

Eco-therapeutic tourism in Siwa Oasis

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Abstract:

There are multiple styles of tourist activity. One of the most important of such styles is medical tourism, which represent a style distinct from the traditional patterns of tourism. There are many areas that have therapeutic natural resources, as Siwa Oasis is considered one of the most important oases that enjoy these features as will be clarified later from the research. The research aim is to increase the competitiveness of the medical tourism activity in Siwa Oasis due to the lack of optimal exploitation of the resources available in the oasis. The study analysis the spaces in the used case studied based on comparative analysis method. However, the importance of medical tourism in Egypt, particularly the Siwa Oasis, it is found from the comparison between selected cases, there is an insufficient demand by tourists in Siwa, an absence of medical buildings inside the resorts compared to resorts outside Egypt, the lack of sufficient exploitation of the oasis's resources, and an obvious separation between the main clusters of resorts in Siwa.

Keywords: therapeutic tourism, hospitalization, environmental therapy, natural springs, Siwa Oasis.

1. Introduction:

Egypt was famous for its cities, its mineral and sulphureous waters, its dry climate devoid of humidity, its soil containing sand and silt suitable for treating many diseases, and its numerous beaches and sea waters with their distinctive natural properties. Researchers had also confirmed that salt lakes, with their chemical content, can heal psoriasis [1]. Hundreds of springs and natural wells with mineral and sulfurous water are spread throughout Egypt, varying in depth, capacity, and temperature between 30 and 73 degrees Celsius. Which is located in Siwa Oasis, as it has many unexploited natural resources [2]. Siwa's sands were no less rich than its waters. Studies have shown that Siwa's sand dunes contain safe and highly beneficial levels of radioactive elements. Treatment by burying the body in sand for specific periods has led to unprecedented results in several rheumatic diseases such as rheumatoid disease and pain resulting from diseases of the spine [3]. Siwa is considered one of the most important oases in Egypt. Despite this, Siwa suffers from a lack of interest and the arrival of tourists [4].

The ancient buildings of Siwa Oasis are famous for their unique character that have extended to our present era, moreover, the sustainability of this style is still existed, even in a small part, and it has been revived in new buildings as well and preserved. The population has the knowledge about that style regarding the process of building this pattern [5].

One of them is Shali Castle. It is a historical castle built in the 12th century and located in the center of Siwa city. The main component of this castle is Salt blocks extracted from local lakes spread around, and these salt blocks were processed and combined with clay to form bricks.

The other one is Babnashal Hotel. It is another example of an environmentally friendly heritage product, which containing 11 rooms and located in the vicinity of Shali Fort. It differs from the previous case in that is a restored and used building. It was previously inhabited, but its original inhabitants abandoned it. After some floods and heavy rains, it was built from karshef material by Hassan Fathi, which won the Architecture Award in 2010.

2. Research aims

The study is aiming to increase the competitiveness of medical tourism activity in Siwa Oasis due to the lack of optimal exploitation of the resources available in the oasis. Also, it aims to found the means of developing medical tourism in Egypt by analysis of architectural case studies from such scope.

3. Research methodology and Studied Cases

The research is using the comparative analysis between three cases of the study inside and outside Egypt. The comparison is based on analysis of interior spaces of therapeutic tourist resorts such as therapeutic centers, villas and chalets. The research focus on three cases that inside and outside Egypt to configure the gap between them.

4. Analysis of studied cases:

4.1. Ain Sokhna resort, South of Cairo, Egypt.

It is a tourist and treatment resort on the coast of the Suez Gulf in the Red Sea. It belongs to the Suez Governorate in Egypt. It is 55 km away from the city of Suez. It is one of the closest Red Sea resorts to Cairo. And the beaches have white sand, they are not rocky. It is also considered a summer resort throughout the months of the year, summer or winter. There are several tourist areas and villages that contain hotels, chalets, and resorts.

