

HEALTH AND WELLNESS RESORT

Amina Abdo¹, Mohammed Shokry²

^{1,2}College of Architecture and Design, Effat University, Qasr Khuzam St., Kilo.2, Old Mecca Road. P.O.BOX 34689, Jeddah 21478, Saudi Arabia

Email: 1aabdo@effatuniversity.edu.sa, 2mshokry@effatuniversity.edu.sa

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Abstract

Health is the state of being well in different aspects of life, as wellness refers to healthy people. It is a very important part of every person's day to help them live and interact with others in a normal, comfortable and healthy way to be able to have a good life. Human beings are trying to adapt to the world in many different ways to help them fulfil their demands. This results in having a noticeable affects in their health, either physically, mentally or socially. The purpose of this study is to investigate the different effects of environment on the improvement of human health and the importance of having a place for sick people to renew their souls and clean their spirits. This allows healing their physical damages by the least impact on the surrounding environment and to keep people and nature as healthy as possible. The health and wellness resort project will support green architecture as well as ecotourism in Saudi Arabia. This study evaluates the project with similar case studies and proposed a site, Khaleej Salman, Jeddah. To develop a health and wellness resort.

Keywords -- Health, Wellness, Resort, Green Architecture, Good life

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INTRODUCTION

Health is the most important aspect of life because it's the key element of living [1]. Without health it's difficult to go on with life and the activities done by the human will be minimized and emotional will be affected as well. So it is important to provide places for people to get healed physically, spiritually and socially. People need a getaway sometimes to renew their souls and get caring services to encourage them to go on [2]. Also people who are suffering from different mental or physical diseases, like diabetes and cancer, or damages after surgeries or accidents, giving them natural therapies could be the best cure they need.

The word "healthy" is not only limited to living creatures, building materials could be called healthy too in the way they work and react over time [3]. It is so important to benefit from healthy materials and use them in the right places where they can make a significant difference to people and environment [4, 5].

Architects should take big responsibility to benefit from the amazing knowledge they have and spread it to the world by designing and creating healing spaces for people especially in societies with big number of population [6, 7]. They also should choose building materials carefully to achieve the highest goals so their creations can live over time and be a great lesson for people in the future.

The objective of the project is to build a new kind of healthcare facility different than depressing hospitals. Saudi Arabia lacks the availability of such projects and it is so important to start something like this to encourage that field of architectural projects in the country of Saudi Arabia. This project will help enhancing the quality of health treatment and improve the overall health in the country. It could be a starting point of a huge development in the health factor of Saudi.

CASE STUDY OF THE RESORTS

The case study of the resorts covered the project, services and activities provided from different parts of the world with different climate conditions, such as Australia, United States, and Indonesia [8]. The selected resorts for the case study are:

- Southern Ocean Lodge - Kangaroo Island, Australia
- Amangiri Hotel and Spa - Southern Utah, United States
- COMO Shambhala Estate - Spa Resort - Bali, Indonesia

Southern Ocean Lodge

Southern Ocean Lodge, located in Kangaroo Island, Australia. It was designed by Max Pritchard Architect, and was completed in 2008 [9]. The lodge is built in an area of 1,548 square meters. It has a unique eco design with the blend of modernity, vernacular of the island and a coastal colour palette. The lodge is built on a dramatic site, floating atop of 40 meters cliffs overlooking the ocean (Figure 1). The design has large window walls to capture the marvellous view of the ocean (Figure 2).

The lodge consists of 21 suites that are arranged from the main entrance of the lodge, down the slope of the cliffs, each with a private terrace. When it comes to building materials, all suites are constricted with light-weight materials. Foundations are made of steel screw piles, framing is by timber, cladding is iron and fibre cement and floors are made of recycled materials like timber and stones. Even furniture is made of local materials and designed by local Kangaroo Island artists. The lodge's system is all sustainable and environmental-friendly, independent of main services. Electricity is being generated on site, rainwater is collected, and waste water is treated by an organic waste treatment system. They offer treatments massage techniques of the Australian culture, as well as natural beauty products like Ligurian honey, mineral salts and lavender, all run by a professional staff.

The lodge offers a whole experience in the Kangaroo Island for the guests to discover the natural attractions of the island and the wildlife by visiting a "zoo without fences". Southern Ocean Lodge offers services and facilities for both pleasure and business. With a fully equipped meeting lounge, to provide a different and inspiring kind of experience away from the normal work environment with the beauty of the surrounding nature. The lodge also arrange different events like weddings and family reunions.



