival Initiative for it in a recent period and the attempt to choose a global example to compare the suitability of the requirements of people with special needs.

Where the two museums met in several factors

- Both museums specialize in a historical exhibition of the country history for each of them
- Both the museums are located in the heart of the capital
- Both museums were built in the last century and in a relatively old period
- Both buildings have been renovated in a relatively recent time
- Relative convergence in the built up area for both of them

And we could compare them in several factors

- Location
- Parking and Enterances
- Pre-visit materials
- Vertical links
- Restrooms
- Tour guidances
- Disability services

The National Museum of American History was chosen as the best global example of achieving these factors to be compared with the Egyptian museum.

### 9.1. The Egyptian Museum (The local example)

Although the Egyptian Museum is one of the most important Egyptian museums and reflects its cultural and social role, it is not suitable for the use of people with special needs.

- Location: Tahrir Square, which the museum is located in not suitable for people with special needs.
- Parking and enterances : There is no private parking for the museum but there is near public parking beside the museum and it provide slots for prople with specaial needs ,but it is seperated with about 100 meters from the museum and the lane between them is not suitable with the people with the special needs.
- Pre-visit: there is no previsit material for people with special needs for they accissable or there guidances.
- Vertical links :The lack of only one elevator to the museum which is added to it later and doesn't placed in clear place and could only use it by requesting from museum administration as well as it can not reach all the spaces of the museum as the courtyard of the museum which is located in the lower level from the ground floor of the museum and separated with 14 stair and can not be reached through the elevator and there is no ramp to avoid using of the stairs.

- Restrooms :The museum toilets of the museum are located in the middle level between the ground floor and the first and can only be reached through the rise of 12 stairs as well as not suitable for the use of people with special needs.
- Disability services: There are only tools for mobility disability and there is no other tools for other disabilities.
- Tour guidance : Lack of any of the guidance that contribute to the use of people with special needs of the museum presentation, either through special booklets for the blind or tours for the deaf and dumb.

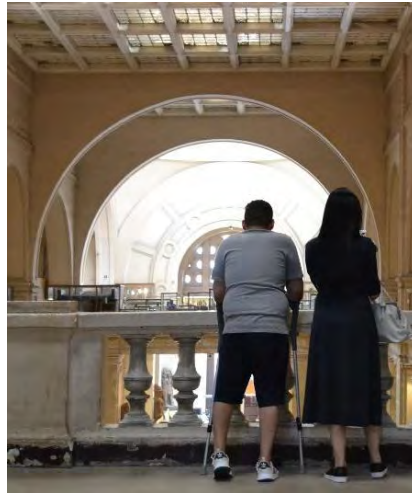


Figure 8. Photo for a disabled tourist visiting the museum (Taken by the author on 2/6/2018)

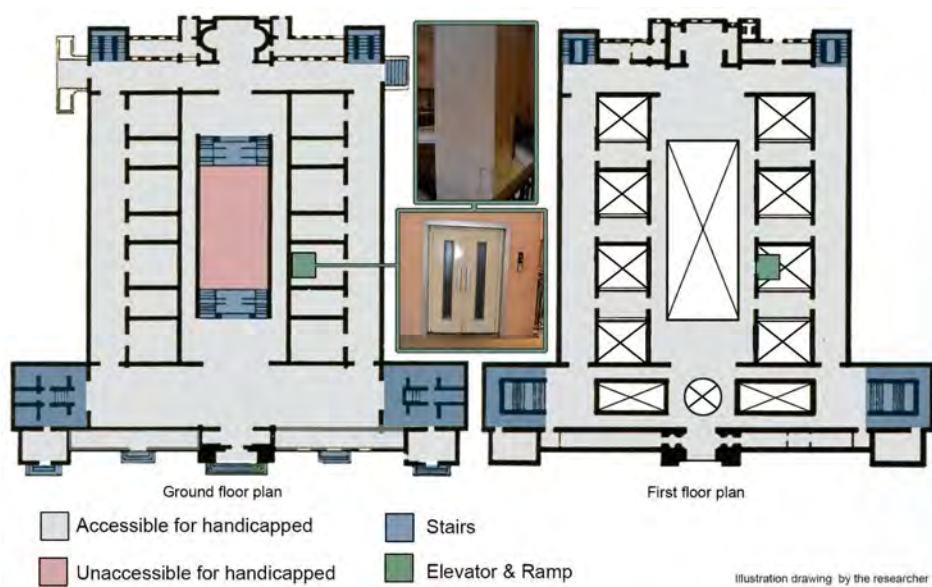


Figure 9. Analyzing plan for accessibility for the Egyptian Museum

## 9.2. The National Museum of American History (The international example)

The National Museum of American History: display the heritage of the United States in the areas of social, political, cultural, scientific, and military history. The museum is located in Washington, D.C.

