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**MONITORING HERITAGE & URBAN CHANGE  
ALONG THE RED SEA  
SUEZ & QUSEIR AS A CASE STUDY**



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## **THESIS ABSTRACT**

We are on the verge of fast-paced urban development. It is important to understand that urban and architectural heritage may bear tangible processes of borrowing and adaptation. Port cities and their historic centres are the world's most important settlement through history. They are highly rich with resources and potentials.

This research is focused on the port cities along the Red Sea coast, whose future is currently being discussed in relation to national projects such as the New Suez Canal Project and the Golden Triangle project. While cultural exchange across the Mediterranean has been the subject of much scholarly work, the Red Sea as an area of cross-cultural research has been largely overlooked. A timely study of these port cities may help provide Egyptian planning authorities with the opportunity to promote a better future. Along this line of thinking, this research aims at understanding the specific urban identity of these port cities in the broader context of cultural exchange between Egypt and the trade network across the Red Sea and beyond.

It is important to achieve an understanding of urban and architecture heritage of Red Sea port cities to support further conservation and development strategies. Red Sea coastal cities are historical transit points of long-distance trade. This research is based on urban and architectural heritage which may bear tangible evidence of processes of borrowing and adaptation between Egypt and Saudi Arabia, Yemen, etc.

Architecture is not just about technology. Architecture and the urban context are physically shaped by traditional cultures which are ingrained in the design and construction of old cities. Such urban patterns and architecture rely on a rich and unique quality, rhythm, and cultural affinity, as well as on practical considerations such as behavioural patterns, function, topography and local building material. All these factors combine in shaping the city's structure and morphology.

The research aims to set a methodology of mapping to study the Red Sea port cities' heritage, urban change and transformation. The final product will be an "academic record" and an "urban atlas" of heritage in the Red Sea's oldest port cities, Quseir and Suez, which have played a crucial role in the trade and pilgrimage routes from Asia through Africa to Europe.

## INTRODUCTION

As an architect, it my role to connect the heritage of civilizations with historical, cultural, economic, and architectural factors. Architecture is the human container which is comprised of all aspects of heritage, as whoever studies architecture at the same time studies history, culture, and economics. In that light, it is notable that the Red Sea basin and its effect on the composition of Egyptian culture and civilization has not held the same importance in scholarly work as the Mediterranean Basin. Most of the work about culture and architecture focuses on the fact that Egypt looks to the north. If there is a look to the east, then it is the north-east and not the whole east, nor the south-east.

An example of this situation is that one of the most important books focusing of the future of culture in Egypt, written by Dr Taha Hussien, the dean of Arabic literature, *The Future of Culture in Egypt* مستقبل الثقافة في مصر, illustrates how Egypt is oriented and centralized towards the north, i.e. towards Europe. In reality, however, the past, present, and future of Egypt is related to its unique geographical location as an overland route between the oldest of the world's continents: Africa, Asia, and Europe. The importance of the south, east or west of Egypt is no less important than the north from the geopolitical point of view.

The Red Sea is the bridge between the ancient Egyptian civilization, the ancient Land of Punt, and the Horn of Africa. It also had an impact and influence on the religion and culture of Egypt, the Arabian Peninsula, Syria and Iraq. All of this highlights the importance of the Red Sea to Egypt, which is shown further by the fact that trading routes coming from the south, east and west, along with pilgrimage routes, were oriented towards the Red Sea, where flourishing cities like Quseir and Suez were established, the former in the north and the latter in the south. This is the subject of this thesis, which joins two branches in architecture: firstly heritage, and secondly the urban environment, including its geographical importance, its cultural meanings, and its symbols.

The port cities along the Red Sea have acted as milestones and transit points in international trading routes and, later on, pilgrimage routes, as mentioned above. This formed “cosmopolitan societies and cities” in Egypt in terms of societies, which includes communities from North African countries such as Morocco, Tunisia, Algeria, and also from the Arabian Peninsula, as well as the European communities such as the Italian, Greek and French communities. Architecture is the physical expression of culture, and these different cultures are therefore reflected in the architecture and urban context of the Red Sea port cities, especially the oldest two cities, Quseir and Suez.

From the books and reference materials which were the base of this research, Claudine Piaton's book *Suez: Histoire et architecture*, Goda Radi's book *History of Suez City* تاريخ مدينة السويس, Charles le Quesne's book *Quseir: An Ottoman and Napoleonic Fortress in the Red Sea Coast of Egypt*, Ashraf Salama's report *Environmentally Sustainable Tourism (EST) Project, Proposed Action Plan for Quseir – USAID/ Egypt* were particularly useful. John Copper's book *The Medieval Nile: Route, Navigation, and Landscape in Islamic Egypt* was useful for studying the trading and pilgrimage routes. For the importance of Egypt's geography, Gamal Hamdan's *The Personality of Egypt: A Study on the Genius of Place* دراسة في عبقرية المكان was valuable.

One of the difficulties faced in writing this thesis was that there are not many references which discuss architecture and the urban context in the Red Sea, unlike work on the Mediterranean cities. Another challenge was the required fieldwork and the gathering of information. For example, the architects responsible for constructing the residences and buildings in Quseir are usually unknown, with most of the building process done by the local residents of Quseir. The historical period of the building is known, but the exact date in terms of the day, month, and year of construction is not. In the case of Quseir and Suez, there is a shortage in the drawings of the plans and facades of the buildings; therefore it is recommended that there be a professional team of architects afterwards to do a detailed survey.

The thesis is in three parts, totalling five chapters. Part 1 introduces the hypothesis and approach of the thesis, as well as exploring the challenges and changes facing heritage in Egypt. It also emphasizes the sequence and structure of the thesis. It also debates a conservation movement and the concept of heritage, including the cultural heritage administrative and legislative system in Egypt.

Part 2 identifies the Red Sea region and discusses the major urban transformation phases of the Red Sea's oldest port cities over time, and their urban evolution process. It emphasizes the relationship between the Nile ports and the Red Sea ports, how Egypt was an overland route connecting three continents (the Silk Road including all the horizontal and vertical connections: the Darb Al-Arbaeen route, the Qus-to-Quseir route, versus the Fustat-Bulaq-to-Suez route). Suez and Quseir's major transformation phases are also discussed.

In addition, there is an analysis of the chosen Egyptian case studies and observations from the fieldwork, an atlas of the present heritage is presented in detail, and there is a discussion about the influence of opening a new branch of Suez Canal on the future development perspectives of the Red Sea region. There is also a demonstration and criticism of the 2030 national sustainable development plan, particularly regarding the Red Sea governorate.

Part 3 discusses the importance of mapping as an essential tool in view of urban transformation and heritage. There is then an analysis (chronology/mapping/interviews) of the case study, which explores the urban character and urban morphology components, how geography and society affect urban morphology, and how heritage affects the urban character. It also demonstrates the relation between port-scape and city transformation, and the influence of cities in the Red Sea basin on each other.

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**CHAPTER ONE:**  
**CHALLENGES and CHANGES**

## **1. EGYPT and HERITAGE**

Egypt's significant location has given it a great privilege; it has created a cross-cultural land which has seen many civilizations arise or pass through. Egypt is a mosaic of civilizations, and is well known as the country with seven thousand years of civilization. Its land has been the overland route between the most ancient three continents, Europe, Africa and Asia, for centuries. As Egyptians, our cultural heritage is the layers of interaction between history, demography, and the country's unique geographical location, which includes the Nile, the life artery of Egypt, and two strategic seas (the Mediterranean and the Red Sea). Although it is a multicultural land, UNESCO lists only seven Egyptian cultural heritage sites, with 33 sites on the tentative list ([UNESCO, EGYPT: Properties inscribed on the World Heritage List, 2019](#)). For many years, the Mediterranean port cities have been the subject of many scholarly works, unlike the Red Sea port cities, which have been disregarded for decades, despite their pioneering role in turning Egypt into an overland route between the two continents. Even before the opening of the Suez Canal, Egypt played an important role in the world's trading system and in industrialization. Egyptian port cities, especially the old Red Sea cities, played a crucial role in the world's oldest economic system, the Silk Road. The importance of these cities lay in the fact, they had been transition points through trade (gold and other commodities) and pilgrimage, connecting Europe to Asia through an overland route through Egypt.

In his book, *The Personality of Egypt: A Study on the Genius of Place*, the scholar Gamal Hamdan illustrates how Egypt and its provinces each has a character of its own. He says it is not easy to intensify the regional character of any location in a short equation, especially if it is a rich regional character like that of Egypt. Some say that Egypt is "the land of paradox" or "the land of anomalies;" their analysis is based on the fact there is a drastic segregation in social standards or a drastic difference between the Nile Valley and the desert surrounding it. Such a view of Egypt is a shallow, partial, and naive interpretation of a complex theory. What we see instead is a rare state of complex properties and features existing in regions and cities which together make up Egypt's unique character. The secret behind the existence and vitality of Egypt over different eras is that it is geographically and historically applies the formula of Hegel ([Hamdan, 1984](#)), combining the "antithesis" and "synthesis" in a "stable genuine formula." Whenever we go in depth in analysing the character of Egypt, it is proven that it is an "extraordinary geography" that will not be duplicated again in any corner of the world.

In one word, the character of Egypt is its "uniqueness," and each scholar or traveller expresses it differently – special natural features, extraordinary topography, unique urban fabric, etc. Also, according to Hamdan, the city has different classifications, but they can be grouped into, firstly, the city's functions, which can be

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“defensive, commercial, political, industrial, related to health and leisure, cultural and religious,” and secondly, by the city’s “distance, size and location.” Thirdly, the city can be defined by its regionality, in terms of the process of the city’s evolution from an independent historical region and civilization with a special character until it became part of a state in the modern era (Hamdan, 1984).

According to Gamal Hamdan in *The Personality of Egypt: A Study on the Genius of Place*, each location is characterized by a certain architecture, and by its urban, natural, economic, and social features. Based on this perspective, scholars should establish a different strategy of analysis of the urban fabric and context of each region. To begin the study of urban heritage territories, we should define first the concept of the “region,” questioning what kind of region is being looked at. There are several definitions of the term, and this thesis deals with two of them – the geographical and the administrative. A region in its geographical definition is concerned with location itself, including its natural features, topography and sometimes its history in relation to its geographical importance. Looking at the administrative definition of a region, the study will outline the Egyptian administrative provinces and highlight the “redefinition of boundaries” proposal suggested recently by the Egyptian government. The characteristics of urban and architectural contexts of case studies will be defined. Of course, heritage always includes the specific characteristics of built environments. Heritage within these cities is required to cope with the changing needs of their inhabitants, in order for them to flourish and to be properly sustained. The real challenge is not how to preserve them, but how to establish a living context for them. This is an ongoing and evolving cultural tradition which leads from the past into the future, while respecting the most significant characteristics of a given urban fabric (Binca & Jodidio, 2004).

Unfortunately, the notion that heritage, the milestone of national identity, should be considered an asset rather than a drain on resources remains a new perspective in the Egyptian context. Not a small percentage of decision-makers and developers consider heritage to be an obstacle to the city development process. Even after the global movement and momentum towards conserving heritage, most of the ongoing development plans for cities are at a remove from the nature of those cities, particularly the ones with heritage territories.

The question is, why does the government narrow Egyptian heritage to pharaonic representation? It is well known that the historic and archaeological concern with ancient Egyptian (pharaonic) antiquities became intense and strong in the nineteenth century with the arrival of the colonial Europeans to Egypt. The French campaign and its scholars researched antiquities and wrote the influential book *Description de l'Égypte*, which is considered the first scientific reference work about different ancient historical eras. As a result, European foreign missions for studying antiquities started to flow into Egypt, to explore its ancient heritage.

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The new discipline of Egyptology flourished in the hands of European foreign scholars, among them Italians, Germans, Britons, and Frenchmen. There were also Egyptians who had the same passion for the topic. From here, the governmental interest in Egypt continued along the same path. European scholars did not show a great interest in the rest of Egyptian heritage, preferring to concentrate on Ancient Egypt.

Ancient Egyptian antiquities are the main thread, as it was a civilization rich with material, tangible achievements such as statues, obelisks, and temples. The material used to build these antiquities is also relevant: stone of various kinds, such as granite and limestone, was more widely used than in the Christian and Islamic eras of Egypt's history, which also did not have the same practice of creating religious statues, associating them with idolatry. In the modern era, however, especially in the second half of the twentieth century, the interest in Egypt's Coptic Christian heritage and Islamic heritage increased, and Coptic and Islamic museums were established. In addition, there is another aspect that has not yet received proper consideration: intangible heritage such as folklore, customs and traditions, popular sayings, legends, and many other elements – although some scholars are currently working on these intangible heritage aspects. In conclusion, the strong concern with ancient Egyptian antiquities has meant that intensive research has been done on this topic, and a scientific field, Egyptology, which is concerned with it, was established.

Another question: can tourism be the only tool to develop heritage used by the government? Tourism is basically used as an approach to boost the economy, based on a concept of mono-function, but it is understood that the development process should be a multifunctional, integrated process. For tourism to be a successful approach, it should be considered a complementary activity, and not an activity on which the local economy and political depends. Most of the historic quarters turned into museums are far removed from local development. A solely touristic process cannot support cultural heritage, as it develops into a “museum phenomenon,” which, over long periods, has proven to be inefficient for urban development. A city's cultural heritage presented in its urban fabric should be preserved and given the chance to be a vital part of the city's context and not just a museum.

As Serageldin, Brown, and Shluger discuss in their book *Historic Cities*, rapid and recent processes of urbanization can lead to the destruction of cultural heritage. There are two forms of urbanization that have taken place in Egypt: the formal, legal process, and the informal development of cities. The duality of these two approaches can be observed not only in Egypt, but also in other developing countries which feature important historic centres. These historic centres are found to be mixed at their boundaries with the architecture of the modern city, where the less well-off sections of society can be found, living between formality and informality. In the modern era, developing countries went on an intensive urbanization process

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with rapid industrialization. In these countries, population growth also exceeded the normal rates. In many neighbourhoods located in the historic centres of cities, and in ports, we can find a mix, with skyscrapers, administrative buildings, and modern architecture threatening the historic fabric, and buildings needing to be demolished (Serageldin, Shluger, & Brown, 2000).

The highly distinctive features of historic Egyptian cities are being eroded and, instead, new settlements are being established by the urban development process. One example is the Maspero Triangle district in Cairo (see Figures 1 and 2) on the Nile. The district is in downtown Cairo and is characterized by its dense urban fabric, old buildings and informal settlements (Ashaboglu, 2015). This quarter had some buildings that dated back a hundred years or more, and based on the national definition<sup>1</sup> and criteria of heritage, these buildings should have been added to the national heritage list. Instead, the government considered the whole quarter to be slums and bulldozed it (see Figure 3) in order to promote a new development project with new investments and high-rise buildings (see Figure 1).

Another heritage artefact had been demolished recently is the Wikalet<sup>2</sup> Al-Anbareen building (see Figure 4) in Cairo's Al-Muezz Street. It was constructed by the Mamluks in Egypt to host traders, with living quarters on the upper floors and places to sell their commodities on the ground floor. The excuse of the government was that it wasn't listed on the heritage list, although this historic building dated from the Mamluk and Ottoman era. Instead of conserving it, the Egyptian authorities, including the Ministry of Antiquities, approved its demolition. As was demonstrated above, conservation of the Egyptian city including territories and buildings, remains a relatively alien concept to the Egyptian authorities, and therefore is not one of their priorities. Instead, huge investments and development plans are sweeping the Egyptian cities as part of the country's 2030 sustainable development plan. This has an impact on the port cities as well.

In some areas of Egypt, you may find the local community believes that "local" elements are of lower worth and value. The local authorities have the same perspective: they are not keen on local urban heritage, nor on spreading awareness among the more humble in society about how valuable this heritage is. They consider such designs "old" or "stale," occupying land with high economic value. Their perspective is that such old buildings and territories can be replaced by some commercial, administrative, or high-rise residential buildings. In addition, there are no clear regulations to control the spread of new settlements in heritage contexts. As a result, one finds that the built environments neighbouring most heritage territories feel alien.

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<sup>1</sup>The Egyptian national definition of heritage specifies that any building that is a hundred years old or more is considered cultural heritage. It also says that any building with aesthetic, historical, spiritual or symbolic value can be considered heritage, even if it is less than a hundred years old.

<sup>2</sup> Wikalah is a host house for merchants, where it is also used for storing and selling their commodities.

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Sometimes they expand to form informal settlements or slums. However, recently in Egypt there has been a rising sense of social awareness among young people, initiated first by several experts who are professors and specialists in heritage, such as Dalila el Kerdany, Sohier Hawas, Galila El-Kady, and Mona Zakaria, among others.

This wave of awareness could be the base of a “bottom-up” process of reviving Egypt’s heritage; it is claiming Egyptians’ national rights in conserving our heritage and working on presenting alternatives to develop heritage, rather than demolishing it. In order to realize this, there must be a tool in the hands of the society to map our heritage; a record which documents our national identity. There should be much scholarly work on creating a national registry – a national record of all heritage sites, not only antiquities or monuments, but also historic districts, that exist in Egypt.

## **2. FACING NEW DEVELOPMENT CHANGES**

At the local level, most scholars who investigate Egyptian cities focus their efforts on major cities in the northern part of Egypt, even when it comes to the Red Sea port cities. Many types of research have been done on the Suez Canal port cities, such as Ismailia and Port Said, but much less has been done on southern port cities, starting with Suez and moving south to Marsa Alam. The influence of the Suez Canal created the abundance of Egyptian southern cities, not only along the Red Sea coast, but also along the Nile. Monitoring the transformation that happened in these cities is of major significance, not only due to their role as transit points and heritage milestones, but also for the current national development projects which have been initiated along the Red Sea’s western coast.

According to announcements by the Egyptian government in 2014, there are three different national projects (see Figure 5) which will be implemented in the Red Sea region. One is the Suez Canal Axis of Development, the second is the Golden Triangle project between Qena, Safaga and Quseir, and the third is the project to divide governorates that currently are longer vertically on the map into new governorates that are longest horizontally, including the Nile at one end and the Red Sea at the other. Despite this new vision, the development plan of the Egyptian authorities does not refer to the historic quarters or the old ports that exist, especially in Quseir, as if they are of no importance.

The redefinition of Egyptian governorates (see Figure 6) was part of the 2014 presidential election program. The new division reduce the Red Sea by 92 percent of its total area, making it 8,840 square kilometres instead of the existing 116,957 square kilometres. The Red Sea governorate does not include Suez city,

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which is located in Suez governorate, on the Gulf of Suez in the Red Sea. The aim behind redefining the boundaries of Egyptian governorates is to shift geographical areas from old governorates into new ones. This will lead to a shift of local residents from these areas, which will cause gentrification.<sup>3</sup> In its decision, the government has neglected the nature of Egyptian society, its culture, and its geography.

The first question we face in regard to development changes is: is the society part of the decision-making process, or is it being neglected? A large percentage of Red Sea society, particularly in Quseir, reject the government's proposal for dividing the Red Sea governorate. Based on the interviews conducted for this research, one of the main reasons behind their rejection is the locals' fear of losing their heritage, which defines their identity. In their opinion, Red Sea society inherited this heritage and passed it on from one generation to another. Re-drawing the provinces, from their perspective, will lead to the division of their heritage among societies of other provinces, who are not aware of the great value and asset of the Red Sea area's natural and built heritage.

The government is neglecting this rejection on the part of Red Sea residents and Sinai tribes. In 2016, The Red Sea's parliamentary representatives have expressed more than once their rejection of the "horizontal division" concept (see Figure 7), and as a result, they announced their resignation from the parliament, should the decision be implemented, expressing the anger of the Red Sea cities' residents and their fear of losing the Red Sea's cultural identity. They believe that the merging of some Red Sea cities with southern governorates will affect the characteristics of heritage and the area's natural assets.

Rather than Quseir society, a notable change in culture and behaviour of local residents may have occurred in some of the Red Sea cities. Some individuals who live in historic territories with rich urban heritage look down on traditional architecture and urban morphology. This stands in contrast to the heritage conservation movement which started in the sixties, and meant that nations across the globe now value and take pride in what is local.

The second question we face in regard to the development changes is, could the "Golden Triangle" project lead to the destruction of heritage? In this development project, as will be seen in Chapter 3, there are contradictory activities set to be implemented in the same area, such as having both tourism and industrial zones. The commercial/touristic/industrial complex which will be implemented in the triangle between Qena, Safaga and Quseir will place the mineral industry zone near to the Nile. In addition, what can be seen through the study is the neglect of heritage. It should be considered a milestone and a catalyst of

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<sup>3</sup> "Gentrification" in the Encyclopaedia Britannica is defined as the process of renewal and rebuilding accompanying the influx of middle-class or affluent people into deteriorating areas that often displaces earlier, usually poorer, residents.



*CHAPTER ONE: CHALLENGES and CHANGES*

development, not vice versa. Instead, the existing heritage is considered only as something for tourists, and the study does not include any detailed plans of how the heritage will be dealt with, or how it will be conserved, especially the urban heritage found in Quseir. With the examples of the urban development process seen at the beginning, such heritage quarters will definitely be demolished in time. This is especially true given that there are no proper, formal mapping and documentation efforts, nor proper legislation to protect the existing heritage.

A critical view of the governmental development approach in Egypt's Vision 2030, the country's sustainable development plan, shows that it is mainly based on economic study and analysis, which makes it ineffective to be an integrated and sustainable approach for urban development.

In conclusion, what distinguishes Egyptian cities are the historic quarters which are the living representation of the precious cultural heritage of our country. These quarters are the milestones of the past on which the city was built and developed over centuries, until they reached the state they are in today. The demolition of heritage means the loss of the living proof of significant civilizations and inherited values transferred from generation to generation, in their tangible form. For example, the wars which affected Suez city in 1956, 1967, and 1973, saw deliberate targeting of buildings, neighbourhoods, and districts, not just for their physical representation but for their cultural and social values and the historical representation which shapes national identity. The existing architecture and urban heritage is of great importance for our nation. UNESCO's manual for historic districts stresses that there is no "miracle solution," even if some of the challenges and problems faced in historic quarters are similar. Each quarter in each city has its own geographical, social, economic, and environmental features. Accordingly, strategies and approaches should be defined based on local circumstances. Each historic quarter should have the ability to develop its own projects based on its social, economic, and environmental resources.

### **3. RESEARCH QUESTIONS**

The main question which formulates the research is: how mapping and formal documentation initiatives show views of urban heritage and transformation? To answer this question it is vital to address the other two sub-questions, which are: how does heritage represent the national identity? and how specifically different are the Red Sea cities in comparison with other Egyptian cities?

#### **4. RESEARCH OBJECTIVES**

As a researcher, my role is to find a solution for society to express their needs and communicate with decision-makers. This thesis can be a tool in the hands of social movements and decision-makers to develop and conserve heritage, especially in the Red Sea region. Given the risk of losing the existing heritage, it is crucial to conduct proper mapping and documentation of historical cities and monitoring of the cities' transformations before implementing any conservation or development policy.

As mentioned above, not a small percentage of decision-makers and developers conceive heritage as an obstacle to the development process of cities. As a result, most of the time the proposed or ongoing development plan is divorced from the cities' nature, particularly those with heritage territories. The 2030 sustainable development plan that has been under implementation by the Egyptian government since 2014 initiates several national projects, especially in the Red Sea region. These projects include the new branch of the Suez Canal, the Golden Triangle project between Quseir, Safaga and Qena, and, last but not least, the redivision of the Red Sea governorate into 6-7 horizontal governorates. This provokes a debate about the destiny of the heritage existing in the Red Sea port cities. It is also important to take into consideration the vast urbanization happening in the Egyptian cities, one of the negative impacts of which is, unfortunately, heritage demolition. There are several variables which the research hypothesis discusses:

- There is a gap between urban conservation moves and the plans for development. In order to put in place a new method of conservation intervention, the definition of significant heritage and the mapping of the transformation of the built environment of the Red Sea port cities is needed.
- Mapping and atlases trace and reveal the reasons behind the transformation of built environments. They can be a tool to monitor city formation and document the urban character (and architecture), in order to define the place identity.

This research aims to explore the place identity through defining the urban and architectural character of the heritage of the Red Sea. Through the process of defining the significant heritage in the Red Sea cities, there is a focus on monitoring and documenting the built environment transformation that has taken place in these cities over different phases of time. Defining significant heritage and place identity in the Red Sea will help the efficient implementation of different conservation approaches by society and decision-makers. The final product will be an "Academic Record of Heritage" and an "Urban Atlas" of the Red Sea, in a trial to revive the traditional urban heritage-architecture pattern, building techniques, and old city cores.

## 5. METHODOLOGY

The focus of the study is to emphasize the importance of the Red Sea port cities, considering them to be heritage milestones, vital gateways to Egypt’s eastern borders, and connection points between the Red Sea and the Nile, as well as the three Old World continents. Most of these cities were military cities, as ports were established mainly for defence purposes. This research addresses urban conservation and transformation processes in the Red Sea region. Historic maps were used in the past to provide a spatial reading of the city. This research adopts an analytical approach which looks at formation of the roots of the city’s morphological pattern and urban character. It will reveal the origins of heritage and its significance. In order to extract the character of each city, based on Hamdan’s and Lynch’s theoretical articulation, a multidisciplinary approach to study and analysis is needed. According, the research is based on case studies of two of the oldest Red Sea port cities.

