

TOWARDS SUSTAINABLE HERITAGE CONSERVATION IN EGYPT: A DETAILED ANALYSIS FOR IDENTIFYING THE VALUES USED IN SELECTING HERITAGE BUILDINGS

NAGHAM A. ELSHAZLY, DINA M. NASSAR & ZEYAD EL-SAYAD
Architectural Engineering, Alexandria University, Egypt

ABSTRACT

Listing heritage buildings in a certain country is the first step towards building conservation and sustainability. Thus, national governments, agencies, or organizations are responsible for deciding whether a building is of special value that should be listed. Different building conservation systems all over the world aim to preserve their heritage by identifying values based on the global principles agreed upon in all charters and treaties. Value concept passed through a long evolution of human thought including historical, artistic, social, political, educational, cultural, and many others. However, such various dimensions of values have become beyond the discussion and analysis of heritage conservation projects. This research seeks to identify and collect all values for selecting heritage buildings to facilitate their registration and management. Therefore, the study focuses on reviewing the existing criteria for listing heritage buildings in five countries: Canada, United States, United Kingdom, Australia, and the European Union. According to the results of the content analysis, by summing up all criteria needed for listing heritage buildings, a detailed analytical study for values and their indicators is conducted to improve and facilitate the listing management system in Egypt. Furthermore, the result shows the values and indicators that need to be added in the assessment criteria of Egyptian national law. This can raise the awareness and significance of various heritage buildings preventing their neglect and demolition.

Keywords: conservation, heritage buildings, cultural values, documentation, listing, criteria, sustainable heritage.

1 INTRODUCTION

The evaluation of heritage criteria is based on the building's values, which include the degree of significance, condition, integrity, and authenticity. The importance of heritage buildings is figured out by a range of values that reflect the nature of each structure. "Heritage impact assessment" is used to identify the values and indicators in heritage buildings to determine the appropriate restoration process in relevance to the assessment results [1]. Consequently, *Criteria* are tools or methods for identifying, evaluating, analysing, measuring, and determining the significance of heritage buildings or sites. They contribute to the integrity and discipline of the evaluation process. Criteria bound a wide range of indicators, which form a framework for determining different *significance values*. As a result, historical buildings and sites must reflect a range of significant values to show its uniqueness, with a set of characteristics that indicate its historical importance. However, different factors must be analysed and evaluated to decide whether a building is worthy of inclusion or not [1]. A comparison was drawn between the ancient maps and the new satellite image to determine the locations of the listed buildings and their context and address their present value to the area and the list. The list of Alexandria's historical buildings and sites does not include any information on how to preserve their sustainability. Therefore, many heritage and historical buildings have been affected by the factors of environment erosion and are not well documented, which led to the disappearance or demolition of their heritage values [2]. The



aim of this research is to generate a systematic detailed analysis for the evaluation criteria, as to fully define everything related to the building that makes it eligible for registration. This could be achieved by studying and analysing these values and their indicators to emphasise the importance of the historic buildings and sites in line with international treaties and national laws. This study recommends a set of detailed values and indicators used in selecting heritage buildings worldwide to enhance the listing process in Egypt, due to the lack in the heritage management listing system. In addition, it aims at finding solutions to protect heritage buildings in Egypt and sustain the quality of culture heritage through reviewing different international rating systems. Finally, the paper objectives are to enhance local values and indicators used in selecting heritage buildings in Egypt. This could ensure the accomplishment of management practices and methods to remain adequate in protecting the cultural heritage buildings under safeguard and provide an extensive review of research on Sustainability of Heritage Buildings (SHBs)

2 DEFINITIONS

Heritage documentation is a basic process that can influence and facilitate any essential actions to protect historical buildings for future generations or to enhance their effectiveness and performance. Consequently, documentation is critical to a building's sustainable and long-term survival. Besides, heritage building documentation helps in forming better awareness of the building's history, including its past sociocultural context, building technologies and used materials. The systematic recording and archiving of intangible and tangible features of historical buildings and environments referred to as heritage documentation. It aims to provide correct and precise information that allows appropriate conservation, management, and maintenance to sustain its survival. Documentation is the first step in heritage building evaluation, conservation, adaptation, renovations, and maintenance. It has the authority to include both quantitative and qualitative values [1].

