

Managing Urban Qualities: Planned V Spontaneous

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Abstract

The main concern of this paper is the impact of development on society and the built environment, the conflict between man: his traditions, needs and expectations, and his surrounding environment that has become typical of today's life. Trends of massive urbanization have become not only a political attitude but a public aspiration as well.

This notion is to be explored within a comparative analogy of two oasis cities: AlAin, UAE and Siwa, Egypt. Yet similar in origins and natural resources, their development over the last three decades has been of two extremely different natures. While the former has been through a booming urbanization process through a comprehensive master plan, the later has been through a hazy, yet natural, process of development.

The objective of this paper is to investigate and compare between the development of "Al Ain" and Siwa the planned versus spontaneous between 1970s and 2000, putting into consideration the space-time relationship. Main problems and constraints facing the future development of both are highlighted. The paper goes on to provide recommendations to ensure the sustainability of development initiatives in the two oases, and concludes with the need for an integrated and comprehensive action plan in the both sites of cultural heritage preservation, socioeconomic development and basic infrastructure development.

1. Introduction:

Al Ain is now the greenest and biggest inland city in the UAE and Arabian Gulf. Historically back to 4th millennium BC, Al Ain attracted people to settle as a native Oasis with fertile soil and the underground water table. Originally an agricultural bedwin community, Al Ain has transformed to a very modern city. Since the federation of the United Arab Emirates UAE in 1971, it has witnessed a remarkable rapid development in rural and urban areas: houses, schools, hospitals, shopping centers, telecommunications, electricity and water, luxury hotels as well as and recreational facilities.

On the other hand, Siwa Oasis, Egypt lies on the edge of the Great Sand Sea only 300 km south west of the Mediterranean and Marsa Matrouh, and around 70 km east of the Libyan border. Siwa is famous for its dates which, along with olives and oranges. Siwa averages 18 meters below sea level and has always had more than its share of excess ground water, and the salinity of the ground and the size of the lakes have increased over centuries of agriculture and irrigation run-off. Siwa has been inhabited from earliest times. There are tombs and other remains dating from the Late Dynastic period in Siwa, large number of monuments from the Graeco-Roman era, which began with the reign of Alexander who was recorded to visit the place, indicates a population boom in the oasis at that time. Today most of the population lives in the town of Siwa, a few other villages are scattered in other parts of the depression. The oasis enjoys a unique environment that combines lush cultivated areas, natural vegetation, and stark desert landscapes. There are several salt lakes in Siwa, and Siwa is also rich in its flowing springs of sweet sparkling water.

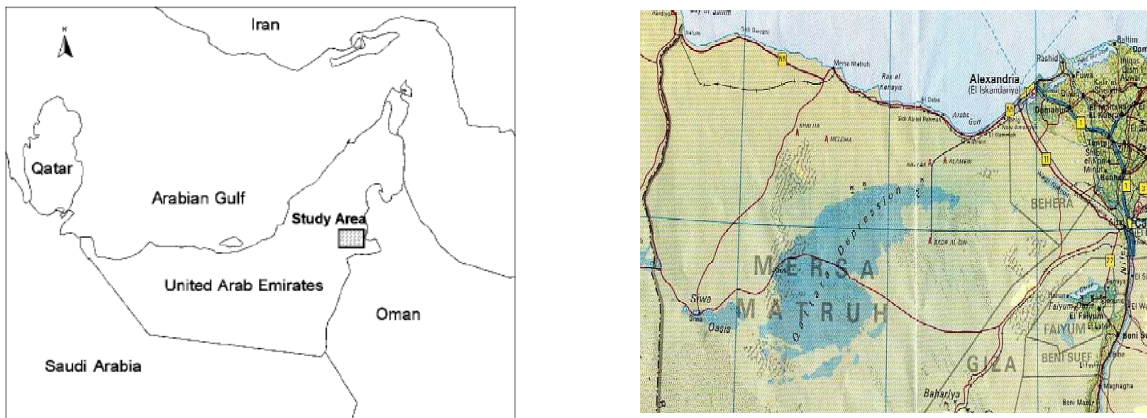


Fig.1: General location; AlAin (left), Siwa (right)

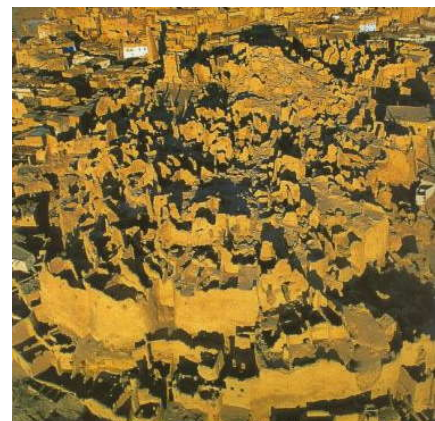
2. Morphological analogy

Touring both cities, the following analogy can be:

2.1. Urban Morphology

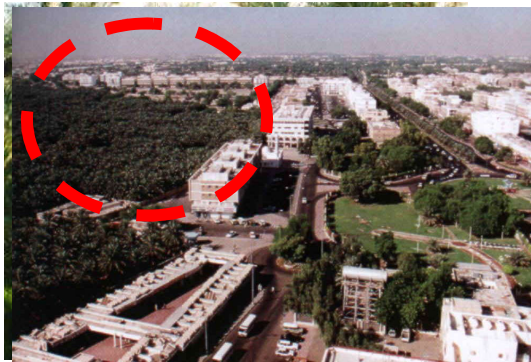
A clear distinction can be made; while Al Ain to the left, has developed a horizontally spread pattern of wide streets, roundabouts, service roads and set backs. It has become a real challenge to walk and enjoy those wide extended streets in a hot sunny day (which is common); movement is confined to air-conditioned vehicles which has to be of high capacity and therefore of high energy consumption. Siwa to the right still maintains a narrow, compact and irregular pattern that allows for pleasant pedestrian environment while restricting vehicular movement .

Fig.2, Urban morphology and texture; AlAin (left), Siwa (right)



2.2 Landscape

Originally both oasis were very similar in their landscape and natural settings: water springs and palm trees. This is still very much the case in Siwa while limited in certain confined areas of AlAin **fig. 3 a** (e.g. AlAin oasis, Qatarah valley) where the original landscape is not being ‘developed’ yet. Modern landscaping in AlAin however, has been of a much different nature; grass loans, shrubs, roses,.. etc.



(a)



Fig.3;landscape, AlAin to the left; Siwa to the right.

2.3. Built up heritage

Historic evidence in both oasis suggests a very early start, from the bronze age in AlAin Hili grave, tombs from early pharaonic eras as well as Alexander the Great’s temple in Siwa. Both have had a considerable wealth of adobe structures that is now evident in few castles in AlAin as well as in most of the traditional housing in Siwa

Fig.4, Hili tombs (right), Alexander the Great’s temple (left)

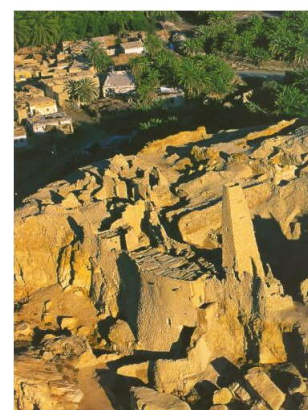




Fig.5, Castles of AlAin (left); traditional housing of Siwa (right)

2.4. Architecture & the built environment:

The built environment of AlAin is made up of: residential villas with no specific style and max. of two stories height, these are placed in regular plots with front and side set-backs; and office blocks mainly in the city center, these are largely glass blocks and with central AC systems.

In Siwa however, the scene is quite different, the built environment can be classified as follows; old traditional houses which are mostly in a dilapidating condition, new concrete structures imported from the valley and neo-traditional attempts where traditional elements are cloned, sometimes using completely different materials such as steel.



Fig.6, modern architecture in AlAin (left), and in Siwa (right)

3. Potentials for development and future prospects:

In AlAin, modern 'development' started early 80s within a comprehensive master plan. This plan addressed mainly physical and land use planning. This was aided by establishing the first UAE University and thus the city has established itself as Abu Dhabi's cultural center. The city also developed some tourist potentials by being green "The Garden City of the Gulf". Transportation can be used as an indicator of development, the accumulated length of internal roads in Al Ain has been upgraded from 3,704 km in 1995 to 4,588 km in 1999. (1)

Due to its geographical isolation, no plans for development in siwa took place for long time. However, in the last ten years, especially after the new road linking with Matrouh and the coast, there has been several but rather random attempts for developments. There have been governmental studies as well as private initiatives. These were all directed towards exploiting economic potentials of the oasis; date, olive and eco-tourism (e.g. the Adrère Amellal project).