The following are the analysis techniques used for the fieldwork and data gathering carried out by the researcher:

<p><b>CHRONOLOGY</b></p>	<p>A sequence of vertical comparisons synchronized with major events through a certain time interval. It emphasizes major turning points/interventions which represent drivers of change.</p>
<p><b>MATRIXES</b></p>	<p>Organizing and structuring available data based on defined criteria, in order to conclude problems/potentials/limitations of case studies.</p>
<p><b>MAPPING</b></p>	<p><b>TO DOCUMENT:</b></p> <p>Collecting data and materials to compose a research dossier which includes official documents, cartography, photos, interviews, press announcements, and questionnaires. Extracting data and material from available literature review including books, government reports, research papers, and publications.</p>

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	<p>TO MAP:</p> <p>To define the Red Sea region, medium and small port cities. Stating the fact that most of Red Sea’s present cities, especially the more southern ones, aren’t complete cities with old cores. To observe the emergence of the two oldest port cities in the Red Sea region and to explain the reason behind choosing them as case studies.</p> <p>To conceptualize the dynamics of the port-scape and set a timeline for city formation/evolution. To map is to be able to analyse or visualize a space and its origins. Visualization and analysis of the relation between port and city emergency, accumulation of heritage, initial functions and change in functions through time, morphology versus typology, and changes in morphology. Tracing the dynamics of the built environment controversy.</p>
<p>SOCIAL ANALYSIS</p>	<p>Based on interviews.</p>
<p>ECONOMIC ANALYSIS (LEGISLATION, DECISION TREE, ASSETS)</p>	<p>Demonstrating public policies and laws on the international and local level regarding cultural heritage protection. Stating the actors (institutes/individuals/organizations) in the public and private sector who are playing a role in the built environment, and the extent of their involvement. Who are the stakeholders? What kind of investments are made in these cities?</p>

The problem with the Red Sea cities is that they bear a different kind of heritage. Heritage is tangible on the level of urban infrastructure, considering Egypt as a geographical overland route of trading and pilgrimage. In addition, it is tangible in the urban fabric, which in some cases has been dramatically transformed. The case studies chosen from the Red Sea area are the oldest ports in this region; they emerged in the pharaonic era (and continued through the Graeco-Roman or Hellenistic, Platonic, and Christian eras, and then became booming after the Arab conquest era). The emergence of these cities is unlike the Suez Canal cities in the

north, starting with Ismailia, Port Said, and Port Fouad, which emerged after the opening of the Suez Canal in 1869.

There is a drastic difference between the criteria of heritage in the Quseir and Suez case studies. In the case of Suez, the transformation started with the Ottoman period and reached its peak in the nineteenth century, followed by a sequence of transformation phases (1956, 1967, 1973, and post-war reconstruction). The Suez Canal was a crucial turning point in the city's spatial planning and architectural character. On the other hand, Quseir had a peak of major transformation during the Mamluk and Ottoman periods, formulating the city core, which is still present today. The city did not see drastic transformation phases, except in the 1920s when an Italian colony of the phosphate industry was established. Comparing the case studies to each other, it is notable that Suez was exposed to more drastic changes than Quseir, and to the influence of having a direct connection with the capital, Cairo.

The research monitors the built environment's major transformation moments in the Red Sea port cities through different eras to the present. There is particular focus on the medieval period, followed by the eighteenth and nineteenth centuries of modernization and foreign occupation, then the liberation movement, through to the present. These periods represent the drastic transformation phases of the two cities, which can be monitored through changes apparent in the built environment. It looks at how a port-scape developed into a city core in the Red Sea region and conducts a serious investigation of how these cities were formed, being a transit point.

There are key references in the thesis such as Claudine Piaton, *Histoire et Architecture Suez*, Radi Gouda, *Suez: The City of History*, John Cooper, *The Medieval Nile – Route, Navigation and Landscape in Islamic Egypt*, and Gamal Hamdan, *The Personality of Egypt: The Study of the Genius of Place*.

The Red Sea port cities need to retain their vital role in developing the built environment and society, and to deal with heritage not just as a piece of antiquity, but rather as the beating heart of each city and the driving force behind the city's development.

## **6. THESIS STRUCTURE**

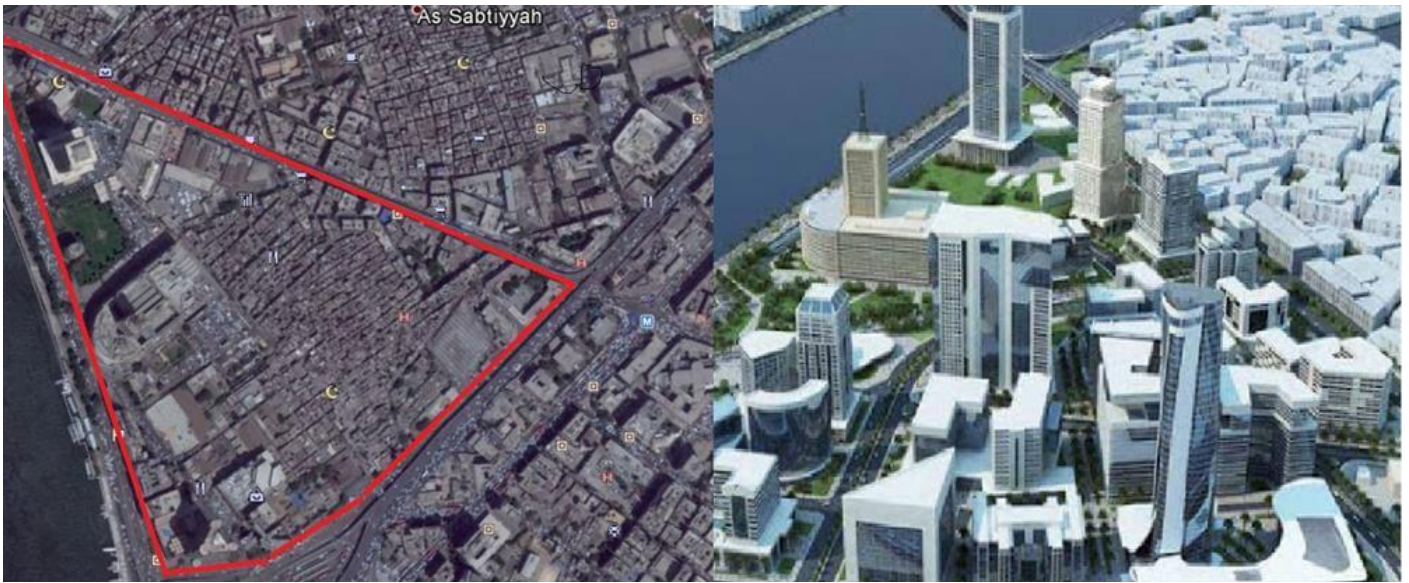
Part 1 introduces the hypothesis and approach of the thesis, and emphasizes the sequence and structure of the thesis. It also explores the challenges and changes facing heritage in Egypt and analyses the conservation movement and the concept of heritage, including looking at the cultural heritage administrative and legislative system in Egypt.

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Part 2 identifies the Red Sea region and discusses major urban transformation phases of the Red Sea's oldest port cities over time and their urban evolution process. It emphasizes the relationship between the Nile ports and the Red Sea ports, how Egypt was an overland route connecting three continents (via the Silk Road including all the horizontal and vertical connections: the Darb Al-Arbaeen route, Quss to Quseir route versus the Fustat-Bulaq to Suez route). Suez and Quseir's major transformation phases are discussed as well.

There is also a discussion of the chosen Egyptian case studies and observations from the fieldwork. An atlas of the current heritage is presented in detail, and there is a discussion about the influence of opening a new branch of Suez Canal on the future development perspectives of the Red Sea region. There is an examination and criticism of the 2030 national sustainable development plan, particularly regarding Red Sea governorate.

Part 3 discusses the importance of mapping as an essential tool for understanding urban transformation and heritage. The analysis (chronology/mapping/interviews) of the case study is presented. It explores the components of urban character and urban morphology, how geography and society affect the urban morphology, and how heritage affects the urban character, and it demonstrates the relationship between port-scape and city transformation.



**Figure (1):** Development proposal of Maspero triangle. Picture source: تقرير خطة تطوير ماسبيرو Report on Maspero development plan



**Figure (2):** Some of the old buildings that were in the Maspero Triangle. Picture source: [El Youm El Sabe' newspaper](#)

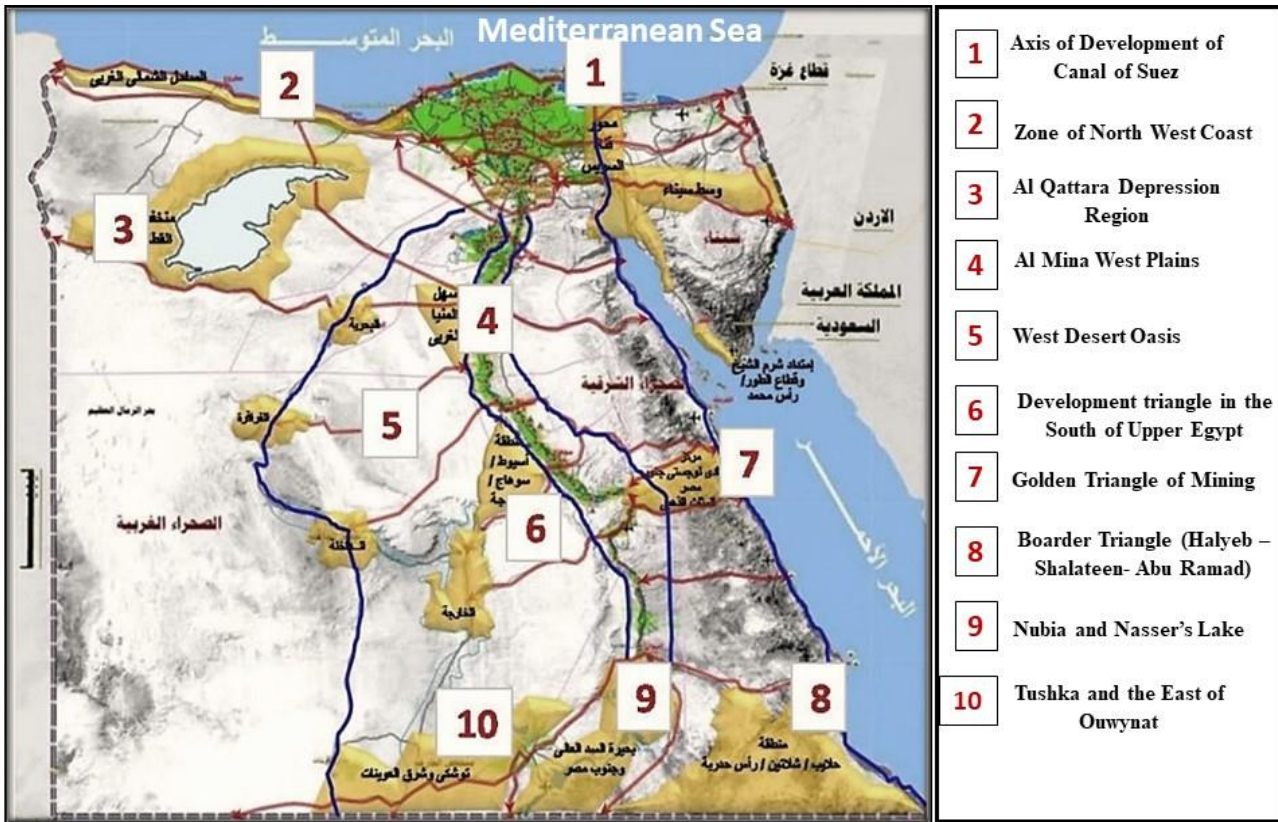


**Figure (3):** Maspero Triangle being bulldozed. Picture source: [Al Akhbar newspaper website](#)

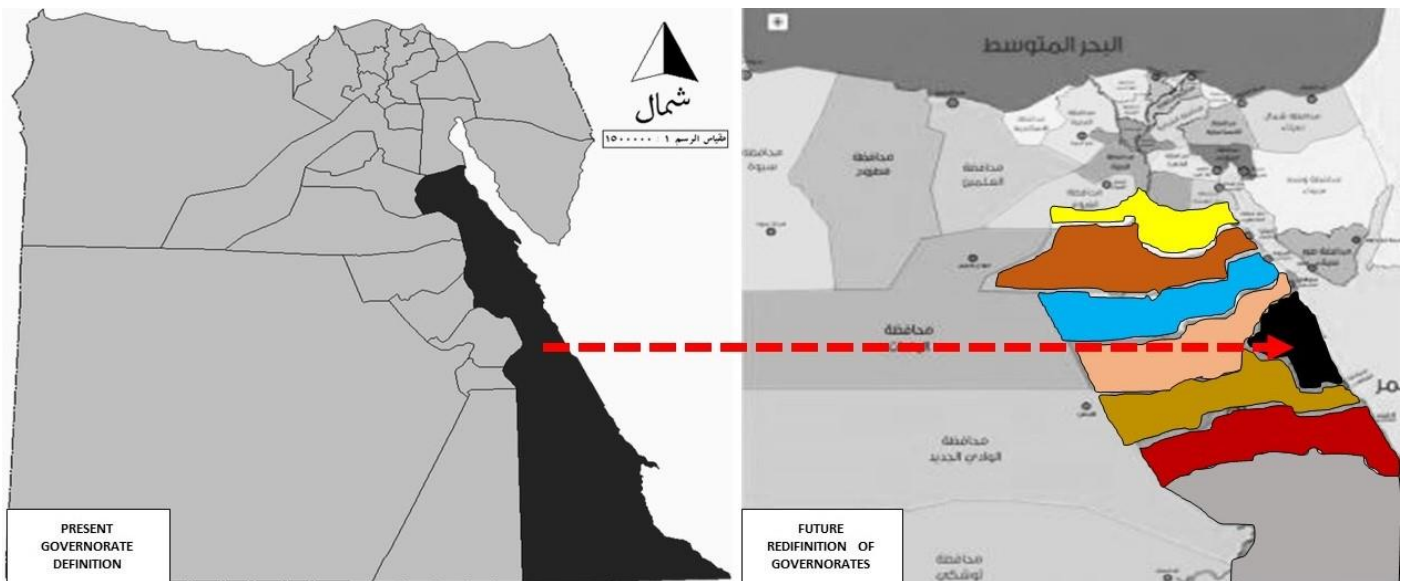


**Figure (4):** Wikalet Al Anbareen, located in the historic Al-Muezz Street, being demolished by the Egyptian authorities. Picture source: Al-Masry Al-Youm newspaper.





**Figure (5):** Map highlighting the new state projects which were launched in 2014. The two projects that are mainly in the Red Sea region are the New Suez Canal, the Suez Canal Axis Project, the Golden Triangle Project, and the re-drawing of governorate boundaries, Source: Ministry of Housing, Infrastrucure and Urban Communities, 2017 report.



**Figure (6):** The first map represents the current map of the governorates, with the Red Sea governorate marked in balack. The second map highlights in different colours the planned horizontal division of that governorate into seven new governorates.



**Figure (7):** News article with the title, in Arabic: “The Red Sea MPs threaten to resign from the parliament in the case of dividing the governorate.” Source: Sada El Balad newspaper.

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**CHAPTER TWO:**  
**HERITAGE and CONSERVATION MOVEMENT**

## 1. HERITAGE

Nezar Al Sayyad, in his book *Consuming Tradition, Manufacturing Heritage*, discusses heritage and heritage-related ideas as they differ from its institutionalized definition. He argues that nations in the present day are turning to and adopting preservation of heritage and are concerned with history as a form of self-identity. In the past ten years, there has been a strong change in the global state which demands a new comprehension of the role of heritage in the articulation of the city form and of social space (AlSayyad, 2001).

The word “heritage” comes from the French word “eritage,” he clarifies, which means property that is transferred by inheritance through generations. It is a complex term that cannot be summed up easily, especially given its broad cultural dimensions.

There are three historical periods which have seen major changes in the way heritage was dealt with: the period of colonialism, of postcolonial nationalism, and of globalization. In the colonial period there was a strong inter-exposure between cultures, and the concern about local heritage started during the end of this period, although there was also a degree of stereotyping and distortion of the local identity of some nations. During postcolonial nationalism, there was a great interest in historic monuments and symbolic buildings, and there was a trend towards conserving heritage by new, independent nations as a movement of resistance to the uniformity of modernity in the twentieth century. As for what is called the globalization period, in this era nations started to be more concerned with their heritage and to make full use of their resources for the sake of economic development and tourism. However, new cultural values were also introduced to societies, meaning that the consistency and authenticity of identity has been jeopardized by global, cultural arguments (AlSayyad, 2001).

## 2. INTERNATIONAL INTERVENTION AND THE IDEA OF HERITAGE

The concept of conservation and conservation perspectives are relatively new in the scientific field of architecture and urban studies. The concept of conservation globally started with UNESCO<sup>1</sup> in the 1960s when the Egyptian government wanted to establish the Aswan High Dam, which would require the creation of a huge artificial lake, in order to reduce the negative effects of the annual Nile flood and conserve wasted water. At the same time, they were facing the loss of the two Abu Simbel temples, which would be immersed in water. The Egyptian government asked for UNESCO’s help to rescue the temples and a number of nearby Nubian

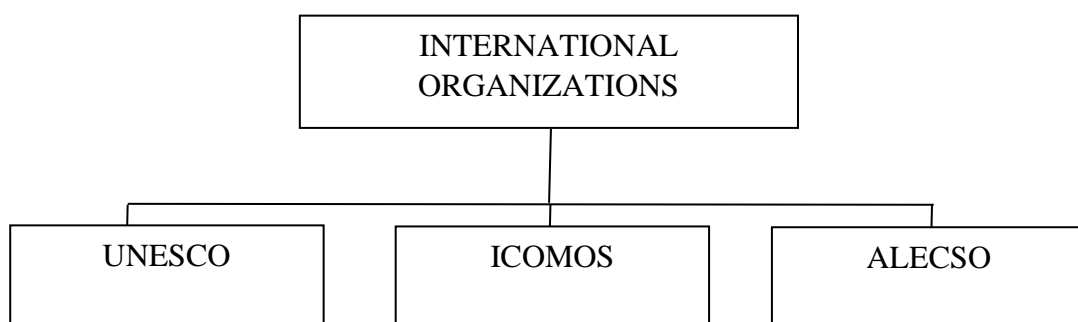
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<sup>1</sup>The United Nations Educational, Scientific and Cultural Organization.

villages from destruction, and as a result, the temples became the first heritage site conserved by UNESCO, even before the convention of 1972. Over time, each nation came to explore and understand its unique identity, as represented in its heritage. Each country has also formulated its own policies and system to protect its heritage, but they still face the dilemma of finding their heritage being devoured by the city development process.

Heritage conservation is represented by a number of documents and charters on the international level, written by organizations such as UNESCO and ICOMOS.<sup>2</sup> The general conference of UNESCO in 1972 in Paris put in place a convention concerning the protection of world heritage, signed by 158 nations. It was a representation of progress towards defining the essential guidelines of conservation and highlighting the importance of the international agreement for conserving world heritage. The UNESCO World Heritage List, which grants the protection of monuments and sites facing the danger of being obscure in the world's cities. The development of conservation strategies comes through international documents and charters. First came the Athens Charter (1931), which shed light on the role of historic building conservation. This was followed by the International Charter for the Conservation and Restoration of Monuments and Sites (the Venice Charter) in 1964. The charter shifted the focus from monuments and landmarks to urban territories and stressed the value of cultural sites. Highlighting urban heritage was emphasized more by the Washington Charter of 1987 (ICOMOS, 1987). In these charters, cultural heritage is defined and classified into categories. Each charter was written as an official document which represents the results of a convention. The following looks at the definitions, conventions and charters on conservation.

## 2.1 ORGANIZATIONS AND INSTITUTIONS



**Figure (8):** Names of different international organizations responsible for heritage.

<sup>2</sup> The International Council on Monuments and Sites.

## 2.2 DEFINITION OF HERITAGE WORLDWIDE

UNESCO:

The concept of architectural heritage was conceived by the UNESCO convention, which is known as the World Heritage Convention of 1972. The definition is as follows:

*Article 1:1*

*Monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;*

*Groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science.*

*Sites: works of man or the combined works of nature of man and areas including archeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological points of view. (Ahmad, 2006)*

UNESCO's latest recommendations regarding different aspects of conservation are additional instruments and laws to achieve the integration of policies, the conservation of the built environment into the greater objectives of urban development, in consideration of inherited values and traditions of various contexts of cultural heritage. (UNESCO, [Culture Urban Future - Global Report on Culture for Sustainable Urban Development, 2016](#)). These laws are implemented by local authorities in each state on a voluntary basis. To facilitate the implementation process, UNESCO's central conference recommended the adaptation of the laws according to their local contexts, and distributing these laws widely among national territories in order to facilitate the implementation process by adopting supportive policies. The following are the recommendations for local authorities in each state which define, based on their local contexts, the important steps to implement UNESCO's latest approach to the historic urban landscape (UNESCO, [General Conference: New Recommendation on the Historic Urban Landscape, 2011](#)):

1. *Undertake comprehensive surveys and mapping of the city's natural, cultural and human resources.*

2. *Reaching consensus using participatory planning and stakeholder consultations on what values to protect for transmission of future contexts and to determine the attributes that carry these values.*
3. *To assess the vulnerability of these attributes to solid economic stresses and impacts of climate change.*
4. *To integrate urban heritage values and their vulnerability status into a greater framework of city development, which shall provide insights of areas of heritage sensibility that require careful attention to planning, design, and implementation of development projects.*
5. *To prioritize actions for conservation and development.*
6. *To establish the appropriate partnerships and local management frameworks for each of the identified projects for conservation and development as well as to develop mechanisms of the coordination of the various activities between different actors both public and private.*

Proposals concerning the historic urban landscape as an approach to urban heritage conservation appear on the agenda on the 36th session of the UNESCO central conference in 2011. The proposals discuss recommendations for local authorities to adopt appropriate legislative and institutional frameworks and measures. They suggest applying the principles and norms set out in these recommendations in the territories under their jurisdiction. The local authorities should bring these recommendations to the attention of local, national and regional institutions, services or bodies and associations concerned with the safeguarding, conservation and management of historical urban areas and their wider geographical setting.

This approach addresses the policy, governance and management concerns involving a variety of stakeholders, including the local, national, regional and international public and private actors in the urban development process. The recent UNESCO recommendations build upon previous recommendations concerning heritage preservation and recognize the importance and the validity of their concepts and principles through conservation history and practice. In addition, it addresses modern conservation and charters on many dimensions of cultural and natural heritage.

The UNESCO definition of “historic urban landscape” is an urban area that represents an accumulation of historic layering of cultural and natural values and attributes. The definition extends beyond the notion of “historic centres” to include the broader urban context and its geographical setting. The broader context includes the site’s topography, geomorphology hydrology, and natural features, its built environment – both historic and contemporary – its infrastructure, its open spaces and gardens, its land-use patterns and spatial organization, perceptions, and visual relationships, as well as all other elements of the urban structure. It also includes social and cultural practices and values, economic processes and the incredible dimensions of heritage as related to diversity and identity (UNESCO, *New Life for Historic Cities - The Historic Urban Landscape Approach Explained*, 2013).

This definition provides the basis for a comprehensive, integrated approach for identifying and assessing the conservation of historic urban landscapes within an overall sustainable development framework.

ICOMOS:

Based on the definition of cultural heritage mentioned in the Washington Charter of ICOMOS’s general assembly, under “conservation of historic towns and urban areas,” *“all urban communities, whether they have developed gradually over time or have been created deliberately, are an expression of diverse societies through our history ... historic urban areas, large and small, including cities, towns and historic centers or territories, together with their natural and man-made environments. Beyond their role as historical documents, these territories embody the values of traditional cultures”* (ICOMOS, 1987).

Urban development which follows industrialization in cities has an impact on many historic territories. This impact can threaten, damage, or degrade territories, which often leads to losses in the built environment and on the cultural/social/economic level. Therefore, ICOMOS established an international charter for historic cities and urban territories which integrates with the international charter of conservation and restoration of monuments and sites known as the Venice Charter.

This international charter outlines definitions, objectives and methods important for the conservation of historic cities and urban territories. The charter states that in order to have an effective perspective on conserving historic cities and territories, then conservation should be integrated with reasoned policies of economic and social development and urban/regional



planning based on the local context of every city. The values to be conserved include the historic character of the city or territory, with all physical and spiritual (tangible and intangible) elements which express this character especially:

1. *“Urban patterns as defined by lots and streets.”*
2. *“Relations between buildings, green and open spaces.”*
3. *“The formal appearance, interior and exterior of buildings as defined by scale, size, style, construction, materials, color, and decorations.”*
4. *“The relationship between the city or the territory and its surrounding setting, both natural and man-made.”*
5. *“The various functions that the city or territory has acquired over time.”*

The charter also recognizes the importance of local residents as a factor in the success of the conservation process. It conceives conservation in historic cities and territories as a sensible, systematic field and approach. Full, extensive documentation of the existing conditions of a historic city or territory before any intervention is recommended by the charter (ICOMOS, 1987).

ALECSO:<sup>3</sup>

ALECSO aims, in the field of culture, to capitalize on a new cultural debate which connects the roots of identity with modernity. It seeks the preservation of “Arabic/Islamic” heritage through integrating heritage conservation and preservation projects into its core work by focusing its efforts on the culture and heritage of Arab civilizations (ALECSO, 2017).

The council of Arab ministers of tourism decided in 2004 to establish a charter for “conserving urban heritage in Arab countries and its development.” The ministers illustrated the importance of conserving Arabic urban and architectural heritage for coming generations. The importance of adopting a methodology which creates a sort of harmonization between this heritage and economic/social/cultural development was stressed in the charter, as was the need to valorize such heritage with respect to its authentic elements and constraints, especially the damage done to historic elements in Arab countries in this period. They agreed that the methodology should be shared between all Arab countries to protect and maintain their heritage. The charter also

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<sup>3</sup> The Arab League Educational, Cultural and Scientific Organization.

aims to revive and protect the urban and architectural heritage within Arab countries, especially in the countries which are threatened by present circumstances and war, such as Syria, Yemen, Iraq, and Libya (ALESCO, 2016).