Heritage conservation, in its many forms, types and historical events, is based on its ascribed values. The capability to appreciate these values is influenced by the extent to which data sources concerning these values are recognized as reliable or accurate. Understanding and analysis of data concerning the original and following heritage features with their significance is a critical prerequisite for analysing all elements of authenticity.

Listing of heritage buildings, sites or areas is a type of documentation process which has cultural or historical symbolic importance that has been selected and organized by national authorities, institutions, and private organizations. Listing heritage contributes, guides, and aids in promoting knowledge and appreciation for the significance of such buildings, sites, or areas. In addition, it provides awareness of inherited values to the individuals, society, and stakeholders in the community, thus enhances community members' enthusiasm and gives a sense of place. Furthermore, it can participate and contribute to the development of tourism [3].

Sustainable heritage is the main goal for any conservation management program. The Brundtland Commission of the United Nations defines sustainability as "the development that meets the current needs without compromising the needs of future generations' potential". In general, any sustainable development that fulfils description will support the conservation of cultural heritage. The conservation approach of heritage-building is the ultimate of sustainable development as it is based on a desire to protect a building so that it can be valued by current and future generations with more socio-economic benefits. In terms of social cohesiveness and identity, heritage buildings contribute to create a feeling of place, educate, and promote social cohesiveness. Therefore, they create and maintain "social value". In terms of economics, heritage buildings can improve a community's economy by



encouraging heritage tourism. In addition, they help to show a “feeling of place” that attracts visitors. Furthermore, there are social and operational benefits for heritage building occupants relating to “feeling better” about inhabiting and helping to maintain something of communal importance. The concept of “sustainable tourism” was mentioned in literature in the 1980s. The development of the concept of “sustainable development” protecting, preserving, and promoting natural, historic, cultural, social, and aesthetic values, which are the source of tourism, is the concern of sustainable tourism [4].

Authenticity in tools or materials is a major factor for validity in design and craftsmanship, which defines the historic resource with value in context. Historic resources are affected by natural development and human use, and these changes are part of the historical division. “The presence of authenticity in a heritage building and its context will be the basis for the measurement of applicable cultural values”. In the 1994 Nara Conference, Jokilehto stated that “identifying of variables for the standard of relevant authenticity will also be dependent on these values”. Considering today’s society, its character, and the problems it faces in relation to its own identity and authenticity, it will be necessary to maintain the authenticity of existing heritage resources from the past [5]. Heritage buildings will form a reference for future memory and will therefore need to be conserved with due respect for relevant issues. A proper procedure is necessary for dynamic conservation management of the physical environment and the approaches to authentic cultural traditions which will require assistance with general planning and administration to maintain their authentic creativeness.

3 METHODOLOGY

The paper seeks to identify and collect all values and indicators that are used for selecting heritage buildings to facilitate its registration, and therefore, its management. Therefore, the study focuses on generating a detailed analysis for listing and evaluating listing heritage buildings criteria in different countries with different cultural policies that are planned and implemented in various Member States or National Federals and determining their cultural policy and methods according to their own conception of culture, socio-economic system, political belief, and technical development to improve and facilitate the listing management system in Egypt.

4 LITERATURE REVIEW

The literature review is presented in two parts. The first part shows the international charters and treaties standards for listing heritage buildings, and the second part reviews the different policies and standards guidelines of the five different countries as well as Egypt.

4.1 Declaration and standards of listing buildings according to international charters and treaties

In 1954, The Hague convention in the event of armed conflict adopted by international conference by UNESCO conducted the international list for protecting cultural heritage under any condition. In Chapter II, procedures and framework in listing the heritage buildings are promoted to ensure high degree of protection to heritage resources to achieve certain criteria and conditions [6].

In 1964, The Venice Charter for Conservation and Restoration of Monuments and Sites declared that “The purpose of listing is to provide a degree of recognition and protection for buildings of cultural and historic significance” [7].

