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Landscape Study on Green Areas of Some Resorts at Port Said City

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ABSTRACT

This research was conducted during June 201٤- July 2016 for studying green areas of resorts in Port Said city as an example of coastal residential cities overlooking the Mediterranean Sea:1) Marhaba resort,2) El. Kanary Beach resort, and 3) Creative El. Fayrouz resort. The study revealed that Resorts in design and plants. Some resorts were considered to be a good place for recreation as Marhaba resort, El. Kanary beach resort then Creative El. Fayrouz resort. Marhaba resort was the best resort in green spaces, about 25.000 m^2, using different types of ornamental plants but El. Kanary beach resort was more caring in using facilities and aesthetic features as statue of fisherman in the entrance and fountain in the end of same line form the statue as well as mosaic art and Pergolas. Creative El. Fayrouz resort didn't make attention neither to green area nor to its maintenance although used deer statue at the swimming pool**.** The used plants in resorts were specific types of palms, trees and shrubs without using any types of herbs or climbers except Creative El. Fayrouz resorts and Marhaba resort used annuals and climbers plant. It was recommended for using plants of different types and colors as well as utilizing of facilities like statues, wall fountains, mosaic and artificial waterfall especially for Creative El. Fayrouz and Marhaba resorts.

Keywords: Recreation, Landscape, Landscape design, Port Said, Resorts, Green spaces, Green areas.

INTRODUCTION

Population is constantly increasing especially in urban areas. The world population reached 7.3 billion in mid-year 2015, It was found that population had a growing rate about 1.13% per year. The current average population change was estimated by around 80 million per year (United Nation (UN), 2015). The current population of Egypt in 2016 was about 93 millions, and about 39.8 % of this population in urban (Worldometers , 2016). The population density of Egypt was 84 persons per km^2 with Cairo having the heaviest density at 46,349 P/Km^2 (World population review, 2016), as result of population, it made crowded places more vulnerable to pollution than other places. In Africa, the higher recorded rates of pollution were in Cairo caused a lot of health problems (World Health Organization (WHO),2016). The few epidemiological studies of air pollution in Egypt have indicated a significant increase in chest problems for those exposed to high levels of particulate in the residential industrial areas (WHO in Eastern Mediterranean Regional Office (WHO/EMRO),2010). Therefore, people in these areas needed get a far away from crowded and contaminated environment to good cleaner ones, that increased demanding to recreation places with other factors of leisure time and income that helped to spent time and money away from home and made the chance to recreation possible.

People had lot of free time either in normal days, weekends or holidays. This time could be used in activities and recreation. In several places as America, Australia and Egypt and in six or five workdays per week, people spent their day work or school between 7-8 hours and about 10 hours in personal care, the rest of the day and holidays was divided between sleeping and leisure time (Population Council, 2010; National Centre for Social and Economic Modelling (NATSEM), 2011; Bureau of Labor Statistics (BLS), 2015).

GDP per capita was gross domestic product divided by midyear population. It was a measure of a country's economic output per person. In 2000, GDP per capita in the world was estimated to 5,448.7 dollars, it increased to 9,995.5 in 2015. GDP per capita in Egypt constantly increasing every year, it was estimated to 1,561.08 dollars in 2000, it increased to 3,614.7 in 2015 (World Bank, 2016). That effected in the people income which increased as well.

Comparing Egypt with the rest of world, population and pollution were very high with increasing income. That made the needs of a good and clean places with ability of time and money, also they needed a place to recharge their energy away from work, crowded cities and polluted environment, even these cities contained open and green areas, they weren't enough with all of negative factors.

Open space was defined as any area including water, where there was with a few buildings or without buildings only water. The purpose of open spaces with recreation facilities for enjoyment of people (The Gov. Of The Hong Kong Special Administrative Region,2015). Green spaces are subset of open spaces, consisting of vegetated land or structure, water, or geological feature within urban areas. It was a term used to describe parks, public gardens, playing fields, children's play areas, forests, nature reserves. Gardens, linear and other open green spaces like seashores as an important example for recreation (Al-Hagla, 2008; Spray,2012).