The museum have been designed with a strong focus on accessibility for all visitors

Specially for people with the special needs with the standers of ADA (American Disability Act)

This illustrated in:

- Location: The area where the museum is located in is suitable for the people with special needs.
- Parking & Entrances: the entrance is located beside the parking and it provides parking slots for special needs.
- Pre-Visit Materials: people with special needs and their families can find tip sheets, sensory maps, social stories, and visual schedules to help them to enjoy the visit, which is available on the website page.
- Vertical links : All spaces is accessible for people with special needs with elevators and other vertical links which make them enjoy the museum as any other visitor.
- Restrooms : Museum restroom regarding the use of people with special needs and provide special cabins for them.
- Disability services :The museum provide wheelchair service while visiting the museum by requesting it from the security officer.
- Tour guidance : The museum provide a special kind of tour for people with special needs without pre-reservation, they could enjoy the tour using audio-described tour or sign language interpreter.

In addition to several brochures produced by the museum in alternative formats at the information desk

Museum achieve his cultural role in the Addition to achieving the exhibition role with regarding the people with the special needs and it could be founded in

- Theater features seating for wheelchairs and anyone who have any problem with his mobility.
- Exhibition space are accessible for people with special needs and also provide visual and vocal devices for them.

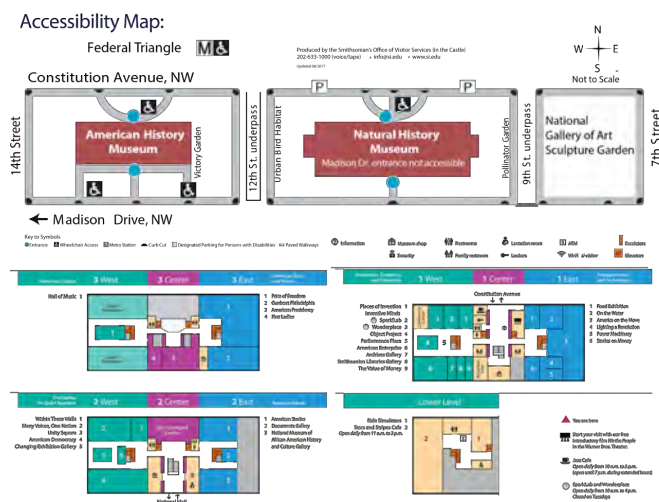


Figure 10. Analyzing plan for accessibility for The National Museum of American History Produced by the museum website page

The examples reveal to us how important the museum building is at the cultural and educational level.

And the large number of visitors which visit it with their different mobility situations and their different ability to use their senses, and the importance for the museum to achieve the concept of "accessibility" which means not only making all the spaces accessible for them but also provide the Same visit quality for all museum users.

## 10. Conclusion

In the paper, the concept of social sustainability was discussed as a platform for achieving sustainability in museum buildings and focusing in its comprehensive concept on "accessibility" as a major source that investigates the role of society as a way of expressing it's civilized and cultural role.

Do not achieve the principle of "accessibility" only through the ability of all visitors to visit the museum, regardless of the degree of disability.

And referring The number and degrees of disability of persons with special needs to be a reference index for the target group of the study.

And then evaluate the Egyptian Museum in the current situation and initiative to revive the museum which launched in 2012 and the extent of its realization of the concept of accessibility and compare it to a global example to reach a set of recommendations to increase the efficiency of the museum and achieving sustainability.

## 11. Recommendations

- The importance of maximizing the museum's role in society and increase educational and cultural awareness
- The importance to restore the Egyptian museum to its original design
- The need to include the design requirements that make museums able for people with special needs in the initiative to revive the museum
- The importance of keeping pace with technological development and activating the latest means and systems that help facilitate the movement of people with special needs and their integration into society
- Provide professionals workers to educate the people with special needs and appropriate training and support for them
- The professional development of museum staff's competences relating to disadvantaged youth's learning and involvement
- A particular attention to designing programs and activities with an inclusive approach, also in terms of learning styles and contents adaptability
- The provision of community-based activities for people who can not reach the museum

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