In 1966, according to National Historic Preservation Act, the National Register of Historic Places (NRHP) is an official list of places, sites, buildings, constructions, and artworks by



the United States Federal Authority that has considered great conservation building to their historic value. The property must contribute to the major theme of American history which is classified into four categories [8]: Related to historical events. Entity is related to historical figures or famous people in the past United States. Architecture style is concerned with the building's identifying architectural and construction qualities and features, such as having considerable artistic value or uniqueness. Information value, when the building has presented or may be intended to provide a good source of information of ancient history or past.

In 1972, the world heritage convention declared the strategic guidelines and standards for listing the heritage cultural and natural resources, in support by UNESCO Institute. The Convention's secretariat founded three technical responsible committees: IUCN, ICOMOS, and ICCROM. In 1977, the committees established the operational guidelines for selecting heritage buildings. For cultural property, the following criteria must be met: Exceptional significance in terms of impact on successive developments, uniqueness, important example of building type, sensitivity of traditional forms, and historical significance value.

The Committee also created a list of World Heritage in Danger that include buildings threatened by disappearance caused by rapid deterioration, large-scale public or private projects, or rapid urban development projects, destruction caused by modifications and its significant changes, natural disasters like fires, earthquakes, floods, and tidal waves [9].

In 1979 and 1999, The Burra Charter (Australia's ICOMOS Charter for Buildings of Cultural Significance, Site, area, landscape, buildings, and other work) is declared. This charter's goal is to define cultural importance referring to the aesthetic, historic, scientific, social, or spiritual value of a location for past, present, or future generations. Cultural significances are represented in the location, fabric, function, relationships, meanings, and related entities. Burra Charter included three additional terms in 1979: site, location, building or group of buildings with relevant elements and surroundings. Cultural value refers to aesthetic, historic, scientific, or social worth. Fabric refers to all the physical form of the location [10]. The declaration of Nizhny Tagil Charter for The Industrial Heritage created by TICCIH has a social value which gives a significant feeling of identity, has an aesthetic and rarity value due to its artistry and quality in architecture style, form, design, and its scientific meaning, and significance value in technology, construction, and structure. Consequently, these values are embedded in the site's fabric, characteristics, equipment, and context. Landscape should be analysed and well-documented [11].

In 1993, The Director of the UNESCO Local Project proposed a method used in monitoring program for listing the cultural heritage, which emphasises and recognizes how the strategies is constantly revised in discussion with those involved in the monitoring system and based on the past recommendations from the advisory parties [12]. The submission group for listing the heritage building must be included as shown in Fig. 1.

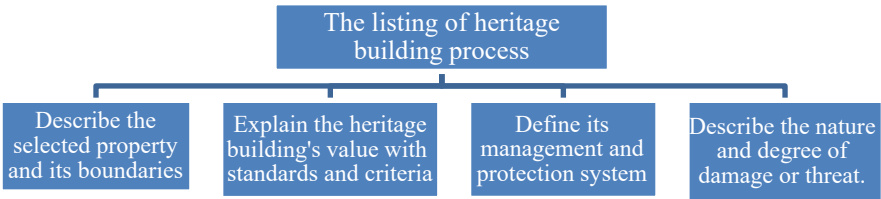


Figure 1: The listing the heritage building process [13].

In 1994, according to Nara document, evaluating all elements of authenticity requires knowledge and understanding of various sources of information in relation to the original and later qualities of the cultural heritage and their meaning. The values linked to the cultural heritage are the basis for preserving cultural heritage in all its aspects and historical period. The level to which sources of information about these values can be taken as reliable or accurate influences facilitates understanding heritage buildings [5]. When evaluating or dealing with World Heritage sites, two classifications should be considered: cultural values and socio-economic values. First, cultural values are divided into three categories: identity value, which is dependent on recognition, artistic and technical value, which is based on research, and rarity that is based on statistics. Secondly, socio-economic values which are linked to economic, functional, educational, social, and political values [14].

4.2 Principles of selecting heritage buildings in different listing regulations

In this part, the research focuses on national heritage lists of five different countries to understand how value-based criteria are used to list heritage buildings. These countries were chosen based on their history of longstanding heritage of preserving their cultural heritage. Therefore, the assessment criteria used for selecting or listing heritage buildings in different countries is analysed to show the selection process according to their own conception of culture, their socio-economic system, and technical development.