Port Said city was a recreational place in many ways, the main feature was that it overlooking the Mediterranean Sea which the cause of resorts existence to be another a recreation place too. It considered recreation places with the advantage of green spaces of the resorts that caused rising their value.

The aim of the study was studying Port Said city as suitable environment for recreation and green areas of three resorts and evaluated in landscape perspective, plant materials and facilities. These resorts were: Marhaba, El. Kanary beach, Creative El. Fayrouz resorts.

MATERIALS AND METHODS

This landscaping study was conducted in the period from June 201٤- July 2016. The study aimed to refer to green spaces in some resort of the city. The design principles of green spaces were based on (Abo Dahab and Mohamed,1998) and it used Google Earth and Autodesk AutoCAD 2D to display the resorts. In this study the general landscape analysis was performed according to (Sharaf al-Din, 1979). The analysis included the following aspects:

A. Port Said City: the research included site analysis in two features: 1-Natural features which included (location, topography and climate). 2-Human features included (land use distribution - residential-industrial areas and transportation). 3-Social features contained (population- distribution of population by selected age and type groups). 4-Aesthetic features includes water surfers and open and green spaces.

B. Resorts

1. Marhaba resort.
2. El. Kanary Beach resort.
3. Creative El. fayrouz resort.

C. Evaluation of green areas in these resorts

1. Design: In this element, it based on some design basics in resorts as a purpose of design, Emphasis (focal point) and simplicity in both of resort design and green areas on it.

2. Plant materials: The plants types and spices that used in resorts in trees, palms, shrubs, climbers and herb plants.

3. Facilities: They included roads and walkways, entrance of resorts, booths and structures, recreation facilities and seats.

RESULTS

A. Port Said

1. Natural feature

Location: Port Said was located on the Northeastern side of Egypt, directly on the Mediterranean Sea at the northern gate of Suez Canal which was central between Port Said and Port Fouad cities on the other side. The governorate was located between latitudes of 30° 50°N and 30° 30°N; longitudes 32° 0°E and 32° 30°East (El. Raey, *et al*.,1999).

Topography: Considered as an island, it was surrounded from each side with water, starting with The Mediterranean Sea and end up with Manzala Lake (Suez canal Authority , 2016). It consisted of Pleistocene-Holocene rocks, and it was located in a very sensitive and fragile zone in Egypt. It located on the border of two major edges; the African and Asian edges and on the tip of the Suez Canal which had been dug along a large fracture (Gaber, *et al*.,2014).

Climate: The temperature in Port Said was moderate all over the year on average 14-28°C. Sunshine hours in Port Said ranged between 6:00 hours daily in December and 12:00 hours for each day in July and August The average of relative humidity was 67- 72% The total amount of rain water was 80-100 Mm per year, most of this rain was fallen in November to March. The wind speed ranged almost from 17.2 km/hour during November to January to 8.1 km /hour during July and August (Egyptian Environmental Affairs Agency (EEAA),2007; Central Agency for Public Mobilization and statistics (CAPMAS), 2015; WeatherSpark beta ,2015; Climatemps, 2016).

2. Human feature

Land use distribution: The total area of the city about 1369.24 km^2, it divided to residential area, Industrial area, recreation areas and burial ground.

(a)Residential area: Included modern buildings and Archaeological and historical buildings which had a big value to Port Said history. Beside these buildings, there were libraries, archaeological areas, museums and religious features.

(b)Industrial area: Divided to two main areas: 1) Port Fouad city, and 2) Port said city. In Port Fouad city, there were marine shipyard for shipbuilding and other relative activities and extracting salt from the sea. In Port Said city, it was divided into: 1) north and south the harbor which included storages and factories, 2) El. Ganoub district, 3) Northwest El. Zohour district, and 4) in the international coastal highway. These factories worked at cloths, food, chemical and metal industries beside extract salt in Port Fouad city and oil and natural gas at Petroleum Companies in the international coastal road between Port Said and Damietta cities (EEAA ,2007; General Organization for Physical Planning (GOPP),2008).

