LOCAL CHARACTER

AS AN INDICATOR OF SUSTAINABLE TOURISM DEVELOPMENT

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Abstract

Tourism as human phenomena is considered a socio-economic sector of special importance for the realization of development. In Egypt, tourism development has become a national requirement due to the economic importance of this sector nowadays. Tourism development plans in Egypt aim to sustain the environmental and socio-cultural resources while fulfilling tourist needs. One of the adopted strategies for tourism development is to provide tourists with appropriate accommodation units. The study of such units is given special attention due to its role in the tourism movement growth and the realization of sustainable tourism development concepts.

If the tourist is supposed to gain experiences about visited countries and districts, the touristic structures and projects – of different types and characters - have to express the local environment with its physical, urban, environmental and moral values.

This paper studies the concept of local character in Hurghada, considering it as international tourism attraction. Paying attention to investment revenues in first place was the reason to the loss of architectural identity in developed resorts. That was due to the spread out of alien architectural designs and planning schemes in the

different touristic districts and even in the same touristic district. In spite of the typical contextual qualities of the same district, the resulting built character is varying in relation with architects, the fact that requires more attention and research.

The study is undertaken by a set of successive steps: definition of character and sustainable tourism development concepts, investigation of character as an indicator of sustainable tourism, consideration of the regional architecture language of the Red Sea region, analysis of the character issue in coastal resorts and a comparative study for the innovated character of some hotels in El Gouna resort, Hurghada.

Finally, the paper concludes with a set of guidelines and recommendations to preserve the local character in coastal resorts, as to realize the concept of sustainable tourism development.

Key words: local character, genius loci, tourist accommodation units, sustainable tourism development, post modernism

1. Introduction

Tourism is one of the world's largest industries, generating an estimated 11% of global Gross Domestic Product (GDP), employing 200 million people and transporting nearly 700 million international travelers per year – a figure that is expected to double by 2020 [1]. Coastal tourism and recreation are important parts of this largest and most rapidly growing activity in the world; tourism [2].

The available potentials in Egypt help to make it a major attraction for tourists from all over the world. Coastal Tourism in Egypt is based on a unique resource combination at the border of land and sea environments: sun, water, beaches, outstanding scenic views and rich biological diversity (birds, corals, etc). Today's tourists expect more than sun, sea and sand, as was the case two decades ago. They demand a wide variety of associated leisure activities and experiences including sports, cuisine, culture and natural attractions. Meanwhile, local people in traditional tourist destinations are increasingly anxious to preserve their own identity, their environment and their natural, historic and cultural heritage from negative impacts.

Sustainable tourism development emerged to ensure that tourism is balanced with

broader economic, social and environmental objectives at national and local level by setting out a national tourism strategy that is based on knowledge of environmental and biodiversity resources, and is integrated with national and regional sustainable development plans.

Tourism development plans in Egypt gave special emphasis to the study of tourist accommodation units, as an attraction for developed resorts [3] and as a direct application of sustainable tourism development concepts. Although local architecture and its character compose one of the sustainable tourism development indicators [4], resorts development in Egypt in general, and in Hurghada as a case study, has been accompanied by identity crises and conscious breaks with heritage.
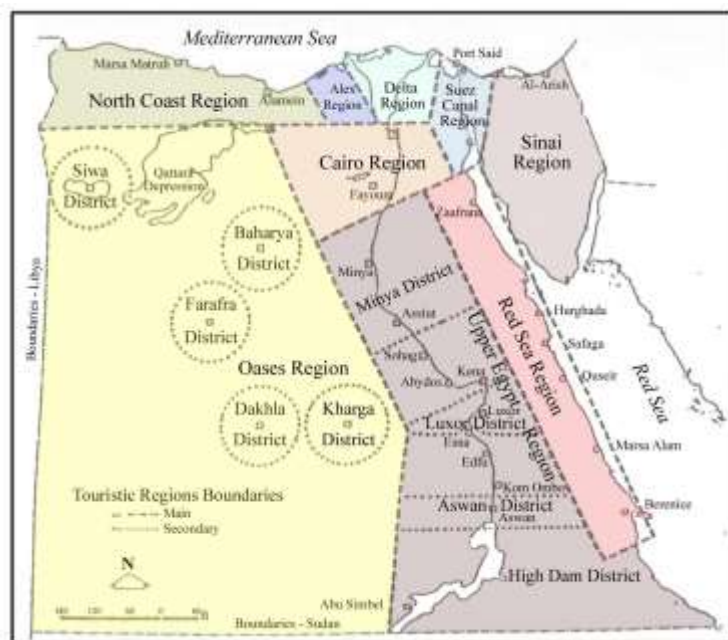

Figure 1. Different Tourist Regions in Egypt; proposed by Ministry of Tourism..