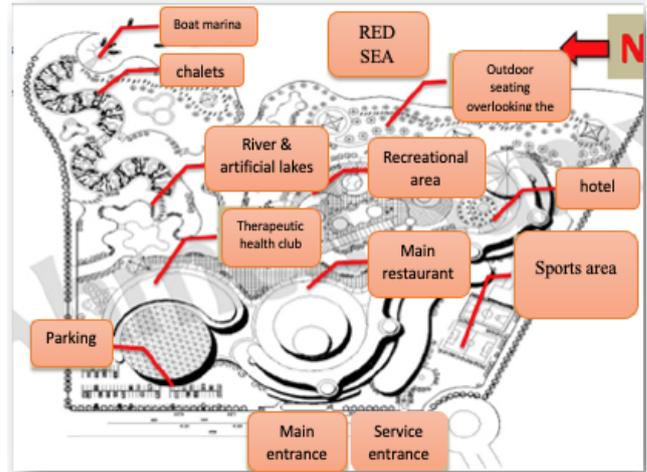


Figure 1: layout of Ain Sokhna Resort

1- Analysis of Resort:

Occupation:

Activities are well distributed in the site. the resort building on this floor consists of therapeutic, commercial and investment activities as shown in figure 1.

Movement and entrances (figure 2):

As for the internal movement, the hotel lobby is the main distributor towards the rest of the spaces, and the movement from the external spaces is in paved paths that connect the components. There is also, a berth for boats on the northeastern side of the site.

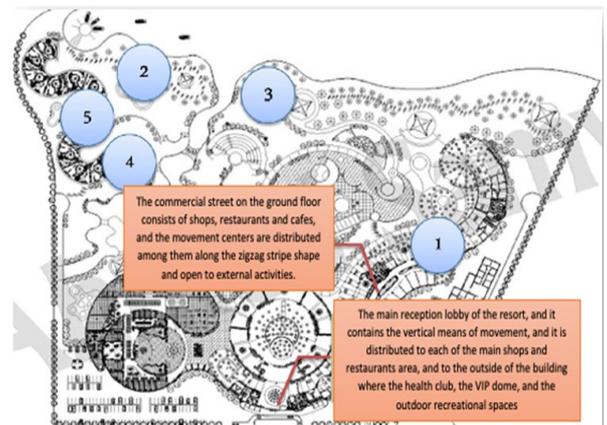


Figure 2: showing movement & entrance

Configuration:

Curved lines and circles are the basis of organic composition.

2- Chalet buildings:

Occupation:

The chalet consists of a master bedroom with a bathroom and a small side kitchen with an outdoor terrace and a Jacuzzi pool (figure 3).

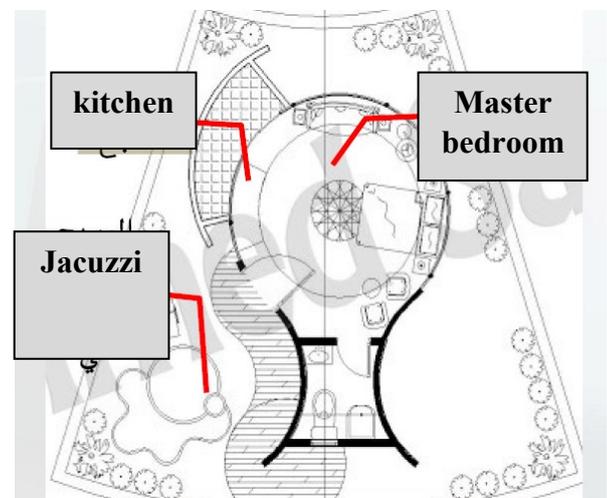


Figure 3: Chalet plan

Movement and entrances:

Access to the chalet is via outside walkways or boat moorings.