(c)Transportation: In the city, Roads included arterial roads which were high capacity urban road. It provided three paths on it, these roads were in the way to Ismailia (desert road) and Damietta (International coastal road). Inside the city there were main roads connected the districts together with two paths for vehicles and divided in secondary roads inside districts. there was the port of Port Said which divided to Port Said Port and East Port said Port, also using train to travel in parallel with the Suez Canal way to Cairo and Alexandria, and Port Said Airport that connected Port Said with the world by local flights to Cairo and Alexandria and international fights with other countries. Another important main transport was the ferry. It connected the Asian part 'Port Fouad' with the African part 'Port Said' across the Suez Canal (EEAA,2007; Port Said Gov., 2016).

3. Social feature

Population: It was about 653,264 Thousand people and the rate of population density 477 person/km^2. it was divided into five districts as it cleared in (table 1)**,** it displayed the most higher ratio of population density was El. Arab district after that was El. Monakh and the lowest was in El. Ganoub and Port Fouad

Distribution of population by age and type groups: population was divided to three groups according to age: 1) less than 15 years old, 2) the age between 15-59 years old, and 3) 60 years old and more. it was displayed in (table 2) (GOPP,2008). And according to (CAPMAS, 2015) the ratio of males to females was

about 50.8% to 49.1%, estimated to 332.434 thousand males to 320.830 thousand females.

Table 1. Statistics and population census in Port Said districts in 31/12/2013

Districts	Area (km^2)	Population (Person)	Density (person/km^2)
Port Fouad city	505.695	86196	170.45
El Shark	5.017	37625	7499.5
El Arab	1.592	54532	34253.768
El Monakh	3.312	71939	21720.712
El Dawahi	62.671	112314	1792.12
El. Zohour	262.586	237464	904.32
El.Ganoub	504.09	53197	105.53
Desert	24.28	-	-
Total	1369.24	653264	477.09

Table 2. Distribution of population by age in Port Said city.

Districts	Population (Thousand People)	Percentage (%)
less than 15	152.6	26.7
15-59	376.3	65.9
+60	42	7.4
Total	571	100

4.Aesthetic features

Water surfers: Port Said City was considered as an island, it was surrounded from each side by water, starting with The Mediterranean Sea and end up with Manzala Lake. The Mediterranean coast of Egypt extended between Salloum and El Arish, Port Said was nearest to El Arish side. Its coast extended for more than 55 km from east with North Sinai, from west with Damietta. The Suez Canal was an important international navigation canal linking between the Mediterranean Sea at Port said and the red sea at Suez in a distance of 162 km and if added to entrances at Port Said and Suez could be estimated by a length of 190 km (EEAA,2007). It separates the African continent from Asia, and it provided the shortest maritime route between Europe and the lands around the Indian and western Pacific oceans. It was one of the world's most heavily used shipping lanes (Suez canal Authority , 2016). Manzala Lake located in the western part of the Governorate and the eastern side of Delta. It was about 50 km ling with a maximum width of 22 km, having an area of about 1071 km^2 (EEAA,2007).

Open and green spaces: It was represented in the beach, tourism walkway with the base of statue of De Lesseps, the archaeological areas as Tennis island, El. Farma city and squares as Mansheya, Al. Shohda, Al. Mohafza and Al. Sayed Metwally. Green spaces covered 29.1% of total space in the city which included Plant nursery, gardens and streets, it was divided in the districts as the following (table 3). As (table 3) indicated that the gardens in total area about ٢١٤901m^2, the highest number of gardens was in El. Arab district. About 17 gardens While the highest size was in El. Monakh dis., only 11 gardens, and El. Ganoub was empty from gardens because it was industrial area, only had one plant nursery and the other green spaces was in the streets. Table (4) showed the most popular and historical gardens in the districts and its size.