2. Character: Concept, Levels and Components

The character of a place "genius loci" is frequently used to refer to the sum of visual components and references of a certain community, or it can be broadly defined as the combination of complex qualities distinguishing a place, including all the physical and non-physical components, relating to society, local communities, physical context and time; all of these are interdependent [5, 6, 7, 8].

According to the previous definitions, the character involves two dimensions: the physical dimension, dependent on the characteristics of place and surrounding environment; and the civilized / cultural dimension, dependent on the qualities of community; its activities, its different behavior patterns and its various ideologies.

Buildings (and architecture in general) constitute one of the most important components of character [9]. The physical / architectural character (although there are some differences) is defined as the common expressive features of the built environment; spread enough to be perceived; distinguishing a place; providing it with a unique identity inherited from the surrounding environment; and expressing the community socio-cultural and economic traits as well as its habits and traditions.

The physical / architectural character represents the appropriate device for the settlement of relation between the culture of communities and its built environment. It can be considered as a vibrant record for the culture of communities. It represents also an important criterion in physical / urban and architectural morphology processes and a dominant element in the built environment of communities [9].
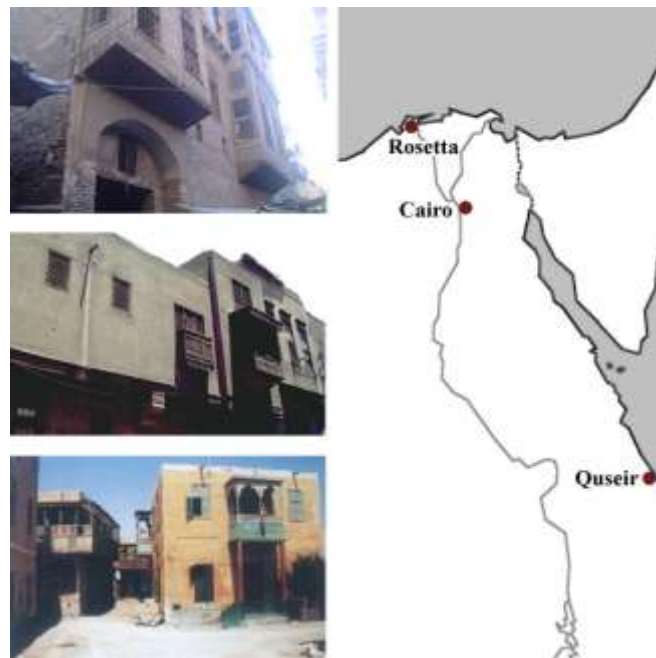

Figure 2. Culture and Built Environment; Variance of Physical and Architectural Character by Location: Rosetta, Historic Cairo and Quseir.

The physical / architectural character has multiple levels:

- National character: the character that distinguishes the built environment of a nation with its civilized, social, cultural and economic values.

- Regional character: the character that reflects the peculiarity of a certain region, and that was developed through the interactions between the built environment and the region with its social and cultural conditions as well as its natural and climatic conditions.

- Local character: the character that distinguishes the built or natural forms in a certain location. Such features compose an expressive knowledge system typical to this place rather than any other place and are the resultant of the interaction between local individual and his local environment.

As celebrated Japanese architect Tadao Ando says, "Genius Loci is plurality, existing simultaneously on different levels …" [10], the above classification doesn't imply the existence of clear boundaries between the different levels, instead these boundaries are blurred in such a way that the main features of higher levels (national / regional) appear in the characteristics of lower levels (regional / local).

The physical character of places can be decomposed into three paramount components:

- Architecture, its language and elements

- Builtscape / Townscape / Formal Morphology

- Context; physical, natural and man-made [9].

This paper will consider these three components while studying the character of coastal resorts. Hence, a better understanding of these components is essential:

- Architectural character: involves the architectural language, its elements and the features of shape / volume, while focusing on touristic accommodation units as individual inputs of the character array.

- Builtscape / Townscape character: takes in consideration the physical morphology of the resort, its elements and components (images, tissue, urban spaces, zoning and grouping of buildings and structures).

- Contextual character: concentrates on the physical and natural context features (position, environment, soil, 13189 topography, plants, activities,

uses, interrelations with surrounding environment and other created features).