INSTITUTIONS	HERITAGE DEFINITION	CONVENTIONS & CHARTERS
UNESCO	Tangible Heritage: Monuments Sites Historic Urban Landscapes	- 1968 - 1972 - 2003 - 2011
ICCROM	Venice Charter Florence Charter Washington DC Charter Monuments and Sites	- 1964-1994 - 1982 - 1987 - 1996-1999
ALECSO	Heritage Architectural and Urban Observatory in Arab Countries	- 2004

**Figure (9):** Different charters and conventions of heritage protection.

### 3. DEFINITION OF NATIONAL HERITAGE

The Egyptian constitution (2014), Article 50:

*"تراث مصر الحضاري والثقافي، المادي والمعنوي، بجميع تنوعاته ومراحله الكبرى، المصرية القديمة والقبطية والإسلامية، ثروة قومية وإنسانية تلتزم الدولة بالحفاظ عليه وصيانتته وكذا الرصيد الثقافي المعاصر المعماري والأدبي والفني بمختلف تنوعاته، والإعتداء على أي من ذلك جريمة يعاقب عليها القانون وتولى الدولة إهتماما خاصا بالحفاظ على مكونات التعددية الثقافية في مصر"*

*"Egypt's civilization and cultural heritage, whether physical or moral including all diversities and principle milestones – mainly ancient Egyptian, Coptic and Islamic – is a national and human wealth. The state shall preserve and maintain this heritage as well as the contemporary cultural wealth, whether architectural, literacy or artistic with all diversities. Aggression against any of the foregoing is a crime punished by law. The state shall pay special attention to protecting components of cultural pluralism in Egypt."*

Egypt's Law 117 of 1983 put in place the national definition of Egyptian antiquities: *"any movable or immovable property that is a product of any of the various civilizations or any of the arts, sciences, literatures, and religions of successive historical periods extending from pre-historic times down to hundred years ago until the present. It should have either architectural, historic or national significance in previous civilizations which had passed or lived in Egypt or are historically related to it. Cultural heritage includes also any ancient remains of humans or animals or literature; in other words, tangible or intangible heritage."*

Following this, Law 119 of 2008 was issued by the government, Article 26 to Article 31 of which defines the National Organization for Urban Harmony. Article 32 to Article 35 defines "territories with distinguished features" as the following:

*Article 32: The National Organization of Urban Harmony will prepare the fundamentals and rules of conserving the territories, buildings, and structures with unique value, and the Supreme Council of Planning and Urban Development will issue a statement with these rules. All specialized sectors should follow these rules while doing any work on these distinguished territories, buildings, and structures.*

*Article 33: It is not allowed to make any modifications or carry out new building activities or restoration or projects on movable or stable structures, nor to transfer architectural elements or statues or ornamental units in the architectural public spaces in the territories mentioned in the*

previous article, except after receiving a licence to do so from the specialized administrative sector. The Supreme Council of Planning and Urban Development can require the acceptance of the National Organization for Urban Harmony as a condition [for any changes].

Article 34: The National Organization for Urban Harmony will prepare pioneering models for territories and buildings with unique value, whether natural sites or urban ones. The organization should start any works seen necessary to conserve the territories' or buildings' value and this includes modification, enhancement, restoration, and support, or should define the most appropriate way of intervention. This should be with the expenditure of the organization or in cooperation with governmental bodies or non-governmental ones.

Article 35: The National Organization for Urban Harmony can expropriate some buildings with unique value or can expropriate parts of them, and this is according to Law 10 of 1990 regarding expropriation of real states for public welfare. The expropriation decision is issued by the Supreme Council of Planning and Urban Development and compensation of expropriation is given according to Law 144 of 2006 regulating the demolition of buildings and structures. The Organization can demand the clearance of building violations in the territories with a unique value for the sake of conserving it.

	NAME OF LAW	DESCRIPTION
1960	Egyptian Constitution	First constitution includes articles about cultural heritage
1983	Law number 117	<ul style="list-style-type: none"> <li>- Definition of protected property: (Article 1 and 2)</li> <li>- The system of ownership: (Articles 6, 8, 9, 24, 26, and 35).</li> </ul>
2008	Law number 119	<ul style="list-style-type: none"> <li>- Definition of National Organization for Urban Harmony</li> </ul>

		<ul style="list-style-type: none"> <li>- Including territories and buildings with unique value to be conserved.</li> </ul> <p>(Articles 26, 27, 28, 29, 30, 31, 32, 33, 34, and 35).</p>
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**Figure (10):** Different laws issued by the Egyptian government on conserving heritage.

#### **4. HERITAGE ADMINISTRATION: CHALLENGES AND POTENTIALS**

The governmental stated aim is to facilitate combining conservation processes and development, including heritage. The missing link between conservation and development is the responsibility of local governments: there should be coordination between the local municipality and the national government. The local municipalities should establish local development plans for the conservation of heritage and develop the management, policies, and valorization tools. Cultural heritage policies require a lot of dynamism from both national government and local municipalities. One of the problems which face the Egyptian government and municipalities is that they have few skilled experts in the field of cultural heritage. To resolve this, there should be conventions and cooperation between the ministries and international organizations, in order to provide the necessary expertise.

It is necessary to classify the governmental bodies which deal with cultural activities into two groups. First, ministries primarily dealing with cultural heritage methods. Second, ministries which have cultural departments. There are also ministries which have certain specialized cultural responsibilities. Ministries and bodies can be divided into those concerned with the physical conservation of cultural heritage, and other ministries are concerned with the social development of the cultural heritage community (AlGammal, 2007).

##### **4.1 MINISTRY OF CULTURE**

The first duty of a ministry of culture is to ensure the widest access to culture and the widest possible participation. This ministry, founded as an independent entity in 1958, It is committed

to organizing state intervention for the following purposes: the preservation of the nation's heritage in all its aspects; creating conditions for the nationwide enjoyment of this heritage in its various manifestations – the written word, national archives, antiquities, museums, folklore and the traditions of artistic and literary creation; the reactivation of provincial and rural cultural life; the patronage of arts and social sciences in order that they may contribute to the objectives of a democratic socialist society; the provision of expert advice to all public authorities in matters concerning the arts or cultural values. Also, it features in the objectives of the country's 2030 sustainable development plan. It is worth noting that the ministry has made cultural events free of charge, or charges a symbolic entrance fee only (AlGammal, 2007).

#### 4.2 MINISTRY OF ANTIQUITIES

Until the middle of the nineteenth century, there were no regulations of the antiquities trade in Egypt. However, the European enthusiasm for Egyptian antiquities began with the arrival of French campaign (1798-1801) and the publication of the book *Description de l'Égypte*, which created an international interest in Egypt and its antiquities.

In 1858, Saeed Pasha, the ruler of Egypt, approved the initiation of what was called the Antiquities Institution *مصلحة الآثار*, in order to minimize antiquities trading. Auguste Mariette, a French scholar, was made the head of this institution. With the approval of Khedive Ismail, he established the first national museum in 1863 in Bulaq, Cairo. For nearly a century, the Antiquities Institution was under the presidency of French scholars, until 1956, when the institution became a pure Egyptian entity, and the first Egyptian head, Mostafa Amer, was appointed. In 1960, institution was put under the Ministry of Culture's authority (Antiquities, 2019).

The organization was then renamed the Supreme Council of Antiquities (SCA) in 1994. In 2011 it became independent of the Ministry of Culture and was made a separate Ministry of Antiquities (Antiquities, 2019). It is still responsible for preserving and cherishing a heritage of variety and richness, including preservation, restoration, protection, and maintenance. Article 26 of Law 117 states the following: "The organization (SCA) shall be responsible for inventory, photographing, making drawings of and registering antiquities and for entering all data pertaining thereto in records established for that purpose. Antiquities shall be registered

in accordance with terms and conditions to be set forth in a decision of the Board of Directors of the SCA. The organization shall make a record of all the environmental and architectural data and other factors affecting every archaeological site, in accordance with their respective importance." (AlGammal, 2007).

### 4.3 MINISTRY OF AWQAF

The ministry of *awqaf* documents in Cairo forms a unique yet relatively unexploited record of Egyptian history over the last six centuries. In a body of records of immense value for the quality of their content, as well as their number, is to be found data of great significance for virtually the entire spectrum of the extended social sciences. *Waqf* (pl. *awqaf*) is an Arabic word meaning It is an Islamic system, its purpose is to allocate a property revenue for the sake of charity (Awaqf, 2019). This property must not be owned by anyone. This does not mean simply the original *waqfiya* (property), or *hujja* (official document) establishing the *waqf*, but those subsidiary documents that define the original donation . *Awqaf* present one of the most intimate glimpses into the inner functioning of Egyptian urban and rural society.

The *waqfiya* itself offers information to scholars of widely varying interests. Included in its first part is the name of the *waqif* (donor), usually through several generations, and an occasional reference to the *wakil* (agent) or *katib* (scribe). The state's concern for the promotion of Islamic culture, both at home and abroad, is embodied in the cultural activities of the ministries of awqaf and Al-Azhar affairs.

This ministry is officially responsible for the diffusion of Islamic teaching in Egypt and abroad. Its main cultural functions are:

1. The spread of Islamic culture.
2. The cultivation of religious knowledge.
3. The revival and preservation of the culture and religious heritage of Islam.

Within the ministry, two main bodies carry out this policy: the Directorate-General for the Diffusion of Islam and the Higher Council for Islamic Affairs. The Directorate-General has two departments, the Department of Congregational Mosques and Oratories, and the Department of Technical Affairs, which is concerned with the maintenance and development of the country's 20,000 mosques (AlGammal, 2007) )Waqf(.

#### **4.4 THE MINISTRY OF TOURISM**

This ministry is concerned with the organization and planning of the tourist trade in Egypt. The ministry is a planning and organizing body with the following functions: planning of policy and programmes for tourist promotion at home and abroad; providing all the information and advertising material for the encouragement of tourism in Egypt; preparing and contracting international tourist agreements; providing services and public-relation facilities at seaports and airports for the reception of tourists; organizing and taking part in international tourist conferences and seminars; and supervision of hotel accommodation and control of tourist services in the public and private sectors. It is clear one of the main tasks of the Ministry of Tourism is to develop and reuse cultural heritage (AlGammal, 2007).

#### **4.5 NATIONAL ORGANIZATION FOR URBAN HARMONY**

The National Organization for Urban Harmony is under the Ministry of Culture's authority. Founded in 2001, it is concerned with all activities aiming to enhance the visual image of cities, villages and new urban communities, beside clearing all visual pollution and conserving the architectural and urban character of different territories. In general, it is concerned with achieving aesthetic values in Egyptian urban areas, including roads, squares, streets, gardens, public spaces, public buildings, and buildings with unique value. The following are some of the organization's objectives: reforming the aesthetic perspective for all regions and working on clearing existing visual abnormalities; preparing a database for all buildings with distinguished architecture character and establishing rules to conserve them; establishing rules which prevent changing the present architectural form of heritage buildings and prohibiting additions to the buildings which lead to visual abnormalities; putting in place fundamental principles in dealing with architectural spaces such as gardens, streets, pavements, lighting and colours used with respect to the nature of every region and established international standards; achieving respect for the movement of pedestrians and the disabled by using materials and colours which are suitable to the architectural character; renovating public squares based on architecture and visual perspective which is compatible with the distinguished character of each territory and preserving the old form of the squares that represents their unique architectural character (Culture, 2019).



## 5. CONSERVATION MOVEMENT

According to Jukka Jokilehto in his book *A History of Architectural Conservation*, Ayman Abdel Tawab in his book *Introduction to Urban Conservation*, and Hoda Zeayter and Ashraf Mansour in their paper *Heritage Conservation Ideologies Analysis – Historic Urban Landscape Approach for a Mediterranean Historic City Case Study*, there are several stages in the emergence of what they called “the conservation movement.” Jokilehto describes the pre-classical era as the “memorial,” where through the early Christian Roman era in the fourth century AD, there was a tendency to construct new buildings by using the material of old buildings (Jokilehto, 1999).

Abdel Tawab discusses the fact that the modern conservation movement started in the eighteenth and early nineteenth century as a reaction to the significant writings of William Morris, Eugène Viollet-le-Duc, John Ruskin’s book *The Seven Lamps of Architecture*, and others. This era was a “key period,” he argues, and a cornerstone of the conservation movement. In this period, the French approach did not differentiate between restoration and conservation, where for example Viollet-le-Duc recommended “stylistic restoration” (Tawab, 2013). Zeayter and Mansour illustrate that in the 1840s a discussion about the fundamentals of conservation and restoration of old buildings began in England, where conservators were divided into two opposing sects of restorers and anti-restorationists. One group was focused on following the stylistic restoration approach, but critics argued it was in fact, “destructive restoration” where it focused on the integration of style into the structure and the form with the fact that the restorer completed the design from his own perspective. The second group was concerned with historical consistency and how to protect and conserve historic buildings without external intervention. The approach was known as “preservation” or as “conservative repair” or “anti-restoration.” John Ruskin founded this approach in the middle of the nineteenth century, when he called for “protection, conservation, and maintenance,” and he attacked the restorers’ approach of destroying the authenticity of old buildings. William Morris was also involved in this movement, as the co-founder of the Society for the Protection of Ancient Buildings, which advocated for “conservative repair.” Morris created a manual which turned into the official basis for modern conservation policy (Zeayter & Mansour, 2017).

Zeayter and Mansour emphasize that, during the period between the two world wars, the “scientific restoration” approach emerged in Italy and introduced an international convention in 1931 in Athens that set out modern conservation policy. Gustavo Giovannoni then adopted

scientific restoration as an integrated ideology from the perspective of area conservation. Giovannoni's theory of "thinning out the urban fabric" balanced between conservation and modernization by having heavy traffic outside historic areas and preventing new streets invading them, focusing on the improvement of their social and hygienic circumstances and the conservation of old buildings. The Athens Charter in 1931 became the essential framework and guideline for other international preservation conventions and documents (Zeayter & Mansour, 2017).

After World War II, Abdel Tawab outlines, the conservation movement became international and UNESCO was established to promote peace and cooperation between nations through education, culture, and science. Through UNESCO, the idea of the importance of culture emerged and became a key element in the conservation movement (Tawab, 2013). As Zeayter and Mansour explain, heritage was interpreted based on a "value" system, and this concept was expressed through three approaches. These were the modern theory of restoration, which emerged with the difference in values of modern society, and the others were the heritage and urban conservation approaches. There were also earlier institutions which played a role in the conservation movement before UNESCO, such as the International Committee of Intellectual Cooperation (CICI) from 1922 to 1946, the International Institute of Intellectual Cooperation (IICI) from 1925 to 1946, and the International Bureau of Education (IBE)" from 1925 to 1968, which joined UNESCO in 1969. The International Council of Monuments and Sites (ICOMOS), which emerged in 1965, is one of the main institutions which focuses on conservation. There is also the International Center for the Study of the Preservation and Restoration of Cultural Property (ICCROM) and the International Council of Museums (ICOM), which were established in 1959 and 1946 respectively (Tawab, 2013).

The first international charter of conservation was that of Athens in 1931. It mainly dealt with the restoration of monuments. Afterward, ICOMOS issued other charters regarding the conservation of historic territories, such as, in 1987, The Charter on the Conservation of Historic Towns, known as the Washington Charter. This was followed by the Charter on the Conservation of Historic Towns in 2002. UNESCO became pioneering in the international campaigns regarding cultural heritage conservation and safeguarding, for example the campaign to rescue Aswan's heritage in 1960, as mentioned earlier.

## 6. EVOLUTION OF THE DEFINITION OF CONSERVATION

Jukka Jokilehto in his book *A History of Architectural Conservation*, and Zaki Aslan in his Article for ICCROM, *Introduction to Heritage Site Management: Rationale in Planning and Decision-making for the Conservation and Presentation of Archaeological Sites*, introduces the evolution of the conservation process and the definition of the word. The first approach is **stylistic restoration**, in the middle of the nineteenth century, which was the recognition of ruins and classical archaeology through the evolution of new technology and sciences. In this period, Eclecticism was influencing architecture, and, as a result, the approach of treatment of damaged buildings was done through historicism. In his book, *Dictionnaire raisonne de l'architecture*, Viollet-le-Duc demonstrated his theory of stylistic restoration. He believed in restoration as a modern approach, and his aim was to re-establish national monuments. For example, he restored the old walls of Carcassonne in France in 1855, and as well as restoring the walls, he rebuilt large parts (Aslan, 2016) (Jokilehto, 1999).

The second approach was **conservation or “romantic” conservation**. Stylistic restoration was being criticized by the middle of the nineteenth century, so John Ruskin founded a new approach to maintain and repair historic buildings. He therefore forms the main reference for conservative repair and maintenance in his book *The Seven Lamps of Architecture*. As mentioned above, one of the pioneers of this movement was William Morris. Ruskin and his movement dealt with the past as a link between the past, present, and future, and believed that any work in the present should be done with consideration of future generations. The romantic conservation approach is the fundamental base for conservation policies in England in the current day.

The third approach is **philological and historical conservation** (*restuaro filologico, restauro storico*). At the end of the nineteenth century, Camillo Boito was the most important and famous scholar of the Italian conservation movement. Boito established a set of rules for the restoration of old monuments during the congress of architects in Rome in 1883. His rules were highly influenced by historicism and founded a classification for new interventions on historic buildings. Boito's concepts became the basis of the first Italian charter on restoration, and the principle reference for the philological restoration approach. He considered old monuments to be documents which show the history of the past and he recommended denoting all new, added parts by utilizing different materials or simple forms of architecture in a contemporary way that did not clash too much with the original style. He was critical of the approaches of both Viollet-

le-Duc and Ruskin, seeing the stylistic restoration as dangerous and believing Ruskin's approach would lead historic buildings to fall into ruin. Boito's principles were the basis of the anastylosis approach which was firstly presented in the Venice Charter of 1964.

The fourth approach, **scientific conservation** (*restauro scientifico*), was created by Gustavo Giovannoni. Through his lessons at the Faculty of Architecture in Rome, he made the Italian conservations rules stronger and more solid. He illustrated the principles of *restauro scientifico*, which included historic territories and urban scale. He was very different from previous scholars, because his principles of conservation approached cultural evaluation and gave importance to the different historical eras of a building. He stressed repairing, maintaining and strengthening a historical building even if it requires using modern technology. Giovannoni's principles and conservation approach was the basis of the Athens Charter of 1931. He also consolidated Boito's approach which recommends that the modern techniques used should not make restorations obvious (Aslan, 2016) (Jokilehto, 1999).

## 7. HERITAGE CONSERVATION STRATEGIES

Peter Larkham writes in his book, *Conservation and the City*: "To conserve has come to have a wider meaning which can include the sensible use, reuse, adaptation, extension and enhancement of scare assets" (Larkham, 1996).

Within international institutions' most recent definitions of cultural heritage there are several perceptions and strategies classified under the concept of conservation. Conservation strategy extends beyond just preserving historical buildings that have value; it includes heritage territories as a whole, their activities, buildings, handcrafts, character, and context. This complementary concept has been developed into a planning policy, concerned with the built environment with unique historical value, and not just individual buildings. Heritage territories or territories with high historic value require a flexible approach which deals with their context with respect to its local social and geographical boundaries, characteristics and properties. Heritage territories express physical representations of community identity which should be passed on to future generations. It is therefore important to comprehend the meanings which a specific heritage territory bears for a community.

In the book *A Heritage Conservation Plan for the Riverview Lands* there is a demonstration of different conservation approaches as follows, mainly based on a materialistic point of view.

**Preservation:** *“The action or process of protecting, maintaining and or stabilizing the existing materials’ form, and integrity of a historic place or of an individual component, while protecting its heritage value.”* (Heritage Conservation Strategies, 2012)

**Restoration:** *“The process of accurately revealing, recovering or representing the state of a historic place or of an individual component as it appeared at a particular period in its history, as accurately as possible, while protecting its heritage value. Restoration is considered the primary treatment when the significance of a particular place during a particular time period significantly outweighs the loss of existing character-defining elements from other periods and if there is substantial evidence of its appearance at an earlier time.”* (Heritage Conservation Strategies, 2012)

**Reuse:** *“Reinstalling components of deteriorated buildings, structures or landscapes in the site or elsewhere in the site.”* (Heritage Conservation Strategies, 2012)

The restoration and reuse approach, which is represented in maintaining buildings after restoring their landscape, to preserve the urban context and character of the city. The best methods implemented are to reuse historical landmarks and monuments for present-day activities. For example, historical buildings may be turned into libraries, administrative buildings, cultural centres, or given any other function.

**Repair:** *“The process of returning a character-defining element to its prior condition when it has undergone changes attributed to failure, decline, wear, normal use, or abuse. A repair action does not alter or enhance the integrity, character, performance, or design intent of the heritage feature. Repair may include patching of existing components using technologically compatible materials and methods; limited replacement in-kind of components; complete replacement in kind of a component when the degree of change it has undergone precludes any other type of action. Repair activities may be regulated under the BC Building Code.”* (Heritage Conservation Strategies, 2012)

**Rehabilitation:** *“The action or process of making possible a continuing or compatible contemporary use of a historic place or landscape, or of an individual component, while protecting its heritage value. Rehabilitation makes possible an efficient contemporary use while retaining those portions and features which are significant to the resource’s heritage values. New work is designed to be physically and visually compatible with, and distinguishable from, the original historic place. With landscapes, rehabilitation is the most*

*common intervention, since it allows for change necessary to satisfy present-day demands upon the site. In continued use rehabilitation, changes are made to a historic place that continues to be used for its original purpose. In adaptive re-use, the historic place is converted to a new use.”* (Heritage Conservation Strategies, 2012)

**Reconstruction:** *“A building, site feature, or artifact that no longer exists is reproduced with new construction that exhibits the shape, material, and detailing (and often construction methods) of the resource as it once appeared. Authenticity is dependent on the amount of historical and pictorial evidence available for the original resource. Good documentary information without conjecture is essential in order to justify a reconstruction. With landscapes, planning should consider the age and arrangement of vegetation, allowing for growth and maintenance to continue an appearance that replicates the historical period.”* (Heritage Conservation Strategies, 2012)

**Renovation:** *“Occurs when extensive changes and/or additions are made to an existing building internally and externally in order to ‘renew’ the structure. Cultural landscapes can also be renovated, an action often described as a garden renewal. These changes are often made in response to the need for more space, repair, general improvements, or lifestyle considerations. Renovations may be made in harmony with the existing building and neighborhood, although conservation of heritage fabric is not the first priority of this intervention.”* (Heritage Conservation Strategies, 2012)

## **8. URBAN CONSERVATION**

The concept of urban conservation emerged at first from those dealing with sites and buildings individually in the early 1920s, and evolved through the end of the twentieth century into an interest in studying historical cities and historical territories within cities. A lack of mapping, morphological and analytical approaches can be observed within this concept. Also, the fact that focusing on the conservation of one building underestimates the influence and importance of the historical and geographical environments of the context in which these buildings are located, has not been addressed. Although many efforts have been devoted to intensive documentation of urban and economic development, including reconstruction and expansion activities, by contrast it is found that minimal amounts of research have been devoted to urban conservation and highlighting its analysis methods, theoretical basis, and history.

Urban conservation as official terminology is somewhat new to Egyptian law, and over the years it had been a great challenge for researchers and practitioners. Over the centuries, Egypt has always been an overland route connecting the civilizations of the continents of Africa, Asia and Europe; therefore Egyptian cities witnessed major transformations in their built environment, including tangible and intangible (physical/social/economic) changes. In each civilization that arose in Egypt we can find new urban reforms based on the decision-making process of each ruler of the era. The peak of such reforms began in the medieval era, then peaked again in the eighteenth and nineteenth century. It was followed by the “megaprojects” concept which began with the 1952 revolution (Sims, 2015). As mentioned before, the perspective of conservation was introduced to the world when the Egyptian government wanted to implement the High Dam project in 1960s. The reservoir required for the dam was to cover the area where the Abu Simbel temples and some Nubian villages were located. The Egyptian government asked for the intervention of UNESCO to rescue its heritage.

Due to the immense destruction of heritage buildings and territories in Egypt, the governmental organization the National Organization for Urban Harmony was established in 2001 under the supervision of the Ministry of Culture. It issued a new law in 2008 called the Building Law قانون البناء. This law was the first law which recognized the existence of heritage territories, in other words dealing with heritage at the urban level and not only the architectural level. It is at present developing more efficient strategies for urban conservation.

Unfortunately, there is segregation between the plans of the General Authority for Urban Planning (هيئة التخطيط العمراني) and the National Organization for Urban Harmony (جهاز التنسيق الحضاري). The first focuses only on development plans, which deal with the heritage territories as a normal urban context with no special outstanding values. In addition, although the National Organization for Urban Harmony is supposed to be concerned with all the heritage sites and buildings in Egypt, in reality it mainly focuses on the heritage in the capital and well-known sites, neglecting the heritage existing in other cities, especially port cities in the south. and not only north (Seaports or River ports) which is under destruction each day passes by. It is the role of scholars to work diligently in such cities, innovating new methods and ideas of development and urban conservation.

## **9. DYNAMICS OF CHANGE: HERITAGE CONSERVATION VERSUS DEVELOPMENT PLANS**

The dynamics of change in cities has become an essential factor for urban conservation. Strategies for managing built environments and conserving heritage territories of special character are needed. Heritage is the physical evidence of cultural, social and economic values. There are certain aspects which control the relations and organize the built environment including heritage. They achieve balance in urban change and management. Institutes, systems, and associations have the authority of adjusting and controlling built environments. Controlling the built environment in heritage territories depends also on strategies and techniques of intervention, which differ from one place to another. Conventional conservation usually deals with the restoration of distinguished buildings. Recently, the concept has included the urban fabric and historic cores, where issues related to conservation often come face to face with development needs. Conservation extends to the built environment, through city dynamics which requires a balance between conservation and development matters.

Dealing with heritage territories requires an optimum choice of proper policy. Merging more than one strategy to cope with the nature of the territory is a successful method to deal with the changes threatening it. Merging strategies can help reviving and conserving heritage.

The urban configuration of the Egyptian city has passed through different phases of change that has influenced the elements (urban/social/economic) of its heritage territories. This change leads to the deterioration of these territories' context. An intervention should be made to tackle the threats facing our cultural and urban heritage, which provides the city's built environment with genuine character and solidarity, and to turn heritage into a catalyst and asset of development.