4.2.1 European Union

In 1985, the Granada Protection Act of Europe's Architectural Heritage introduced the principles of European coordination and collaboration in the field of architectural conservation in 25 member States. Half of the world heritage buildings are in Europe, with most of them in the European Union. Italy is top, followed by France, Germany, and Spain, all of which are ranked second. The 2005 Framework Convention on the Social Value of Cultural Heritage (the Faro Convention) emphasized the social and economic benefits of cultural heritage preservation as a requirement for achieving sustainable development [15].

According to the Culture and Heritage Law and the general evaluating cultural heritage to develop a legal status for protecting cultural heritage, the criteria for heritage value, the principles and conditions for the evaluation process and related documentation, all are defined in the guidelines and regulations for selecting heritage buildings. The main criteria of heritage significance fall into three categories: associative significance, vital significance, and contextual significance. The buildings and sites must achieve the following specific goals [16]: emphasizing their importance to Europe. Artistic, cultural, and historical educational value for raising awareness among Europeans, especially among young people. Promoting the economic and sustainable growth of regions, particularly through cultural tourism, to increase their attraction

4.2.2 Canada

In 1982, The FHBRO controls set of procedures that are explained in the policy, such as the evaluation of the historical significance of federal historic buildings, the review of proposed alterations to federally mandated historical buildings and gives conservation guidance. FHBRO development is based on the responsibilities related to cultural heritage under the Treasury Board Policy on Monitoring of Real Property. The possibility of providing a sustainable, new life for the historic location is figured out by an evaluation of historical value and physical suitability with the historic place. These four criteria, "Aesthetic Design", "Functional Design", "Craftsmanship", and "Designer", are aimed to evaluate the



architectural building's value, both in terms of design and implementation. In applying these criteria, the current state of the building must be considered, with the consideration that inappropriate changes or demolished fabric could damage or affect the building's architectural value. The Standards and Guidelines have grown into a crucial tool for heritage conservation across Canada since their first publication in 2003. A set of criteria is defined as a group of values, and buildings are measured in the simplest form of architectural evaluation system [17].

4.2.3 Australia

The National Heritage List is managed by the Ministry for the Environment, Heritage, and the Arts, by the Environment Protection and Biodiversity Act 1999 (the EPBC Act). The Minister can only make this decision under the EPBC Act after receiving a policy from the Australian Heritage Council and having a stringent legislative evaluation process to determine whether places on the Finalized Prioritized Evaluation Register for acceptance in the National Register of historic places fulfil the criteria, and to determine whether a building achieves the criteria, where the procedure must analyse and evaluate relevant details. Criteria are a set of principles, qualities, and classifications that will be used to decide whether a building has a heritage value. A heritage list usually has multiple criteria, and some of them must be fulfilled to be evaluated for listing. During the assessment process, the eligibility guidelines are taken into consideration [18]:

- To emphasize the values of the criteria and create checklists for evaluators to determine whether a building has interest and high cultural significance. The significance indicators are not an extensive list of values.
- Figure out the authenticity of the heritage value to verify its originality

The criterion is to show important aspects of architectural design styles and its aesthetic significant, typologies, and other elements that are important to Australia and its way of life. Cultural heritage must be included as an important kind within each grouping's general typology; thus, not every subsection of culture is acceptable under this criterion. The criteria are to show outstanding exceptional examples. A one criteria relation change may result in other various criteria. This could happen if it is determined that it is a location or district linked to a significant or connected to Australia's natural or cultural history. Therefore, associative value is a connection between a location and the history or pattern of Australia's natural or cultural history. Cultural values include the aesthetic, historic, scientific, and social values that occur across the spectrum of the heritage buildings.

