SAHARA COMPLEX: THE EDUCATION & ENTERTAINMENT CENTRE

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Abstract

Education and entertainment centers are projects that target people with different ages where they learn and have fun at the same time without forcing or even putting pressure on someone to learn. However, such practices are rarely found in Saudi Arabia, as they do not have a designated place that can entertain and engage these two different ages at the same time. Thus, this work proposed the development of an education and entertainment center in Saudi Arabia. This work has analysed three case studies for the development of the education and entertainment center. For this proposed education and entertainment center, the estimated total build area is 29,377 m². This center will comprise science game education center, library, gallery, animals research center, horses and camels stable and restaurant. In this work, the development location site chosen was Bahrah as it attained the highest site evaluation score of 7.72. The design of the education and entertainment center was based on nature concept. This center is expected to provide an environment that encourages people, especially children, to take advantage of their sense of touch, sight, hearing and smell to better understand the world around them.

Keywords—education, entertainment, learning centers, Saudi Arabia.

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INTRODUCTION

Entertainment-education is a well-known methodology for fusing educational messages into common diversion media with the aim of influencing knowledge transfer among individuals [1]. Entertainment-education consolidates education and entertainment to expand learning, move demeanours and advance social change using a range of correspondence stages including theatre, radio, television, recreation, web-based life and others [2]. Values and wisdom have been passed on from generation to generation through entertainment for many years. Modern use of entertainment in education dates back to the 1940s and 1950s, when radio dramas were used to entertain and educate farmers and their family members [3].

In recent times, entertainment-education is being carried out in designated centers, such as schools [4]. Children’s entertainment centers in school use various forms of entertainment such as animated cartoons, theater arts, television and radio drama and other forms that can basically motivate and educate children while entertaining them [5]. Thus, this highlight the significance of education-entertainment centers. Ben-David [6] has reported that with the current technological development, education-entertainment centers need to be well build and equipped to accommodate a good learning experience among the users. Dias [7] has also confirmed that the infrastructure of education center needs to accommodate the current architecture requirements such as energy saving, environment friendly, and must exhibited longterm self-sustainability.

The government of Saudi Arabia has placed its importance in developing the young generation with good education [8]. Thus, currently the government is exploring the potential of developing a sustainable education-entertainment center that will enable the production of well educated society. Thus, this work presents a proposal for developing an education and entertainment center in Saudi Arabia. This proposal aims to contribute to the government’s sustainable development goals and empowers Saudi Arabia to achieve its goal of being a well-educated nation.

CASE STUDIES

This work has analysed three case studies which is relevant to the scope of the present work: The selected case studies area:

a. Mississippi Arts & Entertainment Center
b. Massar Children’s Discovery Centre, Damascus, Syria
c. Children’s Museum of the Art

Mississippi Arts & Entertainment Center

The Mississippi Arts and Entertainment Center Board (Figure 1), in association with Canizaro Cawthon Davis Architects and Gallagher & Associates, has selected LPK Architects and Designers to lead the design of the 58,000 square foot cultural arts museum that focuses on the state’s rich cultural heritage and talented artists. The facility includes state-of-the-art interactive exhibits, a multi-story Hall of Fame exhibit, broadcast and recording studios, educational classrooms, a gift shop, interactive outdoor water features, outdoor gathering and performance space, and a roof terrace overlooking the courtyard, creating an immersive, enjoyable visitor experience. This project includes outdoor and indoor activities for people of many different ages, their interest in the rich cultural heritage of the state, and talented artists were in the united interest of music lovers in the state. Outdoor activity was part of the project where they revive the old heritage music with live hand; families and teenagers can enjoy and engage in the same activity.

Figure 1. Front view of Mississippi Arts & Entertainment Center
Massar Children's Discovery Centre, Damascus, Syria
Massar Children's Discovery Centre is located at Damascus, Syria (Figure 2). The size of this site is 17 hectares. The Children's Center is a special opportunity to create the ultimate vibrant atmosphere for children. Within the Discovery Center building, which occupies a 28,000 square meter site, children can explore, decode, and engage not only with hands-on exhibits, but also with the building itself. The Public Realm offers a potential framework for establishing a 'Cultural Corridor', providing a similarly enriching experience for all ages and uniting the Discovery Center with surrounding cultural venues. Strategically located on the site of the old International Fairground, the Public Realm features a designated park area that provides an inspiring landscape of safe and calm yet stimulating places for children and adults alike in the heart of central Damascus. Park visitors can take a look inside the Discovery Center’s vibrant courtyards where art installations interact with passers-by from the inside out. The Discovery Center and the Public Realm offer a unique opportunity to reframe the Old International Fairground site as a cultural precinct that shines on the world map.

The Cultural Corridor is the backbone of the Public Realm. It provides an exciting educational and sensory experience as it guides visitors through the activity zones of the park from being child-centered to more adult-centered. Anchored at the ends by the Discovery Center and Entertainment Complex, the Corridor also serves as a greenway joining the National Museum and the Opera House at its two main entrance points, forming part of the longer route between the City Center and Tishreen Park. Thus, while telling a story of the rich cultural heritage of Syria, the Corridor also acts as a crucial link within the city's larger collection of cultural and recreational attractions. A vibrant pattern of banded paving defines the entire length of the corridor, creating an energetic rhythm that draws the visitor through the park from end to end and from front to back.