Configuration:

Rather organic in the form of curved lines and the main chamber is circular

3- The health club:

Occupation:

The club consists of an integrated gymnasium and room massage and hot sand treatment rooms as shown in figure 4. There are sulfur water lakes that the region is famous for Ain Sokhna, in addition to the nutrition and treatment clinics Natural.

Movement and entrances:

It is accessed from an external entrance overlooking the outer spaces and the middle foyer that distributing to the remaining spaces.

Configuration:

The form is resembling a shell or free organisms (composition organic)

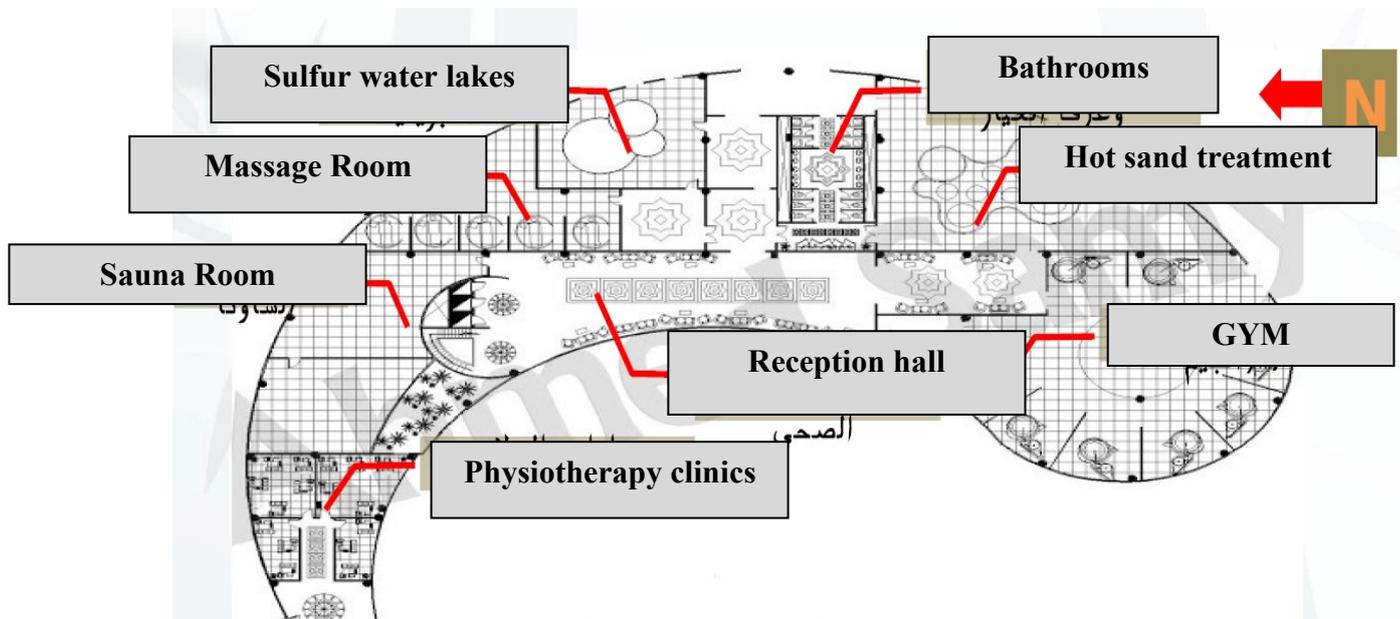


Figure 4: Therapeutic plan.

Table1. comparison between features & defects

	Features	Defects
Chalets	<ul style="list-style-type: none"> The chalet area is far from disturbance and noise. And it is closed to the sea. Providing privacy for each chalet and surrounding it by trees to block the view. Providing a swimming pool attached to each chalet. 	<ul style="list-style-type: none"> The small area of the chalet is only for two persons. All chalets have the same style. It is very far from the main entrance and cannot be accessed by cars
Health club	<ul style="list-style-type: none"> The presence of a health club in a separate block is better than to be attached to the hotel block, which gives different activities. It has beautiful composition and distribution. Providing its services (bathrooms and spare rooms). In the middle, it gets easier access. 	<ul style="list-style-type: none"> The main entrance is far from the hotel. Cannot access to clinics from its external entrance.

