JEDEDAH CULTURE CENTER

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Abstract
This work presents the development of Jeddah Culture Center at, Jeddah, Saudi Arabia. In this work, three case studies related to the culture center theme were analyzed. Based on the analyzed case studies, for the proposed culture center, the estimated gross floor area is 9162.24 m². Likewise, the center is comprised of various zones, such as administration, exhibition, knowledge, service, and entertainment. Moreover, in this work, two sites were proposed for the development of Jeddah Culture Center. Thus, site evaluation analysis was carried out to determine the most suitable site. Both sites were evaluated based on several criteria's, which are security and safety, accessibility, utilities, image/visual quality, surrounding, site drainage, future development plans, and visibility. The results of site evaluation showed that site 1 exhibited the highest score of 170 and it was selected as the proposed development site. The design concept and philosophy of the center is based on the timeline of the establishment of Saudi Arabia culture and heritage. The development of the Jeddah Cultural Center is expected to spread the knowledge of Saudi Arabia’s history and culture to society.

Keywords—museum, culture, heritage, Jeddah, Saudi Arabia.

INTRODUCTION
Culture is an important factor in every nation, and every nation is proud of its history and tries to show it to the community by building a museum to showcase the heritage of its culture [1]. Museums have ceased to be a sacred institution, but rather a fun park that seeks to educate its visitors and users [2].

The museum is a word from the Greek, that signifies a spot or sanctuary which are places containing significant historical objects for public display [2].

In the early days, the museum began as a private sector set up by wealthy people. Objects were displayed in magnificent rooms or cabinets [3]. The first museum in history was the Ennigaldi-Nanna Museum, 530 BC, dedicated to Mesopotamian antiques [4]. In addition, the MuseoSacro Museum was the first public museum in Europe to be housed in the Vatican Museums complex and opened in Rome in 1756 [5]. The Louvre Museum is one of the most famous museums of modern times in Paris, originally a private property, and then a public museum [5].

In Saudi Arabia, the concept of museums has appeared in Jeddah since 1990 [6]. The Science and Technology Center was set up in 1990. The National Museum of Saudi Arabia was established in 1999 [6]. In addition, there are many other projects that reflect the Saudi culture [7]. Due to the large geographical area of Saudi Arabia, there are many regions with different cultures, backgrounds and heritage. There are 13 regions of different cultures [8]. Most younger generation citizens lack the knowledge of the culture and tradition of the Saudi regions.

It is therefore very important to introduce these cultures to citizens in an attractive way. The new generations are supposed to have the proper knowledge of what Saudi Arabia has been and what it has become through history, and the community must provide a place for that matter. Thus, this work presents the development of Jeddah Culture Center at, Jeddah, Saudi Arabia.

CASE STUDIES
In this work, three case studies, which are related to cultural centre theme, were examined. The details of each case study is presented as follow:

a. King Abdulaziz Center for World Culture
b. Etihad Museum
c. Erciyes Congress and Cultural Center

King Abdulaziz Center For World Culture
King Abdulaziz Center for World Culture is located at Dhafran Saudi Arabia (Figure 1). It was designed by architect from Snøhetta. This building has an area of 100000 m².

The King Abdulaziz Center concept is about the interdependence of culture in space, time and context. The environment has a major impact on the architecture form.

The geology and rock formations of Saudi Arabia that preserve petroleum energy have a major impact in this form of architecture.

These pebbles are leaned on each other on the basis of the singular support of the plural, so that they shift vertical forces into horizontal ones with the aim of bringing them into the foundation. Its exterior walls are made of metal. The building has a unique surface made of CNC bent stainless steel tubes. The height of the tower is 90 meters.

The Knowledge Tower consisting of 18 floors of learning facilities which includes classrooms, laboratories and multimedia suites, providing facilities for all ages. Furthermore, the space distribution of the center is comprised of cinema (3%), children museum (8%), theater (16%), knowledge tower (1%), event space (4%), great hall (1%), library (19%), plaza (31%), idea lab (1%), archive (2%), energy exhibit (3%) and iThra store (1%).
Etihad Museum
Etihad Museum is located at Dubai - United Arab Emirates (Figure 2). It was designed by architects Moriyama and Teshima. This museum has an area of 25000 m². The Etihad Museum has eight sections on the history, culture and union of the Emirates. The museum has a special shape similar to that of a manuscript, inspired by the Unification Agreement. The museum has seven columns, which exemplify the pens signed by the Constitution in 1971. The museum components includes, permanent and temporary exhibition spaces, 3,000 volume library. 120 seat theater, a multi purpose hall, an education center, restaurant, café, small garden, and entrance area. Moreover, most areas of the building are enclosed, including temporary and permanent exhibits, stages, archival services and meeting centers. Furthermore, the space distribution of the museum is comprised of services (30%), private work area (10%), public education (20%), staircase (10%), and exhibition hall (30%).

Erciyes Congress and Cultural Center
Erciyes Congress and Cultural Center is located at Kayseri, Turkey (Figure 3). It was designed by architects Murat Aksu, Umut İyigün and Hakan Mahıroğlu. The center has an area of 36590 m². The design of the building is derived from the topography of the surrounding area. The facilities of this building includes an auditorium for 2100 people, a conference hall of 1000 people, three multifunctional hall, prom area, cocktail area, restaurant area, technical spaces, and social parts. In addition, the space distribution of the center is comprised of halls (22%), rentable (17%), foyer (6%), technical area (22%), administration offices (11%) and exhibition area (22%).