Addressing questions about the origins and formulation of heritage is a must in our multi-cultural societies. These questions reveal the values of heritage within its context and how it affects different categories of society. To comprehend the significance of heritage, there has to be documentation and analytical techniques of revealing the values of heritage. These techniques help with determining an intervention method. The conservation process aims to make an assessment of the heritage's fundamental values. The optimum target of the analysis is to achieve an efficient method of reviving our heritage and to add new values to existing ones. Therefore, a crucial step in conserving cultural heritage is to engage it with the ongoing development process.



## **10. URBAN REGENERATION**

Taking into consideration Egypt's rapid urbanization, slum formation and urban transformation, it is an essential need to find a method which links conservation and development efforts – a method which brings these two processes together and integrates them, instead of keeping them in opposition. From the readings outlined above, urban regeneration is the method which develops a balance between conservation and development, as was concluded from the experience of European countries. Britain is known to be pioneering in this field. However, an expert from Britain, Tim Townshend, a professor in the architecture department at Newcastle University, was asked about the potential of developing the idea of urban regeneration in Egypt. He observed that what is happening today in Egypt – new development projects and the destruction of heritage – was happening in Britain during the 1960s. However, an economic crisis hit the country in the 1970s and, in addition, social movements began to arise that called for the conserving and developing of existing heritage. Therefore, the new projects stopped, and instead the decision-makers and stakeholders started to search for alternatives to maintain and develop British heritage (Townshend, 2018). But the circumstances are different in Egypt; nothing is stopping the development projects which are eating the existing heritage. The only thing in common is the initiation of social movements; they began with some academics and experts in heritage and are now starting to extend into Egyptian society. Also, there are certain local communities in Egypt, such as the community of Quseir and of Nubia, Luxor, and Aswan, who cherish their heritage and want it to be a catalyst for development.

## **11. COMMUNITY PARTICIPATION AND INVOLVEMENT IN CONSERVATION**

There is an alienation process which is ongoing, especially at the hands of contemporary architects, who are unaware of the importance and value of the ancient character of the Egyptian city. Modern architecture in Egypt seems to be of poor quality, which initiates a discussion regarding the importance of the urban conservation movement in Egypt.

Abdel Tawab argues that that the community, along with architects and specialists, needs to collaborate in order to evolve a national architectural pattern and to encourage practice in the urban and conservation field in Egypt. The traditional architectural pattern can be used in contemporary architecture, as seen in Hasan Fathy's projects. In his projects, Fathy uses traditional architectural elements, patterns, and styles that are taken from the medieval era in

Cairo and also from the heritage of primitive communities in the oases of the eastern desert (Tawab, 2013).

Nezar Al Sayyad has a different point of view regarding Hassan Fathy's projects, especially the village of New Gurna near Luxor. Al Sayyad believes that Fathy has used, in his perspective of an ideal architecture pattern, the geometries of Islamic architecture, which was common in Cairo in earlier historical periods. As a result, Fathy used forms such as domes and vaults that the local community of Gurna correlated with the tombs and shrines (AlSayyad, 2001).

It is important to involve the local society in the process of design and conservation, as the architect can be driven by perspectives which are far removed from the needs of that society.

## **12. WHY the PRESERVATION and TOURISM APPROACH ARE NOT THE OPTIMUM STRATEGY (SOLUTION) FOR HERITAGE**

A city's cultural heritage presented in its urban fabric should be preserved and given the chance to be a vital part of that city's context. But a "sole" preservation process cannot support cultural heritage, as it develops into a "museum phenomenon," restricting and constraining any development opportunities. In addition, tourism over long periods has proven to be inefficient for urban development, though it was used primarily as an approach to boost the economy. Most of the historic territories are turned into museums which are far from local trade and focus on tourism. Tourism is based on a mono-function, which leads to the deterioration of the development process, which is a multifunctional integrated process. In order to be a successful, tourism should be considered as a part of sustainable development, where it is a "complementary activity" and not an activity on which the local economy will depend on (UNESCO, *Historic Districts for All: A Social and Human Approach for Sustainable Revitalization*, 2008). In ICOMOS' international charter on the conservation of historic towns and urban areas from 1987, it states that: "*To be most effective, the conservation of historic towns and other historic urban areas should be an integral part of coherent policies of economic and social development and of urban and regional planning at every level,*" taking into consideration "*the conservation plan should aim at ensuring a harmonious relationship between the historic urban areas and the town as a whole.*"

In UNESCO's manual for historic districts, it is mentioned that there is no "miracle solution," even if some of the challenges and problems faced in historic territories are similar. Each

territory in each city has its own geographical, social, economic, and environmental features. The strategies and approaches used should be defined based on clear local circumstances, and should rely on its resources. Each territory should have the ability to develop its own projects based on its social, economic, and environmental resources.

### **13. ON WHAT BASIS SHOULD WE CHOOSE WHICH HERITAGE TO CONSERVE?**

Historical maps can be used to give a spatial reading of city formation from past to present. In the mapping process, the question of conservation is emphasized, with the observation of what is important in the consideration of heritage, and how we value existing sites. Decoding the city formation is an important aspect for going further with present strategies of conservation and development. The study of urban morphology and structure encourages connection with the present built environment through an interpretation of the city layers from different historical periods.

An engagement with morphological mapping can be meaningful. The mapping drawings document the process of urban change as a progression through history, providing insights along the way. All built environments, including buildings that are mapped, are representations of past buildings constructed in the forms that were required at that time.

The history of the transformation of the built environment of this particular research reveals that relation between the port-scape and the formation of the city. Through mapping, we can interrelate the conservation and the development process of the city context (old and new), filling the gap, and finding consistency between the proposed changes and the historical pattern. We can also develop a series of interpretations derived from research and mapping which can be translated into potential solutions in the old and new built environment. We can understand and observe the connection between the buildings and open spaces in the historical pattern. This can produce interpretations and generate new designs with adaptable solutions for the existing heritage. This is a new approach of conservation and development processes which interrelate and create consistency between the past and the present.

### **14. WHY MAPPING IS IMPORTANT TO CULTURAL HERITAGE**

Although one of the fundamental objectives of the National Organization for Urban Harmony is to document all cultural heritage territories and buildings in Egypt, the organization

unfortunately lacks such a perspective, as there are many heritage territories and buildings, especially in the Red Sea governorate, which are not documented. There should be a national database documenting national heritage, which would help in choosing the right method and strategy of intervention to conserve and manage heritage. If the value and circumstances of a monument or urban territory are not known then it cannot be protected. Mapping heritage territories and buildings promotes them and helps protect them from deterioration and demolition, as planning is possible as long as the data about the monument or territory is available. If heritage is not mapped and documented, developers and investors may damage them unintentionally.

There should be a “national record,” a primary and reliable source of data for decision-makers, developers, investors, associations, scholars, property owners, and the community. The data collected from mapping would be registered with this national record and used by professionals and even public users. The first step in any record is to locate and survey heritage territories and buildings systematically, as well as to investigate the written literature about the territory or the building. The second is to explore the history of conservation of those territories and buildings where there are sites which had been excavated before. The third is to monitor closely the damage or demolition of these heritage territories and buildings. This national record will highlight and classify the heritage territories and buildings and stress the importance of conserving them for future generations.

## **15. CONCLUSION**

The notion of heritage cannot be narrowed only to an institutionalized definition. Heritage is beyond institutions; it is the tangible representation of nations’ accumulative culture and history. Institutions such as UNESCO and ICOMOS assist in setting standards for classifying heritage and establishing methods of conservation to deal with it. Observing the conservation movement, John Ruskin’s and William Morris’ perspectives of conservation are considered the foundation of modern conservation. Camillo Boito’s perspective was critical of Ruskin and Viollet-le-Duc, perceiving old monuments as documents which show history, and his concepts formed the first Italian charter. Gustavo Giovannoni was among the first Italian scholars who approached historical territories and urban scale in conservation.

However, urban conservation as a concept is still new to the Egyptian context. The National Organization for Urban Harmony is the most recent governmental organization concerned with the topic, established in 2001, and is assigned to classify national heritage, including territories as well as buildings. Although there are laws in Egypt which are responsible for conserving tangible or intangible heritage, such as Law 117 of 1983 and Law 119 of 2008, there is still a gap between the development plans and conservation strategies deployed in heritage territories. Community participation is crucial to achieve success in the heritage conservation process and passing it from one generation to another. Forming a “national record” through mapping and chronological analysis is an important step for deciding the kind of intervention and the choice of conservation strategy to be used in a particular area or on a particular building.

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**CHAPTER THREE:  
EGYPT 2030 – RED SEA**

## 1. THE RED SEA AT PRESENT

### 1.1 OPENING OF THE NEW SUEZ CANAL

The reconstruction of Suez city was done by the local residents, starting from the mid-1970s, after the damage from the Arab-Israeli War of 1973. A process of rapid urbanization and population increase<sup>1</sup> in Suez started in the mid-1990s and is still ongoing today at an escalating rate, with the expected urban growth due to the New Suez Canal, especially given that the government is planning new national development projects along with establishing new urban settlements in the region (Souissi, 2017).

The construction of a new canal parallel to the old one (see Figure 14), which was established in 1869, aimed to achieve maximum use of the existing bypasses and canal by doubling the waterway, to facilitate navigation and traffic in both directions and minimize the time taken for ship transit. The decrease in time taken to transit the canal will lead to a daily increase of the average number of ships and vessels transiting through the canal (97 ships daily by 2023 from 49 ships at present). The transit time will be decreased from 18 to 11 hours and waiting times to 3 hours instead of 8-11 hours, and it also allows 45 ships to transit both lanes of the canal at the same time (Anon., 2017)

This will ultimately lead to increasing the excellence of the Suez Canal compared to other such waterways, and a higher ranking in the world classification based on navigation safety factors. In addition, the opening of the new canal will be accompanied by national projects, especially the development of Suez Canal area. This increases the positive effect of the new canal on the national income because it will increase hard currency inflows and create new job opportunities for young people living in the area and in neighbouring governorates. The new Suez Canal axis project is also the basis for establishing new urban settlements and societies.

The new canal is constructed from kilometre 60 to kilometre 95 along the old canal waterway. There is also deepening and widening works at the Great Bitter Lake and Ballah bypass, with a total length of 37 kilometres, so that the total length of the new canal project is 72 kilometres (see Figure 9). It also allows ships with a draft of 66 feet to be easily accommodated (Anon., 2017).

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<sup>1</sup> According to the Central Agency for Public Mobilization and Statistics (CAPMAS), Suez governorate's population in 1996 was 226,800 and in 2017, 651,130.



DEEPENING	DIGGING	DRY EXCAVATION	REVTMENT	DREDGING
Present western bypasses (Bitter Lake and Ballah) of 37km with new depth process 24m.	A new parallel canal 24m deep and 35km long at water level in order to permit the transit of vessels with up to 66ft draft.	Volume amount of 258 million cubic metres.  Cost: EGP 4 billion	Extend along the canal with a length of 100km.  Cost: EGP 500 million	250 million cubic metres of soil.  Cost: EGP 15 billion

**Figure (11):** Technical information about the New Suez Canal project.

The opening of the New Canal Suez was part of the government’s plan in 2014 to launch a number of new national development projects (see Figure 16 & Figure 17), as follows:

1. The Development of the Suez Canal Area/Axis.
2. The Development of the Northern Coast of Egypt, which includes agricultural, mineral and touristic activities.
3. The Golden Triangle, with the triangle formed between two points in the Red Sea governorate and one in Qena governorate. It includes the cities of Qena, Safaga, and Quseir, and connects mining areas with main roads (Ministry of Housing, 2014).

Egyptian officials say that the New Suez Canal is “a symbol of a new Egypt.” The Suez Canal had been always of great strategic importance to the country, and one of the national main resources. The new channel was completed between August 2014 and August 2015 by the Egyptian military, and funded by the Egyptian public, who invested \$8.5 billion, collected in just a week.

Some international experts have said that Egyptian public money could have been better spent on upgrading the infrastructure of the existing cities, on mass transportation, on railway networks in the cities themselves, or on new housing. In the case of the New Suez Canal, it is in the first goal of a patriotic project to make the Egyptian people feel proud, and this cannot be quantified, but if it is seen merely from an economic point of view, it could be noted that the \$8.5 billion could have been more usefully spent on upgrading other things (BBC, 2015).

## **1.2. SUEZ CANAL ECONOMIC ZONE (SUEZ CANAL AREA DEVELOPMENT PROJECT)**

The Suez Canal Economic Zone (SCZone) (see Figure 18) is responsible for the economic investments. It is planned to be a “world class free zone and trade hub” (Authority, 2015) located in the ports and territory alongside the new canal. It is located strategically on the most

vital trade route between Africa and Asia. The question is, when, where and why was this free zone established, and what are the expected outcomes?

The zone mainly targets international investors, as well as Egyptian businessmen, to establish new businesses and services. The area of this zone is 461 square kilometres, and it is divided, according to the latest news, into four areas and sub-areas and four to six ports (Egyt, 2017).

A. Two Major Integrated Zones	B. Two Development Areas	C. Four Ports
<ul style="list-style-type: none"> <li>• Ain Sokhna with Ain Port</li> <li>• East Port Said with East Port Said Port</li> </ul>	<ul style="list-style-type: none"> <li>• Qantara West</li> <li>• East Ismailia</li> </ul>	<ul style="list-style-type: none"> <li>• West Port Said Port</li> <li>• Adabiya Port</li> <li>• Al Tor Port</li> <li>• Al Arish Port</li> </ul>

**Figure (12):** New zones and ports as part of the new branch of Suez Canal Project.

The objectives of these ports and areas located in the free zone is to offer new investments in the industrial and commercial sectors and to develop infrastructure (technology, logistics and services), to increase the capacity of marine services and shipping, and to provide maintenance and manufacturing of ships. Here, a question imposes itself: what kind of sustainability is the Suez Canal Economic Zone promoting? According to the official website of the SCZone, the sustainability aspects are as listed as below (see Figure 13). Unfortunately, the sustainability objectives are very general and rather insufficient, especially when it comes to social sustainability, existing built environment, and marine life (Authority, 2015).

A. Environmental Sustainability	B. Social Sustainability	C. Economic Sustainability
<ul style="list-style-type: none"> <li>• Maintaining energy, water, and wastewater efficiency.</li> <li>• Promoting biodiversity.</li> </ul>	<ul style="list-style-type: none"> <li>• Engaging in corporate social responsibility.</li> <li>• Promoting health and safety across all facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Combining economic growth and job creation with good practices.</li> <li>• Ensuring continued prosperity and resilience of productive communities.</li> </ul>

<ul style="list-style-type: none"> <li>• Applying the best practices in building design.</li> </ul>		
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**Figure (13):** Sustainability objectives of the Suez Canal Economic Zone.

The Suez Canal Economic Zone association has discussed its latest project recently, which is a medical city. The association considers the project to be a trade gateway to Arab and African countries. The project will be carried out by the Ministry of Military Production, the Armed Forces Medical Services Department, and the Unified Purchasing Committee (News, 2017). Several activities in this zone will be initiated through several investments and three trading agreements with 23 African countries and establishing projects with China, the Maritime and Port Authority of Singapore, Emirati investors, (News, 3 Agreements with 26 African Countries: Darwish, 2016) a Polish consortium (News, Polish Consortium Considering Establishment of Industrial Area at SCZone, 2016), the US Trade and Development Agency (USTDA) (News, Darwish to Co-operate with Ustda in Suez Canal Economic Zone, 2017) and Italy (Upgrading Egypt’s MIDOR - petrochemical industries complex - two industrial zones for textile and car manufacture) (Consulting, 2016).

The board of the SCZone depends on various factors in granting land permits to investors and companies, based on their experience in attracting investments and the time management of the project’s implementation. The Central Bank of Egypt (CBE) and the Egyptian Financial Regulatory Authority choose three companies to value and price the land available for investment in SCZone. Payment for land value is in US dollars, which helps support the SCZone with foreign currency resources.

## **2. REDRAWING OF THE BOUNDARIES OF THE RED SEA GOVERNORATE**

According to the announcements of the government in 2014, the redrawing of the map of Egyptian governorates (see Figure 19 & Figure 20) was part of the presidential election programme of that year. The aim of redrawing the boundaries and the administration divisions of the provinces is to shift geographical areas from old governorates to new ones, leading to shifting of the residents of these areas.

The new map has governorates that are horizontally oriented (see Figure 14), which will enrich the results of the development project of the Suez canal area for the Egyptian economy. The planned zoning announced, if applied, will shrink the area of the Red Sea governorate by 92 percent of its original area. Instead of 118,000 square kilometres, it is reduced to approximately 9,000 kilometres. The government sees that this is to the benefit of, or will increase the area of, different governorates in Upper Egypt, including Aswan, Sohag, Assiut, and Qena. This

plan will be integrated with a road development plan and a specific utilization plan for natural resources in each governorate.

With this redrawing, the government aims to guarantee for each governorate an outlet to the sea and a backyard in the desert. Each governorate can take advantage of the Red Sea, the Eastern Desert, and the Western Desert. The Red Sea can be used for establishing ports and touristic activities. The Eastern Desert can be used for the mineral industry. The Western Desert can be used as a freshwater resort, as its land can be used for agriculture. Extending some of the governorates horizontally to reach the Red Sea or the Nile will also help in transferring some of Egypt's residents from living on 5 percent of the country's land to 45 percent of the land.

There will also be three new governorates, bringing the official number of Egyptian provinces from twenty-seven to thirty. The three new governorates will be called Central Sinai, Al Alameen, and Oasis. Redrawing the borders of the southern governorates, taking into consideration that each governorate has a desert backyard, permits their urban expansion as a trial in preserving the agricultural plots and encouraging development. As mentioned before, the Red Sea governorate will lose around 92 percent out of its current land, while noting that it does not include Suez city, which is in Suez governorate on the Gulf of Suez of the Red Sea (News, 2014).

The government did not consider in this proposal the cultural differences between the societies and local communities of the provinces that will be merged. Each province has its own geographic and social characteristics, and these details are not found in the governmental study. In its decision, the government has disregarded the nature and culture of these societies.

### **3. THE GOLDEN TRIANGLE (QENA-QIFT/SAFAGA/QUSEIR)**

The government's development approach is based mainly on economic analysis and there is therefore a deficiency in the vision of integrated urban development (a sustainable approach). There are contradictive activities planned, such as having a shared commercial/touristic/industrial/heavy industry complex in Safaga. The same concept is repeated in Quseir and Qena (and in the town of Qus) where the mineral industry zone is beside the Nile. There is a neglect of heritage, which is not considered as a milestone, nor as a catalyst for development. Instead, planners have considered the existing heritage to be only relevant for tourists, without mentioning any detailed plans of how it will be treated or conserved. Given this, such heritage areas will definitely be destroyed over time.

According to the government report, the aim of the project is to work to achieve sustainable development in the Golden Triangle region. It focuses on the mineral industries and achieving urban, economic and shipping objectives on the Red Sea shores.

The government took the following points as fundamental in shaping the plan for developing the region (see Figure 21 and Figure 22), which shows the orientation of their vision.

- Introducing a variety of mineral industries in the Golden Triangle area, to emphasize the importance of providing electricity relatively cheaply, and providing fresh water.
- Securing these two sources as being the pillars of development. This needs huge investment, given the importance of the role of renewable energies in producing the required electricity to fulfil the essential needs for developing the region.
- Using the imported coal fuel with petroleum kerogen (طفلة البترول) to produce electricity in an energy system which will also include a natural gas supply and solar energy, and freshwater.
- Both coal and petroleum kerogen (طفلة البترول) can also be used in the cement industry and thermals. This leads to a decrease in production costs and increasing the competitiveness of the local and international market, which achieves the expected benefit of the region's development. It is important to maintain the environmental conditions, conserve environmental cleanliness and safety, and use technologies that are energy-efficient and non-polluting.
- Working on efficient use of energy and water, decreasing the governmental support of prices.
- Adding power stations and seawater desalination units in the development projects of the Golden Triangle region. These projects are integrative with mineralization projects.
- Possibility of exporting the excess electricity through a shared network with other regions in need of this kind of energy.
- The development of this region needs the establishment of some training institutes to create trained labour able to deal with the projects of the development process and to construct maintenance and spare parts centres to guarantee the continuity of production. The suggestion is to establish a technological university in Safaga city specialized in mineral technology, new and renewable energies and the technology of using coal, and proposing holding scientific conferences and seminars in all fields related to the mineral sector.
- The importance of using the treated waste from irrigation, drainage and industrial water in cultivating energy plants and to produce bio-fuel.
- Marketing these development projects by subjecting the proposals of this study to investors, businessmen and media figures, to launch the development process in the Golden Triangle region (Ministry of Housing, 2014).

In January 2017, the government declared that the time management schedule would be announced soon in order to launch the “Golden Triangle for Wealth” development project. The Italian consultant office D. Appolonia finished the requested studies and general layout and plan of the project and passed them to the Egyptian cabinet (Independent, 2017). From the above details, aside from the heavy industrial projects which are clearly known to be harmful, it can be noted that there is a lack of studying and documenting heritage in the three cities, especially in Quseir, besides the lack of social studies conducted.

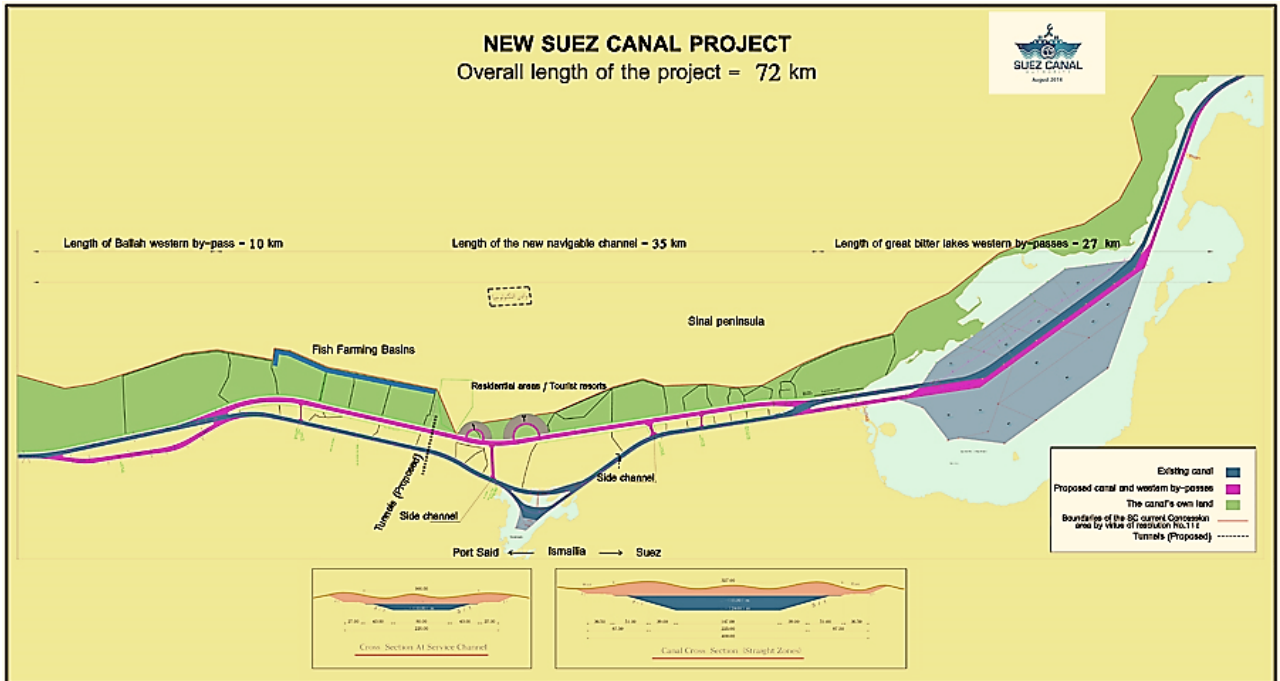
#### **4. CONCLUSION - A CRITICAL VIEW**

The effect of the new branch of the Suez Canal is similar to the old one, where new port cities were founded along the canal. It is observed that the economic studies of this project were well-prepared, with strict time management. One of the positive aspects of the project is that it succeeded in motivating the Egyptian society to finance national projects. But, taking into

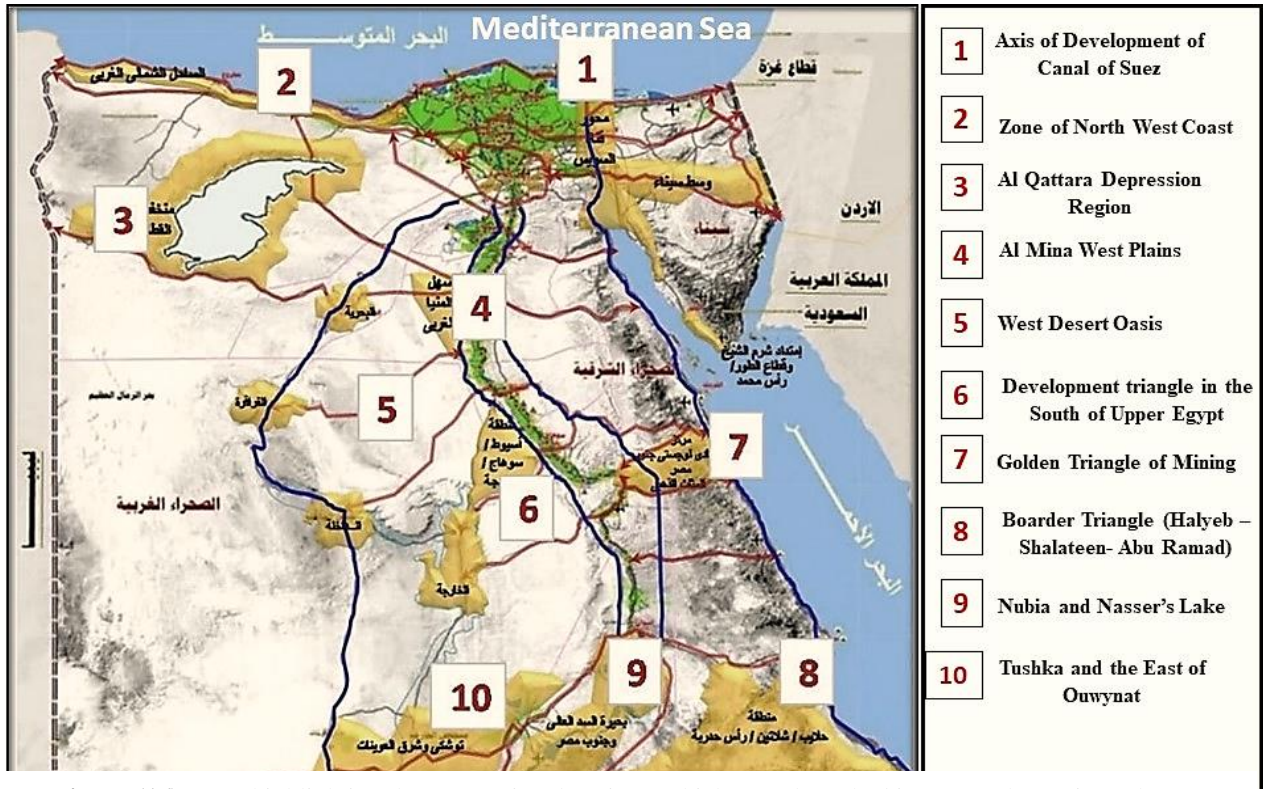
consideration the huge foreign investments established in the Suez Canal Economic Zone, will the revenues and benefit of this project maximize the public welfare and serve the Egyptian society and labour? Second, is it enough to establish a project plan, supposed to be an integrated sustainable development approach, led mainly by economists who have prioritized the economic aspect over any other aspects? Third, the plan for the emerging new cities parallel to the old ones on the shore along the Suez Canal axis and the Nile, especially in the south, such as New Quseir, New Safaga and New Qena (see Figure 21), clarifies that this region has not been studied carefully from an architectural and urban planning perspective, as the first thing that will be noticed is the low development rate and population growth in the mentioned cities. Given that the government is now constructing a new administrative capital that is located much nearer than the old one to the Suez Canal, what is the destiny of the old capital and the cities that were built up over centuries, presenting the essence of our identity; will they be upgraded or left to neglect and destruction?



