

SURVIVORS UNION ADVENTURE WORLD

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Abstract

This study proposed a socio entertainment experiment simulated in a game that includes many different challenges that emphasize teamwork and on how to protect each other and surviving the situation. The formation of the design concepts and ideas are based on the chosen case studies such as the movie "The maze runner", the resorts located at desert as well as the gaming world project. The project aims to integrate the game zone with other elements such as accommodation and training center. The space program of this study covered the public zone, restaurant zone, hotel zone, activities zone, outdoor activities zone, administration, and game zone. The chosen site is located at Thahban, Makkah Province Saudi Arabia based on the evaluation criteria of visibility, site size, site shape, access/ traffic, utilities, surrounding, views, demographic patterns, site attraction, topography, and expansion potential. The proposed project Survivors Union Adventure World provides an unforgettable and real challenge game experience for the player, also to build the relationship and bonding between each other.

Keywords--Entertainment, Challenges Game, Surviving, Teamwork, Gaming World

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INTRODUCTION

The Survivors Union Adventure World can serve as a team building activities and games are supposed to be not only educational, but also enjoyable. They help the team learn about each other how each person thinks, works, solves problems, and has fun [1, 2]. This activity does help in develop better communication, leadership skill, teamwork, brainstorming and bond team members [3, 4].

This project considered a socio entertainment experiment act as a platform between people of different ages, gender, and background. Simulate in a changeable maze that will be designed with kinetic architecture. Movable walls, folded selling, rotated doors, and different things. It's allows the experience change with time. The player's room will also be plugged in a way that can be changeable from space to another. The player required to attach the mobile unit to an opening in the game. With one and most important condition which is does not affect the building structure. So it should be light and self-sufficient structure. The game will have more than different kind of architecture. Thus, integrating the kinetic architecture within the game will make it more mysterious and enthusiastic.

The aim of this project is to let the players have an unforgettable journey by developing the teamwork bonding to explore and enjoy the adventure game. A proper site location with adapted site topography is chosen to serve the best experience to the player. The project integrates the accommodation and training center to provide services and benefit to the users.

CASE STUDIES

There are four case studies considered for this study, one is from a movie "The maze runner", and another three case studies are resort and game world. The design idea of the study is inspired by the concept of the "The maze runner" together with the resorts located at the desert as well as the game world. Thus, the chosen case studies for the resort and game world are:

- (a) Lotus Hotel in Desert, xiangshawan desert, China.
- (b) Wadi Rum Resort, Wadi Rum, Jordan.
- (c) Ferrari World, Abu Dhabi, United Arab Emirates

The maze runner

The Labyrinth is the first tests created by the WICKED that candidates should try to solve. When they finally manage to escape from it, they emerge into a world that is totally unknown to them, the one from which they come. The labyrinth stretches for several kilometers and is located under the WICKED complex; it has a false sky set to give it the appearance of a perfectly authentic sky [5]. In addition to that, it is equipped with a number of optical illusions, especially its walls, which seem to be more than a hundred meters high and are made of gray stone covered with thick ivy. The walls serve as enclosure for the Bloc despite the 4 openings of 7m wide that close each evening to prevent the Scrivers from entering the Bloc. Only, every night, as soon as the Doors close, the walls move, thus loses all reference to Candidates. However, this configuration, which is renewed each month, forms a letter of one of the codes required to escape the labyrinth. The Labyrinth is located in the heart of the Burnt Land. Therefore, the sky is authentic and it rains from time to time [5]. The Labyrinth is composed of 8 sections reconstituting approximately the same every month. Their main corridors never change and the sections are interconnected by openings whose location never changes, unlike the paths leading to them [5].

Lotus Hotel in Desert, xiangshawan desert, China.

Lotus Hotel in Desert is designed by Plat architects, located at xiangshawan desert, China (Figure 1) [6]. The Lotus Hotel in Desert was opened in March 2013. The hotel located in the center of sand. Lotus Hotel is only a part of Xiangshawan desert planning [6]. This hotel allows each visitor to take experience the simplicity and magic of the surrounding sand. In addition, give to the visitor different experience in the space. The design of the building was influenced by environment of desert, but it has a unique design and developing more desert architecture. This resort includes several functions such as hotel, spa, fitness center, restaurant, cafes and theatre.