PROGRAM ASSUMPTION AND SPACE DETAILS
For the Jeddah Culture Center, based on Table 1, the estimated gross floor area is 9162.24 m². In addition, the center is comprised of various zones, such as administration, exhibition, knowledge, service and entertainment. The details of the gross area for each zone are shown in Table 1.

| Zone          | Gross Area (m²) |
|---------------|-----------------|
| Administration| 498.24          |
| Exhibition    | 4131.6          |
| Knowledge     | 3166.2          |
| Service       | 518.4           |
| Entertainment | 847.8           |
| Total         | 9162.24         |

PROPOSED SITE
Proposed site: Site 1
For site 1 (Figure 4), this site is located at Al AlKhalidiya district, Jeddah, Saudi Arabia. This site has an area of 11750 m².

Proposed site: Site 2
For site 2 (Figure 5), this site is located at AlRawda district, Jeddah, Saudi Arabia. This site has an area of 16000 m².
SITE EVALUATION AND ANALYSIS

In this work, two sites were proposed for the development of Jeddah Culture Center. Thus, both sites were subjected to site evaluation analysis to determine the best. Both sites were evaluated based on several criteria's, which are security and safety, accessibility, utilities, image/visual quality, surrounding, site drainage, future development plans, and visibility. In addition, weighting factors (WF) were used for evaluation, where 1 = not very important, 2 = somewhat important, 3 = important, 4 = very important, and 5 = essential. The results of the site evaluation analysis is shown in Table 2. Based on Table 2, site 1 exhibited the highest score of 170, compared to site 2 with score of 145. Thus, site 1 was selected as the proposed development site.

| Site criteria         | Weighting factors (WF) | Site 1 | Site 2 |
|-----------------------|------------------------|--------|--------|
| Security and safety   | 4                      | 20     | 20     |
| Accessibility         | 5                      | 25     | 20     |
| Utilities             | 5                      | 25     | 25     |
| Images/visual quality | 4                      | 15     | 15     |
| Surrounding           | 3                      | 20     | 10     |
| Site drainage         | 4                      | 25     | 25     |
| Future development plan | 2                    | 15     | 15     |
| Visibility            | 5                      | 25     | 15     |
| Total                 |                        | 170    | 145    |

Site 1 is accessible via three main roads, Prince Sultan Street, Prince Saud Alfasil Street and King Abdullah Road. In addition, site 1 has empty land which can benefit to make future development possible. In addition, site 1 is surrounded by several landmarks, such as Le prestige mall, king's road tower, and Leylaty Hall, Prince Sultan Aviation Academy, residential area, commercial area, offices and medical services. The hottest month in Jeddah is July with an average temperature of 32°C (90°F).

The coldest month in Jeddah is January with an average temperature of 23°C (73°F). The conceptual zoning of the site is shown in Figure 6.

PROJECT DESIGN

The Jeddah Culture Center has a specific role and potential in the culture. It provides different activities and function for citizen. In addition, this center will shed the light on the Saudi culture, tradition and heritage for all regions and the achievements of all the kings of Saudi Arabia. The design concept and philosophy of the center is based on a unique design in which the visitor can take a tour through the timeline of the establishment of Saudi Arabia.

The building is constructed using flat slab and steel truss. The exhibition space dedicated for exhibiting the Saudi tradition and Saudi kings' achievements. The knowledge zone includes an interactive museum that uses a new technology approach to displaying materials, a library, a space with different collections of resources in Saudi heritage, traditional books and other materials, and a theater.

The administration zone is an area that includes a reception desk, an information desk and an office. The entertainment zone includes cafes, restaurants and playground. Finally, the service zone includes clinics, prayer room and storage. The design and outlook of the Jeddah Culture Center is shown in Figure 7 to Figure 10.
CONCLUSION
This work demonstrated the development of Jeddah Culture Center at Jeddah, Saudi Arabia. For the proposed center, the estimated gross floor area is 9162.24 m². Moreover, the center is comprised of various zones, such as administration, exhibition, knowledge, service and entertainment. The development of this cultural center is expected to make a major contribution to the development of Saudi Arabia’s culture, development and history. In addition, it will be a landmark for attracting tourists and the new generation, and will eventually boost internal tourism, which will support the economy of the country and provide the new generation with the needed knowledge.

REFERENCES
1. Graham B, Ashworth G and Tunbridge J 2016 A geography of heritage: Power, culture and economy (Routledge)
2. Che GT 2018 Museum environment (Routledge)
3. Boas F 2016 Some principles of museum administration Museum Origins (Routledge) pp 231–40
4. Marcus A S, Stoddard J D and Woodward W W 2017 Teaching history with museums: Strategies for K-12 social studies (Routledge)
5. Alexander E P, Alexander M and Decker J 2017 Museums in motion: An introduction to the history and functions of museums (Rowman & Littlefield)
6. Maisel S 2016 Why not go to the museum today? On tourism and museum preferences in Saudi Arabia Museums in Arabia (Routledge) pp 73–89
7. Exell K and Wakefield S 2016 Museums in Arabia: Transnational practices and regional processes (Routledge)
8. Erskine-Loftus P, Al-Mulla M I and Hightower V 2016 Representing the Nation: Heritage, Museums, National Narratives, and Identity in the Arab Gulf States (Routledge)