Table 3. Plant nursery, gardens and streets in Port Said city.

Districts	Green spaces in streets (m^2)	Plant nursery (m^2)	Gardens (m^2)
Port Fouad city	11980	27500	27291
El. Shark	25839	2500	13816
El. Arab	5540	700	36027
El. Monakh	40510	1890	48297
El. Dawahi	34986	1600	8270
El. Zohour	60300	100	81200
El. Ganoub	15000	6300	-
Total	١٨٤١٥٥	40590	٢١٤٩٠١

Source: (CAPMAS, 2015).

Table 4. The most popular and historical gardens in Port Said districts and its size.

Garden	Size (m^2)	Location
Al. Amal garden	٢٨١٨	El. Shark Dis.
Al. Shohada garden	٣٤٦١٠	El. Shark Dis.
Ferial garden	٢١٩٠٤	El. Shark Dis.
El. Farma garden	١٢٤٦٩	El. Shark Dis.
El. Montazah garden	٥٤٦٠٠	El. Shark Dis.
El. Tarekh garden	16800	El. Shark Dis.
El. Montazah -Port Fouad garden	٢٦٢١٠	Port Fouad city
The beach garden	١١٥٥٠	El. Arab Dis.
El. Salam garden	3000	El. Dawahi Dis.

B. Resorts

In Egypt, there were 1193 hotels, resorts and floating hotels 54 of them are located in Port Said (CAPMAS,2014). Hotels were focused in El. Shark, El. Arab and El. Monakh districts, however, resorts were in El. Shark, El. Zohour, El. Monakh and Port Fouad city. Marhaba, El. Karawan, Ganet El. Noras, and El. Noras style beach resorts were in El. Shark district and El. Kanary Beach was in El. Monakh and Creative El. Fayrouz resort was in El. Zohour at Saad Zaghloul St.

1. **Marhaba Resort:** Marhaba Resort was located in El. Shark district at Atef El. Sadat street (Tarh El. Baher St.) and the sea was in its north side. It was divided into four section: 1) Administrative offices, 2) commercial shops ,3) tourism area, and 4) green spaces.

The administrative building was at the resort gate in both sides; it connected to the commercial shops in all over the resort in both side of the gate in two floors as showed in (fig.1). Tourism area was considered to be the apartment, villas, recreation and sport facilities which were about 107 apartments and villas in this resort beside two swimming pools and Multi-Purpose playground.

Figure 1.Marhaba resort plan.

2.El. Kanary Beach Resort: Like all the resorts, El. Kanary Beach resort was located in in Atef El. Sadat street (Tarh El. Baher St.) at El. Monakh district. The resort included chalets and swimming pools. Recently, the resort was built beside the gate places for commercial shops but it open yet.

Figure .2. El. Kanary Beach resort plan

3.Creative El. Fayrouz resort: This Resort unlike the others was located in El. Zohour district at Saad Zaghloul Street in the end of the city at El. Gamil customs outlet. The total area of it was 35.000 m^2. In general, El. Fayrouz resort designed away from the center of the city and the other resorts which added good feature of the place because it was more quiet and isolation, it was designed as a civic place which characterized by the Islamic architectural heritage.

Administrative area considered as reception which was one of the three gates of the resorts and the two Conference room. In the tourism area there was 150 chalets beside four swimming pools for kids and adults, festival hall, restaurant and coffees, there were several booths as shops in random places inside the resort (fig.3). There was no shopping of commercial area in this resort. The organic fertilization was added in March and the chemicals when the plant need it. The purpose of plant trees surround the resort was for protection from the winds when it became higher in the future.

