

MADINAH COMMUNITY DEVELOPMENT CENTER

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Abstract

Madinah Community Development Center focuses on developing and enhancing Madinah's community, by reaching each individual, family and neighbourhood to open new opportunities while building a better and powerful generations. The project includes a library, learning center co-working center, multipurpose hall, and plaza that gathers the community. Several case studies were used as input sources to develop center. The space program that taken into the consideration of this study are public spaces, multipurpose hall, exhibitions, library, interactive learning, cooperative working spaces, administration, and amenities. The site evaluation is conducted based on selective criteria namely site capacity, shape/ proportional, topography, access/ traffic, noise levels, heritage, security and safety, image/ visual quality, visibility, future development plans, demographic patterns, surrounding, and views and the selected site is located near Said Alshuhada'a and JabalUhud. The proposed project aims to improve the quality of culture and knowledge in Al-Madinah, Saudi Arabia, by providing different interactive learning with a various resources and spaces to learn and create.

Keywords--Community Development Center, Learning Center, Madinah's Community

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INTRODUCTION

Some of the developing countries experience high levels of mental and physical illnesses, which related to long-term health conditions, unhealthy lifestyle and aging population. Active in the community is an informal healthcare sector to address these public health issues [1]. The community center strengthen family bonds, offer valuable community info, built connection between other families, and help personal beat the blues [2, 3].

The community development center needs to provide various of activities and events in an interactive environment in order to attracts the people attention and reach each individual user by providing the suitable environment [4, 5]. Community centers are public locations where members of a community tend to gather for group activities, social support, public information, and other purposes. Community Development Center is based on culture.Culture is a system of shared beliefs, values, customs, behaviours, and artefacts that the members of the society use to cope with their world and with one another, and that are transmitted from generation to generation through learning. Culture is that complex whole which includes knowledge, beliefs, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society [6].Community Centers are becoming more popular around the world as the technology like the internet makes the world feel more connected. Therefore, this study proposed the development of the Madinah Community Development Center aims to provide interactive learning with a various resources and spaces to learn and create.

CASE STUDIES

This study considered three case studies as the idea references to develop the Madinah Community Development Center. Each of the case studies has its unique of architecture design and project objective. The chosen case studies are:

- (a) Youth Hub Jeddah
- (b) King Abdul-Aziz Center for World Culture, Dammam, Saudi Arabia
- (c) The Meeting Point (Multicultural center in Sweden)

Youth Hub Jeddah

Youth Hub Jeddah is led by the team by Dr.Mohamed Hakim, T.Ahmed bin HakamAsiri, and T.Omar of Shabaan.The Center contributes to the creation of a space for learning and acquiring skills on various subjects, including lessons, workshops and knowledge exchange opportunities and create a space dedicated to brainstorming, discussion and partnership to develop innovative solutions to different challenges through creative and qualitative work that also contributes to the exit of quality projects serving the community, which are youth manage applied on reality. Which through the center they created a new experience and quality for young people through which to prove the strength of teamwork whenever there is an innovative idea that contributes to the building of society. And that the most important is not the idea as much as the effort to implement it. The idea for youth was designed by youth and be managed by youth to allow thecommunity to share, interact and exploit their full potential within an innovativeenvironment aimed at building vibrant communities that reinforce the pillars of regionalpower and are relevant to the vision of the Kingdom 2030.

King Abdul-Aziz Center for World Culture, Dammam, Saudi Arabia

King Abdul-Aziz Center for World Culture is located at Dammam, Saudi Arabia and designed by Snøhetta (Figure 1) [7]. It is a complex that promotes the development of culture and knowledge in Saudi Arabia. It is owned by the Saudi Aramco oil company as part of their 75th anniversary celebration and is particularly relevant in the context of the Saudi Arabian demographic with a very wide young population, thirsting for cultural programs.

The philosophy of the design concept is related to the idea of how culture expands back in time, searching for historical roots, and extending into the future to brand new possibilities. This timeline combining past, present and future is fixated in the architecture of the complex. Partially dug deep into the rock and partially stretching 86 meters up toward the sky [7].Metaphoric architectural movement is one of postmodern movements that appeared in the 20th century. It is characterized by the use of analogy and metaphor as a main inspiration and directive for

design, and has direct comparison between two and a greater amount of unrelated subjects. The form of King Abdulaziz center was inspired by gathered stones in the middle of the dessert, and also has a concept of three main parts the past, present and future in three different levels underground, ground, and above the ground [7].