The Lotus Hotel is only a part of Xiangshawan Desert planning. The form of Lotus Hotel not only blends in the desert, but also exhibits a power of the environment. Architects used the traditional Chinese idea of "Zhen", which is, in simple words, the

art of repeating same elements [6]. Comprises of individual units with square white canopies, rotated 45 degrees and connected together in a circular formation to provide shade and protection from the scorching desert heat, and made the form stronger. In reflection of structure, shading and wind, architects integrated function, form and landscape, resulting in a form of lotus.

Wadi Rum Resort, Wadi Rum, Jordan.

Wadi Rum Resort designed by Oppenheim Architecture, located at Wadi Rum, Jordan (Figure 2) [7].

This project combines with its wondrous setting, exploiting and enhancing the natural beauty of the desert to establish accommodations that are uniquely elemental and luxurious [7]. Dramatically situated the lodges and villas in their various incarnations; are all about a visceral connection to culture and place [7]. This outcome the experience is a revolutionary notion of opulence that is intentionally reduced to what is essential.

Ferrari World, Abu Dhabi, United Arab Emirates

Ferrari World located at Abu Dhabi, United Arab Emirates is designed by Benoy Architects (Figure 3) [8]. Ferrari World Abu Dhabi sits beneath its iconic red roof in the heart of Yas Island and is the world's first Ferrari theme park and largest attraction of its kind. It will be an intense multi-sensory experience and a must-visit for enthusiasts, fans and families. The Park pays tribute to the passion, excellence, performance, and technical innovation that Ferrari has established over the years and represents today. To house this state of the art leisure attraction, the building had to reflect the sinuous form of a Ferrari, directly inspired by the classic double curve side profile of the Ferrari GT body [8]. Due to the shape of the island and the position of Ferrari World Abu Dhabi in close proximity to the airport, the building was conceived as a very simple 'ground hugging' form, peeling up from the landscape in flowing lines like a red sand dune [8]. The visually distinctive form and shape crowns the Yas Marina Circuit creating a striking skyline.

The building was conceived as a simple embraced the soil structure. The three-pointed star on the extensive plant with three claws has created an attraction outside the enclosure. The 3D nature of the building derives from the sinuous double curve of the Ferrari body classic, for which 3D designs were crucial in the evolution of the structure. According to Benoy Architects, Word Ferrari has become the "spiritual center" of the island of Yas [8].



Figure 1. Lotus Hotel in Desert [6]



Figure 2. Wadi Rum Resort [7]



Figure 3. Ferrari World [8]

In overall, the first case study come up with better understanding of designing a game and what is the component of different kind of games also the unique architecture that it was presented in the movie how they integrate the kinetic with the static in order to serve the function of game. The second case study focused heavily on sustainable tourism in desert, and developing more desert architecture, include materials used that can be applied to make the building more sustainable. The hotel in the case does not use tiles, bricks or cement in the construction, but instead opts for environmentally friendly materials which utilize solar, wind and water energy. It utilizes sustainable solutions and materials such as, Sand. The third case study shows how to integrate the sand and rocky terrain in the concept of the design. The main building eliminates physical and visual barriers by forming a relationship with its surroundings and blurring the distinction between the levelling of the building and actual topography To further emphasize the concept, the architecture is inserted into the natural topography of the land, resulting in simple and elemental forms that aim to enhance and embrace the site. Lastly, the forth case study shows the distribution of the discovery places that can help on designing the game functions and zones.

SPACE PROGRAM

There are seven main zones that considered in this project for space program namely public zone, restaurant zone, hotel zone, activities zone, outdoor activities zone, administration, and game zone. The public zone is a welcoming place. The restaurant zone is a place for visitor or user to have a meal. Hotel zone is a space for user or visitor to take rest. Activities zone and outdoor activities zone provide activities for those who came for soothng rather than the game. Shooting & Archery zone is a skills learning center to prepare the players before they get into the game. The administration consists of the manger and employee rooms. Game zone has 8 sections, and each section is responsible for a specific activities. Table 1 tabulated the space distribution and the gross floor area of each zones.

Table 1. Space program of the project

Criteria	Total net area (m ²)	Total gross area (m ²)	Percentage (%)
Public zone	1546	1800	14.6
Restaurant zone	960	1152	9.3
Hotel zone	1750	2100	17
Activities zone	400	480	3.9
Outdoor activities zone	680	816	6.6
Administration	554	840	6.8
Game zone	4300	5160	41.8
Total	10190	12348	100

The parking space is calculated by assuming (1 car/60m²) for total building, thus GFA/60 = 205.8 parking (205). Hence, the

parking area is $205 \times 30 = 6150 \text{ m}^2$. In overall, the total builds area is $6150 \text{ m}^2 + 12348 \text{ m}^2 = 18498 \text{ m}^2$.