3. Sustainable Tourism Development

Tourism has a multitude of impacts, both positive and negative, on people's lives and on the environment. According to UNEP, the three interconnected aspects of tourism industry are the environmental, socio-cultural and economic impacts [11].

The socio-cultural impacts of tourism are the effects on host communities of direct and indirect relations with tourists, and of interaction with the tourism industry. The impacts arise when tourism brings about changes in value systems and behavior and thereby threatens indigenous identity. Tourism can cause change or loss of local identity and values, brought about by several closely related influences like commodification; standardization; loss of authenticity or staged authenticity; and adaptation to tourist demands. The result can be an overexploitation of the social carrying capacity (limits of acceptable change in the social system inside or around the destination) and cultural carrying capacity (limits of acceptable change in the culture of the host population) of the local community [12].

Further socio-cultural disadvantages of the increasing tourism flow and its consequent developments evolve from: resource use conflicts, cultural deterioration and conflicts with traditional land-uses. Cultural deterioration denotes damage to cultural resources that may arise from vandalism, littering, pilferage and illegal removal of cultural heritage items. Furthermore, degradation of cultural sites may occur when historic sites and buildings are unprotected and the traditionally built environment is replaced or virtually disappears [12].

Since the Manila Declaration on World Tourism in 1980, a special emphasis has been given to raising the awareness of national identity and culture through domestic tourism; securing the social and economic interests of the population in tourist areas; and ensuring the preservation of environment, natural resources, historical and cultural sites, as all tourism resources are part of the heritage of mankind.

In 1996, sustainable tourism development concept emerged as to meet the needs of present tourists and host regions while protecting and enhancing opportunity for the

future [13].

In 2004, the WTO revision of sustainable tourism definition aims to reflect better the sustainability issues in tourism, in light of the results of the Johannesburg Summit on Sustainable Development:

> Sustainable tourism development guidelines and management practices are applicable to all forms of tourism in all types of destinations, including mass tourism and the various niche tourism segments. Sustainability principles refer to the environmental, economic and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability [14].

Thus, sustainable tourism should:

- Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.
- Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.
- Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

Sustainable tourism development requires the informed participation of all relevant stakeholders, as well as strong political leadership to ensure wide participation and consensus building. Sustainable tourism should also maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourists, raising their awareness about sustainability issues and promoting sustainable tourism practices amongst them.

4. Local Character as an Indicator of Sustainable Tourism

Local architecture of any given region had the strength to serve the physical and spiritual needs of people, from a single[13191]family to the entire community. At

the physical level, it embodied centuries of learning with regard to orientation, climate, building materials and construction techniques. At the spiritual level, the built form conveyed total harmony with the lifestyle in all its daily as well as seasonal rituals, unifying the socio-cultural and religious aspirations of the individuals and the community [15].

Rapoport explains the nature of folk architecture as "the direct and unselfconscious translation into physical form of a culture, its needs and values – as well as the needs, dreams and passions of a people… The folk tradition is more closely related to the culture of the majority and life as it is really lived than is the grand design tradition which represents the culture of the elite." [16]

The historic legacy of different regions can be used for tourism development. Creative observation of the built environment is fundamental not only to cultural tourism development but also to other forms of tourism development. Moulin states that as everyone becomes a tourist at one point or another, it is important to words to care for the built environment. [17]

Tourism can contribute to socio-cultural positive developments, not just negative impacts. Potential positive impacts of tourism include the revaluation of culture and traditions. Tourism can boost the preservation and transmission of cultural and historical traditions, which often contributes to the conservation and sustainable management of natural resources, the protection of local heritage, and a renaissance of indigenous cultures, cultural arts and crafts. Tourism also helps raise local awareness of the financial value of natural and cultural sites and can stimulate a feeling of pride in local and national heritage and interest in its conservation.

Hence, preserving local character is an indicator of sustainable tourism development. Broadly speaking, indicators are central to the monitoring and reporting of progress towards sustainable development; which is a continuous process and requires constant observation of impacts

5. Historical development of physical and architectural morphology in Hurghada

The built environment of Hurghada is characterized by the absence of a unified physical / architectural character due to a variety of cultures affecting the region. This variety of communities of cultural influences that traveled to the region gave many moods and postures, some of permanent nature, to the city heritage. Hereafter, a breakdown of these built forms will be discussed:

- Built forms of Islamic ages, and that type represents the traditional architecture with cultural authentic values in the Red Sea region; the architecture that continued over centuries till the foreign colonization.

