

## Criteria of Creating Successful Mosques' Plazas

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### Abstract:

Plazas are part of the mosque's identity. They express the history and authenticity of the place and meet the human psychological need by giving the opportunity for social communication in it. Plazas support the practice of various activities in them and have a role in sustainability, as they are a symbol of urban dynamism. There are several elements that affect the formation of the identity of the place: composition, textures, formal and artistic compositions, color combination, flooring, lighting, and furnishing elements, and in harmony with these elements, the identity of the square is formed.

### Keywords:

plazas, functional plazas, sustainable development, public areas, mosques plazas

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### Introduction:

The aesthetic design of the mosques begins with its creative and successful artistic and design formation of its plazas, especially plazas of a heritage character. Studying, analyzing these plazas, and applying the visual and aesthetic determinants precisely leads to the creation of a design that raises the efficiency of the entire site and the city in general. Moreover, working on the integrative study in all aspects of engineering and aesthetically (urban planning, design process). Paying attention to the required details and the elements that make distinctive plazas in order to be suitable with the general aesthetic form. These successful examples we see clearly and distinctly in the plazas and squares of many western cities.

Successful Criteria Map:

#### A. Conducting analytical studies:

Preliminary studies based on analyzing and studying the characteristics of the site, historical, climatic, and visual studies, as well as the immediate surroundings and their impact on the site. Studying the behaviors of users of these areas, so that this study includes different age groups of users with diverse social and cultural backgrounds. To produce a design with a historical dimension and depth based on a strong study focusing on the religious and cultural dimension and the character of the place [1].

#### B. Plazas Programming

One of the basics of the success of the square is to create a program in it, and this means having permanent events and activities, and this includes cultural activity such as seminars, meetings, artistic activity such as praise and chanting, and economic activity such as weekly or daily public market events. Its programming must be maintained to keep it an effective and positive center throughout the year and at least semi-monthly and not only on official or weekly holidays.

#### C. Economic development:

The squares provide opportunities to stimulate local development, and give the opportunity to local residents, and owners of old professions and crafts to hold exhibitions and encourage and revive these opportunities, which leads to local economic prosperity.

#### D. Platform for cultural events:

Allocating a part of the square allows for holding religious and cultural seminars. It is not necessary to allocate a huge place [2].

#### E. Safety and security factors:

There are design considerations to provide safety and security factors for different ages of visitors and users of these squares and their health status. The selection of finishing works, suitable paved floors, which facilitate the movement of wheelchairs and human movement without slipping, seating and waiting areas, movement corridors, and staying away from stairs and slopes because they are not suitable for all age groups, especially the elderly. Also, appropriate textures and coverings that do not allow scratches or writing on them, even the selection of plant elements takes into account caution to stay away from thorny plants. Providing appropriate lighting at night, achieving visual balance in these squares are important matters [3].

#### F. Ease of entry and exit:

Ease of entry and exit from the square is one of the most important things that the designer must pay attention to. It is an entrance to the square where the mental and visual perception of this space begins and the possibility of imagining it and how to move inside it. If it is easy to enter and easy to perceive, it is a positive incentive to deal and move in the place easily [4].

#### G. Calculating the density of pedestrian movement:

It is important to study and calculate the spaces needed for the necessary movement of pedestrians

when designing the movement paths. It is an important indicator of the success of the plaza and its use because these squares are characterized by density and attendance in the days of the annual seasons and occasions, especially in the births, witness great popularity [5].

#### H. Public facilities:

Among the services is the establishment of public toilets, which is a necessity, and the establishment of restaurants that serve food or drinks near the square, your plaza, and food vendors.

#### I. Budget and maintenance:

Maintenance expenses play an important role in maintaining the squares and keeping them in good condition. It requires good knowledge of materials and costs and the presence of a work team to follow up on any problem and solve it [6].

#### Considerations for designing plazas for people with special needs:

There are several categories and needs that come according to physical deficiencies such as visual impairment and physical disability.

- All obstacles must be removed from the way of use, as well as an application to facilitate the visually impaired and the blind to know their way easily and easily so that they can practice their activity within the space easily and easily such as knowing directions by providing floors and passages suitable for their movements that support their knowledge of the road, placing instructions and signs.
- Using landmark signs that depend on the sense of sound, temperature, texture and resonance, using tactile maps and applying them to the floors, using tangible signs and applying them in

strong colors to attract the attention of the visually impaired, installing signs at eye level.

- Using voice-activated devices to identify the details of the space and how to move in it, using Braille signs for the blind.
- Using guidance signs for the disabled including (toilets, entry and exit paths, parking lots, rest areas).
- Considering the width of the road should be sufficient for the movement and rotation of the wheelchair, placing sidewalk ramps to safely ascend and descend from them at a ratio of 1:8 and special parking spaces for them and for cars designated for them.
- When applying trees, lighting and furniture elements, they should not be road obstacles for people with special needs. The width of the road should not be less than 1.50 m for easy movement of the wheelchair on it.
- Supporting social and educational interactions in the yard, placing water taps, gives a sense of psychological safety, comfort and independence in using the place. Roads and slopes for people with special needs and the elderly. Signs and guidance symbols from knowing the elements of the yard and its components [4]

#### Components of plazas:

##### A. Walls:

They have various shapes such as trees and fences and have a direct impact on the sense of the size of the space and have multiple roles as they determine the size and shape of the space and direct movement through it.