SITE SELECTION AND ANALYSIS

The selected site should be close to the recreational area. The site should be easy accessibility for the visitor. The site should have more than one street. The building must be visible for the people. The site should be large enough to provide sufficient space. Also, the site should have availability of utilities such as electricity, water, and sewer. The site should not be too close to the center of the city. Lastly, the site should have a good topography.

There are two sites proposed for site analysis and selection. Figure 4 illustrates Site 1 located in Assfan which there where many activities are running there. For example jungle land theme park and horses places. Figure 5 illustrates Site 2 in Thahban which is more towards the north development which will give the site more fetchers for the future.

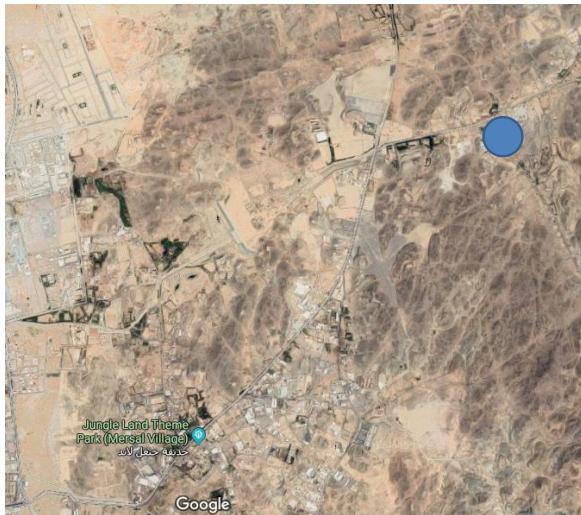


Figure 4. Site 1 [9]



Figure 5. Site 2 [10]

There are several critical criteria considered for site evaluation namely visibility, site size, site shape, access/ traffic, utilities, surrounding, views, demographic patterns, site attraction, topography, and expansion potential. The weight factor is labeled to each of the criterion in order to indicate the

important of the criterion for site selection. The site evaluation result is tabulated in Table 2.

The chosen project location is Site 2, which is located in Thahban. The strengths of the selected site are located at the mountain and topography is inspiring (Figure 6). This site has the opportunity to become a stand-alone city. But, it's located too far from the nearest city, has limited access and no street. Besides that, the site is totally surrounded by the natural and it's difficult to reach without specific guidance. Figure 7 illustrates the site climate analysis. The site may experience prevailing wind from Northwest direction and experience hot wind from South-east direction.

Table 2. Site evaluation result

Site criteria	Weight factor	Site 1	Site 2
Visibility	2	2	10
Site size	3	9	15
Site shape	2	8	10
Access/ traffic	1	5	3
Utilities	1	2	1
Surrounding	3	12	3
Views	1	2	3
Demographic patterns	1	1	1
Site attraction	1	4	4
Topography	3	3	15
Expansion potential	3	3	15
Total		51	80

TOPOGRAPHY



Figure 6. Site topography analysis

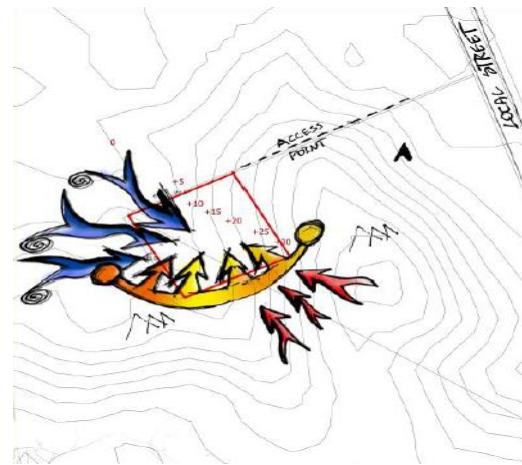


Figure 7. Site climate analysis

Zoning and project design

The design concept of the study is focus on the ability to see, hear, and become aware. The game zone located at the middle of the site that surrounding by all others primary zone. The administration and hotel zone is designed side by side in order to provide convenience for the visitor and users. The site zoning and site plan of the project are shown in Figure 8 and Figure 9 respectively. Figure 10, Figure 11 and Figure 12 demonstrate the 3D hotel lobby interior shot, hotel exterior shot and hotel interior shot respectively. Figure 13 illustrates the 3D maze exterior shot. Figure 14 and Figure 15 demonstrate each side elevation view of the project.

