Principles to Evaluate Historic Designed Landscape of Urban Parks
Case Study of Al-Azhar Park

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Abstract: Inside the Spaces, Landscape plays an important public role in the cultural, ecological, environmental and social field; it also contributes to the formation of local cultures. And beside all of that, landscape is an important part of the quality of life for people everywhere. And designing the landscape is an endless process of movement and change, which respond to environmental conditions and human activities. Therefore, the purpose of this paper is to evaluate designed historic landscape of urban parks, and how we can develop it by understanding the main principles of it. The paper vehicle is to analysis the role of urban parks in the city, and addressing the main principles of historic landscape and reach by the end of this paper the right methodology to evaluate the existing landscape. Alazhar Park in Cairo (Egypt) is used as a case study to explore its landscape, the results are based on the observation and recording of site visits, beside documentation of designed historic landscape elements.

Key words: culture context, designed historic landscape, urban parks

I. INTRODUCTION

Urban parks and green spaces are an essential part of the urban heritage and infrastructure. They are important for enabling social interaction and fostering community development, as well as providing an outdoor classroom for biological and ecological studies. The paper tries to investigate the main aspects of successful historic parks, and how it should enhance many human needs through landscape design.

Historic Landscape design plays critical role in making successful urban open spaces. In order to understand this role, the study will discuss the principles to evaluate historic designed landscape, and how it can be tested in Al-Azhar Park; hence Parks could create a sense of place by connecting residents to one another and to their larger environment.
II. IMPORTANT AND AIM OF THE RESEARCH

The value of this research can be realized when we deal with urban parks in historic zones, these benefits can be achieved after following a number of practical steps suggested by the research. These steps are to be followed when designing historic landscape in urban parks locate within old historic fabric. The most important of these benefits can be listed as:

- Lay the foundations of some roles for urban parks to take into consideration when dealing with designing such spaces with a better collective coinage of site influence on design strategies.
- Determining the significance of a designed landscape depends upon conducting a systematic investigation of the history through evaluation steps.
- The research represents a new link in the stages of developing the design process with its different steps: The design, the evaluation of existing parks, and last step is how we can modify this design to achieve better performance.

III. HYPOTHESIS AND METHOD OF THE RESEARCH

This research aims at setting a methodology with which to evaluate the significant of designed historic landscape in urban parks.

The focus of the research on innovative ways to investigate designed historic landscape techniques, drawn from the case study of Alazhar Park in Cairo Egypt, and will suggest revisions to perform in a better way to human responses. This will be achieved through:-

- Site visit’s at different use periods, with monitoring and evaluation of behavioral patterns.
- Site documentation (photographs, journal with observations of use and design legibility, site mappings).

IV. ROLE OR URBAN PARKS IN THE CITY

Historically, urban parks have evolved from pieces of land set aside informally for grazing, into multi-purpose urban spaces for recreation, escape and social gathering.

This evolution of the uses and purposes of urban parks makes an established definition of the term impossible. Another reason why the definition varies is because it overlaps with general park terminology.

Evidence from Western Europe in the 17th century and New England towns in the United States, shows that inhabitants set aside lands near their towns, cities, or villages for the common use of their citizens. The citizens used these areas, or “commons” to graze livestock, and hold the animals before selling them or using them in the village or town. Over time, these grazing lands became important spaces in the city as people started to use them for other purposes.

Numerous studies have demonstrated the ability of natural places to positively influence individual well-being. Even brief views of nature have been found to speed recovery from surgery, and enhance one’s ability to function effectively. The research will try to classify the different roles for the urban parks inside the city into some points as followed:

A. Community Revitalization

Successful parks also allow the user to relax and get away from daily life while providing engaging elements such as vegetation and scenic views.

In addition, these parks provide opportunities for more active uses, such as picnics, community events, and general recreation. And, finally, successful parks allow people to explore their surroundings.

B. Community Engagement

Parks support community engagement by providing residents with a venue for participation in and attachment to their communities. They also provide a sense of place and offer essential life-enhancing qualities that aid community and individual well-being. Fig 1
By understanding the community benefits of parks, decision makers can develop constituencies that can sustain their urban park systems over time.8

Finally, in one of Cabe Space Studies of urban parks and safety in the city, they studied some cases in England. The case studies in this study link the decline in condition of the park and the loss of facilities with a decline in use and an increase in vandalism, it appears quite clear which came first. The parks were in decline and failing to meet customer expectations long before anti-social behavior started to become the dominant characteristic.11

E. Green Infra Structure

Just as growing communities need to upgrade and expand their built infrastructure of roads, sewers, and utilities, they also need to upgrade and expand their green infrastructure, the interconnected system of green spaces that conserves natural ecosystem values and functions, sustains clear air and water, and provides a wide array of benefits to people and wildlife. Fig 2

