PATH TO PEACE MUSEUM
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Received: 22.04.2020 Revised: 27.05.2020 Accepted: 17.06.2020

Abstract
Saudi Arabia’s government has introduced the 2030 vision and is seeking to spread the Islamic history and heritage of the Kingdom throughout the world. The government has therefore announced the establishment of the world’s largest Islamic museum based on Saudi Arabia’s historical heritage to be build at Saudi Arabia. Thus, this world presents as proposal on developing an Islamic historical heritage museum. For this work, three care studies related to museum architecture were analysed. Based on the case studies, for the proposed museum, estimated gross floor area is 15900 m². The museum is comprised of few zones such as administration, recreation, lobby, exhibition, gallery, outdoor, visitor hospitality and services. For this work, two sites were proposed as development site. Thus, Site evaluation analysis was performed to select the best site. The results showed that site 1, which is located at old Jeddah attained the highest score of 135. The Islamic Historical Heritage Museum will be a focal point of attraction in Saudi Arabia and will contribute to the preservation of Islam’s historic elements in Saudi Arabia.

Keywords–Islamic, museum, culture, heritage, Saudi Arabia

INTRODUCTION
The museum is a destination for flourishing the concept of culture and heritage of the community, such a rich destination should be available to all people [1]. Museums were there to collect, preserve, communicate and present human heritage. Its main purposes are to explore any field of education using advanced and untraditional methods [2]. There are many types of museum around the globe, such as national museum, scientific museum, toy museum, historical museum, arts museum and cultural museum [3].

In the past, museums originally aimed to entertain rich families privately. These high-class destinations contained pieces of art, natural objects and artefacts. To enlighten and educate the public, the porous of modern museums is to collect, protect and exhibit items of artistic, cultural, or scientific significance [4]. For the government, museums can be a decent source of economic prosperity. Museums contribute to the dissemination of culture and knowledge, the development of science and enhancement of visitors’ intelligence [5].

In Saudi Arabia, the government has introduced vision 2030 and is seeking to develop the Kingdom’s cultural sector [6]. Furthermore, vision 2030 announced the establishment of the world’s largest Islamic museum based on Saudi Arabia’s historical heritage [7]. This is required to preserve the Islamic history and heritage of Saudi Arabia. Thus, this work proposes the development of an Islamic historical heritage museum at Jeddah, Saudi Arabia.

CASE STUDIES
For this work, three case studies related to museum architecture were examined. The information of each case study is discussed as follows:

a. Museum of Sciences and Technology in Islam
b. National Museum
c. Museum of Islamic Art

Museum of Sciences and Technology in Islam
Museum of Science and Technology in Islam is located at the King Abdullah University of Science and Technology in Thuwal, Saudi Arabia (Figure 1). The museum highlights the achievements of scientists in science during the golden age from the second to the eleventh century, and at that time there were prominent scientists and inventors such as: Jabir Ibn Hayyan, Abbas Ibn Firnas, Canadian, Razi, al-Izavera, Taki al-Din and others. The museum reviews how the achievements of these scientists contributed to shaping the present world and how their pioneering work laid the foundations of modern civilization and how the world today benefited from its knowledge. The main goal of the project is to increase awareness of the contributions of Muslim scientists to science and technology, enrich public culture, and finally advance inventions and new scientific achievements. The museum’s purpose on campus is to familiarize the students with the historical foundation on which their university was built and to visualize the steps. The museum contains nine sections, which are Al Idrisi map, polymaths, mathematics, architecture and urban planning, timeline, mechanical technology, astronomy and navigation, water technology, and theater of objects of chemistry.

Figure 1. Museum of Science and Technology in Islam

National Museum
National Museum is located at King Abdul Aziz Historical Center, Saudi Arabia (Figure 2). This museum was designed by architect Raymond Moriyama. This building has an area of 17000 m². The architectural program of the museum has been carefully developed to build a quality institution comparable to the most respected counterparts in the world. The lay out National
Museum concept of using different cubic size with a different orientation, using a historic façade that blends with the surroundings to the present Saudi culture and way of life. Each building or zone represents the different stage of the development and growth of the Kingdom of Saudi Arabia. There is a public main entrance and VIP entrance, reception hall and mosque on the ground floor. There are cinema theaters and services with a restaurant and discovery hall to the right. The left side has a cafeteria, two VIP halls, handicrafts and gift shops, and a temporary exhibition hall. The first floor is filled with a cinema theater showing the growth of the Kingdom of Saudi Arabia.