4.2. Bussan Korea – Marine Terrace Resort

General Description of the Resort

Architect: Yamasaki Kuhong website.

Location: Busan, Korea as shown in figure 6.

Main Parts: 14 treatment units. 117 housing units.

Coastal area: 131,830 square meters.



Figure 5: Project site.

General Location of the Resort

The resort is located in a distinctive view of the sea in the Korean city of Busan on a rugged coastal land in a mountainous area. The resort is a winner in a competition entitled Next Generation Architecture. The main objective of the resort is to provide a resort with an unobstructed sea view, and taking advantage of the rugged gradient contour of the land and harmony with the environment.



Figure 6: Layout

Resort Parts

The main hotel - the treatment part –
chalets and luxury apartments
- the marina and boat moorings.

1- Hotel building

Formation (figure 8)

The formation of the main buildings is in the form of terraces in a broken right-angle shape. Zones are as following:

- Blue Zone: Parking floors
- Yellow area: scaled wings
- Green area: wedding hall
- Red Zone: Hotel entrance and commercial area
- Pink area: hotel rooms

Features

It has simplicity of formation and harmony with nature. The parking is restricted in one area. It features with easy access from the parking lots to the wedding hall

Defects

The lack of height in the hotel would have favored the increase in floors. The presence of the wedding hall under the wings may cause inconvenience.

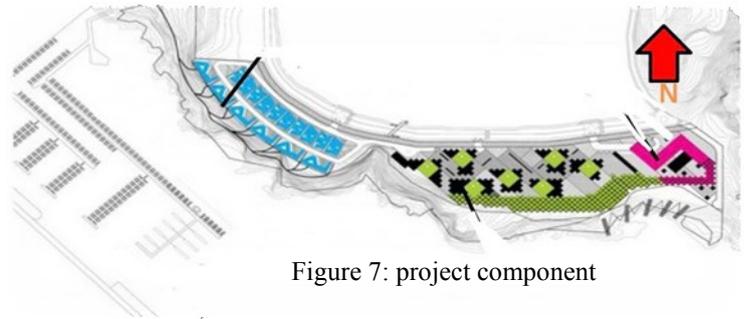


Figure 7: project component

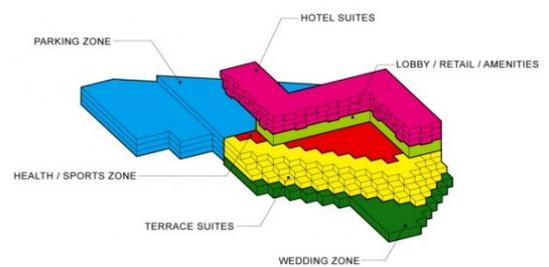


Figure 8: color zone



Figure 9: Hotel plan

2- Therapeutic part (health club; figure 9)

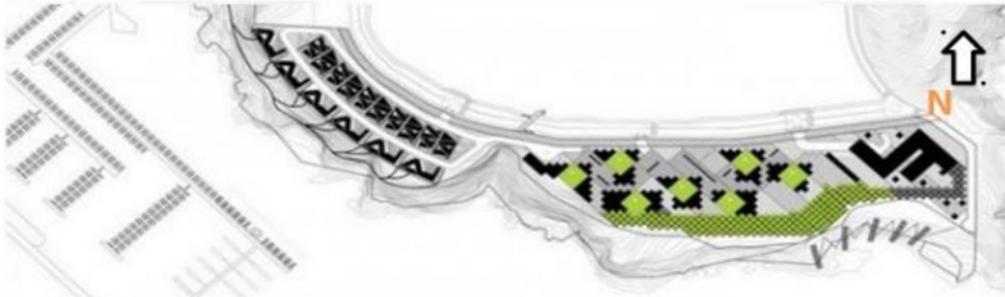


Figure 9. Therapeutic layout

Formation:

The formation of main building is in the form of terraces (figure 10, 11).

