

Urban waterfronts between cultural and physical influences (The case of Jeddah and Alexandria)

1. Introduction: Waterfronts and Behavioral Activities

Behavioral outdoor activities are considered as the actions through which participants interact with the outdoor environment; physical or/and social. The outdoor environment affects participants' motivations as well as the type of activities taking place through what Gibson (1979) names "the affordance theory"¹, where some milieus "afford" or "fit" (Alexander 1964)², a specific behavior better than others. On the other hand, the existence of activities not only depends on the environment and whether it affords its existence but also on the cultural context of the participants. Thus environment and activities affordance theory when applied to waterfronts could not be generalized since there are cultural differences between participants that largely influence the type of activities participated by waterfronts. Meaning that whenever water bodies are present not all water-related activities will take place, as part of activities' existence depend on participants' culture and attraction to such activities. The significance of a waterfront as an open space is that it represents a physical container of participants' culture, as such, it is the expression of the people and the waterfront is an expression of what we are as a culture, (Richard Marshall (2001))³. Accordingly participants by waterfronts are engaged in activities which not only fulfill their needs but also correlate with their culture and accommodate with the environment and what it affords.

2. Focus of Study:

According to Ann Beer and Dick Rigby (1996)⁴, waterfront regeneration schemes necessarily involve a variety of economic, social, environmental and preservation issues. Although most waterfronts provide different/mixed uses there should be a dominant use which grants the waterfront its identity and character and thus make it unique. The character of waterfronts is formed from both their physical characteristics and the behavioral activities taking place. In their book "Waterfronts, cities reclaiming their edges" Ann Beer and Dick Rigby (1994)⁵ identified seven categories characterizing waterfronts; the cultural, the environmental, the historical, the mixed-use, the recreational, the residential and the working waterfront. The focus of this study is to determine which of the above categories characterizes Alexandria's and Jeddah's

waterfront, in addition to identifying to what extent behavioral activities affect and are affected by both the spatial implications of waterfronts and the cultural heritage of users.

3. Research Methods:

Identifying to what extent do cultural values and behavioral activities affect the integration between users and the water front's physical aspects is achieved through physical and survey analysis. Data is collected through site visits where a behavioral/physical observation map is fulfilled and complemented by an exploratory interview. The behavioral map is to identify the physical characteristics of each area, the type of participated activities and what sort of activities the physical setting affords. On the other hand, the selection of an explanatory interview is to develop ideas and research hypotheses rather than to gather facts and statistics. Accordingly, the main purpose of the interview is to know how participants perceive their waterfront regarding the categories provided and in which way both cities share or diverse in their cultural attitude towards the waterfront with reference to the preferred participated water-related activities. The interview was fulfilled by 30-40 participants in each city concentrating on behavioral activities through a ranked type of questions as preferred participated activities, (addressed in the interview format)⁶. Both tools, the observation and the interview, took place at day time during August 2006 and May 2007.

4. The Study Areas:

Water is a fundamental attraction in all cultures and among all classes of people, whether ritual or recreational people seek the water edge. According to Cliff Moughtin (2001), there are seven generic water forms; the first characterized by the vertical cliff edge, the second derived from the fishing village where access to the sea is along narrow passageways, the third is the beach form, the fourth is the dockside quay, the fifth is the open square, the sixth is the pier jutting out in the water to the shoreline and the seventh is the one treating water as a sewer turning a back to it.⁷ The form of corniche of both cities falls under the fourth and fifth form of waterfronts. The study is only focusing on the strip of land between the seashore and the vehicle road, where the latter represents a visual and usage barrier and bearing in mind that this strip is identified in both cultures as the corniche⁸. Jeddah's and Alexandria's waterfronts are studied and analyzed focusing on the mutual interrelationship between both their culture and the urban form of their corniche, aiming to categorize the waterfront of each with reference to the previously mentioned categories. Both cities are selected for comparison in terms of; the physical characteristics of their waterfronts⁹ and the participated activities regarding the corniche through the following:

4.1. Alexandria, "the Mediterranean bride":

Alexandria is the chief port and the second largest city of Egypt. Situated at a distance of 225 km. northwest from Cairo, the city of Alexandria lies on the Mediterranean Sea at the western edge of the Nile Delta. Alexandria has been a major port and cultural centre since ancient times. Founded by Alexander the Great in 331 BC, Alexandria became the capital of Greco-Roman Egypt. But ancient Alexandria declined for ages until the 19th century when Alexandria took a new role as a focus for Egypt's commercial and naval expansion. Generations of immigrants from Greece, Italy and the Levant settled in Alexandria and made the city synonymous with commerce, multi-ethnic and bohemian culture. This Alexandria has been celebrated by writers such as E.M. Forster and Lawrence Durrell who described Alexandria as "the capital city of Asiatic Europe, if such a thing could exist".