4.2.4 The United States of America

According to the Historic Sites Act of 1935 (HSA) legislation, the Federal Role in Historic Preservation of America (US Federal Government) indicates that when a local authority receives an application affecting a historic building or area, it becomes necessary to ensure that appropriate information is available to make an informed decision on the proposal's impact. Location or sites, design, materials, workmanship, and association possess a high level of significance in the American history. Buildings of historical figures, sites owned by religious institutions or used for religious purposes, buildings that have been relocated from their original positions, restored historic buildings, properties that are symbolic in character, and buildings that have achieved significance within the last 50 can be listed according to its historical significance value [19].



4.2.5 The United Kingdom (London)

The National Planning Policies Framework has a government planning policy (NPPF) that provides additional protection for listed buildings through the procedures of Listed Building Consent (LBC) and planning authorization (Listed Buildings and Conservation Areas) Act 1990. England has an incredible selection of historical buildings, some of which are world-famous national landmarks. They range from grand cathedrals and palaces to smaller but equally remarkable buildings spread around the country. They form an important part of the historic landscape that surrounds them and enriches the lives of current and future generations. Buildings that meet certain listing requirements, such as having a special interest and values, are given this classification. Some criteria and principles for listing buildings are set in the guidance and selection criteria on the English heritage charter [20].

4.2.6 Egypt

According to National Organization for Urban Harmony, the Egyptian cultural heritage sites include a wide range of types that limit prehistoric to modern times. They must be defined carefully to determine the extent of their importance. For example, there are important historic buildings, sites, and districts in Egypt which do not have accurate or proper evidence that indicates their importance. However, they are known only through writings or oral tradition [21]. According to Law No.117 for 1983: Buildings classified as “historic” if they can be attributed to one of Egypt’s essential cultural influences: Greek, Christian, Islamic, or Ancient Egyptian. Law No. 144 of 2006 sets out the standards and specifications for protected buildings; namely, they must hold historical significance such as an association with national events, or an influential historical figure, or hold the architectural or artistic value of art, or buildings that are considered as a popular tourist spot. Law No. 144 of 2006: By contrast, “heritage” classification is much more confusing, and there is no state institution that is explicitly responsible for the official classification or protection of heritage buildings. However, heritage buildings can be identified or recognized by their historical significance that meets the assessment criteria values compared to any historical buildings according to Law No. 144 as shown in Table 1 [21].

5 TOWARDS REACHING A VALUE-BASED CRITERIA CHECKLIST FOR EVALUATING HERITAGE BUILDINGS IN EGYPT

The concept of *Value* emerged from a lengthy line of human thought that included historical, aesthetic, social, political, educational, and cultural considerations, among many others. However, such a wide range of values has moved outside the scope of discussion and analysis in projects involving modern heritage structures. *Criteria* are a set of principles, qualities, and classifications that will be used to determine whether a building has a heritage value [1]. A heritage list usually has multiple criteria, and some or all of them must be fulfilled to be evaluated for listing. The criterion is to show important aspects of architectural design styles, its aesthetic significance, typologies, and other elements that are important to the country and the way of life of its inhabitants. In the criterion, the term “culture” is used in a broad meaning. The criteria are to show outstanding exceptional examples. In the assessment criteria for selecting heritage buildings, there is a set of value indicators as shown in Table 1 referred to Law No. 144 of 2006 for registration heritage buildings in Egypt. From the previous study, it is discovered that some indicators are present in all the previous countries. Therefore, a statistical analysis is done as a conclusion as shown in Table 1 and Figs 2 and 3.



Table 1: The detailed comparative analysis for values and indicators used in assessment criteria for selecting heritage buildings between the five previous discussed countries and Egypt.

Values	No.	Indicators	Canada	USA	UK	Australia	EU	Egypt
Architecture	1	Significant building style	✓	✓		✓	✓	✓
	2	Building age	✓	✓	✓			✓
	3	Related to an important artist or architect	✓					✓
	4	Architectural design of the building	✓	✓	✓	✓	✓	
	5	Workmanship	✓	✓	✓		✓	
	6	Significant plan forms			✓		✓	
	7	Significant building form		✓		✓		
	8	Relation between internal and external spaces	✓			✓		
	9	It represents an important period in the history of art and architecture						✓
Historical	10	Related to important person	✓	✓	✓	✓	✓	✓
	11	Related to important event	✓	✓	✓	✓	✓	✓
	12	Related to national historical areas	✓	✓			✓	✓
	13	Important aspect or impact on nation's economic history			✓	✓		
	14	Important aspect or impact on national socio-cultural history			✓	✓		✓
	15	Important aspect or related to region/local/national history	✓	✓	✓	✓	✓	
	16	Important aspect or impact on political history			✓			
	17	The building developing significance over the last 50 years (national, state and community)		✓				
	18	Educational value of the heritage building to improve understanding of previous lifestyles or activities		✓			✓	
	19	Related to historical themes or activities	✓			✓	✓	

Table 1: Continued.