Figure 2. National Museum

Museum of Islamic Art
Museum of Islamic Art is located at Doha, Qatar (Figure 3). It was designed by IMP architects. The design of the museum was influenced by the old Islamic architecture. The total area of the museum is 45000 m². The museum is inspired by antique Islamic architecture and has a unique contemporary layout incorporating geometric motifs. The building’s cream-colored limestone materials attract light changes and reflect them in different shades as daylight hours advance. The entrance to the museum is very remarkable and it complements the external shape and shape. The lobby’s central part consists of a circular stairway leading to the first floor. Furthermore, the building is fitted with Atsuris Chandelier accommodates the shape of curved stairs. At the top of the lobby there is an opening that captures the light and reflects it on the multi-faceted dome. The glass façade on the north side of the building is 45 meters long and covers all five floors and offers a panoramic view overlooking the bay. Islamic architectural patterns adequately decorate museum spaces. The diversity of textures, wood and stone materials creates a unique environment suited to the amazing collections of the museum. The facilities of the museum includes permanent exhibition galleries, temporary exhibition galleries, auditorium, prayer halls, bookshop, world class conservation lab, storage spaces, library, administration offices and classrooms.

Figure 3. Museum of Islamic Art

PROPOSED SITE

Proposed site: Site 1
For Site 1 (Figure 4), this site is located at old Jeddah, overlooking the Lake of the Forty, between the Medina Road and Hail Road. This site has an estimated area of 20000 m².

Proposed site: Site 2
For Site 2 (Figure 5), this site is located at Al Madinah, near Al Haramain railway station. This site has an estimated area of 18000 m².

SITE EVALUATION AND ANALYSIS

In this work, 2 sites were proposed for the development of Islamic historical heritage museum. Site evaluation analysis was used to select the most suitable development site. Furthermore, weighting factor (WF) was used to evaluate the site, where WF=1 is less important, WF=2 is important, and WF=3 is very important. The site were analyzed based on few criteria’s such as capacity, shape and proportion, topography, access and traffic, noise level, utilities, security and safety, visual quality, visibility, future development plans, demographic patterns, surrounding.

Table 1. Space details

| Zone                  | Gross Floor Area (m²) |
|----------------------|-----------------------|
| Administration       | 380                   |
| Recreation           | 770                   |
| Lobby                | 750                   |
| Exhibition           | 1500                  |
| Gallery              | 5000                  |
| Outdoor              | 1800                  |
| Visitor hostilities  | 4000                  |
| Services             | 1700                  |
| Total                | 15900                 |

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views, heritage, visitor variety and percocality. Table 2 shows the results for site evaluation. Based on Table 2, site 1 attained the highest score of 135, compared to site 2 with score of 130. Therefore, site 1 was chosen as the development site. The site capacity is very good. The site is highly accessible as it is near to highway. This site is exposed to good climate throughout the year.

Table 2. Site evaluation

| Site Criteria            | Weighting Factor (WF) | Site 1 | Site 2 |
|--------------------------|------------------------|--------|--------|
| Capacity                 | 2                      | 10     | 8      |
| Shape and proportion     | 1                      | 5      | 5      |
| Topography               | 1                      | 5      | 5      |
| Access and traffic       | 2                      | 10     | 6      |
| Noise levels             | 1                      | 5      | 4      |
| Utilities                | 1                      | 5      | 5      |
| Security and safety      | 2                      | 6      | 8      |
| Visual quality           | 2                      | 8      | 10     |
| Visibility               | 2                      | 15     | 15     |
| Future development plan  | 3                      | 5      | 4      |
| Demographic patterns     | 1                      | 12     | 15     |
| Surrounding              | 3                      | 4      | 4      |
| Views                    | 1                      | 3      | 5      |
| Heritage                 | 1                      | 15     | 12     |
| Visitor variety          | 3                      | 12     | 15     |
| Percocality              | 3                      | 15     | 9      |
| Total                    | -                      | 135    | 130    |

PROJECT DESIGN
This museum aspires to present the real heritage in Islam by showing the contribution of the previous ancestors in Saudi Arabia. The core concept is to present these glorious historical events in a civilized and modern perspective. The Islamic heritage museum’s exceptional involvement will attract all sorts of visitors like: tourists, teachers, students, and families. The museum will embrace the idea of enhanced education through physical elements, unforgettable journeys and most importantly technological approaches such as virtual reality (VR) and augmented reality. Furthermore, the spatial section in this museum will take the visitor smoothly from one section to another section and explain all the heritage information throughout the museum. In terms of design, the museum is constructed using contemporary shapes and spaces. In terms of sustainability features, the building has utilized daylight as the lighting source, shading device, solar panels and courtyard. Furthermore, the lake is designed to face the privilege wind and circulate a nice breeze to the courtyard in the heart of the museum. Figure 6 to Figure 9 shows the design of the proposed museum.

CONCLUSION
This work has presented a proposal on Islamic historical heritage museum at Jeddah, Saudi Arabia. The main aim is to promote the Islamic history and heritage, which was a main part of Saudi Arabia’s development. This museum will be a main point of attraction at Saudi Arabia and it will a global platform for visitors to learn and understand the Islamic history of Saudi Arabia.

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