Alexandria's climate differs from the desert climate of the surrounding country as a result of the prevailing north wind, blowing across the Mediterranean. The weather in winter is generally dry with occasional rain and a few thunderstorms. The summers are relatively temperate, although humidity can build up in July and August, the hottest months, when the average temperature reaches 87 °F (31 °C) but the cool breezes of the Mediterranean help keep the moisture down to a comfortable level.

4.1.1 The Alexandrians:

Alexandria has an atmosphere that is more Mediterranean than Middle Eastern; its ambience and heritage distance it from the rest of the country, although it is actually only 225 km from Cairo. Since the foundation of the city by Alexander the Great, Alexandria has been characterized by the pluralism of its culture. It boasts cultural heritage timing back to Alexander the Great and the Ptolemies; remnants of Pharaonic, Hellenistic, Coptic, and Islamic civilization. The diverse nature of the Alexandrian heritage, an outcome of an accumulative historical experience of interaction and cross-cultural exchange, highlights the continuity of pluralism in its culture and the continuity of the city's historic role as a cosmopolitan and open city¹⁰.

4.1.2 The corniche:

Alexandria's Corniche was first built, in the early 1900s, by Khedive Ismaïl. After several years and as a result of over crowdedness, in 1998 Alexandria's corniche has been developed and improved by widening it in trying to beautify the Corniche thus returning Alexandria to the glory of the 40s. Now Alexandria's corniche stretching all along the Eastern Harbor from Fort

Quaitbey to the Alexandria palace of Montaza, is about 40 km long and 44.5 meters wide, divided into four lanes for each way, and 2 pavements about 4 meters wide. The corniche is distinguished by its promenade and open spaces which afford active and passive water related and non-related activities¹¹.



Figure (1), the two physical zones of Alexandria's corniche

4.1.3 Physical Settings:

According to the physical feature of the corniche it could be divided to two main settings (figure (1)); the first is the west side, extending from the Qaitbey fortress to the Shateby area, where the water/land relationship is defined by water resistant rocks, (figure (2, 3)) (except for a small area by the west of the west side) and the second is the east side, stretching from the Shateby area to the palace of Montaza, discriminated by sandy shores. At the west side, buildings by the seashore are devoted to restaurants, yacht clubs, a scout club, and a marina, while the landscape features are summarized by, palm trees, bus stops, post lights, signage, few sculptures and a solid rough fence, ((figure (4)). On the other hand, the east side's seashore buildings are summarized by light structured cabinets, areas of private cabins (figure (5)), restaurants, night clubs and a hotel, while the seashore itself is either privatized or access to certain parts of the beach is restricted by tickets, (figure (6)). The east side landscape features are summed



Figure (2), the west side of Alexandria's corniche



Figure (3), resistant rocks by the west side



Figure (4), sculptures by Alexandria corniche

up by palm trees, shaded and un-shaded benches, fixed and movable shades (umbrellas), lamp posts, signage, few sculptures and partially solid fences in addition to various areas of showers, changing clothes cabinets, cabins, chalets, and restaurants.

In sum, the corniche affords and supports water-related activities both passive and active to take place through its physical features and landscape elements.

4.1.4 Participated Activities:

The observation map revealed that both passive and active water related activities are participated by the west and east side, (figure (5&6)). Although the water related activities are different¹² as a result of the divergence of the physical feature between both sides, thus the affordance theory is very distinctive in Alexandria's corniche between both sides.



Figure (5), private cabins and sandy shores by the east side of the corniche



Figure (6), passive and active water related activities by the east side of the corniche

Moreover, it was observed that participants took advantages of the physical characteristics of the corniche and the landscape through participating in all afforded water related activities.

4.2. Jeddah "bride of the Red Sea"

Located on the eastern coast of the Red sea, Jeddah is Saudi Arabians' second largest city, as well as being the principal port and airport for travel to Mecca. The city itself is a unique combination of the old and new, at its core it remains an ancient Arabian city, while extending along the seaside of the Red Sea its corniche symbolizes the new version of Jeddah. Traditionally Jeddah has been the commercial centre of Saudi Arabia, but at the same time, ever since the foundation of Islam it has been the assembly point for Muslims from all the world, converging upon Mecca on hajj pilgrimage journey.