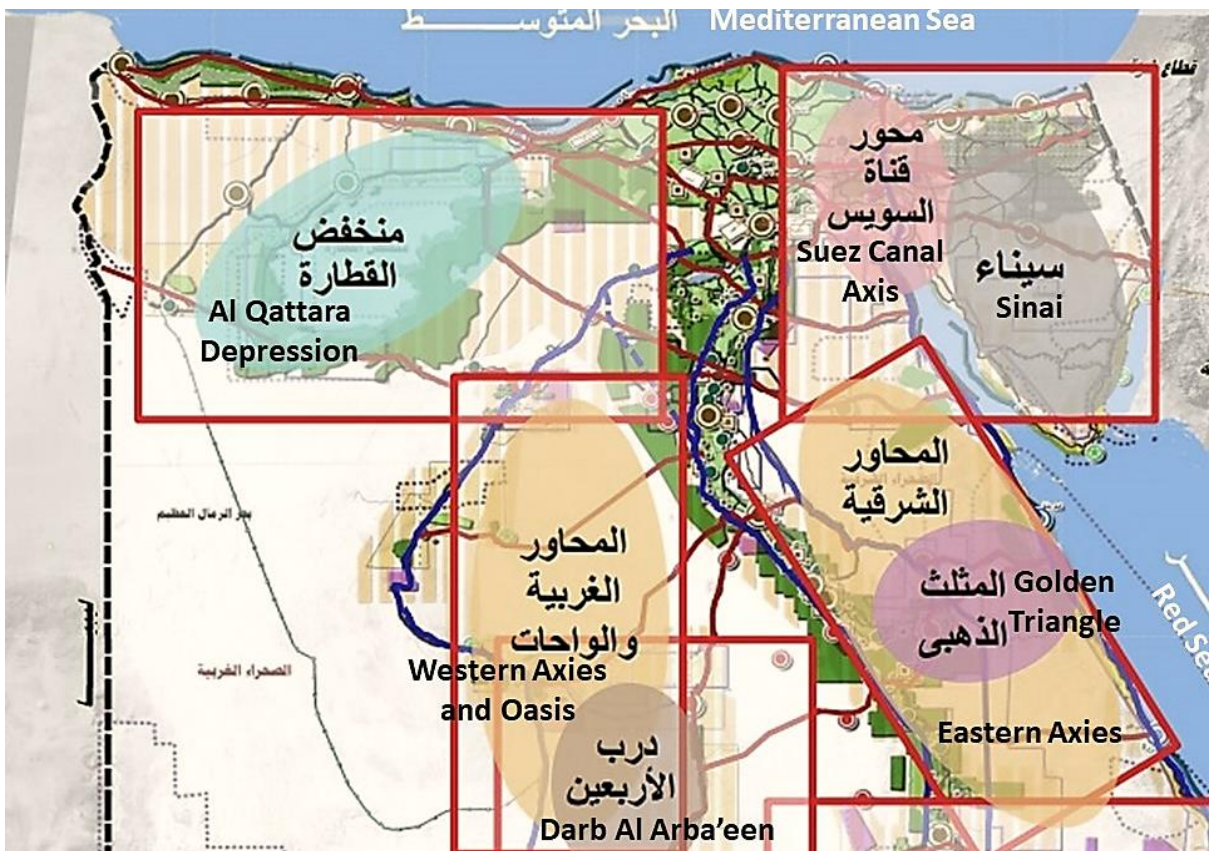
**Figure (14):** Google Earth satellite image of the New Suez Canal in 2017. Source: Google Earth 2017.



**Figure (15):** The proposal/technical drawings for the New Suez Canal. Source: Suez Canal Authority website.



**Figure (16):** Map highlighting the new national projects which were launched in 2014. The projects that are mainly located in the Red Sea region are the New Suez Canal, the Suez Canal Axis Project, and the Golden Triangle Project. Source: Ministry of Housing, Infrastructure and Urban Communities – 2017 Report.

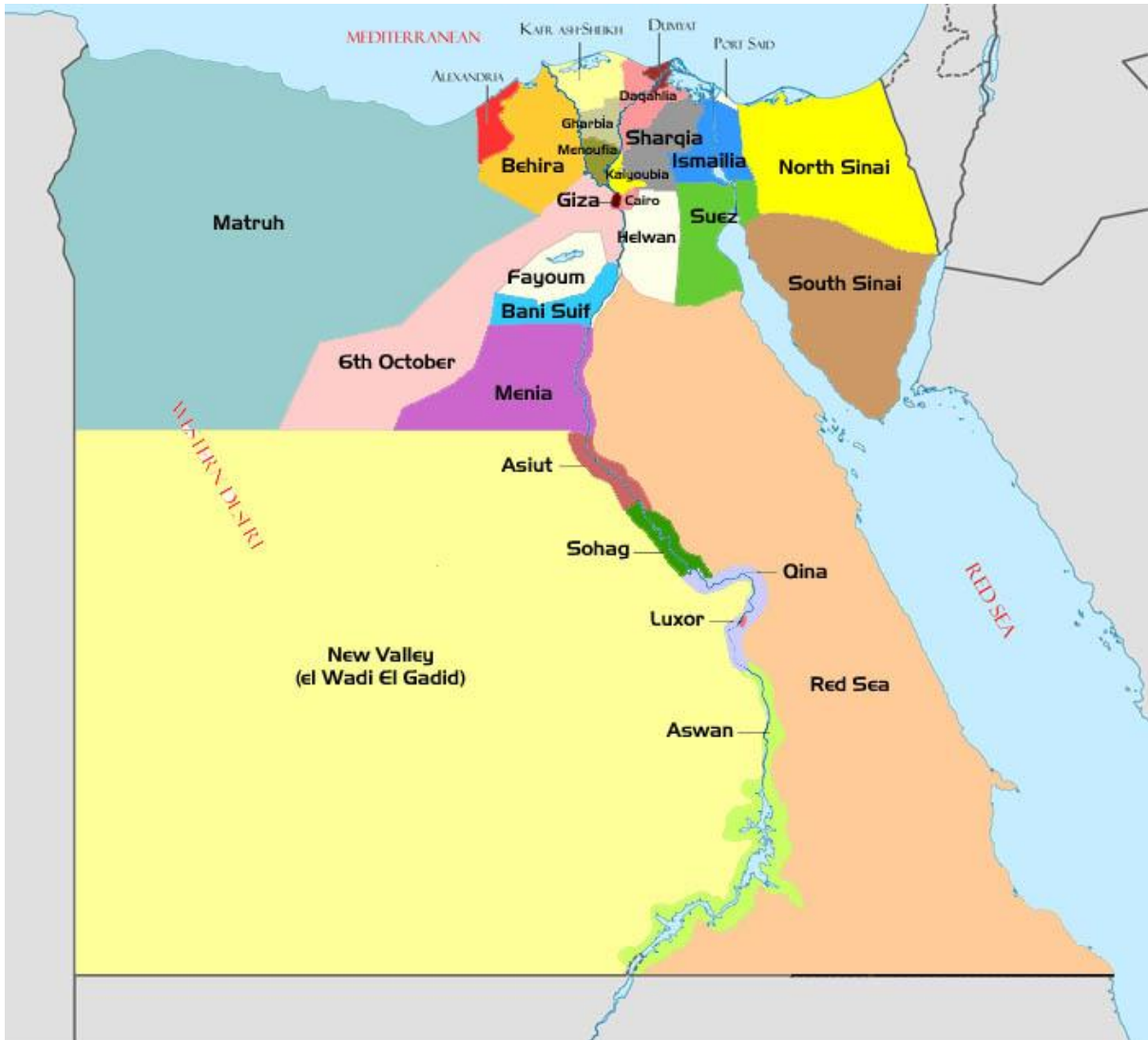


**Figure (17):** Map highlighting the development zones of the national projects and the borders of the regions being developed. Source: Ministry of Housing, Infrastructure and Urban Communities – 2017 Report.

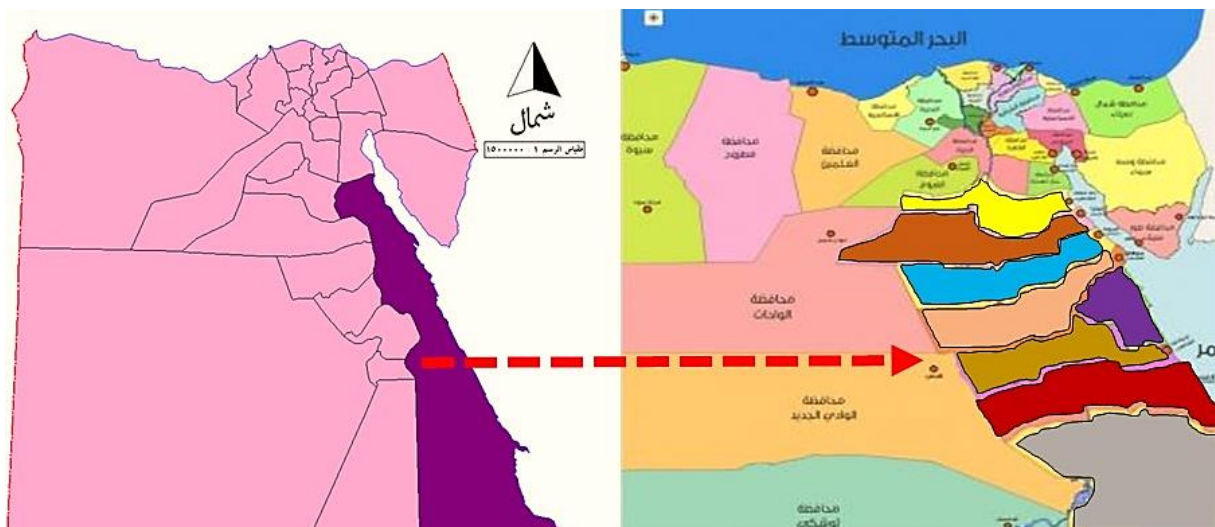




**Figure (18):** Map clarifying the location of the SCZone development areas/ports. Source: General Authority for Suez Canal Economic Zone’s website.



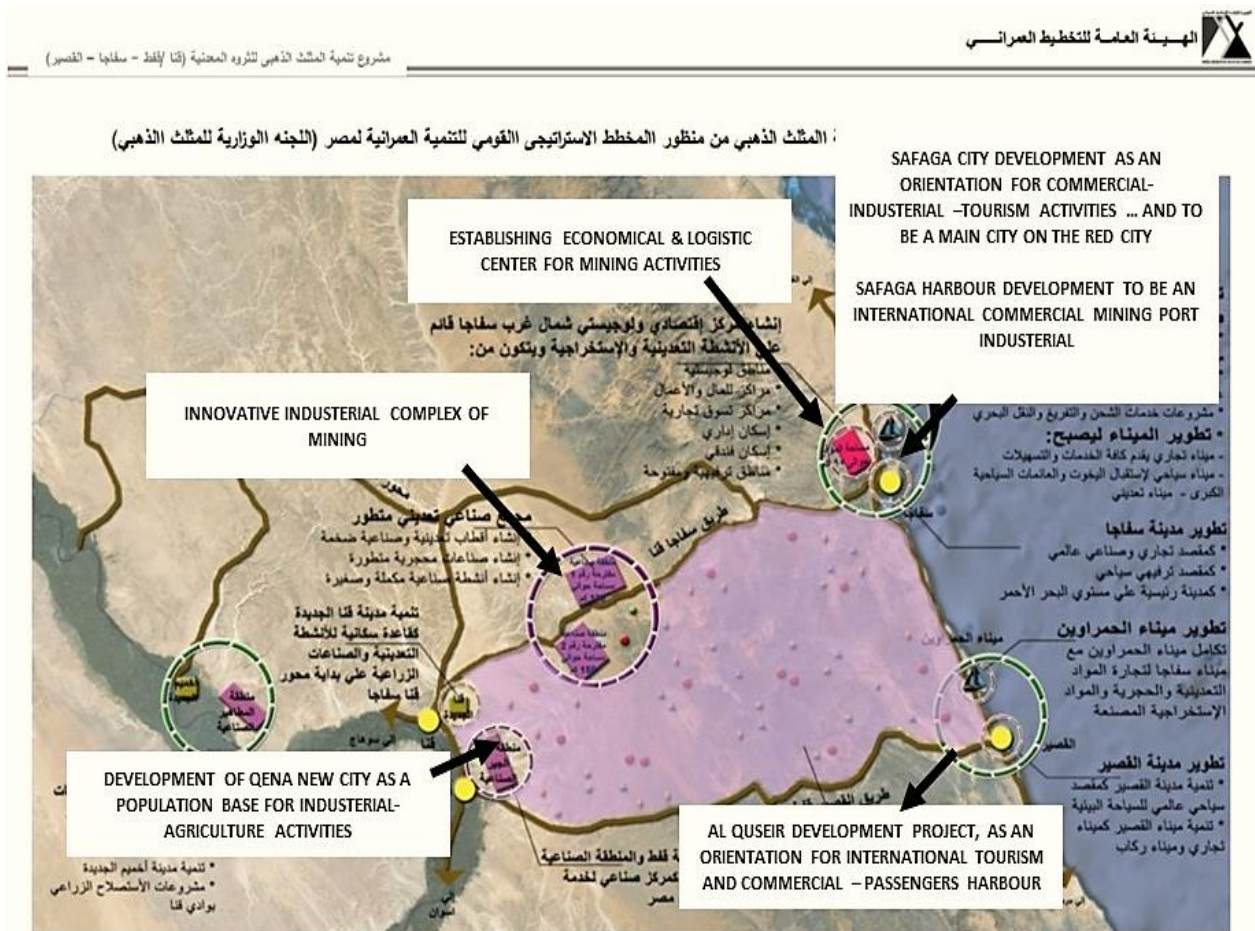
**Figure (19):** Clarifying the different governmental provinces and administrative regions of Egypt. Source: [Ahran Online.](#)



**Figure (20):** Clarifying the difference between the existing Red Sea governorate and the future horizontally oriented division. Source of first map: [Wikipedia](#); Source of second map: [EGY News.](#)



**Figure (21):** Government plan for establishing new cities along the Red Sea and the Nile in correspondence to each other (all the blue circles on the map are locations of new cities on the Red Sea coast and all of the red circles are the new cities established on the river. There will be a New Safaga and a New Quseir). Source: Ministry of Housing, Infrastructure and Urban Communities – 2017 Report.



**Figure (22):** Clarifying the Golden Triangle Development Project and Proposed Activities. Source: Ministry of Housing, Infrastructure and Urban Communities – 2017 Report.

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CHAPTER FOUR:  
HOW SPECIFICALLY DIFFERENT ARE RED SEA CITIES IN COMPARISON TO OTHER EGYPTIAN  
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## 1. RED SEA REGION

The Red Sea in its topographical, geographical form, location, climate, and marine life cannot be considered merely as a coastal front; rather, it represents a strong part of Egypt's human history, civilization, and heritage. The heritage in this region is also immensely affected by the nature of the Red Sea itself.

The Red Sea basin has a linear shape; it separates two masses of the Earth's crust, the Arabian Peninsula and North Africa. The basin is connected in the south with the Arabian Sea and Indian Ocean through the strait of Bab El Mandab and the Gulf of Aden. From the northern side, the Red Sea basin is connected to the Mediterranean by the Suez Canal. The basin area is 437,969 square kilometres, and its length from Suez until the strait of Bab El Mandab is around 1,900 kilometres. Its width ranges between 402 kilometres in the southern half to 209 kilometres at 25°/45 North, where it is divided into two sections, the Gulf of Suez and the Gulf of Aqaba (Shoman, 2010).

The Red Sea had a number of different names in ancient times based on the names of the cities and civilizations located on its shores. It was once named the Qulzum sea, in relation to Qulzum city, which lies at the end of its western gulf. It was also known as the Ablah sea, the Hejaz sea, the Pharaonic sea, the Jeddah sea (based on the city of Jeddah in Saudi Arabia), the Yemen sea in relation to Yemen, and Ayydab sea in relation to Aydhah harbour, (Salem, 1993) which later disappeared. Eventually, it was named the Red Sea in a shortened version of another ancient name, the Erythraean sea, which in Greek means "to dye red" (Schoff). Navigation in the Red Sea was dependent on the wind seasons, which were particularly favourable at the end of spring, during summer, and at the beginning of autumn. It is worth mentioning that neither the Red Sea's western branch nor its eastern branch is connected to any rivers, which makes its marine environment special (Salem, 1993).

The existing region of the Red Sea is one of the most important seas and repositories of marine biodiversity. As Gamal Hamdan demonstrates in his book *The Personality of Egypt: The Study of the Genius of Place – شخصية مصر* (Hamdan, 1984), the civilization in this region is affected very

CHAPTER FOUR:  
HOW SPECIFICALLY DIFFERENT ARE RED SEA CITIES IN COMPARISON TO OTHER EGYPTIAN CITIES?

much by the crucial location of the Red Sea. The civilizations on the Red Sea were deeply affected by the scarcity of freshwater in its desert climate. The formation of the Red Sea cities always began with a port established on the Red Sea itself. The residents of this region had to face hard conditions in terms of the lack of freshwater, and form their cities amid such constraints. Their lives were never as easy as the civilizations of Egypt founded on the banks of the northern coastal cities and exposed to the Mediterranean.



**Figure (23):** A map clarifying the location of the Red Sea ports in relation to the Nile and Egypt as a whole ...  
Source Sketch by the researcher



CHAPTER FOUR:  
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## **2. DESCRIPTION OF THE CITIES**

The current Red Sea governorate is bordered to the north by Suez governorate, to the east by the Red Sea, and to the west by the governorates of Aswan, Qena, Sohag, Assiut, Minya, and Beni Suef. In the south, it is bordered by Sudan. The governorate's capital is the city of Hurghada, and there are six other cities located in the province (Zafarana, Ras Gharib, El Gouna, Safaga, Quseir, and Marsa Alam).

### **2.1 SUEZ**

Suez is 124 kilometres from Cairo, and is the capital of Suez governorate. It is well known for its strategic location between the two continents of Africa and Asia. It is considered a strategic city in Egypt due to the presence of the Suez Canal.

### **2.2 ZAFARANA**

Zafarana is a small community that lies 254 kilometres north of Hurghada. The town's most noticeable feature is a wind farm with 50 towering turbines. Zafarana is the location of the largest wind farm in Africa and among the largest in the world. It is also considered an access point to the two neighbouring isolated monasteries of St Anthony's and St Paul's, the oldest monasteries in Egypt.

### **2.3 RAS GHARIB**

Ras Gharib is located 150 kilometres to the north of Hurghada. It is named after a mountain called Gharib that lies in the west. It is the second-largest city in the Red Sea and the most important Egyptian city for oil production. Oil production is the main economic activity and it hosts many state, private, joint and foreign oil production companies. In 1930 it produced one third of Egypt's production. It now produces about 70 percent of the total production.

Two villages are attached to the city: Zafarana to the north and Wadi Dara to the south. The French designer Gustave Eiffel, who designed the Eiffel Tower in Paris, designed a lighthouse in

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Ras Gharib in 1871, at that point the only large structure in the region. In 1932, the city was founded as the first oil field began operations (Planning, 2019).

## 2.4 EL GOUNA

El Gouna is located 20 kilometres north of Hurghada. It is a tourist resort that was established in 1990. It has a network of canals allowing inner buildings to have their own strip of beach. There are six main districts and three centralized areas that house shops, bars, and restaurants: Downtown, Tamr Henna square and the Abu Tig Marina (Development, 2019).

## 2.5 HURGHADA

Hurghada is the capital of the Red Sea governorate. Ras Gharib and El Gouna are in the north, at distance of 143 kilometres, and Safaga is to the south, a distance of 61 kilometres.

The city of Hurghada, with its potential for natural, economic and administrative variety, is one of the settlements which was linked with oil excavations. It was initially developed in 1909 by British engineers engaged in oil exploration, after oil was discovered in it 1913. By the 1920s a primitive small village was established.

Hurghada takes its name from the *al-gherkad* tree which grows in abundance in this region, and which was the gathering area for fishermen. A recreational rest house for King Farouk was constructed near these trees in the early twentieth century, and after nationalization in 1956, in the era of President Gamal Abdel Nasser, this building became the armed forces' water sports club. Since the 1980s, Hurghada has grown from a small fishing village to an internationally known resort town (Planning, 2019).

## 2.6 SAFAGA

Safaga, located 53 kilometres south of Hurghada, is a port town that was founded between 282 BC and 268 BC, originally called Philotera. It is known for its black-sand dunes and mineral springs which make it an important therapeutic resort. Safaga's port is considered the main link

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between Egypt and Arab and Asian countries for exporting phosphate, and is also mainly used to transport Egyptian pilgrims to Saudi Arabia (Planning, 2019).

## **2.7 QUSEIR**

Quseir is located 138 kilometres south of Hurghada, 139 kilometres north of Marsa Alam, and 73 kilometres from Marsa Alam airport (Planning, 2019).

The small harbour city of Quseir is one of the oldest cities in the area. The town was used by Pharaohs and Romans as a commercial port (Attar & Rashed, n.d.); for example, the ancient Egyptian queen Hatshepsut used the port as a base for launching trade journeys to the Land of Punt. The Arabs used it for pilgrimage to Mecca. During the French campaign in Egypt in 1799, Napoleon Bonaparte realized the importance of this port and tried to occupy the city, but failed to stay in the city for a long time (Attar & Rashed, n.d.).

The fortress of Quseir was constructed by the Ottoman Sultan Selim, and was the first to protect the city against foreign invasions. Muhammad Ali rebuilt the fortress of the city and used its port for launching his military campaigns against the Wahhabis in Hijaz. The city is also a religious centre home to a number of mosques and shrines. Quseir lost its importance with the establishment of the Suez Canal. The city became even more forgotten after the construction of Safaga and Hurghada. Nowadays it is used as a phosphate port and is a growing touristic resort.

## **2.8 MARSA ALAM**

Marsa Alam is located 280 kilometres south of Hurghada. It was a small fishermen village until the 1990s, then it became a growing touristic city. It is also known for gold mining. The city contains two villages, El-Shaikh Shazly and Baranees. Marsa Alam's native inhabitants belong to two tribes, the Ababda and the Besharya. They inhabit a broad part of the southern area of the Red Sea governorate (Planning, 2019).

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### 3. EGYPTIAN CITIES

There are a number of Mediterranean coastal cities, from Alexandria, which was built by Alexander the Great, to Rosetta and Damietta, where the river and sea meet, to the eastern Mediterranean cities which were established on the route connecting Syria with Egypt and which are related to the Belzowy branch of the Nile, such as Balozza and Farma. There are also cities between the Mediterranean and the Red Sea created by the incision of Suez Canal, such as Port Said, Ismailia and Port Tawfik.

The cities, and the governorates named after them, in the south of Egypt until the beginning of the Nile Delta, which were founded along the main Nile branch, include Aswan, Qena, Luxor, Sohag, Asyut, and Beni Suef, until we reach Giza in the north. The name Giza means passing the Nile, and it is a crucial point between the sea and Upper Egypt.

The Nile used to have forty-two branches, but now only two branches remain, the Rosetta branch and the Damietta branch, where the cities of Rosetta and Damietta are located. Also along the Nile, there are cities which were founded based on the irrigation system established by Mohamed Ali, the first Ottoman ruler of Egypt. In the west of Egypt, there are cities founded on the presence of freshwater springs, such as the city of Fayoum, located on an oasis, then comes the cities of Dakhla and Bahariya oasis in the far southwest (Cooper, 2014).

The Red Sea cities were founded due to the trading routes from northern and southern Africa, as well as the pilgrimage route, the locations of Christian sites such as monasteries and Muslim sites such as the cemeteries of the Sufi saints. It is notable that some of the cities on the north coast of Egypt were named after Sufi saints, such as Sidi Barani (Saint Barani), Sidi Kireer (Saint Kireer), Sidi Al Anfoushi (Saint Al Anfoushi), and Sidi Gaber (Saint Gaber), etc.