Green infrastructure is a community's natural life support system, the ecological framework needed for environmental and economic sustainability.12

Fig. 1 Community engagement for kids in Al-Azhar Park in Cairo

C. Economic Development

The benefits of high quality parks and green spaces are not just aesthetic; they are economic, social and environmental, with complex interrelations between these issues. But it is their potential to offer a wide range of economic benefits which is the concern of this report, from helping to attract an economically active workforce to the community, to attracting inward investment and enhancing local property values.9

D. Create Saver Neighborhoods

It has been proved now that green spaces may foster crime and illegal activity; evidence now exists that the opposite may be true. When adjacent to residential areas, green spaces have been shown to create neighborhoods with fewer violent and property crimes and where neighbors tend to support and protect one another.10

Fig. 2 Al-Azhar Park in Cairo as a green infra structure 13
F. Help Children Learn

City parks, greenways, and naturalized school grounds can be a crucial antidote to these unhealthy trends. They can motivate young people to learn through the natural environment (which includes learning about the natural environment), bringing environmental education into the mainstream of state-mandated instructional programs.

The informal learning, non formal programs, and formal instruction associated with parks can reinforce each other.14

G. Improve Public Health

Beyond the recreational opportunities offered by parks, a lot of studies shows that contact with the natural world improve physical and psychological health15. An extensive study published in 2001 in the Netherlands set out to determine the link between green space and health.

The study overlaid two extensive databases, one with health information on more than 10,000 residents of the Netherlands, and the other a land use database covering every 25-by-25-meter square in the nation, allowing researchers to know which people lived near city parks, agricultural land, and forests and nature areas.

H. Art and Culture Programs

Today, there is a tremendous flowering of artistic and cultural activity in urban parks, from large-scale performing arts festivals to long-term residencies with arts organizations.

Parks and the arts have become mutually beneficial: the arts can play an essential role in revitalizing a park, and parks in turn can help solve problems faced by artists and arts organizations.16

Since parks are the democratic spaces of a city, where communities can come together to express their identities, the marriage of parks and the arts makes perfect sense. Parks can be a vital place for the cultural expression of a community and a city.

I. Promote Tourism

Most of the time, the desire to go to a destination on a pleasure trip is stimulated by its attractions. Many of these attractions are located in parks; while some parks are themselves attractions. This leads to the conclusion that in many communities, parks drive the tourism industry.17

J. Smart Growth

Public understanding of the pivotal role that parks play in enhancing the quality of life in our cities is growing, along with an understanding of the links between the qualities of city parks and sprawling growth on the fringe of cities.

City parks are an important element of smart growth that addresses both the public’s need for green space and the role of green space in mitigating higher development density.19
V. Principles of an Inclusive Historic Landscape

Historic landscapes are places that, through their physical characteristics and features, reflect the interaction of human beings with the environment. They may be associated with a historically significant activity, event or person, or otherwise manifest the values or traditions of a culture.\(^{20}\)

A. Easy to use

This principle relates to how easy it is for people to get to and around a historic designed landscape, and use its facilities. The main issues usually concern transport, entrances, paths, toilets, seating and information. Improvements may involve physical adaptation such as re-laying uneven paving or providing an alternative, shorter route around a site\(^{21}\).

B. Comfortable

Comfort relies on a network of facilities including toilets, food, help points and seating. Comfort is important for all visitors, particularly those who tire easily and need to rest more often. Providing seating and shelter enables older or disabled people to explore a longer historic route or to pause to absorb information.

![Fig. 4 Steps at Brodsworth Hall in Yorkshire, Easy to Access and safe.](image)

C. Offers choice

This is one of the most important aspects of an inclusive landscape. It ensures that visitors can decide how they want to use and enjoy it. For example, some people will visit independently, others with family, friends or as part of a group. It is important to provide for all of these.

D. Safe

Safety is a fundamental issue. Health and safety policies and practices must address the needs of all visitors, staff and volunteers. Feedback from visitors and volunteers will help identify problems that might be overlooked by routine checks.\(^{23}\) Issues include emergency evacuation procedures, and how these are communicated to people with different disabilities. Safety checks should take account of temporary work and how it might impact on access.

E. Embraces diversity

An inclusive approach sees diversity as an opportunity to find creative design and management solutions. It relies on adopting positive approaches in all aspects of design and management. This includes staff and volunteer recruitment, events management, landscape design and management, education programs and ongoing maintenance.\(^{24}\)

VI. Evaluation of Designed Historic Landscape

A. Obtain Information

In this stage, we have to collect information about the specific example of landscape gardening, planning, and/or design through documentation of its history and collection of available plans and photographs. Conduct site visits to identify the historic characteristics of the design intent of the landscape. An evaluation of a designed historic landscape should begin with compiling a general description and history of the property including\(^{25}\):

- Dates of design and construction.
- Names of owners, landscape architects, designers, and administrators.
- Identification of construction techniques, methods, and plant materials.
- Landscape style.
- Existing and previous uses with the dates of these uses identified.
- The acreage and existing boundaries of the original tract and any subsequent additions or reductions.
B. Analyze Characteristic Features

Next, we need to determine the characteristic features that the property must possess to be a good representative of its type, period, or method of design or construction, and how it relates to the development and philosophy of its designed landscape type.