This concept of culture is found in the heart of the spatial organization of the building. Each aspect of the building is given its own distinct and recognizable form that looks like a pebble. However, these individual pebbles are put together in such a way that they visually and physically support one another, so that no single object can stand alone without having the whole composition to collapse, as that resembles how culture is not an individual effort but a collective of integrated forces and ideas that are put together to create a context [7].

The Meeting Point (Multicultural center in Sweden)

The Meeting Point also known as multicultural center in Sweden is designed by AIX Arkitekter (Figure 2) [8]. The center combines unique sports and cultural activities, at the heart of an existing ecological infrastructure, to promote community opportunities and engagement. "The Meeting Point" center tries to achieve a good community design that makes a meaningful and lasting impact on its members of all ages [8]. This new center has a balance of adult-specific programs like co-work and gym spaces, kid-specific spaces like play and swim areas, and also non-specific spaces like a library and recreation areas.

A multicultural center that has a balance of adult-specific programs like co-work and gym spaces, kid-specific spaces like play and swim areas, and also non-specific spaces like a library and recreation areas, in addition to other indoor and outdoor activities. This dynamic also translates throughout the design language of the building through transparency and landscape elements. The intersecting masses cause various activity spaces to overlap, promoting happenstance interactions between both people and program [8].



Figure 1. King Abdul-Aziz Center for World Culture, Dammam, Saudi Arabia [7]



Figure 2. The Meeting Point (Multicultural center in Sweden) [8]

SPACE PROGRAM

There are eight main zones considered for the space program namely public spaces, multipurpose hall, exhibitions, library, interactive learning, cooperative working spaces, administration, and amenities. The public spaces and services consist of main entrance, information desk, praying hall, storages and restrooms. The multi-purpose hall consists of hall, lobby, refreshment area, catering area, administration offices, and restrooms storages. The exhibitions compromise of entrance lobby/ foyer, permanent exhibition area, temporary exhibition area, outdoor exhibition area and restrooms.

The library consists of entrance lobby/ foyer, lending desk, information desk, book shelves, printing services, digital library, computer area, reading area, private study rooms, seminar rooms, administration offices, restrooms and storages. The interactive learning zone has classrooms, workshops, lecture halls, open working and studying area, restrooms, and administration area. The cooperative working zone consists of open working area, desks area, private offices, meeting rooms, lounge, kitchenette, restrooms and administration. The administration area covers of reception, waiting room, manager office, secretary office, staff office, meeting room, tech/communication room, lounge, kitchenette, archives, storage and restrooms. The amenities compromise of restaurant, café, shops and restrooms. The footprint and the percentage distribution of the zones are tabulated in Table 1.

Table 1. Space program

Zones	Number of users	Net area (m ²)	Gross area (m ²)	Per cent age (%)	Foot print (m ²)
Public spaces	1000	892	1027	12	1027
Multipurpose hall	400	1060	1220	14.5	1220
Exhibitions	300	730	840	10	420
Library	300	1740	2000	24	500
Interactive learning	200	1330	1530	18	0
Cooperative working spaces	200	662	762	9	254
Administration	60	422	485	6	242
Amenities	100	480	552	6.5	552
Total	2560	7316	8416	100	4215

SITE SELECTION AND ANALYSIS

There are two site are proposed for site selection. Figure 3 shows Site 1 is in Quba'a New Development Plan. This site is existed on a future development plan in Quba'a Street and near Quba'a mosque. It is located within civilization areas that include a museum, cultural center and craft center and many more. This site has much potential due to its location and new treatments available.

Figure 4 shows Site 2 located near Said Alshuhada'a and JabalUhud. The site located near Said Alshuhada'a with a direct access to AlharamAlnabawi, the international airport, and Alharamain train station, while it's located on a main access (2nd ring road) that provide easy accessibility. The site is placed near a heritage area.



Figure 3. Site 1 [9]



Figure 4. Site 2 [10]

There are several criteria are used to evaluate the site such as site capacity, shape/ proportional, topography, access/ traffic, noise levels, heritage, security and safety, image/ visual quality, visibility, future development plans, demographic patterns, surrounding, and views. The site should be close or on a main street to provide easy accessibility and everyone can reach it. And it should have a clear accessibility because of the activities will happened and the huge number of people who will be there at the same time. In addition, the site should locate near a heritage or historical sites to attract the visitors from outside Madinah. Table 2 tabulated the site evaluation result for both sites. The weight factor is used to signify the important of each criterion. The higher number of the weight factor mean the criterion is very important to the project.