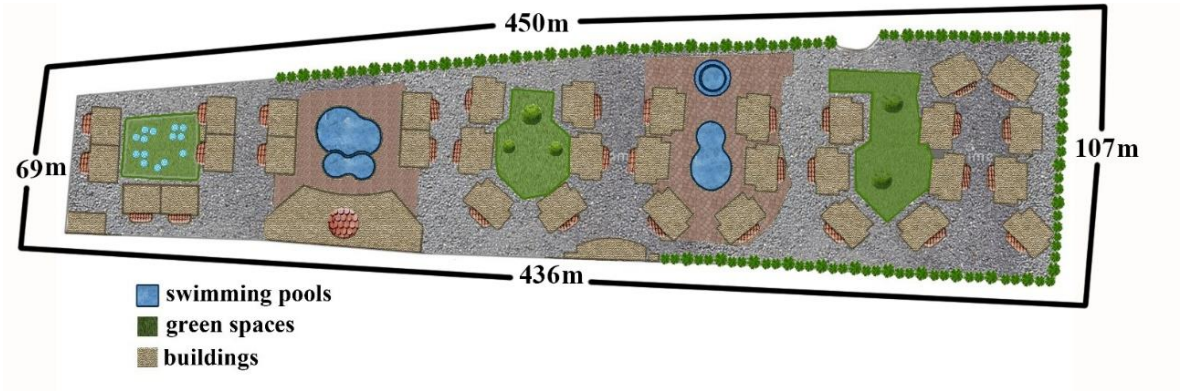

Figure .3. Creative El. Fayrouz Resort plan.

C. Evaluation of green areas in these resorts

Total size of green spaces in Marhaba resort were in total size 25000 m^2, it contained different types of trees, shrubs and herbaceous plants. The plant maintenance was good comparing with the other resorts because the existence of team workers and their supervisor agriculture engineer. The organic fertilization was added in the winter December or January, however, the chemical fertilization was added every 15 days to the plants. The irrigation in the winter was almost every three of four days when the plants needed water, this period became less short in the summer was about one or two days in moderate temperatures and about twice per day in high temperature. Total green spaces size was about 4081 m^2, however it wasn't caring about green spaces in this design, it was less than the other resorts. The green spaces just were in small playground for kids and fence of new and small trees surround the resort inside its wall. The organic fertilization was added in March and the chemicals when the plant need it. The purpose of plant trees surround the resort was for protection from the winds when it became higher in the future. Green spaces in El. Kanary beach resort was about 5583 m^2, the main plant in this resort was *Phoenix dactylifera*, the plant maintenance was low comparing with other resorts. The fertilization was added every year in the winter and irrigation was every day regularly.

1.Design: In the design of the resorts there were some general design basics in general and in green spaces design which were: 1) the purpose of the design, 2) Emphasis (focal point), 3) simplicity.

The purpose of design: The resorts in Port Said achieved the purpose of design in different levels. In this goals to provide the quiet and isolation from the other facilities or the street of the city that happened by building high walls surround the resort and plant trees inside the resort beside the walls. However, that was weakness point of the resorts because it prevented accessing to the sea. Also, it was important in the resorts to provide recreation facilities without needing to go outside the resorts like swimming, playing football, going to shopping or cinema. These were in all of resorts except El. Kanary Beach resort. The green spaces, purpose of the design was to confirm and complete the design of resorts. It made a combination of good view of sea and green spaces form the rooms in the tops of the resident building of the resorts. Green spaces were determined places of the building with the walkways. Types of green spaces in resorts differed between symmetrical design as in El. Kanary beach resort, simple modern design in Creative Fayrouz resort and mixed design (symmetrical and asymmetrical Design) in Marhaba resort.

Emphasis (focal point): Marhaba resort, the appearance of green spaces especially at the entrance of the resort. The plant density of this resort was high that made it became unique unlike other resorts that was low which made them had a weak point. The type and color of the plants attracted eyes and made sense of the place, in Marhaba resort, plants considered as focal point were shrubs, palms and trees croton shrubs *Codiaeum variegatum* in Amber (yellow reddish) color, Acalypha shrubs *Acalypha wilkesiana* with leaves had red colored, pineapple palm *Phoenix canariensis*, and Araucaria Trees *Araucaria heterophylla* that tree was only planted in Marhaba resort. In El. Kanary beach resort, the focal point was swimming pools and the palms in different types which were *Cycas* palm *Cycas revoluta*, royal palms *Roystonea regia* and Doum *palm Hyphaene thebaica*. Creative El. Fayrouz resort characterized by the Islamic architectural heritage of the buildings beside swimming pools.