Values	No.	Indicators	Canada	USA	UK	Australia	EU	Egypt
Environmental	20	The importance of location of the building within the context	✓	✓		✓	✓	
	21	Landmark in the neighbourhood	✓	✓		✓	✓	✓
	22	Impact on area's pattern development	✓	✓				
	23	Compatibility of the building with the context and public service	✓	✓				
	24	Presents a significant intervention process, which made a unique impact on the building		✓				
Integrity	25	Historical relation between the building and its associated landscape	✓		✓		✓	✓
	26	The building sustains its significant features or its construction condition	✓				✓	
	27	Presents a construction modifications and alterations in different phases of building's history	✓				✓	
	28	Visual aesthetic quality in the context of architectural building type	✓	✓	✓	✓		
	29	Design quality of creative artistic details	✓	✓			✓	✓
Aesthetic	30	The significant proportion and scale of the building	✓		✓			
	31	Presents high aesthetic value that reflects cultural identity		✓		✓		
	32	Presents an aesthetic techniques or materials in building's construction				✓	✓	
	33	Aesthetic decorations and ornaments of the building		✓	✓	✓	✓	
	34	External visual aesthetic quality	✓		✓		✓	
Functional	35	Significant example of building's functional types	✓			✓	✓	✓
	36	The building provides potential economic and social advantages and high expressive potential	✓					
	37	The continuity uses value of the building (sustain its use)	✓	✓		✓		
	38	Presents a building's significant phase in the growth or development of the community or reflects a turning point in the community's history (national, locally, and regionally)	✓			✓		

Table 1: Continued.

Values	No.	Indicators	Canada	USA	UK	Australia	EU	Egypt
Religious	39	Reflects a historical architectural features or artistic uniqueness of a religious building within a certain period		✓				
	40	Spiritual significance value to community		✓		✓	✓	
	41	The historical significance of the religious building		✓			✓	
Rarity	42	Presents an artistic masterpiece of workmanship in a certain region within certain period	✓	✓	✓			
	43	Uniqueness in its characteristic integration				✓		
	44	Rarity quality in its survival type			✓		✓	
Social	45	The quality degree of previous interventions on the building		✓			✓	
	46	Reflects a specific regional and local building's traditions, belief, and lifestyles			✓	✓	✓	✓
	47	Reflect specific significant traditions of community (socially and culturally)		✓		✓	✓	
Technological authenticity	48	Reflects significant contribution to community's or district's historical identity (locally or nationally)	✓			✓	✓	
	49	Reflects building material innovation	✓		✓			
	50	The building related to architectural group that uses unique building materials that express the nature of the place and adapts to the climatic conditions						✓
	51	Reflects technological engineering technique		✓	✓			
	52	authenticity in technological tools					✓	
	53	Authenticity of historical engineering-built techniques					✓	
	54	The use of a material or method of construction that shaped the historic identity of an area		✓				✓
	55	Reflects technical development or inventiveness			✓			
	56	Unique method of construction techniques in engineering history	✓	✓				✓
	57	Sustain its original materials and design elements					✓	



Table 1: Continued.