Figure 1. External View of Southern Ocean Lodge [9]



Figure 2. View from Osprey Pavilion [9]

Amangiri Resort and Spa

Amangiri Resort is located in Southern Utah, United States, designed by Marwan Al-Sayed Architects, Wendell Burnette Architects, and Rick Joy Architects [10]. The resort was completed in 2009. It is built in a valley, surrounded by mountains in an area of 7,300 square meters. The central pavilion of the resort is built around the main swimming pool that follows the curvy lines of the mountains, where it is considered the most attracting element of the resort (Figure 3). The pavilion leads to two main wings: "The Desert Wing" consists of 16 suites and "The Mesa Wing" with another 18 suites and a spa. The resort also has private villas and dining rooms for family and friends gatherings (Figure 4). The resort provides different activities from its surrounding landscape such as horse-back riding, hiking through the desert and caves, climbing the mountains and hot-air balloons flights for the visitors to enjoy their time while staying. Also, boating trips are on the list of activities, since Lake Powell is only 15 minutes away from the resort. They also arrange activities like weddings and family gatherings. The spa of the resort has an area of 2,322 square meters, which could be distension by itself, including a reception area, private courtyard, dressing rooms, series of pavilions (water and yoga), salon, fitness center, treatment rooms, and outdoor terraces. It has a list of different treatment therapies, like massage, yoga, and pilates where they reflects Navajo culture and healing traditions. The interior of the suites is made from materials the natives of the region still use: leather, skins, wool, wood and bastfibre.



Figure 3. The View of Pool Blending with natural surrounding [10]



Figure 4. The Interior Design of Suites [10]

COMO Shambhala Estate - Spa Resort

Como Shambhala is located in Bali, Indonesia, designed by a local architect, Cheong Yew Kuan [11]. The resort is built on an island, surrounded by blues and greens, in an area of 93,000 square meters. The atmosphere there is so quiet and relaxing for people to get the best healing therapies. It is set 30 minutes away from the busy city, in the middle of the jungle, and above the river, using its revered water for treatments. Cheong Yew Kuan used local stones, wood and alang-alang roofing (thatched roofing) using *Imperata Cylindrica* grass, which have been used in Indonesia for hundreds of years (Figure 5). Furniture is all handmade by Indonesian artists, a mix of Asian and European styles, with details that reflects the spirit of the region (Figure 6). The list of consultants in Como Shambhala includes a dietitian, an Ayurvedic doctor, an osteopath and a physiologist. COMO Shambhala Estate consists 30 rooms and suites, spa, treatment rooms, outdoor hydrotherapy area and heated pool, yoga and pilates studios, sauna room, consultation rooms, natural spring water pool, indoor and outdoor jungle gym, tennis court, climbing wall, business center, meeting room, and restaurants. A daily schedule of activities has more things to do each day, so visitors can choose what interest them the most, like biking, cooking classes, trekking, rock climbing, river rafting, as well as walking to the top of the volcanic mountain to watch the sunset from above. Also, a set of different therapies, treatment methods, and wellness programs are provided depending on the different conditions and needs, whether physical care or spiritual healing.



Figure 5. External View Showing Use of Alang-Alang Roofing [11]



Figure 6. Interior View Showing Pieces of Handmade Furniture [11]

CONCEPT AND PHILOSOPHY

The goal of this project is to create a healing environment for the mind, body, and soul. It is for people who need a special kind of physical or mental treatment, away from the crowded and noisy city. It will help guests get energized, balanced, inspired, and feel comfortable, as well as training them to maintain a healthy lifestyle. It's also a way of using architecture as a tool for healing with the help of nature. A health eco-lodge is basically a green or eco resort that respects the environment and the way it is designed has a minimum impact on nature. With the use of LEED's guiding principles for achieving an environmental-friendly and energy efficient project that leads to improving people's health as well as the environmental health. "To be healing, a place must be harmonious, bringing change as an organic development so that new buildings seem not to be imposed aliens but inevitably belong where they are.

They must respond to the surroundings and be responsible, seeking to minimize pollution caused by their materials. But places – and buildings – must be more than that; they must be nourishing to the human being." said Christopher Day in his book "Places of The Soul" [12,13].

The health eco-lodge will include a treatment center, a resort, sport facilities, golf course, hotel, beachfront suites, floating suites, and parks. The location of the project will be on a semi-island so the resort will be overlooking the sea, which creates a calming and relaxing view to the guests. Some water activities will be provided such as boat trips, and the sea water, sun, and sands could be used for natural healing therapies.

The concept for the design of this project is the use of green architecture to reduce energy consumption and the negative impact on the environment as much as possible, to encourage this architectural approach in Saudi Arabia and apply waste and water management systems, to have a better living environment. Also, the design used some of the traditional design elements,

materials, and systems of the Islamic Architecture that helps sustaining buildings with a good quality in the hot-humid climate of Saudi Arabia.