Climatically, the location of the city on the Red Sea, between the Mediterranean and Monsoonal type climate, causes high humidity in the summer months. High temperatures in excess of 40°C occur in July and August. The climate of the region is very hot and humid in summer, and drier and temperate in the winter season. The region receives little rainfall, although very high humidity is often experienced in the summer season.

4.2.1 The people of Jeddah

For over one thousand years, Jeddah has received millions of pilgrims of different ethnicities and backgrounds many of whom stayed and became citizens of the city, slightly creating a traditional diversity. Added to the traditional diversity, the oil-boom of the past 50 years has brought to Jeddah hundreds of thousands of working immigrants and foreign workers from non-Muslim countries. As a result, Jeddah is much more ethnically diverse than most Saudi cities and its culture more eclectic in nature.

4.2.2 Jeddah's corniche:

The explosive development of Jeddah resulted and followed the discovery of oil in 1938. The boom period of 1974-1983 saw the rapid physical development of the city of Jeddah supported by a series of Action Area Plans to bring Jeddah its new soul, where the corniche played a major role in the project. Jeddah has nearly 40 kilometers of coastline, over half of which has public access through the construction of a corniche, providing a road, walkways and attractions along most of the coast. Stretching northwards and southwards, wharves and port facilities extend to the south as an active waterfront, while the corniche extends to the north as a passive waterfront.

4.2.3 Physical settings

Extending from north to south and characterized by a long coast, Jeddah's corniche is not always accessed by the public as some areas are excluded from public access by cabins, holiday villas and walled enclosures.



Figure (7), the three areas of Jeddah's corniche

Jeddah's corniche is divided to three areas, (figure (7))
the central, the southern and the northern corniche¹³.

The central corniche is related to the central sector of Jeddah with three bridges and an underpass providing vehicle access to the city centre, but it lacks pedestrian underpasses or overpasses to attract people from the inner centers to the seashore. The southern portion of the corniche is directly located by the port and characterized by compressed sandy seashore landscaped by children playing equipment and vehicles could reach the sea line. Finally, the north sector is characterized by a mixture of sandy shore and rocks, landscaped by an open exhibition on its both sides for monuments and sculptures by some of the greatest artists and sculptors like Verselli, Henry Moore and Ceasar in addition to a number of magnificent artworks of famous Arabian artists, (figures (8 &9)).

The north sector is softly landscaped by palms, trees and shrubs and characterized by a number of amusement parks, many refreshment stalls and fast food outlets in addition to furniture assisting facilities as benches, children's playing instruments, sculptures, some kiosks and food stalls. Jeddah's corniche is famous by its fountain; almost the highest one in the world and characterized by to the existence of few mosques by the seashore (figures (10 &11)).

4.2.4 Participated Activities:

Non water-related activities (motorcycling and children's play) are observed in the behavioral map in addition to passive water related activities, where the latter could be due either to participants preferences or to the climate (Jeddah registers high levels of humidity for much of the year. Only in the winter, when a moderate air front unites with a low pressure



Figure (8), monuments and sculptures by the seashore of the north sector



Figure (9), sculptures and palms by the corniche



Figure (10), Jeddah's fountain

current, do humidity levels fall significantly). Fishing is the only water related activity observed during the field study.

The central sector of the corniche lacks recreational activities as there is no suitable pedestrian access to this part. The southern area of the corniche, and as a result to its location by the port, is more oriented to port activities, and due to the nature of the seashore the only observed activities are the non water related. On the other hand, the participated activities by the north sector are both water oriented and non water oriented activities. Whereas the north sector represents a major showpiece offering unique attractions, symbolizing a number of landscape elements that afford various outdoor activities which took place during the observation, (figure (12)).



Figure (11), mosques by the sea shore of the north sector



Figure (12), non related water activities by the south area

In sum, Jeddah's corniche encourages users to participate in non water oriented activities (afforded by the provided landscape elements) in addition to most water related activities (supported by the natural physical features of the seashore). Still the physical characteristics of the corniche afford and support more activities than the participated; especially the active water related ones. It was also observed that most participants sought the corniche to enjoy the scenes and the outdoors more than seeking water related activities even if the weather is convenient.