Table 2. Site evaluation result

Site criteria	Weight factor	Site 1	Site 2
Site capacity	5	10	15
Shape/ proportional	3	3	12
Topography	2	8	6
Access/ traffic	5	10	25
Noise levels	4	12	16
Heritage	4	20	12
Security and safety	4	12	16
Image/ visual quality	4	16	16
Visibility	5	15	25

Future development plans	5	25	5
Demographic patterns	4	16	12
Surrounding	4	16	8
Views	4	16	12
Total		179	180

Based on the site evaluation result in Table 2, Site 2 marks the highest and chosen as the site location. Site 2 has a higher weighting factor which near Said Alshuhad'a, JabalUhud and on the 2nd ring. The site is located on a two main axis one is only 6km away from AlharamAlnabawi and the second is a direct access from all the sides of the city in addition it has a direct access to the international airport and Alharamain train station. Selecting the best suitable site location for the project is important to ensure the project success. The site is located in second holiest site in Islam after Makkah Al-Madinah Al-Munawara the city of the Prophet Muhammed (PBUH). It has an economical and Islamic touristic value. The site will be chosen in heritage area and easy accessible, to make it easier for all the users to visit and use all the facilities.

The site is accessible from two main roads namely King Abdullah Road (2nd ring) which is connected to all the city and King Fahad road which is directly connected to AlHaramAlnabawi (Figure 5). The site surrounding has several landmarks and facilities namely Uhud Mountain, Alhassan Mall, Uhudpark, Alebikan bookstore, and Alahmadi Hospital. Figure 6 illustrates the site has prevailing wind from the northwest and good view looking to Uhod Mountain from the north with a natural light. The south has a small view looking to Almadinah and AlharamAlnabawi, however has a direct sun light.



Figure 5. Site accessibility



Figure 6. Site climate analysis

Regarding the climate analysis in Medina, the site has minimum amount of humidity due to dry climate condition. The average percentage of the sky cover by clouds experiences significant seasonal variation over the course of the year. The clearer part of the year begins around May to July. The cloudier part of the year begins around July and lasts for 10 months, ending around May. Medina does not experience significant seasonal variation in the frequency of wet days. The frequency ranges from -0% to 2%, with an average value of 1%. The sliding 31-day quantity of rainfall in Medina does not vary significantly over the course of the year, staying within 0.1 inches of 0.1 inches throughout. The frequency ranges from -0% to 2%, with an average value of 1%.

ZONING AND PROJECT DESIGN

The community development center aims to develop and enhance the educational, social, and cultural aspects. The cubic approach of design represent the members of Al-Madinah's community with all the differences between them they still as integrated community. Figure 7 and Figure 8 demonstrates the site zoning and site plan of the community development center. The main entrance and multipurpose hall is situated at the north of the site. The outdoor, public place, and amenities is located the middle of the site. Others zones such as library, cooperative working spaces, administration, interactive learning and exhibition zone are integrated into one building located at the south of the site. Figure 9 and Figure 10 illustrate the overlooking the plaza shot and the library. The main perspective view of the project is demonstrated in Figure 11.

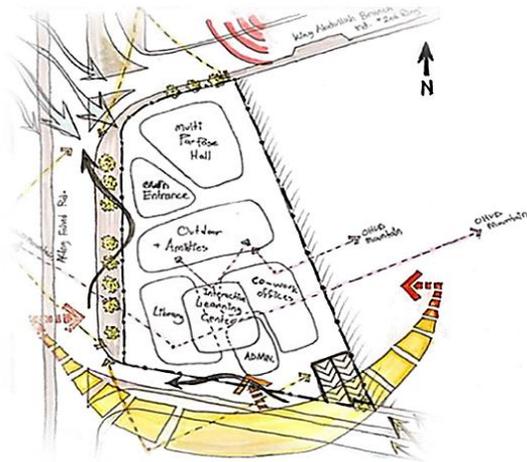


Figure 7. Site zoning



Figure 8. Site plan



Figure 9. Overlooking the Plaza Shot



Figure 10. Overlooking the Library



Figure 11. Main perspective view of project

CONCLUSION

The community development center, works on each individual, family and neighbourhood reaching to the whole community, by providing different opportunities and activities that promotes a direct dialogue, sharing of skills, and a meaningful relationship between the education and cultural sectors. The proposed space program consists of public spaces, multipurpose hall, exhibitions, library, interactive learning, cooperative working spaces, administration, and amenities. The selected site is located near Said Alshuhada'a and JabalUhud based on the evaluation of several criteria. Lastly, the Concept of the project is to make the building comfortable to everyone in the community. It is a place for all to build and improve the community.

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