Sustainable development is not a new concept. It is the latest expression of a long-standing ethic involving people's relationship with the environment, and the current generation's responsibility to future generations " for a community to be truly sustainable, it must adopt a three-pronged approach that considers economic, environmental and socio-cultural resources. Communities must consider these needs not only in the short term, but also in the long term". Hence, the possibilities and potentials for both oases can be investigated through the following aspects: (2)

3.1. Environment:

3.1.1. Al Ain

It has to be noted that most of the developments in the UAE are theoretically controlled by environmental legislation, involving separate laws, such as Environmental Impact, Environmental and Sustainable Development, and Environmental Monitoring and Plans but the implementation gap between theoretically and practicality could be witnessed in many aspects (3). For instance, in the UAE, water and electricity consumption are increasing dramatically, on average by 25% per year. The rate of consumption increase may be due to increases in population, agriculture, industry, climatic conditions and also the nature of gardens, parks and road landscaping. The water consumption of Al Ain in 1989 was 63 million cubic meters per year, with 40 million cubic meters generated from groundwater (65%) and 23 million cubic meters (35%) supplied by Abu Dhabi desalination plants. On the other hand, the solid waste issue is becoming one of the most critical one in Al-Ain City which considered a governmental and public activity. Urban development has inevitably created major demands in terms of waste disposal in the UAE and substantial investment is being made to ensure that the environment is protected (4).

Furthermore, Al Ain faces more of environmental concerns such as:

- During the last thirty years, the center has seen an increase in shopping malls and the number of cars has also increased, thereby, traffic congestion and limiting parking areas are direct consequences. To alleviate the situation, a dispersion policy "Decentralization" of shopping malls (e.g. Al Jimi mall) and governmental departments (e.g. Civic Center) from the city center is adopted. In addition to other measures such as tunnels and fly overs
- Movement of sand dunes: Desertification creep is one of the problems that threaten roads, residential areas, and agricultural farms. Although green belts and fences have been constructed to limit sand movement, but still the problem arises from time to time depending on wind speed and direction.

3.1.2. Siwa

Siwa is the westernmost of five major oases (Kharga, Dakhla, Frafra, Bahariah and Siwa), close to the Libyan border and over 500 kms from The Nile Valley. It is closed basin which occupies part of a long trough running approximately parallel to the Mediterranean coast at a distance of 300 kms. The depression has a length of 75 kms and breadth varying from 5 to 20 kms. There are the several salt lakes, that diminish in size during the summer. In the winter all the area around them becomes marsh impossible to travel. The large part of the floor of the depression is covered by „sabakha” (mixture of sand and salt). The problem of Siwa is too much water and not enough drainage. The average annual rainfall amounts 11 mm, and the daily temperature of July amounts 28.8°C (max. 38,9°C). The floor of depression averages 17 metres below sea level.

3.2. Socio-cultural structures

3.2.1. Al Ain

Until 1966, the population of Al-Ain was less than 15,000; most of them lived in small settlements around the oases. In 1976 it has established itself as Abu Dhabi's cultural center with the first university in the UAE. The 1995 population census for Al Ain is about 318,525 and it is expected that the population will reach 523,970 by the year 2010 (5) and the city stretched to nearly 500 square kilometers, and the expatriate residents make up a majority of the population. Al-Ain municipality adapted certain policies to ensure: horizontal expansion, low density and low rise.

Currently, the ratio of citizens to non-citizens is around 20% to 80%, respectively. During the early 1980s and 1990s, the country had a high demand for workers for construction and other types of jobs (pulling factors), but as most of the big infrastructure projects are to be completed (e.g., roads, schools, hospitals, houses) and new regulations governing foreign working force have been put into place (pushing factors), it is expected that the average growth rate of the population will decrease sharply.

3.2.2. Siwa

Siwa-town, in former times „ash-shali”, in which live majority of the inhabitants, is a capital. In addition there are a few villages scattered through the depression, each having a small population. The Siwa oasis has been populated at least since the Ancient Empire, but the origin of these former inhabitants is unknown. They must have been felahin, some Berber clans, some Beduin families from Libya.

An examination of the table 1 reveals an increase in the population of the Oasis between 1882 and 1960 about 70% (30% between 1947-1960). While, in the same period the population of whole Egypt has increased four times (280%). Until the end of 1950's. the oasis were areas of migration. Poor families decided to leave the oasis to search for work in the towns of the Nile Valley or abroad. This has increased after the development of communication means were modernized through railway lines and the introduction of car transport into the Western Desert. The emigrants, being entirely males, caused a great disproportion in the distribution of sex in the oases.

year	1882	1897	1907	1917	1927	1937	1947	1960	1966	1976	1986
population	3346	5200	3884	3267	3267	3795	4044	3766	5169	7200	8000

Table1 : The trend of the population in oases between 1882-1986 Source: According to Censuses