Function:

It consists of floors with multiple designs. Each floor has a type of physiotherapy, such as sauna rooms, massage rooms, Chinese needles and cupping.

Features

There are simplicity of formation, harmony with nature, and the use of roof gardens. The gradient allows to seeing the sea from all levels. Also there is diversity in designs and multiplicity of shapes and spaces, which allows multi-selection.

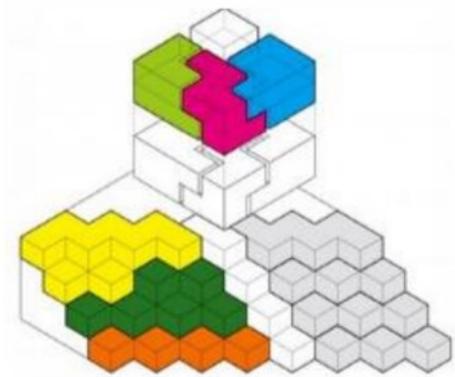


Figure 10: Therapeutic zone

Defects

The resort has lack of tourism activities and open spaces and focused more on residential activity.



Figure 11: Therapeutic plan

3- Luxury Chalets and Villas (figure 12, 13, 14, 15)

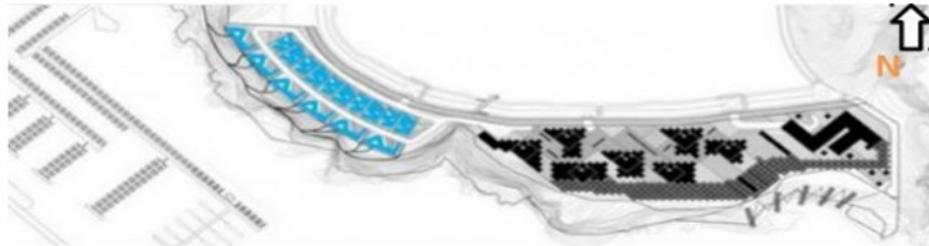


Figure 12: Chalets & Villas

Formation:

There are three form types of chalets and villas, which are gradient in the second the third levels. They built from rocks.

Function:

Chalets and villas have featured with private luxury for each one.

Features

Simplicity of formation, harmony with nature, and the use of roof gardens are all features of that part. Grading in levels is towards sea view. Diversity of types decrease the boredom. The resort has a unique design that respects nature and is in harmony with it.

Defects

There is a lack in recreational activities and focusing on residential activity. According to the designer, it is necessary to create an excellent environment for housing and a wonderful unobstructed view of the sea.



Figure 13: Plan in chalet

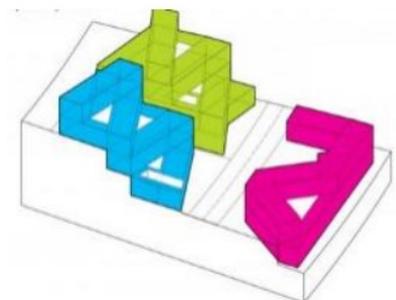


Figure 14: Zones



Figure 15: Villa shot

4.3. *Adrere Amellal Resort, Siwa, Egypt*

- Adrère Amellal has a unique and exclusive location.
- The design is unique, combining distinction and authenticity.
- Buildings are shaped naturally into the landscape (figure 16).
- Furniture and crafts pay tribute to nature to talented local artisanship.
- Without an electricity,
- The rooms are softly lit with a dozen beeswax candles, and the starry desert sky.