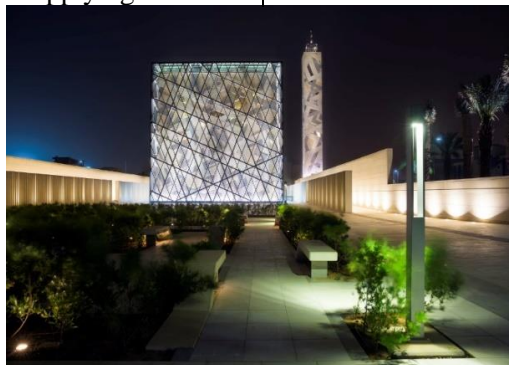


Figure (1) shows the shape of the external walls, seating areas and lighting distribution at night for the mosque of King Abdullah City for Petroleum Studies

##### B. Flooring:

In public squares, floors can be single-level or multi-level. They play a role in enriching the aesthetic and functional value of the square and differ according to their function; they have several functions such as connecting different places, and they also connect the components of the square from buildings and spaces to each other. They play a role in determining the direction of movement if they are well designed, as they facilitate and direct

pedestrian movement on them [7]. The types of tiles and the shape of the floors indicate their richness, and the difference in levels in the square creates activity in movement. The design of the floor is like a horizontal facade, as it includes harmony between colors, drawings and materials used. There are considerations in the design and selection of materials used in the floor of the squares, as natural stone, brick or concrete floors are the most common options.

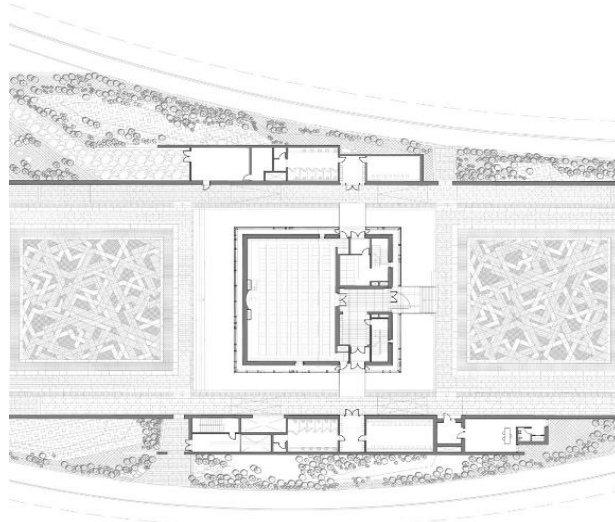


Figure (2) shows the horizontal plan of the mosque of King Abdullah City for Petroleum Studies

### C. Furniture and decorative elements:

The furnishing elements highlight the beauty of the square and give it an identity, and reflect the development of the city while stirring the feelings and emotions of visitors [8]. It includes many elements such as lighting, water elements, vegetation, square furniture, kiosks, garbage cans, path barriers, and a memorial.

### D. Seating areas:

Creating seating areas and other tiered or partially elevated areas for sitting and resting or following any event in them is considered important for visitors, as it is in the direction of their movements, giving them the opportunity to rest or follow a religious or cultural event [5].



Figure (3) shows the floor design, water feature and seating areas in the courtyard of Imam Reza Shrine, Iran.



Figure (4) shows the outdoor area showing seating areas and the shape of the floors



Figure (5) shows the plastic style in the design, floors and minaret as a memorial



Figure (6) shows the selection of the shape of the seats and trash cans suitable for the design

### E. Vegetation:

It adds vitality to the place, as it is an important peaceful natural element that, like humans, needs care and cleanliness [9]. Using plants in public squares is not a luxury, but rather a vital and necessary matter to reduce the severity of concrete construction, and that every square includes trees,

as they provide shade, and give a feeling of welcome, and large plants in pots and shrubs, enhanced with perennials and seasonal colors. They encourage visitors to go to a place with beautiful natural scenery.



Figure (7) shows the green spaces of Sheikh Khalifa Mosque in Al Ain, where the plant cover was distributed in a parallel, repetitive manner that provides shading and also in an artistic manner.

### F. Water Element

Providing a water element in yards is expensive, but it is an attractive and enjoyable element that can be turned on and off as needed. It is also simple to

enjoy the sound of running water [10]. Water features can also be located by traffic patterns, drainage slope, structural capacity, and aesthetics



Figure (8) shows the outer courtyard of Sheikh Zayed Grand Mosque, which includes a water body in a simple artistic style

### G. The ceiling of the void and shading

The sky is usually the ceiling of the external void and sometimes the ceiling is covered or semi-covered and sometimes the covering is movable as it is in the courtyard of the Prophet's Mosque [8]. by using natural elements of plants and shaded trees or using hydraulic umbrellas to use and open them

when necessary, allowing for use in the sun during worship or any other activities, which affects the local climate and improves it, as its purpose is to protect from different climatic conditions, sunlight and rain or to enjoy sitting [7].



Figure (9) shows the hydraulic umbrellas in the courtyard of the Prophet's Mosque

### Conclusion:

Designing and managing plazas is quite important, the concept of management would include many important elements and aspects that would raise the efficiency of the site and preserve it, such as qualifying the site for tourism, qualifying the site's workers. Successful management must consist of a group of cadres with special experience and distinguished skills in the fields of design, control, research and development. The management of sustainable plazas can only be achieved through the integration of different specializations and experiences in sufficient numbers with various administrative and technical levels.

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