- In the late 19th century and early 20th century, the direct impact of colonization appeared as urban and architectural mutations, due to the implementation of mining camps and settlements adopting European styles.

- After the 1952 Revolution, the built forms were developed due to the emigration from the Nile valley to the Red Sea coast, the fact that implies the conjunction of cultures. However, the European models of architecture and urban planning dominated the built environment in the city.

- Due to the tourism development boost since the mid of seventies, ultra-modern, universal, anonymous structures emerged reflecting westernization. The design approach of some architects followed straightforward revivalism, where forms, ornamentation and entire buildings (of Nubian features ironically) were recreated using modern materials. A moderate approach incorporates contemporary cultural values while learning from past architectural models.

Figure 3. Red Sea Regional Architecture (Quseir); (1) Sheikh Tawfik house, traditional Islamic architecture, (2) Marconi Company houses built in 19th century illustrate European influence, (3) Accommodation of engineers and employees within the phosphate company complex, early 20th century architecture [18].

The diversity of built forms developed over ages renders the identification of a consistent urban / architectural character a difficult process. Modern structures stand side-by-side of traditional Islamic buildings; blurring the region character [19].

6. Physical / Architectural Character Issue in Coastal Resorts

The issue of physical / architectural character of coastal resorts was emphasized as a special attention was paid to sustainable tourism development, concepts of economic growth and the importance of the conservation of macro-environment, natural and cultural resources including the indigenous built environment.

The loss of character has several dimensions:

- The absence of clear criteria and guidelines reflecting the authentic values of traditional architecture for planners and architects while developing the schemes of resorts caused the adoption of western models in resort development.

- The failure of urban and architectural ambitious projects, implemented since the seventies, in providing an ideal built environment of tourism attraction was because of neglecting the socio-cultural and human aspects of these projects and focusing on economic dimension only.

- The degradation of the built environment has for reason the emergence of resorts adopting some elements and ornaments from Nubian architecture (or the characteristic style of Hassan Fathy) in the search for an identity, without considering the real values behind local architecture.

- The existing confusion concerning the definition of the term "character" and its components in coastal cities is one of the issue reasons that led to the insufficiency of regulations. For regulations to control the character effectively, the process should include the control of the combination of its components.

- Regulations and executive decrees for controlling the character are often absent in required situations, like upgrading of the squatters character, its preservation in old districts or its evaluation in existing resorts. Although some building provisions make obligatory the existence of a character for some districts, the existence of a sole character for the   whole   settlement   is   not

addressed by laws.

7. Analysis of the Character Issue in Hurghada (El Gouna Resort)

A preliminary classification of "architectures" in El Gouna resort can be established after reviewing the character of hotels, guesthouses, villas and apartments. On one side, straightforward revivalism stands as a design approach, where forms, ornamentation and entire buildings are recreated using modern materials. While some may be successful from an aesthetic point of view, they invariably lack authenticity. Others are pure kitsch. On the other side of the balance are ultra-modern, universal, foreign or anonymous structures. These are usually prototypical and large scale, showing no sincere interest in heritage, but are often "Egyptianized" with superficial ornamentation and detail.

The sample of hotels was selected to reflect the two mentioned types. The selection procedure took place according to a number of criteria;

- Three constants: resort single ownership: Orascom Projects and Tourism Development; typical context: one climatic zone and similar natural constraints affecting the physical planning and architectural design processes; and typical regulations applied to the whole resort and dominating its tourism development.
- One variable: the variety of architects working on the design for each hotel; the variance of their nationalities, the difference of their socio-cultural backgrounds as well as their preferred planning and architectural models.

Three hotels were selected according to the above criteria: Three Corners Ocean View Hotel, Sheraton Miramar Hotel, and Three Corners Rihana Hotel.

The analytical study aims to deduce the aspects of the whole resulting character, its appropriateness, and its impact (positive or negative) on tourism development, considering that the built forms, in-between spaces and outer landscapes constitute the context of the place. The contextual character of the place is what remains in the memory and composes the experiences of the tourist. Consequently, the natural as well as the socio-cultural resources of the place can promote tourism in Egypt.