Figure 16: Adrere Almelall

Its Features

Ancient siwan houses, crumbling over years of abandon, have been restored and extended using traditional methods to create the Adrere Amellal Resort (figure 17, 18). It is an eco-lodge and so sensitive buildings to its environment. It does not offer Wi-Fi, phone service, electricity, or the usual trappings of contemporary comfort. Instead, a visit to the hotel frees you from the industrialized world and presents a window into history, it allows you to experience the night sky, lake breeze, and desert landscape as it has always been enjoyed.

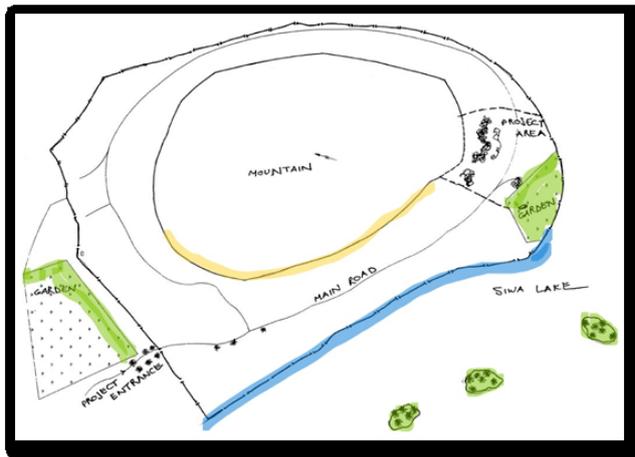


Figure 17: Resort location

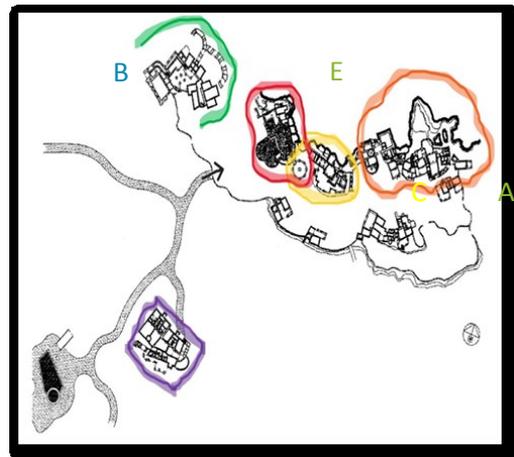


Figure 18: Resort layout

- It is a hotel carved into the mountain, so the design of the blocks appeared in the shape of the mountains.
- It contains six separate blocks, each block has a different function, where there is a building for reception, a building for restaurants and a museum, a building for accommodation (rooms with bathrooms only), and another building for residence (but the area of the rooms is larger, as each room has a court), and a cultural building (has a library and a reading area).

Plans (figure 19, 20, 21, 22, 23)

This building contains 32 double rooms with attached bathroom. It consists of two floors and the ground floor contains a part dedicated to bird towers.

Mass A (figure 19, 20)



Figure 19: Ground floor



Figure 20: first floor

MASS B (figure 21)

The administration building contains reception hall, administration rooms and multi- purpose hall, private baths for burial in the sand.