Values	No.	Indicators	Canada	USA	UK	Australia	EU	Egypt
Extent value	58	The degree of surviving components of the original phases of the building					✓	
	59	Extent use to the authentic techniques or tools					✓	
	60	Extent use of performance traditions					✓	
Continuity	61	A part of a group or collection of buildings which together have unity as: history, age, appearance, use, construction, style, scale, materials			✓			✓
	62	Reflects historical or cultural continuity history					✓	



6 RESULTS

As shown in Table 1, the detailed analysis for listing heritage buildings criteria in different countries with different cultural policies that planned and implemented in various Member States or national federal, to sum-up all values and indicators to reach a full understanding of how buildings are selected for listing. Then, this analysis put on a statistical program to show the highest and lowest importance of each indicator as shown in Figs 2 and 3, also proved that each historical building has a value with an indicator that measure its significance. Therefore, the highest common-used indicators considered as the most important indicators that should be proposed and added in the Egyptian evaluating criteria, to raise the significant value of the heritage building, for developing well-balanced management and development strategies to highlight the benefits and potential of heritage buildings for its sustainability. Then, this addition could help in categorize the heritage buildings according to their

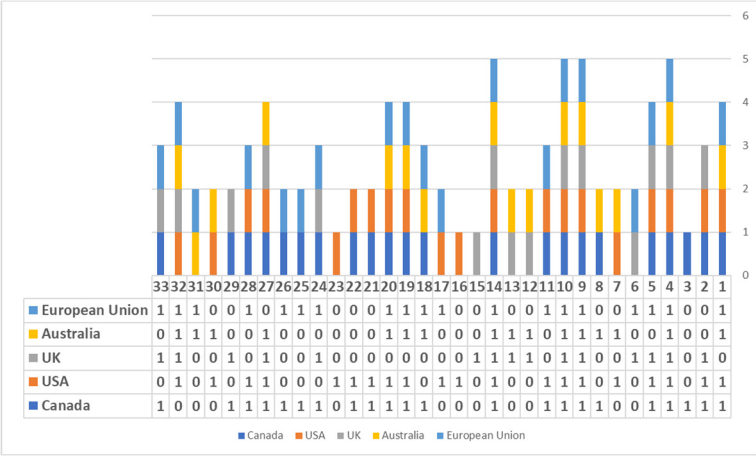


Figure 2: The statistics shows the common and different values and indicators in each country.

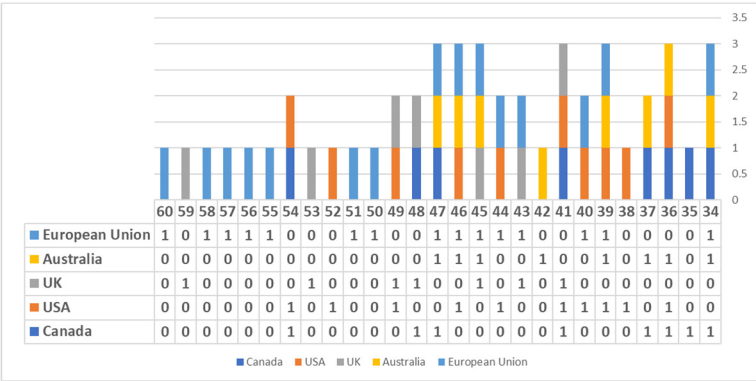


Figure 3: The statistics shows the common and different values and indicators in each country.

importance from highest value to the lowest value (A) then (B), (C) and (D). Also, could help in creating a viable and applicable methodology to build a detailed point-based checklist for selecting heritage buildings in Egypt.

7 CONCLUSION AND RECOMMENDATION

In this paper, a historical recognition to evolution of world heritage buildings listing systems is presented. Furthermore, the previous study stated a different listing system in five countries. The paper conducts a detailed analysis between listing systems according to the stated countries and Egypt. As a result, Table 2 is deduced.

Table 2: The matrix of comparative analysis between the five national countries from the previous studies and Egypt.