STANDARDS AND GUIDELINES

The main components of the project consist of therapy center, research center, hotel, golf course and marina.

Therapy Center

A therapy center is a place where patients get their different types of treatment. It consists of a rehabilitation department and a physiotherapy department. A therapy center should be accessed from a main reception area where patients are guided to the department they need. The center should respect disabled people when it is designed and provide them with the services they need, as well as applying the dimension standards required for their comfortable use. Therapy center should include some main facilities like a gymnasium, massage and physical treatment rooms, wet area for pool exercises, changing and rest rooms for males and females.

Research Center

A research center is a place where studies and tests are run to solve a certain problem or discover new treatments or medications. It includes laboratories, test rooms, study and meeting rooms, and a library for researchers. This project needs a research center for specialist and therapists to study and widen their knowledge, as well as trying discovering new treatments for the patients. They could use their surrounding natural environment sources like sea water and sand for medical purposes and cures for different diseases.

Hotel

Hotels have many different types which include town hotel, holiday hotel, motels and hotel with apartments. A hotel should contain a reception area, rooms, toilets for both guests and public visitors, lounges and halls, restaurants and cafes, management department, meeting and conference hall, kitchen, storages, maintenance department, and housekeeping department. Hotels can offer different types of rooms with different sizes such as single rooms, double rooms, junior suites, and family rooms. Holiday hotels offer a variety of rooms where visitors choose whatever room that suites them the most. In this project a variety of rooms and suites is offered including typical hotel rooms overlooking the Red Sea and golf course, beachfront villas, and floating villas.

Golf Course

A golf course is mainly an outdoor sport facility. The field should be designed according to certain requirements, depending on the number of holes and their length and the location of the course. For the course design, it should be surrounded by light tree cover and have streams and lakes. Usually a golf course contains a practice area for training and exercising.

Marina

A marina is a recreational and commercial area where people gather for different types of activities. It includes cafeterias, coffee shops and sitting areas for people to enjoy the view of the sea, as well as boat trips and rental, and sailing activities for those who would like to enjoy the sea.

PROJECT SPACE PROGRAM

Resort

The resort will include hotel rooms, suites, beachfront villas for families, as well as floating villas, a spa for massage and other treatments, gym, restaurant, events hall, a nursery, business center and housekeeping department. Below is a detailed program schedule with all areas and spaces that will be included in the resort. Table 1 shows the hotel zooming schedule.

Table 1. Hotel zooming schedule

Type of Space	Quantity	Area\each	Total area
Beachfront Villa	12	200m ²	2400m ²
Rooms	60	60m ²	3600m ²
Floating Villa	12	82m ²	984m ²
Reception Lobby	1	318m ²	318m ²
Administration	6	8m ²	48m ²
Offices			
Restraurant	1	105m ²	105m ²
Kitchen	1	33m ²	33m ²
Lounges	1	80m ²	80m ²
Staff Lounge	1	16m ²	16m ²
Staff Toilet	1	19m ²	19m ²
Guests Toilets (male and female)	2	26m ²	52m ²
Events Hall	1	140m ²	140m ²
Shops	4	8m ²	32m ²
Housekeeping (Laundry, Furniture Storage, Maintenance)	1	330m ²	330m ²
Gym (male and female)	2	180m ²	360m ²
Nursery	1	53m ²	53m ²
Business Center	1	65m ²	65m ²
Total area = 8,635 + 30% circulation = 11,225 sq.m			

Therapy and Research Center

The therapy and research center will include rehabilitation and physiotherapy departments, offices for therapists and specialists, a gym and spa for both male and female patients and a food court. For the research center there will be a library with meeting and training rooms for therapists and specialists, as well as a laboratory for researches and studies provided with all needed services. Table 2 shows the therapy and research center zoning schedule.

Table 2. Therapy and research center zoning schedule.

Type of Space	Quantity	Area\each	Total area
Entrance and Center Lobby	1	150m ²	150m ²
Lounges	5	52-240m ²	720m ²
Food Court	1	310m ²	310m ²
Physiotherapy Units	6	53m ²	318m ²
Rehabilitation Units	5	20m ²	100m ²
Teaching and Meeting	5	18-22m ²	100m ²
Kitchen	1	80m ²	80m ²
Staff Toilets	5	24m ²	120m ²
Patients Toilets (male and female)	2	22m ³	44m ²
Storage	3	8m ²	24m ²
Archive Room	2	8m ²	16m ²
Prayer Room	2	8m ²	16m ²
Library	1	565m ²	565m ²
Laboratory	1	630m ²	630m ²
Spa and Gym	2	500-600m ²	1100m ²
Total area = 4,300 + 30% = 5,588 sq.m			

PROJECT SITE SELECTION AND ANALYSIS

The selected site for this project is located in Khaleej Salman, Jeddah, Saudi Arabia (Figure 7). It's a semi-island that is surrounded by water from 3 sides. The land is 45 minutes' drive

away from King Abdulaziz International Airport, and 50 minutes away from city center, to provide a quiet and relaxing atmosphere for visitors away from the busy city. The site dimensions of the location are approximately 203,655m² (Figure 8).