- Reception
- Library
- Reading
- Service

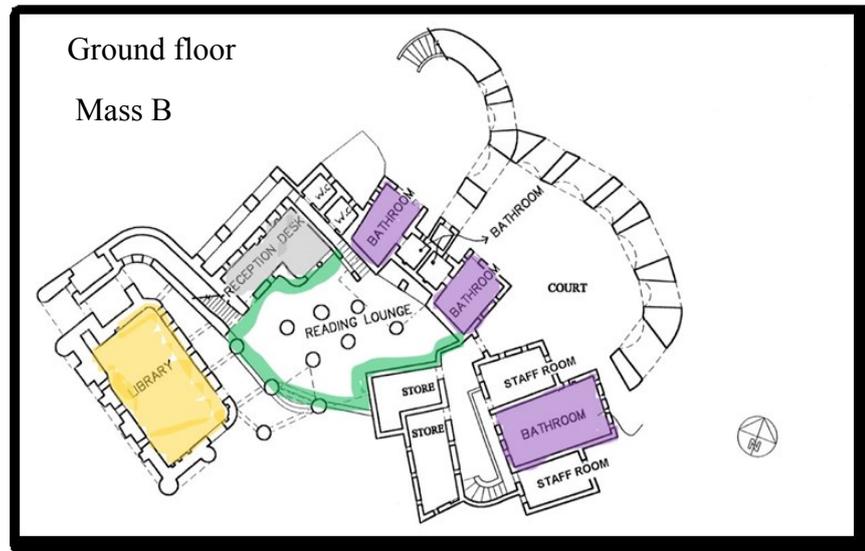


Figure 21: Mass B

MASS D (figure 22)

This building contains residence rooms, but their size is different, as these rooms are larger and contain a wide court belonging to each room.

- Rooms
- Court
- Service



Figure 22: Mass D

MASS E (figure 23)

This building contains restaurants, and museum. to display the Tra siwa (cave of salt), which some believe that affects its negative energy.

- Cave
- Kitchen
- Restaurant
- Museum

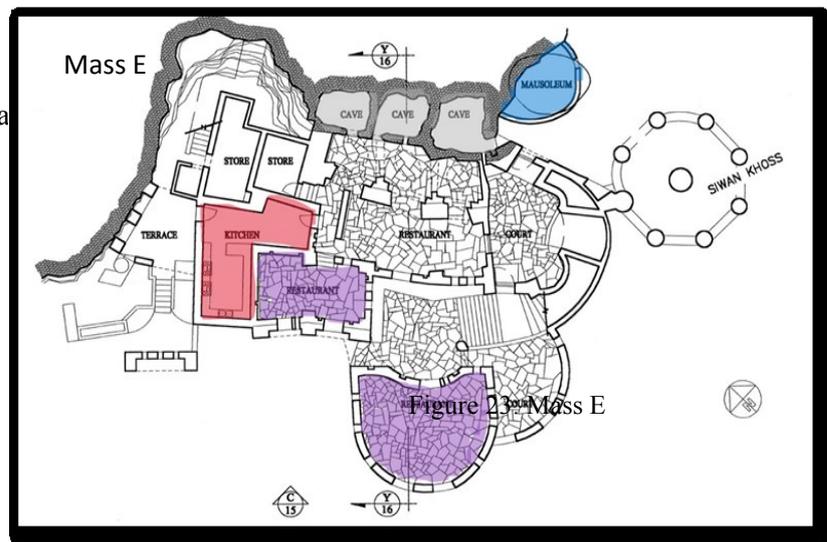


Figure 23: Mass E

5. Result and Discussion:

Through analyzing the three examples, it was found that there are strengths and weaknesses, as shown in the following table (2).

Table (2): The high point of advantages and disadvantages.

Comparison	Case 1	Case 2	Case 3
The high point in Advantages	Streamlined movement within the resort	Ease of design and control of space.	Eco-resort
The high point in Disadvantages	Difficulty reaching the treatment center	A building raised on steps	Separation of vacuum blocks in the resort

5.1. Comparison between medical tourism and different types of tourism

Travel for treatment and its different methods of tourism has become one of the attractions that many countries and institutions promote. This type depends on the availability of sulphur or mineral water eyes or the availability of a kind of sand used to treat certain rheumatic diseases or the availability of hospitals, specialized treatment homes or special therapeutic resorts. In view of its vital importance at this time of the emergence of many modern diseases, States, especially industrialized countries, are interested in this type of tourism. psychological anxiety, nervous stress, depression and heart disease and the respiratory system and other modern-day diseases as the world now tends to return to the use of natural means that were used in the past as a type of treatment such as: Use of mineral or sulphur water eyes, use of mud baths, radioactive sand, hot water eyes or use of sunlight, seawater and other means.