Social life of the oasis dwellers is a communal unit formed of several family groups which are generally closely attached to one another. Families and sub-families of one kinship are always considered as a single group. In an oasis village there may be as many as 10 family group each consist of about 100 to 200 persons. Each group has a sheikh, generally an elderly man who act as a chief and who represents them in the village council. He is renowned for his efficiency in settling the disputes. The oasis dwellers accepted the Arab rule and adopted Islam without any bloodshed and the Government orders were carried out by the Chief Sheikh is known as the Omda, elected by the villagers or appointed by the government. In all the oases except Siwa, the system is idencical with that applied in the villages of the Nile Valley. In Siwa the village council couldn't be reconciled to any system and till the early years of the 19 th Century was enjoyed home rule untill it was force by Egyptian government

Siwa is one of the few Egyptian oasis communities that have managed to retain most of its traditional characteristics. This was partially due to the region's isolation, which was broken only recently by the construction of asphalt roads connecting Siwa and Qara to Marsa Matruh, some 300 km away. While four of the oases have much in common Siwa is different. Its outlook, the architecture of the houses, the clothes and features of its inhabitants, their dialect, their attitude towards strangers and their way of life inside and outside their houses all remind that it is no longer the Nile Valley. Siwans are generally a conservative people. They are a proud people and it is obvious that they are also proud of their language. There is no written language. It survives by being padssed down through generations-through women, who teach it to their children and so on. They were very restricted in security. Nobody was allowed to build a new house outside a strong girdle wall, which for purpose of defence, had only one entrance. The heads of the families held their daily meetings near it. The walls of the houses were built with karshif (the mud taken from salt-impregnated soil) after drying, it become almost like cement. Siwa was known as a important stations for caravans and market for the negro lave trade.

3.3. Economy

3.3.1. AlAin

As it belongs to the emirate of Abu Dhabi; the major income of AlAin is oil. There has been a sharp increase as a result of revenues from oil. The average annual income of citizens in Al Ain is between \$36 000 and \$60 000. Another important element of its economy is the university which has promoted many other activities especially commercial and tourist activities.

Commercial aspects were reflected in the construction of mall centers in Al-Ain. For many years people of Al-Ain used to do their shopping either in Dubai or Abu Dhabi. After the establishment of Al-Ain Mall and Jimi Mall the situation remarkably changed.

3.3..2. Siwa

Siwa is a rich environment. It has one million feddans that can be cultivated by more than 1,000 water springs of ground water. However, drainage water in Siwa represents one of the main obstacles to sustainable agriculture development. Accordingly, a project is underway to rework Siwa's drainage system and cut down on wasted water.

Date cultivation has been a major activity in the oasis. The palm groves cover large areas of the oasis. The traditional economy relies mainly on flood-irrigated agriculture in household gardens, which support an abundant production of dates, olives and alfalfa when properly managed. Alfalfa is used to feed small livestock. The cash economy depends on the sale of dates and olives to external buyers.

The date trade is one the most important of any in the oases. They were packed in bags braided from the date leaves which constitute a load for camel. Among the products exported from the oases, olives come next in importance to dates. Siwa was renowned for cultivation of olives and production of olive oil. The economic value of olives lies in their oil whose extraction of oil by stone press.

The oasis, renowned for its healing water, peaceful isolation and archeological sites, may soon be the center of agricultural, industrial and tourist development. It has to be noted that, within these notions for development many new initiatives did not adequately consider the impact on the environment. Land was rapidly purchased by outside investors, the social fabric of the region started to change and traditional methods of sustainable use of resources were no longer practised.

4. Concluding remarks: Sustainability and prospects for future developments

To conclude our experience from both cities we need to address some questions: Should we “build” cities? Is modern urbanism a universal (i.e. unavoidable and necessary) phenomenon, that legitimately replace and exclude traditional solutions or, it should allow the infinite variety of human talent to build harmonious and pleasing environments. Is there a real model that would turn such societies -- with the right ideas and people, and sometimes very modest means -- to become places of beauty and human thriving.

Urban structure obeys scientific rules that are dependant of region. There is a secondary dependence on local tradition, climate, resources, and materials, but that has long been erased with the uniform modernist approach. In current planning practice two separate and artificial images of urban form are created: traditional, classical and historic centers on the one hand; and vital, dynamic, growing urban fabric on the other.

Despite an apparent resemblance 30 years ago, a remarkable difference is equally apparent today; On the one hand, an enormous – ‘planned’ - urbanization process took place to “build” AlAin creating a number of social, cultural and environmental (positive/negative) outcomes, on the other hand, official neglect and scattered spontaneous private initiatives has created a rather chaotic pattern of development in Siwa. Yet, while AlAin needs to seriously address its future sustainability in terms of its urban development, Siwa has to face the need for development while maintaining its environmental, social and cultural qualities.

Hence, we finally conclude that the global destruction of cities and countryside, of human cultures and of nature itself, can only be reversed by a global philosophical, technical, cultural, moral and economic project: by an ecological project.

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