**Figure 7.** Map of Khaleej Salman, Jeddah, Saudi Arabia [14]**Figure 8.** Site Dimensions and Area [14]

Site Potentials

There are several potentials of selecting this site as the resort location such as having the site near the Red Sea is a powerful point for the main purpose of the project which is having natural elements and beautiful views for the guests to help them in their healing process. Next, this gives better opportunities with designing ideas, and more chances to be creative while designing the different areas, facilities, and activities of the resort. The area of the site is quite and relaxing, away from the busy city with very few surrounding projects. The cooling breeze comes from the sea where accommodations will be located to enhance the experience of the patients.

The Red Sea is full of elements that could be used for healing therapies like sea water, sand, and sea plants. Having the resort near the Red Sea provides a local resource of food for the visitors which gives them a healthy menu for their meals. The area surrounding the resort is vacant with no projects, which gives a great opportunity for future expansions.

PROJECT FUNCTIONAL ZONING AND PROJECT SITE

Figure 9 and Figure 10 show the functional division of each floor in the main buildings of the project for hotel as well as the therapy and research center respectively.

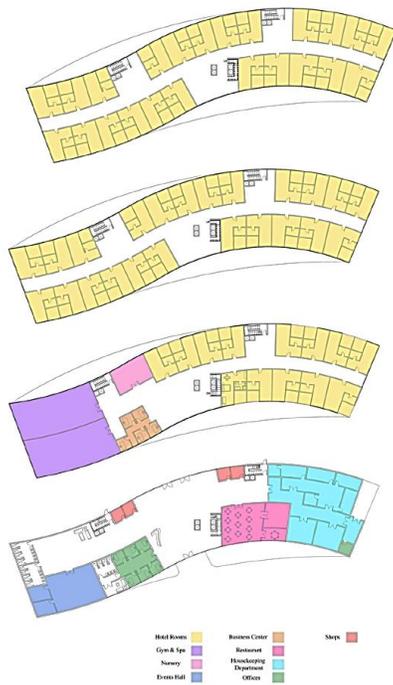


Figure 9. Functional Zoning of the Hotel

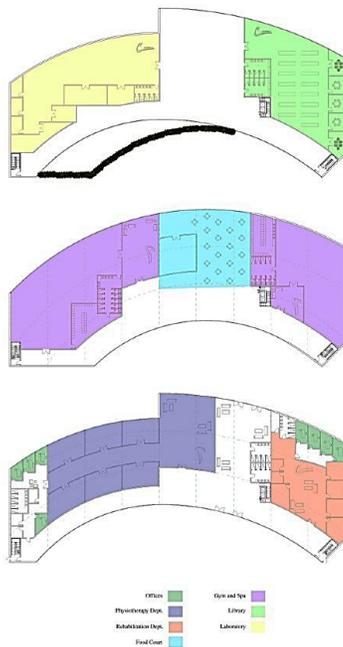


Figure 10. Functional Zoning of the Therapy and Research Center

Figure 11 and Figure 12 show the welcoming building will be the therapy and research center for visitors and walk-in patients, there will be a path from the therapy center leading to the hotel if patients would like to stay in the resort. The other accommodations will be spread over the beach curve. The marina is located next to the hotel with all its supporting facilities. The golf course and club is located in the center of the project and it's available for stay-in visitors and golf club members from outside the resort. Other than sport facilities, the walk and cycling paths connects the different parts of the resort together.



Figure 11. Site Plan



Figure 12. Bird-eye View of the Resort

CONCLUSION

The concept of this project is to create a healing environment for people with the least impact on nature. In Saudi Arabia the most suitable location for this type of project is near the Red Sea, because it would be difficult to have it in the middle of the desert because of the hard weather conditions of Saudi Arabia, so the selected site will be in Khaleej Salman in the city of Jeddah. As an advantage of the site would be the natural ventilation and cooling breeze for the outdoor facilities and recreational areas of the project. Natural products would be used for treatments, therapies, and spa spoiling such as sea water, sands, sea plants, and sunlight. Local materials will be used to construct and build this project, as well as local plants.

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