The foundation of the Nile valley cities was dependent on the Nile river, its branches, and the irrigation system in the north. The cities were founded based on the trading route and Sufi sites. In the Western Desert, the cities were established in relation to water springs, and in the Eastern Desert, the cities were formed in association also with religious sites (Christian and Muslim) and

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with the trading route. The network of these cities in several historic periods was cosmopolitan, with residents from North Africa and the Western Desert such as Amazigh and Tuareg, or from the southern cities and tribes of Africa, such as Al-Ababadah and Bashrya, as well as residents from Arabia.

#### **4. A TALE OF TWO CITIES: OBSERVATIONS FROM FIELDWORK AND CHARACTERISTICS OF THE BUILT ENVIRONMENT**

Nezar Al Sayyad, in his book *Cities and Caliphs: On the Genesis of Arab Muslim Urbanism*, discusses the forms of cities based on their cultural context, and demonstrates two different, common approaches to the history of urban form. One divides time into essential historical periods and the other focuses on Muslim cities of a specific geographic area. The city's residents are a non-agricultural population interested in commerce, religion, industry, and defence. The historiography of the concept of the Muslim city presents the development of the features of its physical form. At first, the stereotype model of Muslim city is a central mosque, citadel, palace, segregated quarters and centralized *souq* (market), but this is an insufficient description of its reality. Instead, there are three unique types of Arab cities: the defence city, the transformed city with Islamic origins, and the new capital. The defence cities, military camps established by Arabs during the early conquests, their building methods and physical features were the product of a process of negotiations between caliph, the regional governor and the local residents (Sayyad, 1991).

There are several types of analysis that can be applied to Quseir and Suez in order to study and reveal their urban character. The research will combine the methods of two scholars and applying it in order to analyse the urban character. Based on Kevin Lynch, there will be an analysis of landmarks, nodes, paths, districts, edges, and gateways. As for Hamdan, his theory depends on the genesis of the place and how geography interacts with history to form the city's urban morphology and chronology.

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First to discuss is Quseir's urban tissue, and the process of transformation that it has gone through. In the beginning, Quseir was an old city with a compact tissue. This compact tissue stood for centuries expressing a model of a Muslim city in which we find narrow alleys, a major *souq* area, mosques and the seaside. Also, we can find main buildings such as the citadel, the quarantine which was the old wheat storage area, the police station which was the city hall, and the shrines and mosques of Sufi sheikhs. The other context that the city transformed into is the grid tissue, which reflects the industrial requirements and mining activities such as Marconi Houses, the Italian phosphate factory and company. Afterward, there was a systematic development process from the 1960s onwards which did not change the grid tissue. There was then the initiation of informal settlements with an unplanned tissue during the 1980s and 1990s. These different types of contexts form the urban tissue of Quseir. The evolution of main routes affected Quseir's tissue as well. The route from Qena to Quseir was one of the essential streets (linear space), edges and gateways which formed the city *souq*; it was also linked to the Cornish street and the old port at the end. What comprises the old core of Quseir are narrow alleys with the hierarchy of the streets from the Islamic era, which is ascending from Hara to Atfa to Zoqaq to Darb, and then Kasabah. Such types of streets create an interactive and intimate social environment among local residents. Residential buildings make up the major percentage of the urban tissue.

As for Suez, the city was also a traditional Arab or Muslim city with compact tissue, but the transformation point which turned the whole urban tissue upside down and demolished the Arab quarter was the opening of Suez Canal. Khedive Ismail was influenced by Haussmann's planning in Paris and he wanted to imitate the same experience in Suez and Cairo. As a result, the grid tissue started to become dominant from this transformation point, and the design of buildings, quarters and streets was inspired by Haussmann's Paris (Myntti, 2003). Then came the nationalization of the Suez Canal and along with it the war in 1956, then the subsequent war in 1967 and in 1973, where most of Suez's urban tissue was destroyed. The residents of Suez started the reconstruction process after 1973, but the building was very simple and without ornamentation due to the economic circumstances after the war (Souissi, 2017).

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## **5. QUSEIR AND SUEZ: OLD HISTORICAL CITIES BEARING EVIDENCE OF HERITAGE**

Do we need to protect Quseir and Suez's heritage as an outstanding universal world heritage? Should Quseir and Suez's heritage be conserved, documented and transmitted to future generations? Can we consider the two cities as milestones of Egyptian heritage, taking into consideration the concept of heritage being of outstanding value<sup>1</sup> according to UNESCO's convention?

Outstanding universal value means *“cultural and or natural significance which is so exceptional as to transcend natural boundaries and to be of common importance for present and future generations,”* according to UNESCO's 1972 convention. In the case of cultural heritage, the values created are fundamental in considering this heritage to be outstanding. Cultural heritage values include historical value, aesthetic value, spiritual value, social-cultural value, symbolic value, and authenticity value (AlGammal, 2007). Each case and city has its own hierarchy of values; for example in Quseir and Suez, the most important ones are historical, authenticity, spiritual-cultural and symbolic values. Historical value is the crucial key to decoding the cities' formation and mastering other values. Through the historical value, other values accumulate and integrate with each other, forming the architecture and urban features of each historical period.

When cultural heritage values are analysed through chronological methods and mapping, the transformation stages and shifting process which has effected geographic/urban/architectural features are emphasized. It provides a tangible comprehension of the qualities of cultural properties existing in heritage represented in buildings, centres, quarters, territories, or cities. Also, it defines the spatial organization, structure, material forms and the function of a group of buildings, in other words the characteristic features mentioned above, which reflects the civilization or a succession of civilizations. All of this leads to the promoting, sustaining and developing of the values embodied and represented by the heritage of territories or cities. This

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<sup>1</sup> This does not include movable cultural heritage, therefore the museums with artefacts found at the boundaries of the world heritage site could not be protected, as it isn't considered of outstanding universal value.

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thesis demonstrates this in an academic record and urban atlas, including maps and pictures, which document the heritage of each city. There are also maps which analyse urban transformation and growth in the cities' morphology through different historical periods, as well as a historical chronology of each city.

This academic record should answer the question of whether the heritage of Quseir and Suez is of outstanding universal value or not.

## **6. QUSEIR EXISTING HERITAGE**

The following map, taken pictures and analysis was done by the researcher through conducting field work at the city of Qusier.



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QUSEIR BASE MAP

- LAND MARKS
- RESIDENTIAL (MAINLY HERITAGE)
- COMMERCIAL (MAINLY SHOPS)
- RELIGIOUS BUILDINGS & SHRINES

- 1 Fort / Citadel ... 16th Century
- 2 Quarantine ... 14th -17th Century
- 3 Police station (Former City Hall) ... 19th Century
- 4 Residential Building (Former Primary School) ... 17th -19th Century
- 5 Residential building with Unique Character ... 17th - 19th Century
- 6 Al Sageefa Alley (One of the oldest alleys in Quseir)
- 7 Phospahe Houses ... 20th Century
- 8 Marcony Houses ... 20th Century
- 9 Phospahte company / colony ... 20th Century
- 10 Church ... 20th Century
- 11 Al Farran Mosque and Shrine
- 12 Al Samman Mosque
- 13 Abdelkarim Shrine
- 14 Al Yammani Shrine
- 15 Al Kinawy Shrine
- 16 Ahmed Said Shrine
- 17 Abdelkader Shrine
- 18 Al Snousy Mosque and Shrine
- 19 Residential buildings in the city oldest core (Most of them with Unique character) ... 17th - 19th Century
- 20 Commercial/Residential buildings ... 17th - 19th Century
- 21 Al Quseir Hotel ( Former Sheikh House) ... 14th - 19th Century
- 22 Al Quseir Old Port ... 14th Century

— 16th to 19th Century

It is located 138 kilometers south of Hurghada and boarded from the south by Marsa Alam, a distance of 139 km and 73 km from Marsa Alam airport.

The City of Quseir is one of the oldest cities in the area. Its population is around 50,000 according to 2006 census.

Also, the city is a religious center which contains a number of mosques and shrines. Quseir lost its importance since the ottomans took Suez as the capital of Red Sea region in Egypt according and then came the establishment of Suez Canal which increased the neglect towards Quseir as a strategic city as it used to be in the Mamluk era.



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QUARANTINE:

1	5	9
2	6	
3	7	10
4	8	11

Architect: unknown  
Date: 14<sup>th</sup> – 17<sup>th</sup> century,  
Former use: Grain storage and Quarantine,  
Present use: Abandoned,  
Future use: Museum by the Ministry of Culture,  
Construction material and System: Bearing walls, rubble stones and wooden structure made from palm tree trunks,  
Present Status: Deteriorated and needs to be conserved.

1. A view of the Quarantine with the surrounding buildings (Old Police station and Al Farran Cemetery and Mosque).
- 2 & 3 & 4 the different facades of the Quarantine where it is noticed how there are no openings except for the entrance, the Grain storage places are appearing in the three facades.
5. One of the buildings inside the Quarantines at the moment it is abundant and there are plans by the ministry of culture to turn it into a museum.
6. The rest of the buildings inside the Quarantine where there is a side entrance rather than the main entrance that is closed.
7. The upper Floor in the Quarantine which is mainly constructed from wood and from the material used in the base columns, there is a possibility that this part was added. Also in the picture appears the minaret of Al Saman mosque which is constructed from rubble stones.
- 8 & 9 A view of the Quarantine from the upper floor and the wooden stairs.
10. The wooden balcony which is covered by a simple mashrabya to give privacy for whom ever is living or standing in the second floor.
11. An internal room in the upper floor of the Quarantine, where it shows the wooden ceiling made from the trunks of palm trees and construction is bearing walls made from stones and painted by Qusemil (Mortar made of sand).

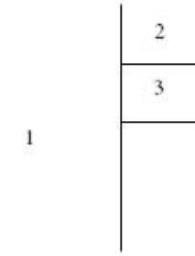


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MOSQUES & SHRINES:



1&2&3.. Quseir's residents, Shine of sheikh Abdel Kader Al Jilany shrine, 18<sup>th</sup> and 19<sup>th</sup> century. The entrance of the shrine is near to the seashore where it leads to an inner court with plants as it is seen in the fifth picture . Same idea as the last shrine where the color of the dome is green and underneath it is the shrine. As it can be seen in the first picture that the fence of the shrine is a mix between bearing walls and reinforce concrete (the entrance with the right wall is masonry stones and the left part after the entrance is reinforce concrete). The present status of the Shrine is in good condition but needs to be conserved as it has some deteriorated parts.

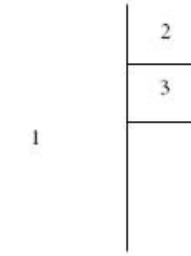


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MOSQUES & SHRINES:



1. Quseir's residents, Al Farran Mosque and Shrine, 18th - 19th century. Former and present use is Shrine and Mosque. The old minaret which is built by masonry stones is on the left and the new minaret built by reinforce concrete is built in the modern era (20th century) on the right. The construction of the mosque is a mix of both bearing walls and reinforce concrete system. The paint color is yellow which is the main theme of the buildings color in Quseir. It is in a Good condition as it was restored by residents.

2&3. Quseir's residents, Shrine of sheikh Ahmed Mostafa Saeed ,18th- 19th century. Former, present use is a Sufi shrine. In the both pictures we can see the exterior and interior of the shrine. In the second picture we can see the façade and dome of the shrine, where it is colored with green or greenish blue as the ritual in all Sufi shrines. There is a reason behind this which is a myth. The myth says the hereafter paradise residents clothing color is green and there is another interpretation which is the owner of the shrine has a green hand (denoting his good reputation, deeds and actions). The construction of the shrine is reinforced concrete which means that probably the old shrine got deteriorated and the local residents reconstructed it again in the 20th century. Also usually underneath the dome the shrine is placed.

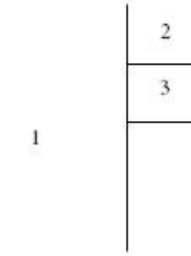


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MOSQUES & SHRINES:



1&2&3. Unknown architect, Al Samman Mosque, 16<sup>th</sup> -17<sup>th</sup> century. Former and present use is a Mosque. As its is seen from the 7<sup>th</sup> picture that the Minaret has a different character than common minarets of mosques where it is a tower more than a minaret. It is bearing wall constructed by rubble stones. In the last picture it is seen how after the restoration process done by the residents in 1986 , reinforced concrete was used to strength the structure of the mosque from the inside. The mosque is in very good condition.



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OLD RESIDENTIAL HOUSES:

1		4
		5
2	3	6
		7

The pictures present different types and characters of residential buildings which are mainly existing in the city's main core. The color theme of the buildings is yellow and the color of the doors and windows either brown, green or blue. The maximum height of the buildings is two floors and it extends horizontally not vertically. As it is seen from the pictures that the main construction material are masonry stones (mainly limestones) and palm trees trunks. Inside the house there is usually an inner court. Houses entrances in Quseir, either through one or two steps higher than the street level or through the street trace. The first type is the main entrances of the residential houses. The entrances often decorated with ornaments. Then come the staircases, doors, and windows. Most of the stairs are built out of wood nailed and parallel to the external walls with approximately one meter. Windows are made of two louvered shutters; they have upper and lower parts that open separately.

1&2 Quseir's residents, Residential houses, 17<sup>th</sup> – 19<sup>th</sup> century. Former and present use is residential. The houses are composed of two floors and in merely good state. Their construction system is bearing walls and painted by Qusermil (Mortar made of sand).

3&4&5&6& Quseir's residents, Residential Houses, 17<sup>th</sup> – 19<sup>th</sup> century. Former and present use is residential. The houses are composed of one floor and in critical condition. There is a risk they would get demolished in near future. Their construction system as it shown in the pictures is bearing walls from mansory stones (Limestone) and wooden ceiling from plam tree trunks.

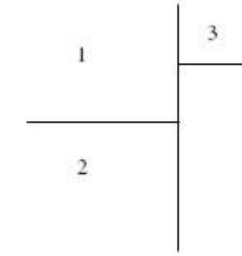


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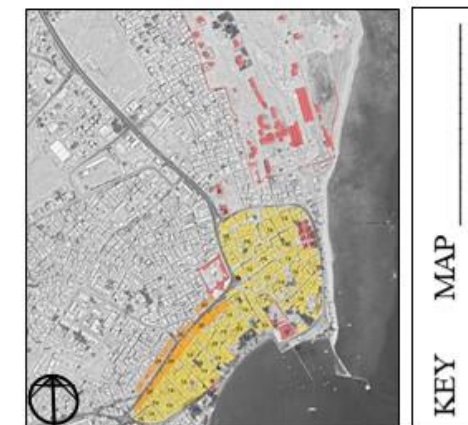


OLD RESIDENTIAL HOUSES:



1. Quseir's residents, Residential House, 17<sup>th</sup> -19<sup>th</sup> century, past and present use is residential , The house is one of the few houses restored in Quseir by its residents. The construction system of the house is bearing walls (walls are from limestones and ceilings are from palm tree trunks). The external painting is mainly from Qusermil (Mortar made of sand). The house is in an excellent condition and it consists of two floors.

2 &3. Quseir's residents, "Hamam" residential house, 17<sup>th</sup> - 19<sup>th</sup> century, Kamal ELDin Hussien known as "Hamam" was a famous former parliament representative of Qusier in the 1990ies. He wrote several books about Quseir's history. He had done many enhancement works in Quseir. This is his house but it is abundant at the moment. The house is in need for restoration and a conservation plan to prevent it from further deterioration. It consists of two floors and it is abundant at the moment.



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OLD RESIDENTIAL HOUSES:

		6
1		7
2	4	
3	5	8

The pictures present different examples of wooden widows and balconies which some of them are covered with Mashrabya. Most of the balconies are made of timber, they extend outside the external walls of the building, besides they may be sometimes covered with timber roofs. The balcony's handrail takes different shapes. Also, there is the Mashrabya, which is an extended wooden structure on the windows or balconies, it usually has ornaments and it differs from one building to another. It is used to provide privacy and gives a unique character to the urban tissue of Quseir.

1. Quseir's residents, Façade of a residential house, 17<sup>th</sup> -19<sup>th</sup> century, Former and present use is residential. In the façade, it is found a wooden balcony covered with Mashrabya structured from two Arcades in the upper part and wooden sheets with different openings and ornaments. The same Masrabya can be seen also in other different residential buildings as it is seen in picture 6 & 8 .

2 & 5 Quseir's residents, Cluster of Residential houses, 17<sup>th</sup> – 19<sup>th</sup> century. The pictures clarifies the intimate urban spaces between the houses and buildings in general in the urban context. It also clarifies the buildings maximum height and the continuous horizontal skyline. And how the Balconis structures play a dynamic role in the urban character.

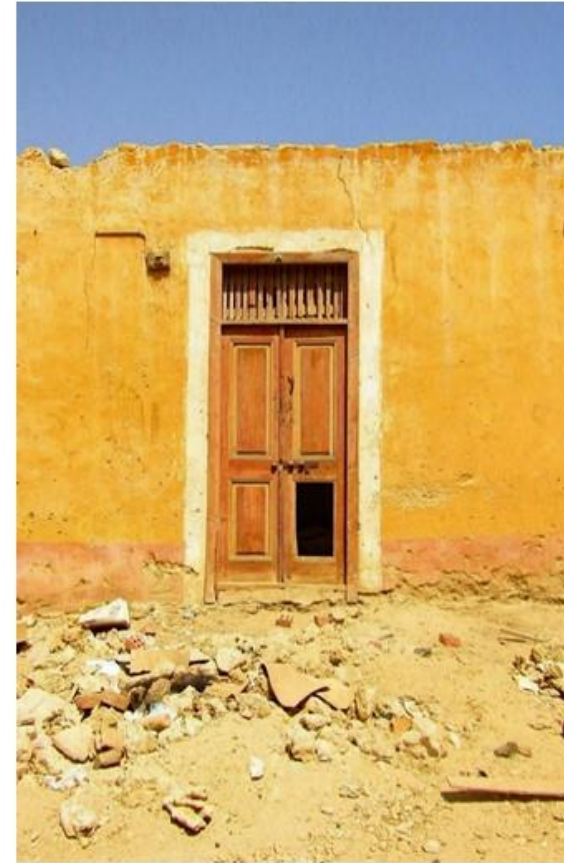
3&4&7 Quseir's residents, different types of wooden balconies, 17-19<sup>th</sup> century, the pictures show how the main theme of the balconies shape which is "X" at the top of the balcony fence and then rectangular wooden sheets underneath it. The floor of the balcony is from wooden panels as it is seen from the pictures.



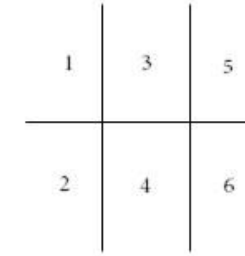
KEY MAP



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OLD RESIDENTIAL HOUSES:



1&2&3 Quseir's residents, The pictures present different examples of residential houses entrances, 17<sup>th</sup> -19<sup>th</sup> century, former and present use is residential, it is seen that the main composition of the main façade of the house is a Door in the middle surrounded by a window on each side. Above the door in the second floor there are three openings, two of them which are corresponding to the two lower rectangular openings but smaller in size. One middle opening which leads to a wooden balcony which is above the Entrance. The color of the wooden work and ornaments in the doors, windows and balconies either brown or green or blue. In the third picture it is noticed the different shape of the balcony and its ornaments, where it is from wood and stones and painted by Qusermil.

4&5&6 Quseir's residents, The pictures represent different Entrance doors of residential buildings, the door opening is divided into two openings, an upper opening which is covered usually with wooden ornament and a lower opening which comprises the door itself. There is always a frame around the door, sometimes it is plain and sometimes it has ornaments. Usually there is one or two stairs in the entrance. Doors have ornaments either made of wood or metal, but the new doors do not have ornaments.

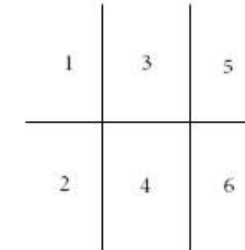


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OLD STREETS & ALLEYS:



The pictures presents different street scales and urban spaces in Al Quseir. The old Arabic city has different scales of streets with hierarchy, *Kasaba* is the biggest longest street in the city, it penetrates the city from south to north, it comprises the main souq (market) and landmark buildings. *Darb*, is a secondary street divided from Al Kasaba, it is the second classification in the street hierarchy of the Arabic city. *Afa*, is the third classification where is it divided from the Darb. The 4<sup>th</sup> classification is *Zuqaq* which is much narrower than Kasaba and Darb. Then comes the smallest planning unit in the Arabic city which is *Hava*. The common sense in the urban spaces and streets in Quseir city is intimacy. Due to this intimate design of spaces, all neighbors know each other in Quseir, there would not be an exaggeration if it is said that the residents of the whole city know each other not only in the same street. There is a good community connection and sense of belonging to the built environment. It can be also observed from the pictures that there are no spaces between the buildings, the residents or the local builder built on the whole land lot. The buildings are attached to each other forming fine urban tissue and the streets are veins with in them. Also there is a reason behind the narrow composition of the streets where it acts like a tube where the wind accelerates forming wind currencies in the hot weather.

In the 5<sup>th</sup> picture we can see Haret al Sageefa, one of the oldest alleys in Al Quseir, this alley was restored and renovated by the local residents of Quseir.

In the 6<sup>th</sup> picture, A house which is located at the end of Al Sageefa Alley, The entrance door has a top inscription: "In the name of God – victory from the lord, written in year 1308" and probably the written year is in Higri calender which means it was in 1891 AD.

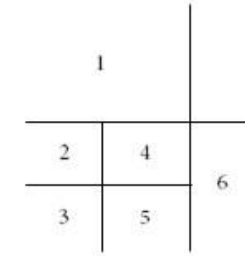


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HAJJ MOAHMED HOUSE:



Architect: Qusier's Residents (Local Builder)  
Date: 17<sup>th</sup> – 19<sup>th</sup> century,  
Former use: Residential House,  
Present use: Residential House,  
Construction material and System: is bearing walls ,  
mansory stones and palm trees trunks as wood panels in the  
ceilings  
Present Status: In a very good state.

1. The shape and pattern of the openings is different than other houses where. There are three windows in the ground floor and not two and they take the shape of Arcades as it is seen in the 1<sup>st</sup> picture..
2. There are four rectangular windows with shutters in the upper floor. Above the four windows there are four openings in the walls that act as ornaments.
3. It is noticed that the Entrance at the right side and not in the middle of the house with two steps downwards not upwards, which means that the street level became higher than house by time even after the house was renovated by his owner.
4. The inner hosting space of Hajj Moahmed's house, As it is seen in the picture , the door and two windows have the same shape, color and pattern as the external ones. It seems to be an internal façade.
5. The ceiling of the house is mainly from wood panels that are from palm trees trunks. As it is seen in the picture the ceiling is renovated and painted.
6. The Façade of Residential House corresponding to Hajj Mohamed's house. The design of the balcony and Mashrabya and their color is one of the unique characters that distinguish Al Quseir

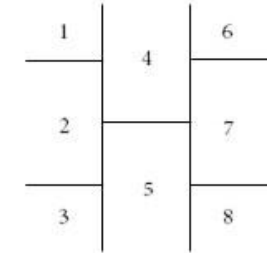


KEY MAP

CHAPTER FOUR:  
HOW SPECIFICALLY DIFFERENT ARE RED SEA CITIES IN COMPARISON TO OTHER EGYPTIAN CITIES?



SHEIKH TAWFIK HOUSE::



Architect: Qusier's Residents (Local Builder)  
Date: 14<sup>th</sup> – 19<sup>th</sup> century,  
Former use: Residential (Sheikh Tawfik House)  
Present use: Hotel (Quseir Hotel)  
Construction material and System: Bearing walls  
Present Status: Restored and in Good Condition



1 & 2 & 3 . Different facades of Sheikh Tawfik's House , It is noticed from the facades that the style of the house goes back to earlier phase than the ottoman period. It appears from the façade the masonry stones, Qusermil mortar and wooden Mashrabya.

4. An inner view of the Mashrabya , it can be noticed the shade and indirect light it offers and also it keeps the air cool in the hot weather , this is beside offering privacy for the owners of the house especially women in the past.

5 & 7. An inner view of the upper floor of the house, the construction system in bearing walls with wooden ceilings as it is seen in the pictures.

6 & 8. Adaptive reuse of the house uses as a hotel, in the 6<sup>th</sup> picture we can see a guest room and the 8<sup>th</sup> room there is a living room designed based on the Arabic style where the seating are cushions and small table.

The hotel is managed at the moment by the Grand son of Sheikh Tawfik.

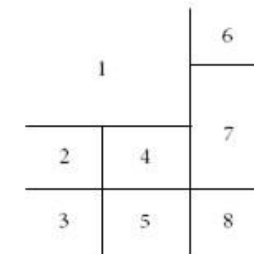


KEY MAP

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THE CITADEL (FORT):



Architect: Unknown – Sultan Selim gave an order to establish it.

Date: end of 16<sup>th</sup> century,

Former use: Defense fort

Present use: Museum

Construction material and System: Bearing walls, masonry stones and mud bricks and palm trees trunks

Present Status: Restored and in Good Condition



1 & 2. Fort main entrance,

3&5. Buildings built in the Citadel, they are used at the moment as part of the present museum

4. A bird view taken from the tower of the citadel, where it shows the space of the inner court of the citadel and how the map of Egypt is drawn on part of the ground.

6. Stands for external exhibition in the citadel that still are not used.

7. One of the two towers of the citadel, it shows that it is built from stones and mud bricks. This is only tower left as the other one got deteriorated and demolished.

8. An inner view in one of the buildings existing in the citadel, where it is turned into a museum that narrates the story of trade and pilgrimage beside the tribes who were living in Quseir.



KEY MAP

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PHOSPHATE :COLONY

1	4	7
2	5	8
3	6	

In 1912 an Italian engineer, Emilio Cortese, discovered phosphate along with other minerals in Quseir and founded a small Italian colony based on Italian phosphate company. Residents from the city of Agordo, Italy came and lived in Quseir. There was a minor transformation in Quseir's context, where the Italians established a hospital, few housing buildings and a radio station.