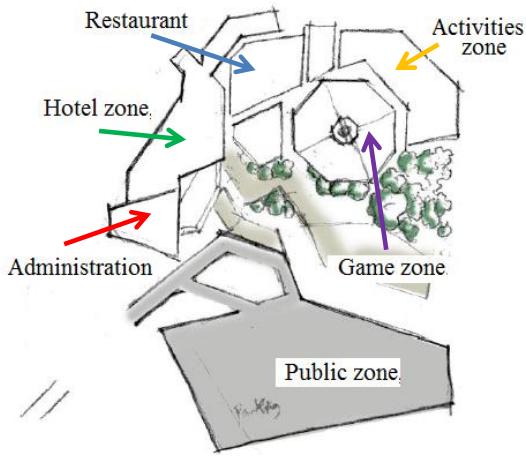


Figure 8. Site zoning



Figure 9. Site plan

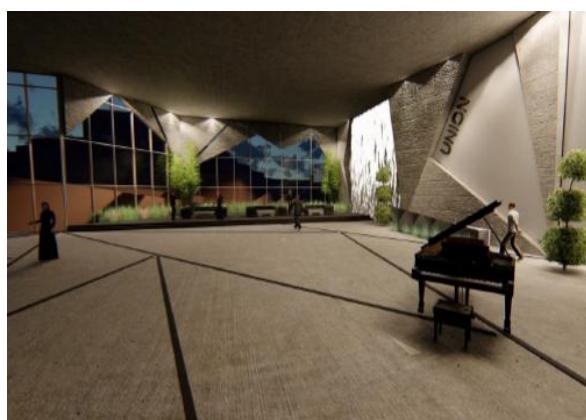


Figure 10. 3D hotel lobby interior shot

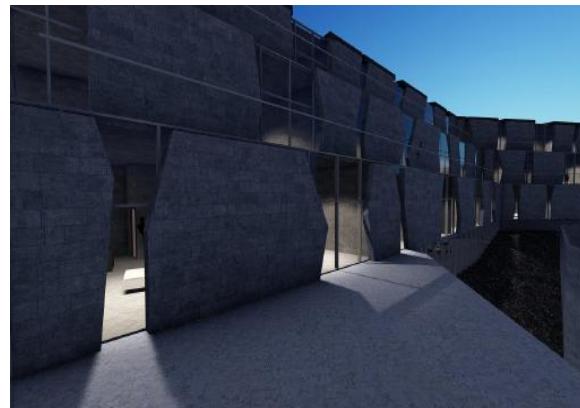


Figure 11. 3D hotel exterior shot



Figure 12. 3D hotel interior shot

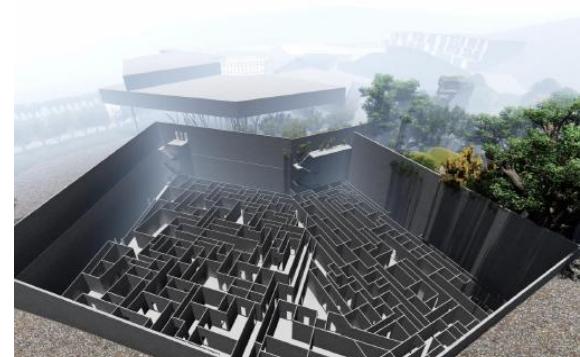


Figure 13. 3D maze exterior shot



Figure 14. Side 1 elevation view of the project



Figure 15. Side 2 elevation view of the project

CONCLUSION

The proposed project serves as attractive indoor theme game destination that could provide unforgettable adventures for all ages. The primary elements that considered for the space program are public zone, restaurant zone, hotel zone, activities zone, outdoor activities zone, administration, and game zone. Selected site is located at Thahban, Makkah Province Saudi Arabia, which draws several advantage compares to others site in terms of visibility, site size, site shape, access/ traffic, utilities, surrounding, views, demographic patterns, site attraction, topography, and expansion potential. This project also emphasis for team building in order to develop better bonding between each other.

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