Simplicity: Resorts were in simple shape and color in each one of them. In Marhaba resort, the dominant color was cream (yellowish-white) color in the buildings with brown pitched parts of the roof but plants were crowded which make the design of the resort not clear enough as united place or separated parts of the resort form other, on the other hand, it was a strength point to provide the wanted isolation for residents in the resort. El. Kanary beach resort, the main color like Marhaba resort was cream color in the building with brown pitched parts of the roof. In Creative El. Fayrouz resort, the simplicity was depended on showing the function of design only, the playground was grass and some play structures on it. Trees were planted surround to protect the resort from winds. Some types of palms as *Phoenix dactylifera*, *Chamaerops humilis*, and *Phoenix canariensis*; and trees as *Cassia fistula* and *Ficus spp (benjamina, hawaii, nitida)*were used. The design in green spaces of these resorts the borders of green spaces took simple

curve overlooking the buildings and it was separated with walkways to led to the entrance of every building and connecting every block with others in the resorts. Plant types in these resorts were in palms like *Roystonea regia, Phoenix dactylifera,* and *Chamaerops humilis*; in trees *Ficus spp (benjamina, hawaii, nitida);* and in shrubs *Hibiscus rosa sinensis* and *Nerium oleander*.

2.Plant materials: The resorts focused on planting types and speices suitable to the environment. So, there were trees, palms and shrubs in specific types showed in (table 5). On the other hand, resorts didn't use climbers or herbs except Creative El. Fayrouz resort used *Bougainvillea alba* and *Bougainvillea glabra*. In Marhaba resort, they used *Bougainvillea glabra* as climbers and *pelargonium zonale* as annuals, and in all resorts, they used *Cynodon dactylon* (paspalum) as lawns connecting all of the plants together.

The used plants succeed in planting in sandy soil and coastal environment. There were types of trees were used to sustain the sea winds as Araucaria, Ficus and Washingtonia filifera trees, other types suitable to sandy soil as Cupressus, Acalypha and Oleander, Codiaeum and Bougainvillea.

Table 5. numbers and types of plants in resorts.

Types	Plants	Resorts		
		Mar.	Cre.	El. Kan
palms	Phoenix dactylifera	64	38	114
	Washingtonia filifera	56	3	
	Chamaerops humilis	84	2	6
	Phoenix canariensis	7		
	Roystonea regia			7
Trees	*Araucaria heterophylla*	18		
	Ficus nitida	fence	6	10
	Ficus benjamina	43	2	15
	Ficus hawaii	23	8	8
	Cassia fistula		5	
	Ficus decora	18		
	Cupressus macrocarpa	22	5	
Shrubs	Dodonea viscosa	hedges	٣	
	Codiaeum variegatum	basins		
	Acalypha Wilkesiana	hedges		
	Hibiscus rosa sinensis	hedges	10	10
	Nerium oleander			2
Climbers	*Lantana camara*	1	3	
	Bougainvillea glabra	*	fence	
	B. Alba		fence	
Annuals	*Pelargonium zonale*	*		
Lawns	*Cynodon dactylon*	*	*	*

Mar.=Marhaba resort, Cre. = Creative El. Fayrouz resort and El. Kan = El. Kanary beach resort, *= existed, blank= not existed

3.Facilities

Roads and walkways: Paved roads in Creative El. Fayrouz resort were about 4-meter width in both of resort sides used for cars and parking and they increased in the entrance of every block of the buildings and decreased again at these buildings. Paths and roads was Granite paving rectangle stones in dark Apricot color, it changed to light brown stones at the stairs and surrounding swimming pools.