The organization of the phosphate town was based on the north – south road connecting the city to the factory, where it was lined by buildings. In the middle of the road formed a square, surrounded with offices and public buildings. The mine can be seen on the northern side of the town. There were an elementary school designed on fascist style with single storey founded in 1930. It was designed by Florestano Di Fausto, an architect assigned by the Ministry of Foreign Affairs of the Italian government. There was an administration house founded in 1931 and designed to be the manager's house and reception. In the east, the church is found where it was founded in 1938 and designed by Riccardo Decima. It belonged to the Coptic church which managed the Franciscan Missions through out Upper Egypt coast. The church has a gothic arch, rose window and Latin cross. There are buildings dating to the 1940ies beside the church, one of them is the Franciscan sister's convent which was established in 1946. The buildings are all with single storey, roofed terraces and basic geometrical forms. They express modern style of Colonial house

1. The Church, 1938, still used as a church.
- 2 & 3 & 4. The Administrative house, 1931, It is abandoned at the moment.
- 5 & 6 & 7 & 8. The Houses Built by the Italian Company in 1920ies, known as the Phosphate Houses. Some of the Houses are used as utilities by the Egyptian Government nowadays

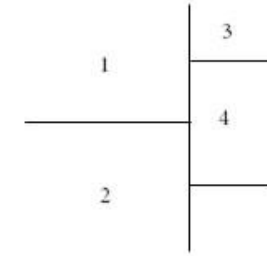


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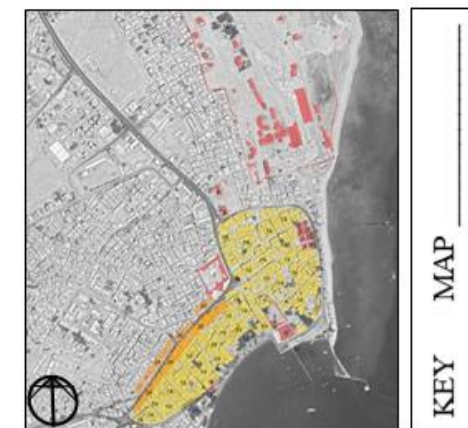
CHAPTER FOUR:  
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QUSEIR SEA FRONT AND OLD PORT:

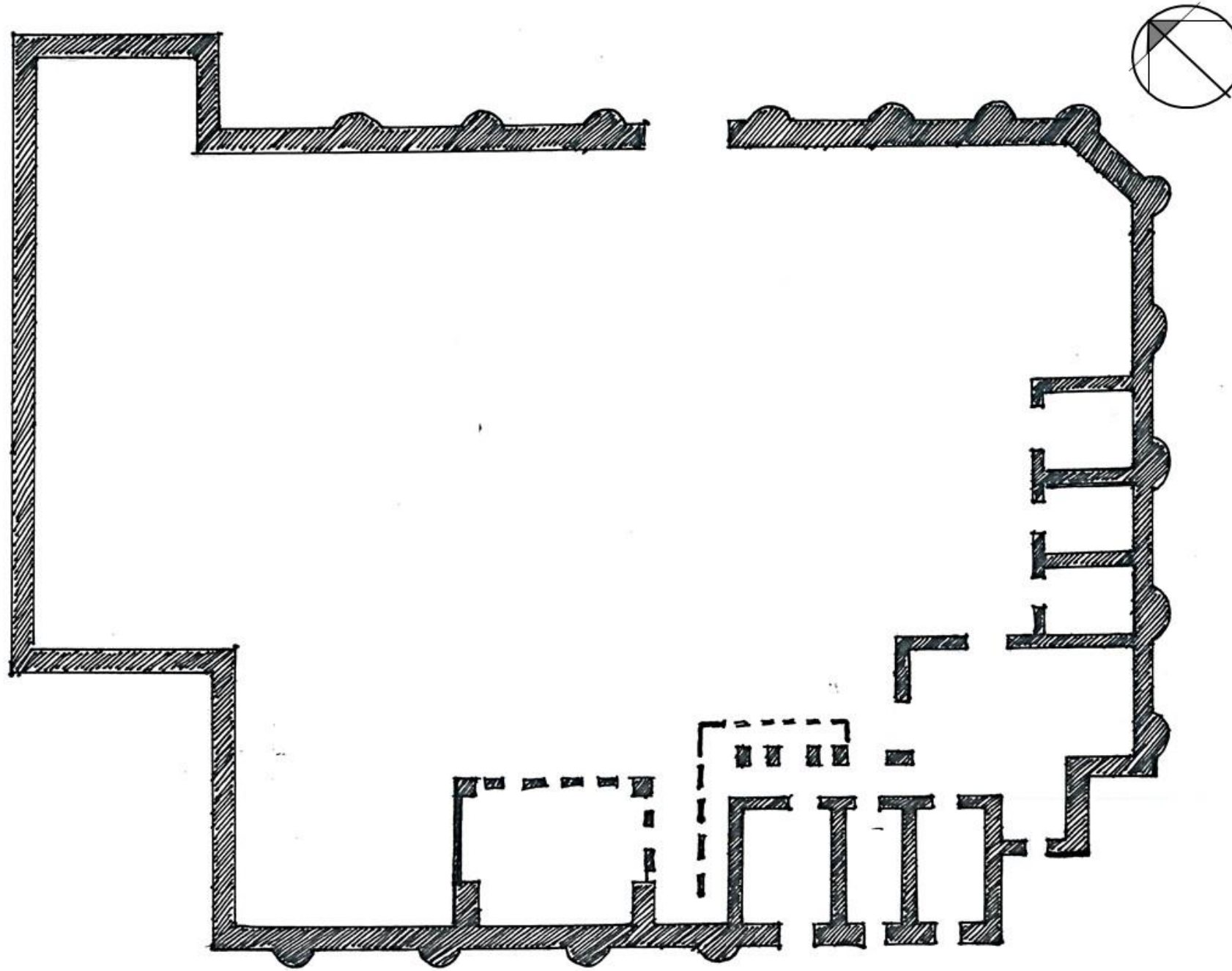


The pictures represent different views of Quseir waterfront / Cornish. The 1<sup>st</sup> picture is a café on the waterfront. The 2<sup>nd</sup> picture is the Old marine and port in Quseir. The 3<sup>rd</sup> and 4<sup>th</sup> picture is a view of the main street in Quseir that is on the waterfront / Cornish. This street is considered one of the oldest routes, where it connects between Quseir and Qina (Qift). In the past the goods and commodities were used to be taken from Quseir old port to Qift which is one of the Nile ports. And from Qift till the port in Bolaq/ Fustat in Cairo. In order these commodities coming from India – China to reach Europe, they were transferred from Cairo to Alexandria then across the Mediterranean to Europe.

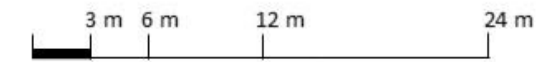


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QUARANTINE



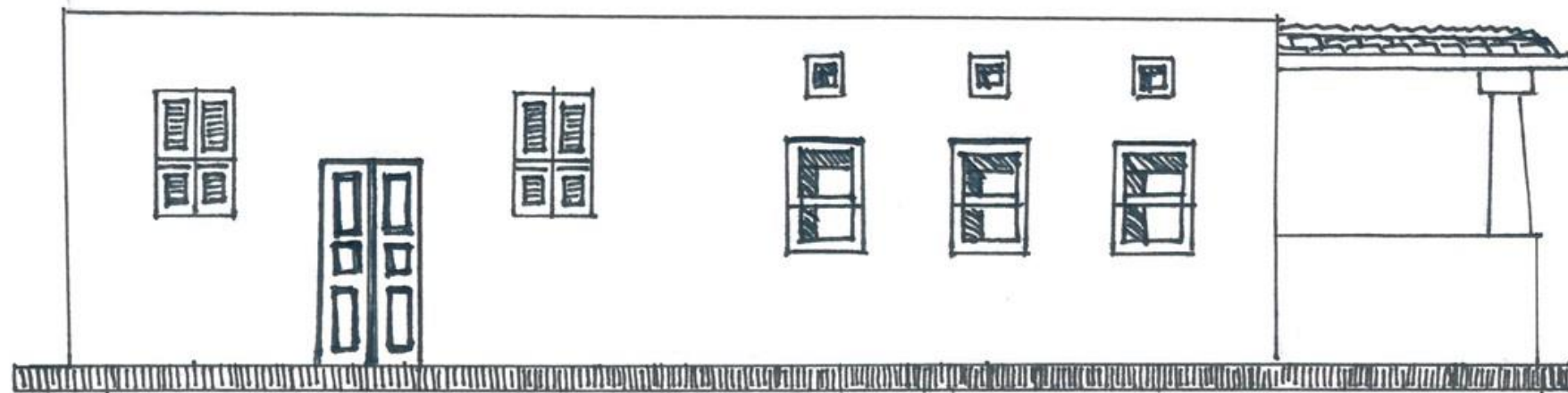
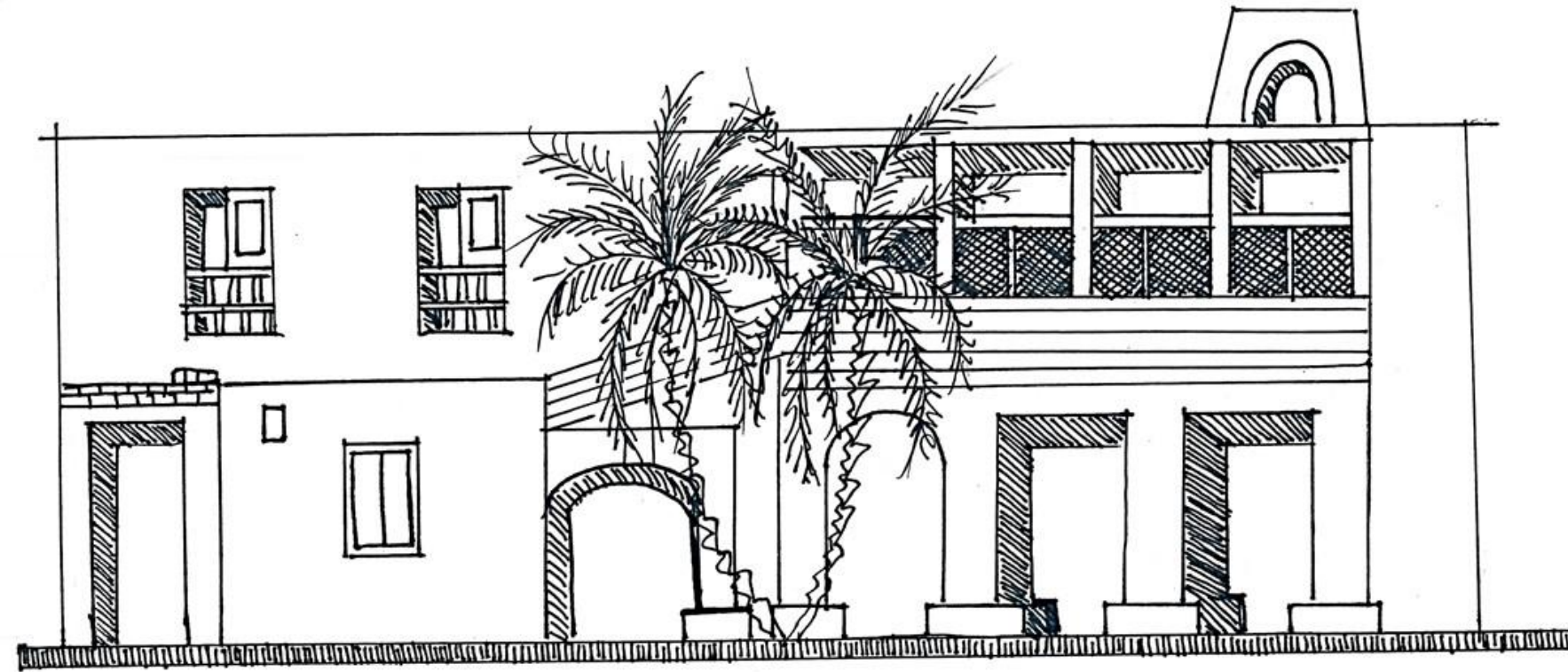
Architect: unknown  
Date: 14<sup>th</sup> – 17<sup>th</sup> century,  
Former use: Grain storage and Quarantine,  
Present use: Abandoned,  
Future use: Museum by the Ministry of Culture,  
Construction material and System: Bearing walls, rubble  
stones and wooden structure made from palm tree trunks,  
Present Status: Deteriorated and needs to be conserved  
Ground Floor plan



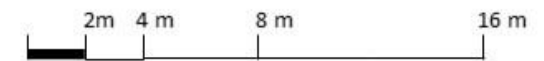
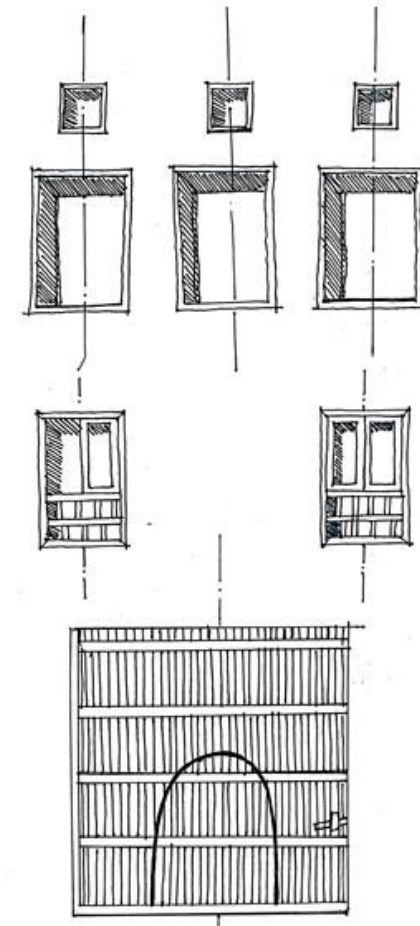
KEY MAP



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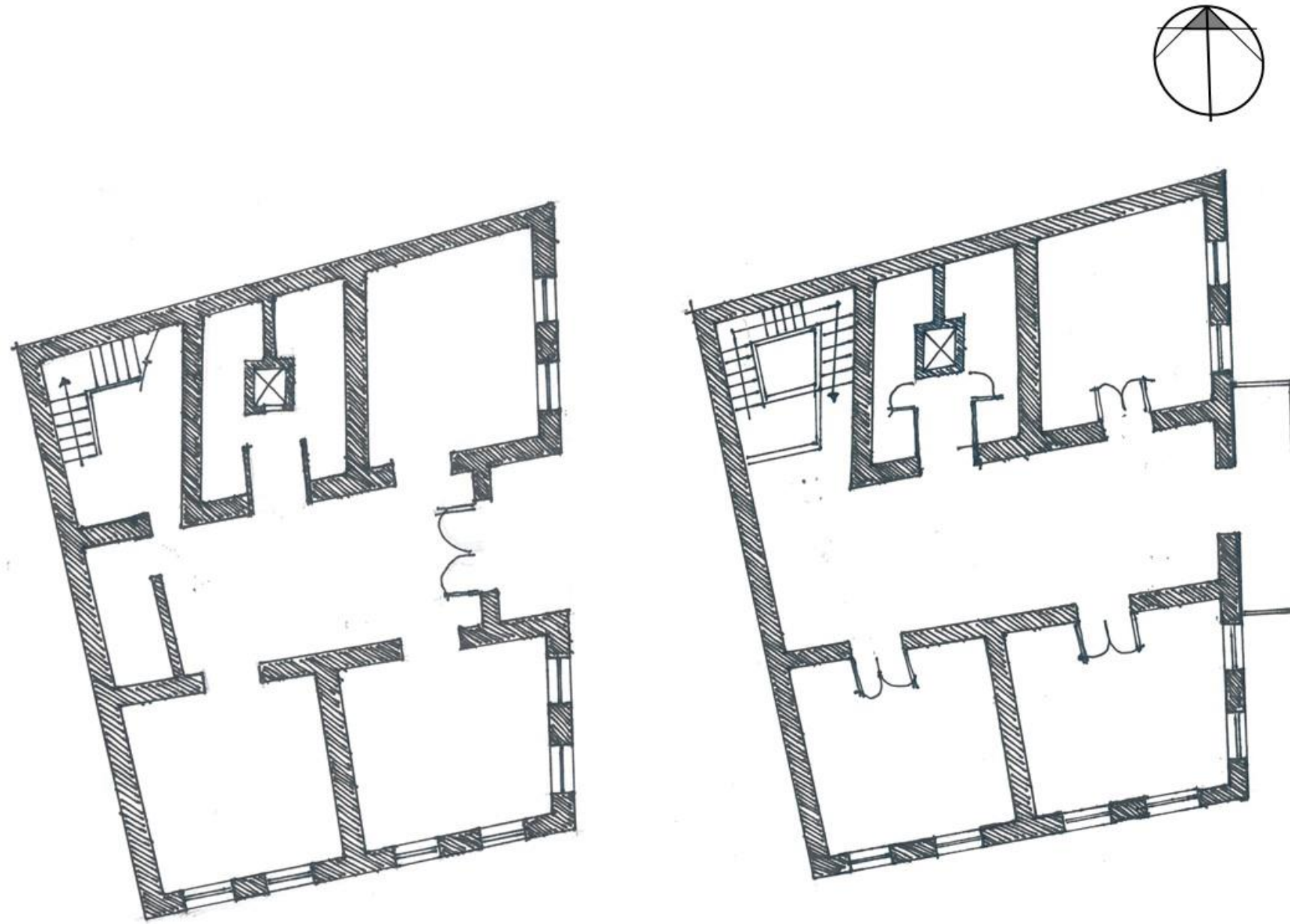
QUARANTINE



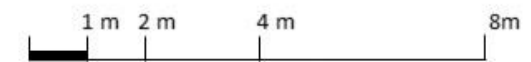
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SHEIKH TAWFIK HOUSE  
(QUSEIR HOTEL)



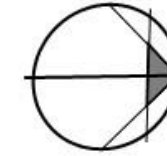
Architect: Local Builder from Quseir,  
Date: 14<sup>th</sup> – 19<sup>th</sup> century,  
Former use: Residential (Sheikh Tawfik House)  
Present use: Hotel (Quseir Hotel)  
Construction material and System: Bearing walls  
Present Status: Restored and in Good Condition  
First and Second Floor Plans



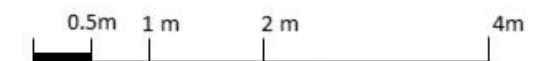
KEY MAP

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SHEIKH TAWFIK HOUSE  
(QUSEIR HOTEL)



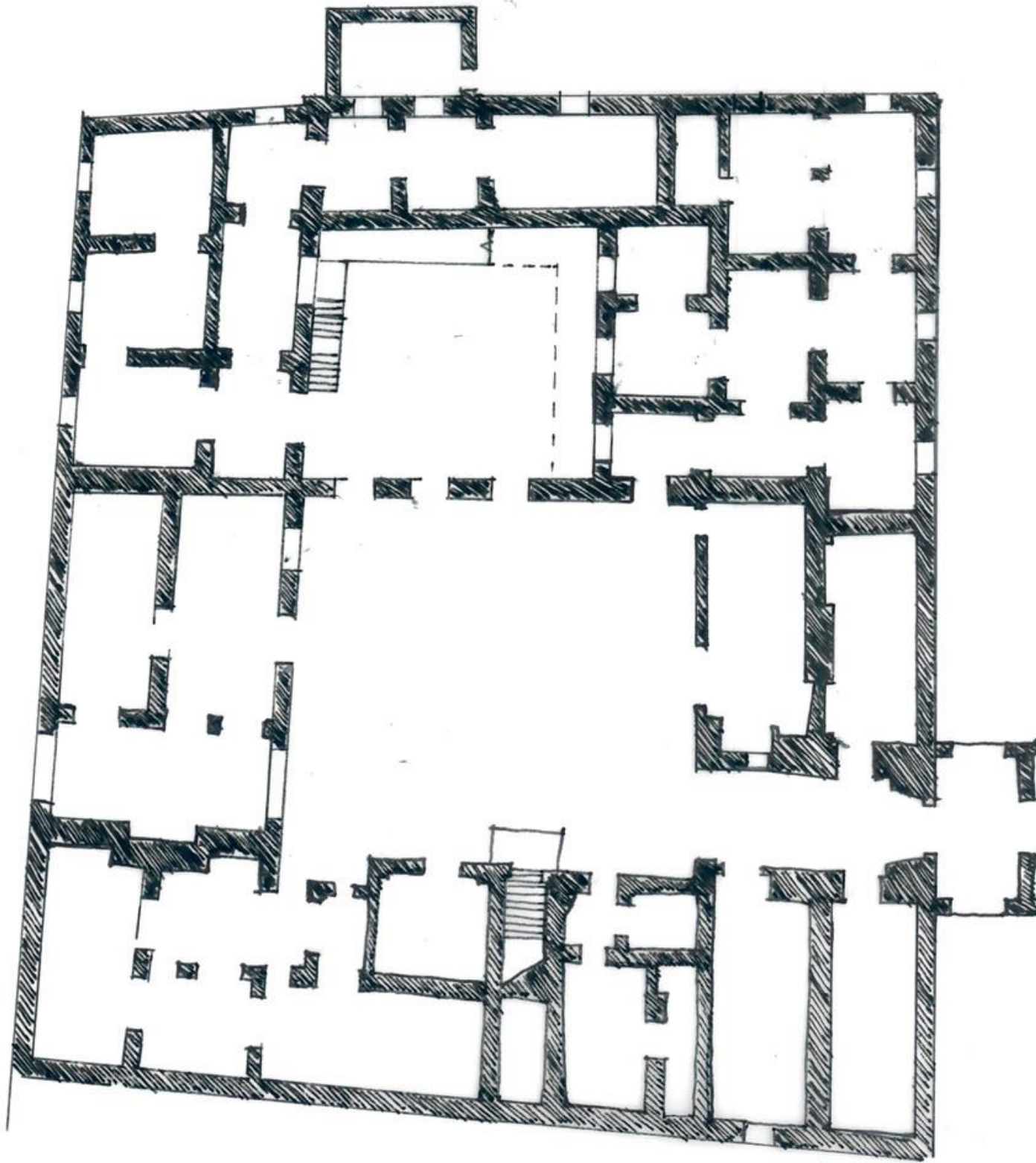
Architect: Local Builder from Quseir,  
Date: 14<sup>th</sup> – 19<sup>th</sup> century,  
Former use: Residential (Sheikh Tawfik House)  
Present use: Hotel (Quseir Hotel)  
Construction material and System: Bearing walls  
Present Status: Restored and in Good Condition  
Main Façade



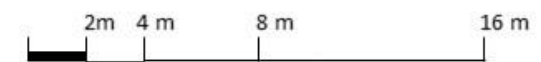
KEY MAP

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POLICE STATION



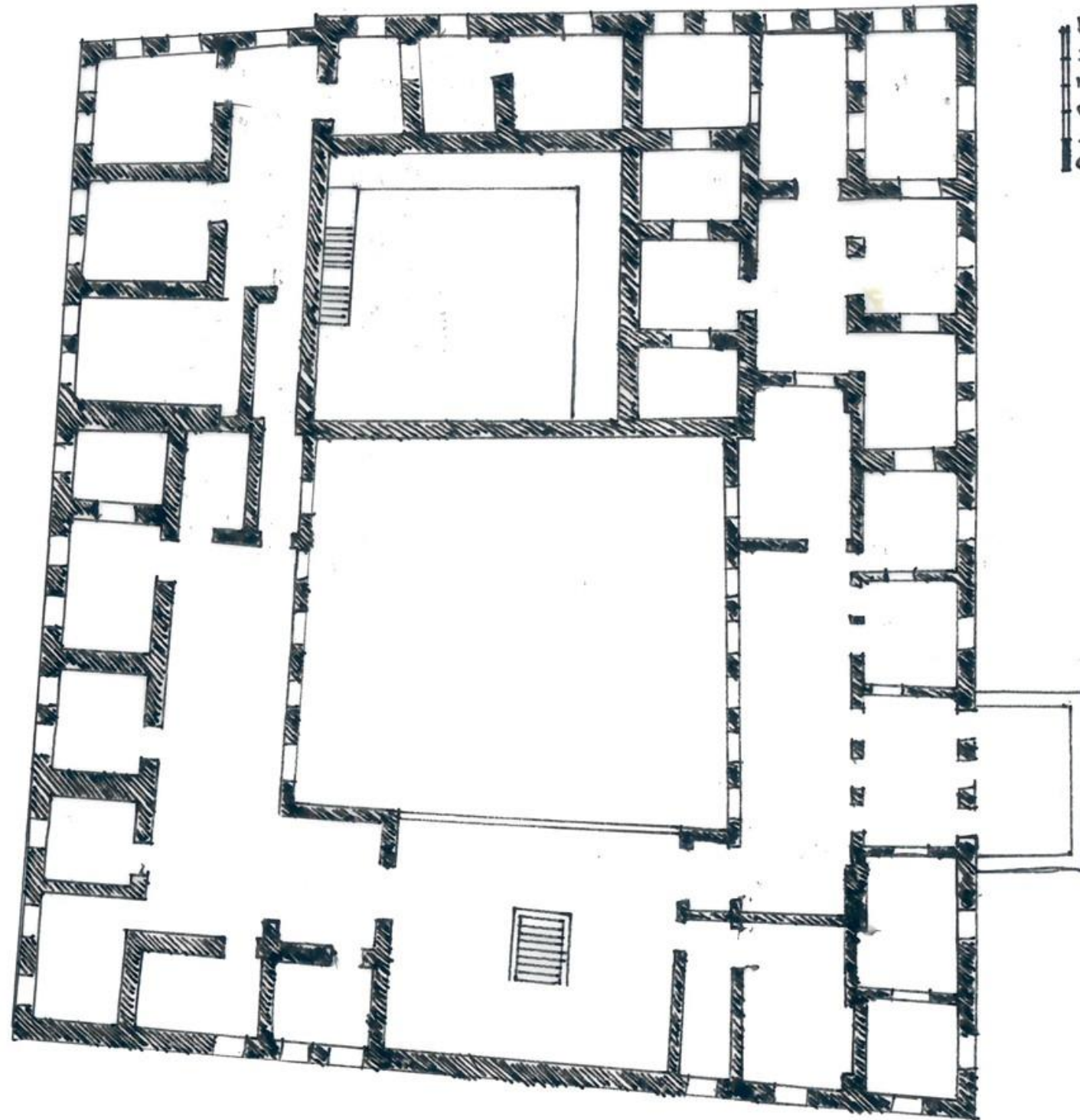
Architect: Local Builder from Quseir,  
Date: 14<sup>th</sup> – 19<sup>th</sup> century,  
Former use: City Hall and Police Station  
Present use: Abandoned  
Construction material and System: Bearing walls  
Present Status: Deteriorated and needs to be conserved



KEY MAP

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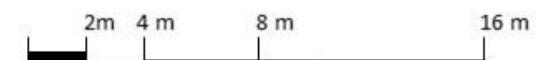
POLICE STATION



012345



Architect: Local Builder from Quseir,  
Date: 14<sup>th</sup> – 19<sup>th</sup> century,  
Former use: City Hall and Police Station  
Present use: Abandoned  
Construction material and System: Bearing walls  
Present Status: Deteriorated and needs to be conserved



KEY MAP

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## **7. ARCHITECTURAL CHARACTER OF QUSEIR**

Although the whole urban fabric together creates Quseir's character, there are special architectural features which make it a distinguished city. House entrances in Quseir are either through one or two steps higher than the street level. The first type is the main entrances of the residential houses. The entrances are often decorated with ornaments. Then come the staircases, doors, and windows. Most of the stairs are made out of wood nailed and parallel to the external walls by approximately one metre. Doors have ornaments made of either wood or metal, but the new doors do not have ornaments. Windows are made of two louvered shutters; they have upper and lower parts that open separately. Most of the balconies are made of timber, and they extend outside the external walls of the building. They may be sometimes be covered with timber roofs. Balcony handrails take different shapes. There is also the mashrabiya, which is an extended wooden structure on the windows or balconies. It usually has ornaments and it differs from one building to another. It is used to provide privacy and gives a unique character to the urban tissue of Quseir. The buildings may have ornaments which denote the journey of pilgrimage. Some buildings in Quseir include wind catchers, which have ducts that are found in the internal space and upper wooden roof to let air circulate from outside to inside spaces. The major percentage of Quseir's buildings, especially the residential ones, are painted yellow so the city reflects the desert. There is also blue-green and blue, which reflects the colour of the sea. The last two colours are usually found on doors, windows, and wooden structures, as shown in the above pictures.