Values	Canada	USA	UK	Australia	EU	Egypt
1 Architecture	✓	✓	✓	✓		✓
2 Historical	✓	✓	✓	✓	✓	✓
3 Environmental	✓	✓		✓	✓	✓
4 Integrity	✓				✓	
5 Aesthetic	✓	✓	✓	✓	✓	
6 Functional	✓	✓		✓		
7 Religious		✓				
8 Rarity	✓		✓	✓		✓
9 Social	✓	✓	✓		✓	✓
10 Scientific	✓	✓	✓	✓	✓	✓
11 continuity			✓		✓	
12 Completeness extent					✓	
Total	9	8	7	7	8	6

As shown in Table 2, the idea of presenting this table is to analyse all available values and indicators to reach a full understanding of how buildings are selected for listing. The table shows the present and absence of some common values needed to be highlighted in the assessment criteria to raise the significant value of the heritage buildings. This study will be used to enhance the heritage building listing and management in Egypt and facilitate the assessment process in terms of accurate and reliable data. Based on the obtained data analysis, there is a set of important values and indicators that must obtained in the national assessment process to raise the educational awareness of the heritage buildings and their significance values. National authorities should be concerned of creating a reliable and accurate checklist used in heritage buildings evaluation process, as shown, and recommended in Fig. 1. Moreover, the detailed checklist can help in creating a “heritage buildings assessment impact” to sustain and preserve their conditions. Correspondingly, the study recommends adding buildings’ types and typologies into the assessment criteria in the national Egyptian law, as it is an essential aspect in evaluating any heritage buildings.

REFERENCES

- [1] Feilden, B., *Conservation of Historic Buildings*, 3rd ed., Routledge, 2003.



- [2] Nassar, D.M., Heritage conservation management in Egypt: The balance between heritage conservation and real-estate development in Alexandria. *Environment-Behaviour Proceedings Journal*, 1(4), pp. 95-108, 2016. DOI: 10.21834/e-bpj.v1i4.132.
- [3] The Global Development Research Center, Urban heritage and conservation, 2020. <https://www.gdrc.org/heritage/index.html>.
- [4] Embaby, E.M., Sustainability and heritage buildings. *International Journal of Engineering Research and Technology (IJERT)*, 9, 2018.
- [5] ICOMOS, *The Nara Document on Authenticity*, ICOMOS: Japan, 1994.
- [6] UNESCO, *The 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict and its Two (1954 and 1999) Protocols*, UNESCO, 1954.
- [7] ICOMOS, *The Venice Charter. 2nd International Congress of Architects and Technicians of Historic Monuments*, ICOMOS: Venice, p. 4, 1964.
- [8] *The National Historic Preservation Act*. National Park Service: USA, 1966.
- [9] UNESCO, *Operational Guidelines for the World Heritage Committee*, UNESCO: Paris, 1977.
- [10] ICOMOS, *The Burra Charter*, ICOMOS International Council on Monuments and Sites: Australia, 1999.
- [11] The International Committee for the Conservation of the Industrial Heritage, *The Nizhny Tagil Charter For The Industrial Heritage*, July 2003. <https://ticcih.org/about/charter/>.
- [12] ICOMOS, *The World Heritage Convention*, ICOMOS Tourism Handbook for World Heritage Site Managers, 1993.
- [13] ICOMOS, *International Cultural Tourism Charter Managing Tourism at Places of Heritage Significance. ICOMOS at the 12th General Assembly*, ICOMOS: Mexico, p. 6, 1999.
- [14] UNESCO, *Operational Guidelines for the Implementation of the World Heritage Convention*. UNESCO World Heritage Centre: Paris, 2021.
- [15] Pasikowska, M., *Cultural Heritage in EU Policies*, European Parliament, 2018.
- [16] European Union, Decision No 1194/2011/EU of the European Parliament and of the Council, *Official Journal of the European Union*, 2011. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011D1194>.
- [17] Canada's Historic Places, *The Standards and Guidelines for the Conservation of Historic Places in Canada*, 2010.
- [18] Australian Government, Department of Climate Change, Energy, the Environment and Water, *Guidelines for the Assessment of Places for the National Heritage List*, 2009. www.environment.gov.au/heritage/ahc/publications.
- [19] National Park Service, *Guidelines*, 2020. <https://www.nps.gov/hdp/standards/haerguidelines.htm>.
- [20] Department for Digital Culture, Media and Sport, *Principles of Selection for Listed Buildings*, 2018. <https://www.gov.uk/government/organisations/departement-for-digital-culture-media-sport>.
- [21] National Organization for Urban Harmony, *The Principles and Standards for Cultural Management for Outstanding Value of Heritage Buildings and Areas*, Egypt, 2010.