Children's Museum of the Art
Children Museum of the Art was designed by an architectural team called “Work AC” and the project is located in New York, USA (Figure 3). The area of the site is 1050 m². The architects use the colors as a guide to understand where the building is located, the zoning method with the child's “color” language. The building comprising a multi-purpose gallery, classrooms, art studios and media lab is located at the upper level and has a lower level stroller parking garage. The media lab section was made as a "clay bar" with a bartender serving the clay modelling kids.

The Public Realm offers a potential framework for establishing a 'Cultural Corridor', providing a similarly enriching experience for all ages and uniting the Discovery Center with surrounding cultural venues. Strategically located on the site of the old International Fairground, the Public Realm features a designated park area that provides an inspiring landscape of safe and calm yet stimulating places for children and adults alike in the heart of central Damascus. Park visitors can take a look inside the Discovery Center’s vibrant courtyards where art installations interact with passers-by from the inside out. The Discovery Center and the Public Realm offer a unique opportunity to reframe the Old International Fairground site as a cultural precinct that shines on the world map. The building is shaped like a rose petal where each petal is attached to the other and creates a natural source of light that enters the building using less electricity during the day. Themes include the noticeable contrast play in Syrian culture — hard and soft materials, light and shade, traditional and contemporary. The Cultural Corridor is the backbone of the Public Realm. It provides an exciting educational and sensory experience as it guides visitors through the activity zones of the park from being child-centered to more adult-centered. Anchored at the ends by the Discovery Center and Entertainment Complex, the Corridor also serves as a greenway joining the National Museum and the Opera House at its two main entrance points, forming part of the longer route between the City Center and Tishreen Park. Thus, while telling a story of the rich cultural heritage of Syria, the Corridor also acts as a crucial link within the city's larger collection of cultural and recreational attractions. A vibrant pattern of banded paving defines the entire length of the corridor, creating an energetic rhythm that draws the visitor through the park from end to end and from front to back.

Table 1. Build area

| Component                  | Area   | Number of Floors |
|----------------------------|--------|------------------|
| Science Game Education Center | 8673 m² | 3                |
| Library                    | 6460 m² | 2                |
| Gallery                    | 4583 m² | 2                |
| Animals research center    | 4800 m² | 2                |
| Horses and Camel Stable    | 2000 m² | 1                |
| Restaurant                 | 2914 m² | 2                |
| Total built area           | 29,377 m² |                |

SITE SELECTION AND ANALYSIS
In this work, 3 sites were compared, which comprised of Bahrah (Site 1), ArRihab (Site 2) and Al Waziriyah (Site 3). The sites were compared in terms of accessibility, visibility, privacy, noise level, physiographic elements, expansion capability, and parking capacity. Figure 4, Figure 5 and Figure 6 illustrate the respective comparative sites.
Table 2 shows the site evaluation comparison of all three sites. Based on Table 2, site 1 showed the highest score of 7.71 for the evaluated criteria compared to Site 2 with 6.83 and Site 3 with 6.31. Thus, Site 1, which is located at Bahrah was selected as the proposed site. Furthermore, Site 1 has a good sun and wind strategic location since the good wind meets the main road and the noon sun covers the south as known as the strongest sunrays. This site, which was selected, is accessible from two sides from the main road. This project and the site will add great value from different aspects to the Bahrah region. Furthermore, there are no challenging projects around the website.

| Criteria                        | Site 1          | Site 2          | Site 3          |
|---------------------------------|-----------------|-----------------|-----------------|
| Accessibility (19%)             | 10 x 0.19 = 1.9 | 6 x 0.19 = 1.14 | 8 x 0.19 = 1.52 |
| Visibility (8%)                 | 5 x 0.08 = 0.4  | 6 x 0.08 = 0.48 | 5 x 0.08 = 0.4  |
| Views (12%)                     | 8 x 0.12 = 0.96 | 10 x 0.12 = 1.2 | 8 x 0.12 = 0.96 |
| Privacy (10%)                   | 6 x 0.10 = 0.6  | 5 x 0.10 = 0.5  | 7 x 0.10 = 0.7  |
| Noise level (16%)               | 9 x 0.16 = 1.44 | 8 x 0.16 = 1.28 | 6 x 0.16 = 0.96 |
| physiographic elements (12%)    | 7 x 12 = 0.84   | 9 x 12 = 1.08   | 7 x 12 = 0.84   |
| Expansion capability (10%)      | 8 x 0.10 = 0.8  | 6 x 0.10 = 0.6  | 7 x 0.10 = 0.7  |
| Parking capacity (8%)           | 6 x 0.08 = 0.48 | 5 x 0.08 = 0.4  | 5 x 0.08 = 0.4  |
| Utilities infrastructure (5%)   | 3 x 0.05 = 0.15 | 3 x 0.05 = 0.15 | 2 x 0.05 = 0.1  |
| Total Score                     | 7.72            | 6.83            | 6.31            |

**DESIGN OF EDUCATION AND ENTERTAINMENT CENTER**

The concept came from the nature of Saudi Arabia and the goal was to create an organic building. It is a place where you can discover Saudi Arabia in a modern “entertainment” way where children and different ages can learn and entertain and engage with the environment of the country they live in. The idea of this project is to provide an environment that encourages people especially children to use their sense of touch, sight, hearing and smelling to gain a better understanding of the world around them, providing this center (cinemas, game hall, 3d theaters and outdoor activates) to engage these senses more. Figure 7 and Figure 8 shows the proposed design of the education and entertainment center.

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