I. Three Corners Ocean View, Architect: Alfredo Freda, 2001.

Character Levels	Evaluation Levels				Results
	Compliant	Moderate	Kitsch	Undefined	
I. Physical / Urban Character					The physical character of the hotel complies neither with the resort character nor with the main principles of indigenous architecture (small structures and compacted tissue). The resulting large-scale geometric forms haven't respected the site natural constraints (climate-shoreline). High building density reduced the available areas for landscaping. Thus, there is no special character for the hotel scenes.
1. General Layout					
- Conformity of General Layout (Urban Tissue) with Natural Environment (Climate)			●		
- Conformity of General Layout (Urban Tissue) with Natural Environment (Topography)		●			
- Balance of General Layout (Urban Tissue) and achievement of Physical Character and Sense of Place.			●		
2. Building Density					
- Impact of Building Density on Physical Features of Site		●			
- Balance of Land Use and Tourist Activities			●		
3. Landscape Elements					
- Site Planting Conformity for achieving the Character and Identity of Place.		●			
- Appropriateness of paths to functional and environmental requirements, and achievement of Character.		●			

II. Architectural Character					The hotel shows no sincere interest in local architecture. Architectural details used are superficial ornamentation. Such situation from the architect part reflects his cultural background, different from Egyptian one. The used architectural language is a mixture of Islamic architectural elements never used in one place (portal, crenellation, corbels…)
1. Design Concept and Conformity with Local Architecture and Developing a Unique Character		●			
2. Balance between Natural Environment and Architectural Treatments of Accommodation Units			●		
3. Appropriateness of Rhythm, Proportions and Scale of Forms with Local Architecture to achieve a Sense of Place.		●			
4. Building Envelope					
- Harmony of Used Materials with Local Materials		●			
- Convenience of used forms to structure	●				
- Facades' expression			●		
- Colors and its relation with surrounding nature	●				

II. Sheraton Miramar, Architect: Michael Graves, 1997.

Character Levels	Evaluation Levels				Results
	Compliant	Moderate	Kitsch	Undefined	
I. Physical / Urban Character					Graves realized a remarkable character of his resort, by the recognition for the different levels of genius loci. His
1. General Layout					
- Conformity of General Layout (Urban Tissue) with Natural		●			

Environment (Climate)					design was compliant with topography and landforms. Furthermore, Graves has created an unprecedented and highly interesting juxtaposition of traditional vernacular forms (domes, vaults, towers and arcades); the sleek lines of truncated or inverted pyramids and dramatic columns; alongside with his own signature flare for color, form and geometric organization. However, the physical morphology of the project didn't consider climatic constraints.
- Conformity of General Layout (Urban Tissue) with Natural Environment (Topography)	●				
- Balance of General Layout (Urban Tissue) and achievement of Physical Character and Sense of Place.	●				
2. Building Density					
- Impact of Building Density on Physical Features of Site	●				
- Balance of Land Use and Tourist Activities	●				
3. Landscape Elements					
- Site Planting Conformity for achieving the Character and Identity of Place.		●			
- Appropriateness of paths to functional and environmental requirements, and achievement of Character.	●				
II. Architectural Character					Graves uses the Egyptian (mostly the Nubian) vernacular format as his frame of reference. Encountering the legacy of Hassan Fathy, the result was not quite a clash, not quite a partnership, and very much an intriguing aesthetic blend. However, purists argue that his
1. Design Concept and Conformity with Local Architecture and Developing a Unique Character		●			
2. Balance between Natural Environment and Architectural Treatments of Accommodation Units	●				
3. Appropriateness of Rhythm, Proportions and Scale of Forms with Local Architecture to achieve a Sense of Place.		●			

	Compliant	Moderate	Kitsch	Undefined	
4. Building Envelope					interpretation are a bastardization of traditional forms as he has removed them so far from their original aesthetic, and sometimes even functional context. The visual coherence is often missed in the project.
- Harmony of Used Materials with Local Materials	●				
- Convenience of used forms to structure	●				
- Facades' expression		●			
- Colors and its relation with surrounding nature	●				

III. Three Corners Rihana, Architect: Rami El Dahan and Soheir Farid, 1992.

Character Levels	Evaluation Levels				Results
	Compliant	Moderate	Kitsch	Undefined	
I. Physical / Urban Character					Forms adopted from Nubian architecture aim to conform to the natural constraints (climate and topography) as well as to create a signature style. The architects neglected the use of indigenous architecture. However, compacted forms of buildings serve to control the ecological factors and to produce a distinguished character.
1. General Layout					
- Conformity of General Layout (Urban Tissue) with Natural Environment (Climate)	●				
- Conformity of General Layout (Urban Tissue) with Natural Environment (Topography)	●				
- Balance of General Layout (Urban Tissue) and achievement of Physical Character and Sense of Place.		●			
2. Building Density					
- Impact of Building Density on Physical Features of Site	●				