For example, when we are approaching a park designed in the American Romantic style may be looking for an emphasis on natural scenery and native plant materials, a lack of formal design, and a curvilinear circulation system and other characteristics generally associated with such parks.

C. Significance

Many designed historic landscapes will be eligible because of their associations with significant events and trends. For example, the creation of designed landscapes has historically been associated with social movements. The historic designs for parks, suburbs, and playgrounds have direct links, in many cases, to the social issues of their times.

The researcher might feel certain that a landscape is eligible, but careful documentation and a clearly articulated statement of significance based on the historic context will be necessary to justify that conclusion. While more than one property can be eligible within the same historic context, the evaluation should include a comparison with any other properties that may exist within that context.

According to National Register Criteria, an eligible historic landscape must meet one or more of:

- Be associated with events that have made a significant contribution to the broad patterns of our history.
- Be associated with lives of persons significant in past.
- Embody the distinctive characteristics of a type, period, or method of construction, or possess high artistic values.

D. Integrity

The specific features that a designed historic landscape must retain will differ for various landscape types. Such features may include, but are not necessarily limited to, spatial relationships, vegetation, original property boundary, topography/grading, site-furnishings, design intent, architectural features, and circulation system.

If, for example, a property is primarily significant because of its internal road circulation, yet the historic road patterns are no longer discernible or have been badly damaged, then the landscape has suffered a loss of integrity.

The features to be evaluated should also be considered in terms of survival, condition, and appropriateness to the original design intent and period of significance. Such features include grading, rock formations, water bodies, road networks, and paths.

Fig. 5 Buckingham palace in London, an example of designed historic landscape (www.jasonhawkes.com)
VII. EVALUATION OF HISTORIC LANDSCAPE IN AL-AZHAR PARK IN CAIRO

Determining the significance of a designed landscape depends upon conducting a systematic investigation of the history, purpose, social significance, qualities, associations, and physical characteristics of the property and using this information to establish whether or not the landscape is an exemplary representative of one of the types listed above. A typical landscape investigation should accomplish the following:

A. Obtain Information

The paper will start to evaluate designed historic landscape with compiling a general description and history of the property including:

1) Dates of design and construction.

In 1992, the Aga Khan Trust for Culture established its Historic Cities Support Program, to implement urban rehabilitation projects in different parts of the Islamic world. Cairo became its most demanding project, encompassing not only the construction of the Park but the restoration of the 1.5 kilometer section of the Ayyubid wall revealed by the removal of the accumulated rubble.

The construction period of the park took more than 10 years due to unexpected challenges which appeared during it, the excremental opening of the park was late in 2004, followed by the official opening in March 2005.

2) Owners, landscape architects, designers and administrator.

The park used to be B.O.T\(^{29}\) between AKDN and Cairo governorate until 2009. The ownership of Al-Azhar Park now is P.P.P.\(^{30}\) between Cairo governorate \(^{31}\) and AKDN\(^{32}\), it was designed by Sites International, an Egyptian landscape architectural firm. AKDN is the responsible for the park administration under the supervision of Cairo governorate.

The three buildings (Citadel View Restaurant, Lakeside Café and entrance building) were the object of a competition between seven international and Egyptian architectural firms. The Citadel View Restaurant was designed by Egyptian architects Rami el-Dahan and Soheir Farid. The Lakeside Café project was awarded to Serge Santelli, Paris\(^{33}\).

3) Construction techniques and methods.

During the construction of the park, it has been many challenges which appear in the way, which are:

- The site was before a place for rubbish for all the surrounding area, which is not suitable soil for either concrete construction or planting, for that all the site soil were replaced from The result of drilling for Al-Azhar tunnel project\(^{34}\).
- The existence of the three big water tanks, which must be preserved and isolated very well from the top, and use its space for open activities and light landscape structures.
- The restoration of a 1.5 kilometer stretch of the eastern Ayyubid wall, which started in 1999, is to continue until the end of 2007. AKTC has taken the lead in the restoration of the stretch of the Ayyubid Wall abutting the Park with the coordination and approval of the Egyptian Supreme Council of Antiquities.

Fig. 6 Construction stage in Al-Azhar Park\(^ {35}\)
4) Existing and previous uses.

One of the challenges were in the park design is how to deal with the big water tanks founded in the site, and how the proposed uses will integrate with it in creative way.