5. Conclusion:

The comparison between Alexandria and Jeddah provided an opportunity to explore the nature of both the physical and behavioral characteristics of their waterfronts. Located on sea, both cities hold unique cultural characteristics as second largest cities in their countries. Jeddah is known as the Red sea bride while Alexandria is famous as the Mediterranean bride. Both societies share many essential forms of cultural universalities represented by language and

religion. Alexandria is more exposed to the Mediterranean culture, while Jeddah is more exposed to foreign workers mostly from the Far East and Muslim countries. At first glance, the appearance of both cities seems to have a lot in common, but after a more thorough inspection diversity is noticed, both in the physical appearance of their waterfronts and the behavioral activities of the inhabitants, such diversity gives meaning to the individuality of each society.

The field study reflected to what extent is the urban waterfront of each society influenced by the cultural and physical characteristics, revealing a number of findings in spite of the limited sample size. It was found that both waterfronts could be characterized as recreational although the physical form and landscape of Jeddah's corniche is oriented towards the beautification of the waterfront and the aesthetic values of the setting through the embodied landscape elements. Participants by Alexandria's corniche are totally devoted to recreational water related activities whether passive or active supported by both the physical characteristics of their waterfronts and the existing facilities and landscape elements by the seashore. Whereas although the physical characteristics of Jeddah's waterfront support all passive and active water related activities to take place, participants using Jeddah's corniche prefer to engage in non related water activities and only passive related water activities. In other words, Alexandrians took advantage of all the potentials afforded by the physical environment, while the people of Jeddah did not fulfill all water-related activities afforded by the waterfront. They seem to be restricted either by their cultural references or due to climatic constrains, or due to the lack of facilities and landscape elements supporting water related activities. In Jeddah participants seek the corniche as an aesthetic outdoor environment that needs to be enjoyed.

Future research should be directed towards addressing the same area at different times of the year, month and day to identify whether such behavior is due to cultural or physical influence of the environment. In such studies both the physical and cultural aspects should be taken in consideration to categorize, in a more precise way, the character of waterfronts. In conclusion, without the appropriate research in the field of waterfronts identifying both the physical and cultural aspects of the society, errors in judgment about their characteristics could be easily made.

Appendix I: interview

Name (optional):

Age (optional):

Nationality:

Preferred participated activities:

	Very Little	1	2	3	4	5	A Great Deal
Sitting							
Walking							
Strolling							
Eating							
Fishing							
Swimming							
Boating							
Pedaling							
Jet skiing							
Swimming							
Diving							
Swinging and sliding							
Motor biking							
Jogging							
Enjoying the scenes							
Relaxing							
Others please state:							

Appendix II: Behavioral map

Physical setting code ()

Time:

Day:

Climate:

Physical characteristics:

Water shore:

- sandy
- stony
- rocks
- rock resistant
- other _____

physicial featrues and landscape:

- restaurant
- café
- aquarium
- private shore
- food stalls
- hotel
- club
- cabin
- chalet
- peddlers
- signage
- sculpture
- fence
- bench
- lamp post
- other _____

Observed activities:

Participated activities:

passive water related active water related non water related

Afforded activities:

passive water related active water related non water related

Endnotes:

¹ Gibson, J.J. (1979), the ecological approach to visual perception, Boston: Houghton Mifflin.

² Alexander, Christopher, (1964), Notes on the /synthesis of Form, Cambridge, Mass: Harvard University Press

³ Marshal, Richard, (2001), Waterfronts in Post-industrial Cities, Spon Press

⁴ Beer, Ann and Rigby Dick, (1996), The New Waterfront, British Library Cataloguing in Publication Data

⁵ Beer, Ann and Rigby Dick, (1994), Waterfronts, Cities Reclaim their Edge, McGraw-Hill, Inc

⁶ Appendix I and II

⁷ Moughtin, Cliff (2001), Urban Design, street and square, Architecture Press, second edition, reprint

⁸ The word corniche refers in the Arabic language, in general, to a headland formed at a land's end, which describes a most remote geographical border of a mainland by a water line, with a natural corner, usually, or a cliff. In the Arabian culture, the word typically describes a waterfront promenade, usually paralleled by a main road.

⁹ The water front in the research is limited by the area between the water and the main road by the corniche; buildings overlooking the sea are not included.

¹⁰ Med Cities: the Mediterranean city: dialogue among cultures, (2005), Bibliotheca Alexandria

¹¹ Passive water related activities are addressed in the observational map and interview by walking, sitting, strolling, fishing and relaxing, while active water related activities are symbolized by swimming, pedaling, diving and boating

¹² Swimming, sailing and pedaling are more observed at the east side, while fishing boating and surfing are more participated by the west side.

¹³ The central area is named after the city center which is connected to the corniche and not for its location to the two other areas.