- Balance of Land Use and Tourist Activities	●				
3. Landscape Elements					
- Site Planting Conformity for achieving the Character and Identity of Place.	●				
- Appropriateness of paths to functional and environmental requirements, and achievement of Character.		●			
II. Architectural Character					The architectural character lacks authenticity due to the difference of context from the Nubian (Upper Egypt) region to the Red Sea region.
1. Design Concept and Conformity with Local Architecture and Developing a Unique Character		●			
2. Balance between Natural Environment and Architectural Treatments of Accommodation Units	●				
3. Appropriateness of Rhythm, Proportions and Scale of Forms with Local Architecture to achieve a Sense of Place.		●			
4. Building Envelope					
- Harmony of Used Materials with Local Materials	●				
- Convenience of used forms to structure	●				
- Facades' expression	●				
- Colors and its relation with surrounding nature	●				

(1)

(2)

(3)

Figure 4. El Gouna Resort, Hurghada, Red Sea; (1) General View, (2) Western architecture: El Gouna Movenpick, (3) A trial for developing traditional architecture, though a rigid geometric organization: Michael Graves, Steigenberger Hotel.

(1)

(2)

Figure 5. Ocean View Hotel, El Gouna; (1) Large scale forms non-compliant with traditional architecture, (2) A naïve trial to give the building a traditional Islamic flavor (arches, portal, crenellation and corbels).

(1)

(2)

(3)

(4)

(5)

(6)

(7)

Figure 6. (1,2,3,4) Sheraton Miramar Hotel or Graves's own fantasy of Egypt development of vernacular architecture or corruption of traditional forms , (5,6,7) Rihana Hotel: assimilation of Hassan Fathy's teachings or lack of authenticity.

8. Analytical Study Findings

A number of findings were derived from the experiences of the fieldwork and its results:

- The designers adopt foreign western models and patterns when a direct reference of traditional architecture is absent (case of El Gouna Movenpick), or where details of local architecture are copied blindly (case of Ocean View).

- The first initiatives of resort development in the district had a direct impact on the later works. The former constitutes a reference or a guideline for the latter, due to the absence of serious development of traditional architecture .In the case of Sheraton Miramar, where Michael Graves was inspired by Rami El Dahan and Soheir Farid's Kafr El Gouna [20]. Note that Ahmed Hamdi was an associated architect in both projects. Furthermore, El Dahan and Farid were responsible to turn Graves' designs into blueprints builders could use, ensuring the domes and vaults the American wanted would bear the necessary weight [21].

- Adoption of the Nubian architecture as a visual reference is an obvious hint at an association with Hassan Fathy's signature style. The used features of the Nubian built heritage distinguished the work of Fathy's disciples: Rami El Dahan and Soheir Farid, and composed the first settled character of the resort development in the whole region (Quseir Movenpick resort (1987-94); Kafr El Gouna (1992) and Makadi Resort (1998)).

- The cultural and historical backgrounds of the designer play a fundamental role in the design conception as well as the physical and architectural morphology. The

resulting character of the place reflect these backgrounds and the adopted design approach, whether environmental aware or not.

- The relation between the sense of place, its distinguishing character and the built environment is characterized by the absence of intimacy. In spite of some endeavors to reinstate traditional architecture, these initiatives lack authenticity. Architects are building for foreigners to taste something new and exotic. The association of inaccurate architectural references with historical periods and cultures could, in time, result in a loss of indigenous culture and vernacular architecture.

- The nowadays loss of meanings and visual coherence result from the lack of detailed plans for resort development with appropriate regulations obliging investors and architects to conserve the natural environment and sustain the local character of the region.

9. Guidelines to Control the Physical and Architectural Character of Coastal Resorts in Hurghada

El Gouna Resort represents one of the coastal resorts in Hurghada. Its development reflects westernization; the adoption of alien planning and architectural models and sometimes the use of traditional architectural language of other regions, without taking into consideration the socio-cultural resources of the context. That fact led to the deterioration of visual character and sense of place. This degradation has its negative impact on the identity of local communities as well as on tourism attraction; and can be considered as an obstacle in the way for sustainable tourism development.

In this part of the study, the authors will deduce a set of criteria and mechanisms in the aim to achieve and preserve the local character. A necessary step for such an objective is to review a number of existing old buildings in the region expressing the Islamic culture and observe the similarity of local character within the whole region of the Red Sea, whether on the east coast (e.g. Jeddah) or the west one (e.g. Quseir – Hurghada).