The output as shown in Fig. 5 was very relevant to the site; all the three spots were used for an open circular space without any heavy structures, which is (children play area – geometric garden – open coffee).

![Fig. 5](image)

**Fig. 7** The use of existent the three big water tanks in the park site

Previously a municipal rubbish dump (for about 500 years), approximately 80,000 truckload of debris had to be removed before construction started and in the process a 12th century Ayyubid city wall of Cairo that was built during the reign of Salah el-Din, as well as some valuable stones with hieroglyphic texts were uncovered.

![Fig. 8](image)

**Fig. 8** the uncovering of Ayyubid city wall during park construction

B. Analyze Characteristic Features

The park’s conceptual design tends to make maximum and skillful use of the site location, elevated topography and unique vistas overlooking historical Cairo. Generally most of pedestrian paths follow the contours in most areas allowing for comfortable circuits throughout the entire park site.

It is reflected in the *bustan*-like orchard spaces, the shaded sitting areas (*takhtaboush*) and the Fatimid archways used in the construction of Park buildings, among other elements. Persian and Timurid elements are also reflected in the water channels and fountains. Specific features of the Park include:

- The Royal Palm Promenade.
- Geometric Garden.
- Children’s amphitheatre and stage.
- Entrance Fountain.
- Southern lookout plaza and kiosk.
- Water cascade garden.
- Lake.
- Historic wall promenade.
Fig. 9 shows examples of main landscape features in the park, and it shows the unique landscape style used in the park to create a special character to the place.

Fig. 10 Historic landscape Elements in Al-Azhar Park (Researcher)

Fig. 10 shade the light on some of the historic landscape elements used in the park, which came from the Islamic heritage used in the surrounding area.
C. Significance

To measure the quality of significance for the designed historic landscape in Al-Azhar Park, the paper will investigate some points to evaluate it, which are 39:

- **Be** associated with events that have made a significant contribution to the broad patterns of our history.
- **Be** associated with the lives of persons significant in our past.
- **Embody** the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- **Have** yielded, or may be likely to yield, information important in prehistory or history.

All buildings have masonry bearing walls with a high-sand-content limestone cladding, marble and stone pavements, and marble and ceramic tiles. All the Park buildings rest on piles or rafts. Nearly all materials used are of Egyptian origin, as is all the furniture, mostly made by local carpenters in Darb al-Ahmar.

Fig. 12 shows some examples for highly skilled craftsmanship and the use of local materials.

![The archaeological investigation near tower No. five in the discovered Ayyubid wall next to the park](image)

![The Implementation process to restore Ayyubid wall, starting with cutting the local stones from the](image)

D. Integrity

The clearest evaluation of integrity is based on the presence of identifiable components of the original design. To evaluate the historic integrity of a designed landscape, it is useful to compare the present appearance and function of the landscape to its historical appearance and function.
The relationship between present function and that intended or actually in use during the period of significance may also affect the integrity of a designed historic landscape.

In evaluating the integrity of historic landscapes, certain aspects may be more difficult to assess or they may present particular issues that should be considered.

1) Vegetation

Fig. 13,14 shows how it is important to the integrity of landscape to be completed as the design, the royal promenade is completed and identical to the design sketches while the symmetrical gardens near the lake side is not completed yet.

Fig. 13 Vegetation in Al-Azhar Park between design and construction – near lake side café

Fig. 14 Vegetation in Al-Azhar Park between design and construction – royal promenade

The royal promenade in the park between the design sketches and construction stage

Fig. 15 shows the integrity between architectural features in the park and the historic landscape around it.

2) Architectural features

The architectural design of buildings in the park has a high level of integrity with the historic landscape features, either designed inside the park or the historic scenery around it.

Most of the design vocabularies for the both buildings are derived from the history in old Cairo.

Fig. 15 shows the integrity between architectural features in the park and the historic landscape around it.
| Lake Side Café | Main Restaurant |

**Fig. 15** The integrity between architecture features in Al-Azhar Park and historic landscape around it
VIII. CONCLUSIONS AND RESULTS

The park is a very successful model to how the park can interact with the people’s life, especially local users. For example, certain crafts and job opportunities for the local people living around the park has been developed for the park landscape design elements. The layout of the park were designed to cope with all the site challenges, starting with the three water tanks and the big slopes on the eastern side of the park after discovering the Ayyubid wall, which create come areas in the park hold some negative activities.

Main items location and paths in the park were distributed to be liked with the surrounding environment, especially the old historic zone; it was clear from the royal promenade creating a framed view for the citadel, and the location of the hill top restaurant and its connection with Salah Salem Street.

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For more information regarding this topic, all the detailed analysis and maps could be found within the published book named:

**Landscape as a Tool to Enhance Behavioural Response and Activities**
*An Evaluative Methodology to Historic Urban Parks – Al-Azhar Park*

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