5.2. Comparison between tourism facilities and environmental hotels (table 3)

Table (3): Comparison between tourism facilities and environmental hotels.

Comparison Type	Environmental Hotel	Traditional Tourism Establishments
Design Character	Localized	World-Class
Human activities and experiences proposed.	Activities-based educational and activities based on natural environment and recreation Safari camps, watch innate life.	Relaxation and service such as (Playgrounds and swimming pools - gyms and others)
Planning Strategy	Fully integrated into the environment local.	Isolated and closed to herself within clear boundaries.
Investment Strategy	Specific investments. Increased profitability based on design and a distinct location.	High investments. Increased profitability based on tourist material services and prices.

5.3. The Material Used in Siwa

Siwa is characterized by this peculiar salt-based material, unknown to outsiders to the oasis. Siwa has retained most of its architectural heritage with that material. The construction is based on the use of local materials, where houses are built using a mixture of mud, sand, limestone, salt crystals, wood particles, and minerals. This mixture acts as a mortar to bind the karshif blocks and also as an outer and inner finishing layer for the walls. Likewise, Karshif blocks are the result of the cementation of salt which is later cut by manual labor. After applying the mortar mix over and between the Karshif blocks, it is left to dry for several days. During this process, mortar penetrates into the karshif blocks and thus salt is crystallized inside the mortar, providing a strong and homogenous structure. This technique is employed in the local construction due to its environmental character and geographical proximity, creating an earthy architecture that merges harmoniously with nature.

6. Conclusion

The comparisons reveal strengths and weaknesses between traditional tourism establishments and environmental hotel. And the studies proved that tourists do not want to come to Siwa due to their lack of knowledge about its natural resources and lack of exploitation. Through the study, it was found that insufficient exploitation of existing resources, such as sulfur springs, natural wells, and sand caves, is a waste of existing natural resources.

Based on the analysis of case studies in Egypt, it was found that there are no therapeutic buildings inside the therapeutic resorts in the oasis, unlike the cases that were analyzed from outside Egypt. Also, through the analysis, it was found that there is also a separation between the main blocks of medical resorts. In therapeutic resorts in Egypt, there are not medical equipment, technical personnel, sound treatment system, health authority supervising the treatment, and therapeutic possibilities. The majority of service providers in tourist places are workers with experience in this field (not specialist). The availability of medical specializations required in medical tourism, especially dermatology.

7. Recommendations

It should be considered the following point in the therapeutic resorts in Siwa:

- Establishing of an integrated medical unit with branches in locations where mineral spring water and sulphur well water are spread. In addition to the establishment of sanatoriums and tourist facilities attached thereto such as hotels and health centers for this treatment.
- Professional preparation of human components through ongoing training to acquire modern and renewed skills by specialized experts in the field of medical tourism, such as availability of specialized doctors, developed administrative, professional and financial aspect of workers in this vital sector, and coordination with colleges and tourist institutes to graduate specialized and competent cadres in this field.



- Investing in the construction of therapeutic hotels specialized in treatment with the tourism and service facilities attached thereto, while providing the distinctive health service at appropriate prices.
- Implementation of infrastructure projects at Laayoune mineral water and sulphur well water sites, such as power lines, communications, water systems clear sewage, and sewage sewers. Also, surrounding these sites with green areas that subjected to medical supervision.
- Raising Egypt's competitive position in the new markets and introducing the Egyptian tourism product that supports therapeutic tourism strongly and comprehensively and effective.
- Improving the image of the Egyptian tourist product at the international level. Also, working to achieve the highest quality in the treatment and recreational services received by the tourist. As well as, ensuring that these services and the prices of tourists and places of residence both for the patient or facilities.
- Providing media publicity on the importance of medical tourism places in the recovery of diseases at the national level, specifically in the Siwa oasis for the availability of natural attractions.
- Designate a body responsible for preparing, qualifying, and training specialized cadres in the field of medical tourism.

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