The observed unity of used architectural language alongside the shore can provide a basis for the proposed character of resorts.

9.1. Physical Planning Guidelines

- Sitting of facilities should carefully weigh the relative merits of concentration versus dispersal. Natural landscape values may be easier to maintain if facilities are carefully dispersed. Conversely, concentration of structure leaves more undisturbed natural areas. Furthermore, urban compacted pattern is more compliant with traditional architecture and climatic considerations.

- Good sitting practices can maximize pedestrian access to the wide variety of onsite and offsite resources and recreational activities. Low impact development is the key to protecting vital resource areas.

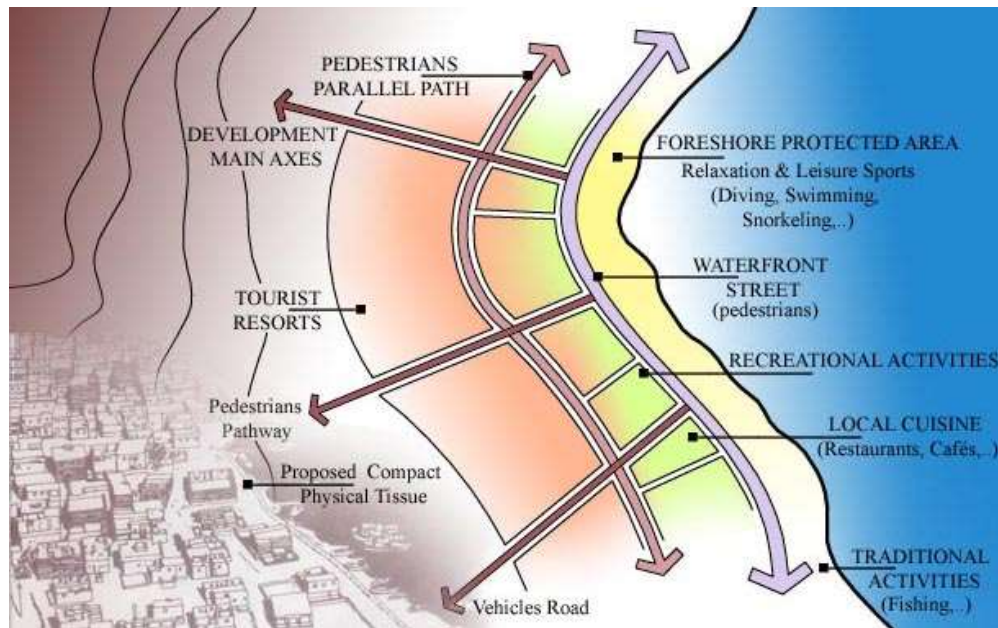- Sitting should be compatible with traditional activities like agriculture, fishing, and hunting.

Figure 7. Proposed Physical Planning Scheme (by authors) for the Development of Coastal Resorts.

- Structures have to be located as to take maximum advantage of passive energy technologies to provide for human comfort. Such a concept is grassroots principle of vernacular architecture.

- Safety, visual quality, noise, and odor are all factors that need to be considered when sitting support services and facilities. These areas need to be separated from public use and circulation areas. In certain circumstances, utilities, energy systems, and waste recycling areas can be a positive part of the visitor experience.

- Views are critical and reinforce a visitor experience. Site location should maximize views of natural features and minimize views of visitor and support facilities. Natural vistas should be used in design whenever possible. Creating onsite visual intrusions (road cuts, utilities, etc.) should be avoided, and views of offsite intrusions carefully controlled. A natural look can be maintained by using native building material, hiding structures within the vegetation, and working with the topography. It is easier to minimize the building footprint initially than it is to heal a visual scar at the end of construction.

- Development near aquatic areas must be based on an extensive understanding of sensitive resources and processes. In most cases, development should be set back from the shoreline and protective measures taken to address indirect environmental impacts. Particularly sensitive habitats such as beaches should be identified and protected from any disturbance. Harvesting of any aquatic resources should be based on definitive assessment of sustainable yield and subsequently monitored and regulated. Recreational activities are to be developed parallel to the shoreline.

- Site access refers to not only the means of physically entering a sustainable development but also the en route experience. The en route experience could include transitions between origin and destination with sequential gateways, or it could provide an interpretive and/or educational experience. Other considerations for enhancing the experience of accessing a developed area include: selecting

corridors to limit environmental impacts and control development along the corridor leading to the facility; providing anticipation and drama by framing views or directing attention to landscape features along the access route; and providing a sense of arrival at the destination.