In Marhaba and El. Kanary Beach resorts, roads were similar in type and color of the rectangle stones in the entrances and parking area in 6-meter width, other walkways inside were Granite paving hexagon stones shape in about 1.5-meter width, Creamy color in the middle and in Apricot color in sides and corners of the walkways. They were lighter in sidewalks ending with light brown in stairs in the entrance of the resort. Furthermore, walkways in green areas were broken white stones paths, irregularly shaped interchangeably with grass.

Entrance of resorts: In Marhaba resort, the entrance of this resort was different in its shape containing shopping stores in two floors in both sides of. This main gate, this main gate was in the middle for cars and both sides of it was for walking people, it took white color with brown pitched parts of the roof and Islamic architectural heritage small windows from wood in the top of the gate. Unlike El. Kanary Beach resort was three big parts in black glasses that led to the reception for people with two brown pitched roof in each side of the gate. The entrance of Creative El. Fayrouz resort was similar to Marhaba resort in shape but the color was like the buildings of the resort, Apricot color with pitched roof in darker.

Booths and structures: Marhaba resort was empty from additional structures or booths, it focused the resort be as residential place with good looking of green spaces. On the other resorts, El. Kanary Beach contained two gabled pergolas in both sides of swimming pool without chairs on it in cream color with

dark brown roof. These pergolas located beside the stairs to swimming pools and in their entrance a small fence of ceramic mosaic art showing a paint of deep of sea and two dolphins. In the center between the pergolas, cafeteria in shape of small ship with white and blue ceramic mosaic titles. In one of the other gates, dark metal statue of fisher man and his net and a small fountain in the end of the road all of that connected the resort with the city and the sea. Booths in Creative El. Fayrouz resort were serviced many needs for people, it was made of glass, they were made for shoes, antiques and small market. Resort also had a small statue of deer with lights in the entrance of one of the swimming pools.

Recreation facilities: In general, outdoor recreation included the sea, swimming pools and playgrounds. All of resorts were overlooking the beach, however, it was weakness point of the resorts because of the existence of fences that prevented accessing to the sea. All of resorts had two swimming pools, one for children and the second for families and adults which were deeper than the other. Playgrounds were used for multi- purpose, football, basketball and tennis.

Seats: in all resorts, the absences of garden benches in green spaces, they used ordinary and deck chairs and tables surrounded swimming pools in each resorts and in green spaces of Creative El. Fayrouz resort.

DISCUSSION

The research discussed Port Said city in general and green spaces in resorts of Port Said city. Green spaces were the green lungs of any city that contributing to improving people's physical and mental health by providing places for recreation.

Port Said city**,** open and green spaces were concentrated in limited places as the beach, tourism walkway with the base of statue of De Lesseps, the archaeological areas as Tennis island, El. Farma city and squares as Mansheya, Al. Shohda, Al. Mohafza and Al. Sayed Metwally. Green spaces covered 29.1% of total space in the city.

World Health Organization (WHO) (2010) suggested that every city should have a minimum of 9 m^2 of green spaces per person (in: Morar., et al.,2014), however, in Port Said this rates was very low, it was 0.4 m^2 of green spaces per person, in high population and more green spaces than Port Said, so it was recommended to Port Said city the following:

1. Plan to develop and increase green areas in new expansions surround the city and in the whole city it could be used methods of gardening such as green roofs, green buildings and vertical gardens that would able to raise the rates of the mount of green spaces per person in Port Said city.
2. Maintenance regularly for green spaces in resorts, gardens and streets.

Resort in Port Said**,** were characterized by special nature and design each other than the other which make them complementary to each other. Each resort of Port Said was overlooking the sea direct but they weren't optimum exploitation of its existence on the sea because of the high fence in seaside.

Green spaces of Marhaba resort were 33 m^2 of green spaces per person and smaller in Ganet El. Noras and Creative El. Fayrouz resorts than Marhaba resorts and the standards of (WHO) and Marhaba resorts. It was used plants suitable for the weather, soil and Proximity to the sea that were palms and trees.

Marhaba resort was considered to be the perfect resort of Port Said in quantity and variety of plants in green spaces but in facilities was El. Kanary beach resort more than other resorts.