- Road curvilinear alignment should be designed to flow with the topography and add visual interest; crossing unstable slopes should be avoided. Steep grades should be used as needed to lay road lightly on the ground, and retaining walls should be included on cut slopes to ensure long-term slope stability. The road should have low design speeds (with more and tighter curves) and a narrower width to minimize cut-and-fill disturbance. Access corridors should be provided for multiple purposes - e.g., visitors, maintenance, security, emergency vehicles, and underground utilities. Secondary access (road, dock, or helicopter landing site) should always be provided to permit emergency entry and evacuation in the event of a natural disaster.

- The design of urban spaces in-between accommodation units should emphasize the spirit of place. Their dimensions have to match the buildings heights and to comply with the traditional architecture used. Where sun is abundant, it is imperative to provide shade for human comfort and safety in activity areas (e.g., pathways, patios). The most economical and practical way is to use natural vegetation, slope aspects, or introduced shade structures.

- Treatment of Landscapes.

  o The integration of the native landscape with development plays a fundamental role in applying the concept of genius loci. Even the most developed landscapes, where every trace of nature seems to have been obliterated, are not self-contained. These areas should be redesigned to support some component of the natural landscape to provide critical connections to adjacent habitats.

  o The planning of landscape development should take place according to the surrounding context rather than by overlaying familiar patterns and solutions

o Access within recreation-related development is typically pedestrian. Automobiles are usually restricted to the edges of the development. Paths should be laid out to avoid sensitive resources and be built at-grade. The use of local materials in paving pedestrian ways and piazzas is essential to complete the visual coherence. The surfacing material should blend with predominant landscape tones.

- The orientation of structures and outdoor gathering places are set to take advantage of cooling wind movement, and to be protected from another unwanted climatic conditions. Native cultures understand this technique quite well, and local structures reflect these principles.

- The development of detailed plans for resorts is imperative and should be carried out by Tourism Development Authority (TDA) and General Organization of Physical Planning (GOPP). Detailed plans can be used as an important tool in controlling the character of coastal resorts. Within these plans, local design elements and architectural character should be analyzed and employed to establish an architectural theme for new development.

9.2. Architectural Design Guidelines

- The design must be subordinate to the ecosystem and cultural context. It should respect the natural and cultural resources of the site and absolutely minimize the impacts of any development.

- The design should analyze local historic building styles, systems, and materials usually for time-tested approaches in harmony with natural systems.

- Sustainable resort development must use the simplest technology appropriate to the functional need, and incorporate passive energy-conserving strategies responsive to the local climate.

- Proposed design for accommodation units shall strive for "smaller is better" . . . optimizing use and flexibility of spaces so overall building size and the resources necessary for construction and operation are minimized.

- The construction process must use renewable local building materials, craftsmen, and techniques to the greatest extent practicable in the development of new facilities.

- The design should consider building/land interface to minimize disturbance to site character, skyline, vegetation, hydrology, and soils.

- Landforms and the sensitive arrangement of buildings should be used to help diminish the visual impact of facilities; enhance visual quality by creating a rhythm of open spaces and framed views; orient visitors to building entrances; and accentuate key landmarks, vistas, and facilities.

- Proposed coastal development must minimize visual impact of development on waterfront zones (also consider views from water back to shoreline) by using building setbacks/buffer zones; considering building orientation and materials; and avoiding light pollution.

- Integration of the physical and architectural composition of different resorts in the region is a matter of necessity, to faithfully express the function as well as the natural and cultural environments.

10. Concluding Recommendations

- The respect of design context should be emphasized. Contextual analysis is a prelude to designing for context. The site conditions as well as the natural and physical constraints should be identified and respected.

- The utilization of indigenous architecture; its language, elements and models, should take place without blind imitation. Instead, a more sustainable design is encouraged.

- The realization of physical and architectural characters has to be emphasized, by respecting the principles of local architecture and sustainable tourism development.

- The existing tourist resorts must be evaluated in terms of local character. Appropriate guidelines should be developed for each region separately.

- Programs must be launched in the aim to raise the awareness of actors in coastal tourism development toward cultural sensitive issues related to development, like visual character, heritage and aesthetic values.

- Detailed plans of coastal areas should include the basics and principles of sustainable planning and design.

- Planning and environmental decisions must blend in one integrated array, involving both the natural and built environments, to achieve the best usage of resources.

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