It is recommended for plants to insert other plants with different color in the future suitable to the surrounding environment and aromatic plants to add in green spaces pleasant odor. In example, using *Lavandula officinalis, Rosmarinus officinalis* or *ocimum basilicum* as aromatic plant with good scent and purple or blue flowers and *Justicia adhatoda* as herbs with white flower that could use in short fences in borders of green areas. And for herbs it could add *Dianthus caryophyllus, Mathiola incana or Antirrhinum majus.* In climbers, *Jasminum gradiflorum* or *Rosa spp.* and *Cassia nodosa, Delonix regia or Tecoma stans* in trees. and *Chamaerops humilis, Rhapis excelsa or Hyphaene thebaica* in palms. and *Nerium oleander*, *Euphrbia pulcherrima* in shrubs. for Marhaba and Creative El. Fayrouz resort to add statues or other types of garden's arts like wall fountains, mosaic or artificial waterfall to adding the surrounding nature inside the resort.

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دراسات لاندسكيبية المساحات الخضراء في بعض القرى السياحية بمدينة بورسعيد

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أجرى هذا البحث بمحافظة بورسعيد خلال الفترة من يونية ٢٠١٤ حتى يوليه ٢٠١٦. بهدف دراسة المساحات الخضراء في المنتجعات السياحية بمدينة بورسعيد وكمثال للمنتجعات السياحية في مدينة سكنية ساحلية تطل على البحر المتوسط وتمثلت هذه المنتجعات فى قرية مرحبا وقرية الكناري وقرية كريتيف الفيروز.تناول البحث عديد من العوامل لتقييم المناطق الخضراء في هذه المنتجعات السياحية.أظهرت النتائج أن: هذه المنتجعات السياحية تعاني من تدهور الصيانة بصفة عامة والمساحات الخضراء داخل هذه القرى بصفة خاصة. على الرغم من ذلك إلا أن بعض المنتجعات السياحية تعتبر مكان جيد للاستجمام مثل قرية مرحبا السياحية يليها قرية الكناري ثم قرية كريتيف الفيروز.تعتبر قرية مرحبا تعتبر أفضل المنتجعات السياحية فيما يختص بالمساحات خضراء بمساحة حوالي ٢٥.٠٠٠ متر مربع كما ونوعا حيث استخدم أنواع مختلفة من نباتات الزينة بينما قرية الكناري تعتبر الافضل في استخدامها للعناصر الجمالية الاخرى بجانب المساحات الخضراء التي تؤكد جمال المساحات الخضراء مثل النافورات والمجسمات والبرجولات وتم استخدام نظام الفسيفساء عند حمام السباحة في القرية. على عكس ذلك قرية كريتيف الفيروز السياحية كانت قليلة الاهتمام بالمناطق الخضراء وصيانتها الا في ادخال واستخدام تمثال عند احدى حمامات السباحة الموجودة داخل القرية. في جميع القرى السياحية. استخدام انواع معينة من الأشجار والنخيل والشجيرات ولكن لم يتم إستخدام أي من النباتات العشبية او المتسلقات ماعدا قرية كريتيف الفيروز وقرية مرحبا التي استخدمها نبات الجهنمية كنبات متسلق. والجارونيا العادية كنبات عشبي وزراعتها كعناصر تنسيقية داخل القرية . كانت توصيات الرسالة كالآتي: إضافة وزراعة أنواع مختلفة جديدة من النباتات ذات ألوان مختلفة وأنواع من النباتات العطرية كأسيجة ملائمة للبيئة المحيطة بالقرية مثل نباتات إقليم حوض البحر المتوسط التي تلائم التربة المالحة والرطوبة العالية. كما يوصى باستخدام العناصر الجمالية الإضافية الأخرى مثل المجسمات والنافورات والشلالات لقرية مرحبا وقرية كريتيف الفيروز السياحية والتي تعمل على ربط المساحات الخضراء داخل القرى السياحية بخارجها.