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## **8. QUSEIR, A CORNERSTONE OF CIVILIZATIONS**

Quseir is the ancient seaport of Upper Egypt with a history going back four thousand years. It is located on the Red Sea at the end of the road leading through the Eastern Desert from Luxor and Qena. The Eastern Desert, although now extremely barren, was in the prehistoric period in part open savannah, and evidence of prehistoric occupation can still be found in the region (Waly & Harvard, 2001). Old Quseir was called Tao during the ancient Egyptian era. The first historical records of the region relate how the ancient Egyptians first set sail to the Land of Punt to the south of Egypt. These expeditions are described in scratches along the desert routes and inscriptions in the temples, the most famous of which is that in the mortuary Temple of Hatshepsut. It records the journey with graphic images of the voyage. It was in the same period that the mines and quarries of the Eastern Desert were also first opened up (Din, 2000).

Most of the visible archaeological remains in the area of Quseir and westwards along the route to the Nile date to the Ptolemaic, Roman and Byzantine periods, and it is possible that there is Ptolemaic activity under the modern town of Quseir. Blocks decorated in Egyptian hieroglyphs and assumed to come from a Ptolemaic temple were found reused in homes in the present Quseir. In the first century BC, a town was established at Quseir El-Qadim 8 kilometres to the north of Quseir, and excavations in 1979-81 revealed a port that flourished until the fourth century AD. In this period, the whole region became latticed with roads linking the mines and ports. These routes were protected with small forts associated with wells. Egypt had become the centre of international trade routes that stretched from India through to Britain, a route that was to survive and prosper over the next two millennia and to which Quseir owes its subsequent history (Lunde & Porter, 2002).

## **9. QUSIER - SILK ROAD AND PILGRIMAGE**

Based on the American Research Center's report of excavations done by Whitcomb in 1979-1980, the origins of Quseir date to the Roman empire and even earlier. Myos Hormos, as Quseir was first named, was 8 kilometres north of the existing Quseir (Whitcomb, 1983). Another scholar, Kamal el-Din Hussien, dates Quseir to the Pharaonic period, believing that

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Queen Hatshepsut used it as a port to send ships to get commodities, mainly gold from the Horn of Africa (Din, 2000). The first port of Quseir, which was built during the Pharaonic period, lasted even through the Roman and Greek period, lies north-east of the present city of Al Quseir, ~~the city was known back then as the Mayous Hormos~~. It was used as an “import ytrading centre” (Blue, 2002) during the period of the Roman empire. Myos Hormos, along with another port, Berenike, formed part of the Silk Road, a route for the import of spices and silks from India and the export of other Roman goods to India.

Quseir was established on the Red Sea at a location that is found closest to the Nile, while Myos Hormos had contact with the Nile at Coptos, which was known afterward as Qift, through a path across the Eastern Desert known as the shortest route to the western Red Sea coast (Blue, 2002). As a military port, Quseir was established twice, once during the Roman period and once during the Mamluk period. During this latter period, the port also began to be used for pilgrims and for commercial activities . (Din, 2000)

Trade from the Indian Ocean has been navigating the Red Sea since the Ptolemaic era or even before, and flourished even more during the Roman era. Historical narrations at the beginning of the medieval period, based on documents from the Fustat Jewish community, the “Geniz”, provide a comprehensive view of the network of merchants established in locations as far away as Spain, Aden and India (Quesne, 2007).

Quseir is on the southern part of the Red Sea, but in order to define Quseir as one of the ancient Red Sea port cities, Aydhab must be introduced first. According to *Trade and Travel in the Red Sea Region* by Paul Lunde and Alexandra Porter from 2004, Aydhab was one of the strategic ports in the Red Sea in the eleventh century, and it was well known before the establishment of Quseir port. Apart from Qulzum (Suez), Aydhab was the only port on the Red Sea utilized by Egypt before the twelfth century, based on historical accounts, while Quseir and the site of Roman Myos Hormos was used during the Ayyubid period. Aydhab, before Qus, was the capital of Upper Egypt in the eleventh century. Aydhab is no longer existent, although its location is in the Halab Triangle, a zone which is under the Egyptian authority.



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At first, Aydhab was connected to the Nile through Aswan; then, when Qus became Upper Egypt's capital, Aydhab was reached from there (Cooper, 2014). Taking either of the two routes was possible. Aydhab was mainly used for mining and pilgrimage, which is always accompanied by commercial activities (trading from India, China, Yemen, and the Arabian Peninsula) until conflict started between the Beja, residents of Aydhab, and the Muslims. The Beja controlled all gold mines in the area and they did not want to pay the *jizya* tax applied to non-Muslims (Lunde & Porter, 2004). The fourteenth-century traveler Ibn Batuta narrates the conflict, which reached a peak in the Mamluk period. The Mamluks lost control of the port, and of the desert route between Aydhab and the Nile, though the port and the route continued to be used by Venetians and Karimi merchants. Due to political and economic perspectives, the Mamluks therefore no longer used Aydhab, and they established Quseir as an alternative.

Charles le Quesne, in his book *Quseir: An Ottoman and Napoleonic Fortress on the Red Sea Coast of Egypt*, illustrates the importance of Quseir in the medieval era. He explains Quseir's favourable position as a trading and pilgrimage port due to its close access to the Nile at the Luxor curve. Its position in relation to the Nile valley was balanced in comparison to other cities such as Suez, also considering economic and geographical conditions.

In contrast to Suez, Quseir is far from Cairo, which would make it difficult to take over the capital with a foreign invasion from this port. At first, during the Mamluk period beginning in 1260, the crucial ports of Red Sea trade were Aden, Aydhab, and Jeddah; later, in the fourteenth century, Al-Tur located on the west coast of Sinai and Suez joined their ports. Qus, a town located on the Luxor curve, was the key port on the Nile river for the Red Sea ports during most of the medieval era in Egypt.

Through the Ayyubid and the beginning of Mamluk periods, Quseir was considered the closest port to Qus, and they occupied it after it had been abandoned since the Roman empire. The studies and investigations done by Chicago University excavations and a recent one done by Southampton University give a vital view and image of Quseir during this period. They clarify its key features being a port for both commerce and pilgrimage, as well as a collection of other activities. It also provided an understanding of Quseir's infrastructure model during

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the Ottoman period. The location near to the Nile valley and on one of the shortest pilgrimage and trade routes to the Islamic holy cities made it an optimum model and outlet for wealthy produce of the Upper Nile valley (wheat, barley, rice, oil, etc.) (Quesne, 2007).

The present city in which the historic centre and the port are located is known as Al-Quseir Al-Qadim. This is the one established by the Mamluks during their rule. As a typical defence city, the Ottomans later established a fort that still stands today, showing the significance of what this city represented at one point<sup>2</sup> (Quesne, 2007). The desert route between Quseir and Qus (now called Qena) was the safest land trading route for merchants. Also, the city was a well-known sanctuary for Sufi sheikhs from North Africa (Cooper, 2014). During the Ottoman period, Quseir was the second capital of the Red Sea region after Suez and was flourishing, with all trading activities and routes passing through it until the opening of the Suez Canal, which led to the beginning of an era of decline for the city.

In 1912, the Italians established the phosphate industry in Quseir. The phosphate factory was built by Emilio Cortese (Cabassi, n.d.), an Italian engineer, who also created a foundation for the nucleus of an Italian colony that evolved until 1954.

## **10. QUSIER CITY'S EVOLUTION FROM THE MAMLUK ERA TO THE ITALIAN PHOSPHATE COLONY**

Le Quesne illustrates how medieval Quseir flourished during the eras of the Ayyubids and Mamluks, showing the importance of the role of the state for the unity of the region, thanks to its promotion of Islam. This promotion led to the establishment of new infrastructure, especially during the Mamluk period, promoting the hajj pilgrimage route and making it much safer and more secure. During the Mamluk period, the Red Sea was considered as one of the strategic points necessary to defend the Islamic state from confrontations, particularly with the Crusaders. The coherent and strong power along the Red Sea coast made the conditions of trading more secure and maintained its balance. The political and economic circumstances were optimum for the growth of the medieval port of Quseir (Quesne, 2007).

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Le Quesne also explains the two networks of trade which interacted together along the Red Sea during the Ottoman period. The first one is the Mediterranean–Indian Ocean axis, whereby goods and metals are traded from the West and spices, cloth and luxurious goods are traded from the East. The second axis is the extensive regional trade and pilgrimage along the African coast, interacting with the Arabian coast. Quseir was one of the primary ports within the second axis, as it was also used for the distribution of agricultural products to less productive regions such as the Hejaz.

The Red Sea was the site of a struggle between the Ottomans and the Portuguese at the beginning of the sixteenth century. After the discovery of the Cape of Good Hope route around the African continent by the Portuguese in 1498, the situation in the Red Sea region changed permanently, although the Portuguese expedition continued to try to dominate the region. Two expeditions, one in 1513 and the second in 1514, succeeded in penetrating the region, but they never founded a long-lasting foothold (Quesne, 2007).

According to the writings of the Portuguese describing the port of Quseir, it was weak due to Bedouin raids. Also, the Ottomans were at the same time fighting for control of Upper Egypt. The fort of Quseir was part of this struggle. This act is illustrated by the original foundation firman; the following document was found in the Ottoman archives in Istanbul by Dr Slobodan Ilic.<sup>3</sup> It not only documents the date of the fort's establishment in 1571; it also explains and documents the circumstances that lead to its foundation:

Written. Given to Ertogdi Kethuda. 19 September 1571, Command to the Vizier Sinan Pasha:

“After you sent a letter to my threshold of prosperity (royal court) informing (me) that the port named Kusayr in Egypt, near to the region of the province of Sa'id (Upper Egypt), and from which port the annual provision for the servants (officials) of the Holy Places is sent by vessels to Jeddah and Yanbu, and being a big port with all necessaries, from (the time of) its conquest being prosperous and solid, but cannot be defended from disorders and wickednesses of mischief-making Arabs, who many times killed the notables and plundered all their properties, and that remaining weak people lost the strength to stay were forced to flee, that the mentioned district is completely devastated, the port is also out of use, and that it

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<sup>3</sup> Dr. Slobodan Ilic of the East Mediterranean University in Famagusta. The document is translated in full by him.

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would be impossible to bring back not even one person unless a fortress for defence from disorder makers will be built and enough number of fort guards and armour will be placed, and (you also informed me) that the preparation of material for building the fortress has started. So: I ordered: As you asked for, at the mentioned place (make) build a firm fortress, being cautious not to make wasting and squandering, place enough quantity of guards and arms, bring the runways back to their places and make them settle. Write and inform (me) on what is necessary (to be told). After the completion (of the building), if God wills, write down in detail how much Akca was spent and present it to my sublime court.

Istanbul, basbakanlik Osmanli Arsivi Muhimme – Defteri 12, Document 906.

Quseir's fort would not still exist if it hadn't been reconstructed during the French campaign in Egypt. The Napoleonic army saw the fort as a strategic point and defensive entity against the British troops who were trying to invade Egypt in ships coming from India. British troops tried to enter Egypt from Suez and Quseir, attacking the fort and the town for three continuous days, although in the end they were forced to stop. The fort was severely damaged and was reconstructed in the following months; however, eventually with the return of Napoleon to France the French campaign in Egypt came to an end. The French left Egypt a year after the landing of the British troops at Aboukir in March 1801. An Anglo-Indian force reached Quseir in 1801 and it left the town and the fort peacefully to move on to the capital (Quesne, 2007).

The name of Mohamed Ali, then ruler of Egypt, is associated with the fort by the present residents of Quseir. He did add many enhancements, especially on the economic aspect, to the town of Quseir in the early part of the nineteenth century, as was illustrated in detail by Carl Klunzinger. After Mohamed Ali established his rule in Cairo, he started to prepare Quseir to be the main port of commodities, such as wheat, which was sent to the holy cities of Mecca and Medina. He also made good relations and treaties with the Bedouins who had control over the land route and the desert crossing. In addition, he gave the people of Quseir incentives such as direct taxation and advantages for new sellers. Quseir's population increased in his era from a few hundred to six or eight thousand, and a few public buildings were built, such as the grain depot and the customs house, which is still standing today at the northern end of the port. In the port itself he built a stone platform and a wooden pier, a

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market (bazaar) and a lot of new houses, motels, and mosques. Also, about thirty thousand pilgrims visited the town and went through it during the pilgrimage season, as well as hundreds or thousands of caravans and camels who came to the town through the desert route every day. Every month, shipping vessels entered and left the port, which became known as Bander Al-Quseir, which denoted to its significance as a trading city. But the essential activity of the city was to hand over the produce of the Upper Egyptian Nile valley to citizens and pilgrims in the holy land of Arabia.

Mohamed Ali used the fort between 1811 and 1819 in his fight against the Wahhabis on the western side of Arabia. Klunzineer mentions that the fort was repaired and some additions were made to it in the period before 1830. The city's wealth started to decline, as Quseir's port was too shallow to dock European steamships and the ships therefore preferred Suez's port. During Said Pasha's rule from 1853 to 1863, he turned Suez into the main port of the Red Sea and gave it the privileges that Quseir had acquired during the time of Mohamed Ali. The final change in the wealth and international trade of Quseir, which was considered the Upper Egypt port, was due to the opening of the railway between Cairo and Suez, and afterward the opening of Suez Canal. During the era of Khedive Ismail and Khedive Tawfik in the nineteenth century, the telegraph and postal systems, and national transport, were established and reached Quseir, and in 1893 the first water purification unit was established, then the first primary school in 1894 (Quesne, 2007) (Waly & Harvard, 2001).

In 1912 an Italian engineer, Emilio Cortese, discovered phosphate along with other minerals in Quseir and founded a small Italian colony based around an Italian phosphate company. Residents of the city of Agordo in Italy came and lived in Quseir. The Banco di Roma established in the same year the Societa Egiziana per l'Estrazione e il commercio dei Fosfati in Alexandria, and they assigned Cortese as the prime facilities engineer and technical director.

There was a transformation in Quseir's context, the Italians established a hospital, a few residential buildings and a radio station. In Gebel Nakhiel, 12 kilometres from Quseir, a phosphate mine was constructed. Phosphate was shipped from the port, and a new loading dock was constructed, along with a railway, supervised by technicians coming from Sardinia and Piedmont in Italy (Cabassi, n.d.).

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There were two companies which were responsible for uproot and trade of Red Sea phosphate. First was the British Egyptian Phosphate Company and the second was the Italian company mentioned above. The Italian company was directly involved with Italian finance and the Italian government.

The Egyptian government started to co-operate with the Italian company in 1932, and a railway line was established between Qena and Quseir. Another railway was constructed in 1952 connecting the city with the mines in order to facilitate the transfer of phosphate. In 1954, the Italian factory was nationalized (Cabassi, n.d.).

The organization of the phosphate town was based on the north-south road connecting the city to the factory. This road was lined by buildings. In the middle the road formed a square, surrounded by offices and public buildings. The mine can be seen on the northern side of the town. There was a single story elementary school designed in fascist style, founded in 1930. It was designed by Florestano Di Fausto, an architect assigned by the Ministry of Foreign Affairs of the Italian government.

There was an administration house founded in 1931 and designed to be the manager's house and reception. In the east, there is a church, which was built in 1938 and designed by Riccardo Decima. It belonged to the Coptic church, which managed the Franciscan Missions on Upper Egypt's coast. The church has a Gothic arch, rose window and Latin cross. There are other buildings dating to the 1940s, including the Franciscan sisters' convent, which was established in 1946. The buildings are all single-story, with roofed terraces and basic geometrical forms. They express the modern style of colonial house (Cabassi, n.d.).

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**Figure (24):** A picture taken by the researcher on the old route between Quseir (Tao/Myos Hormos) and Qift-Qena (Coptos) showing traces of ancient Egyptian inscriptions on the hills surrounding the route. This road was known as the shortest land route between the Nile and the western Red Sea coast.

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**Figure (25):** Map from the description of Egypt during the French campaign (1798 – 1801). Source: Commission des sciences et arts d'Égypte, - "Description de l'Égypte." book



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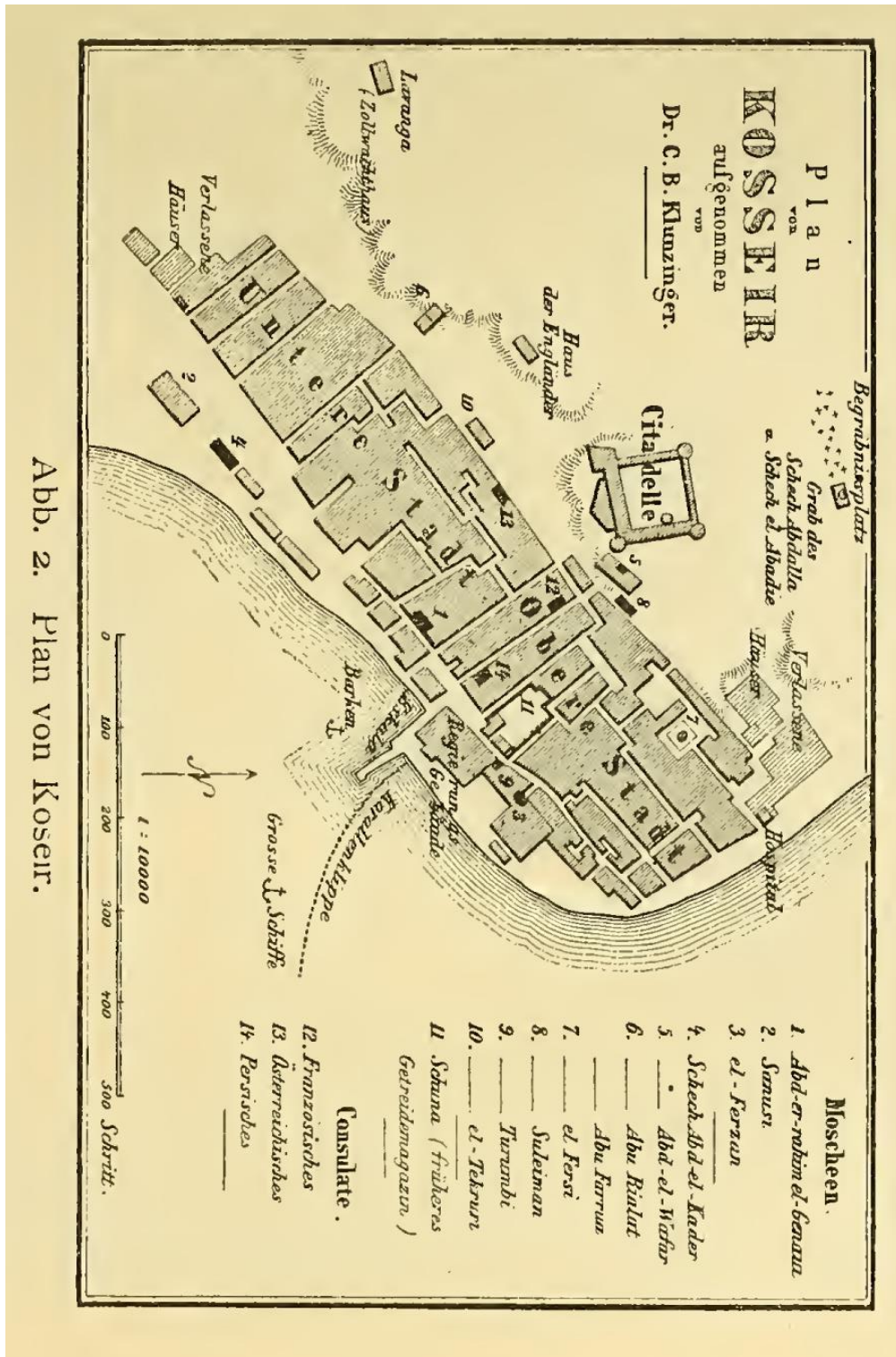
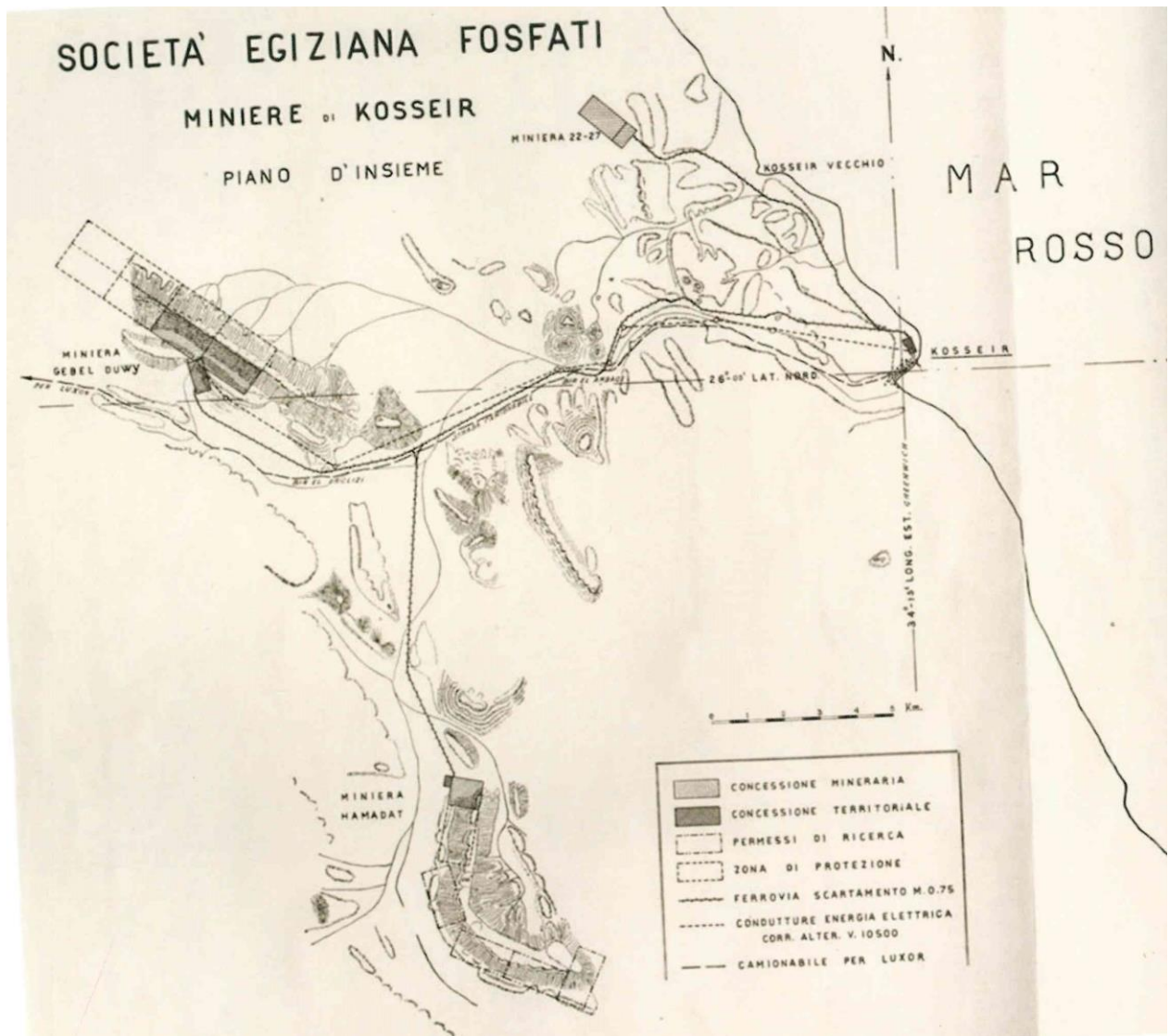


Abb. 2. Plan von Koseir.

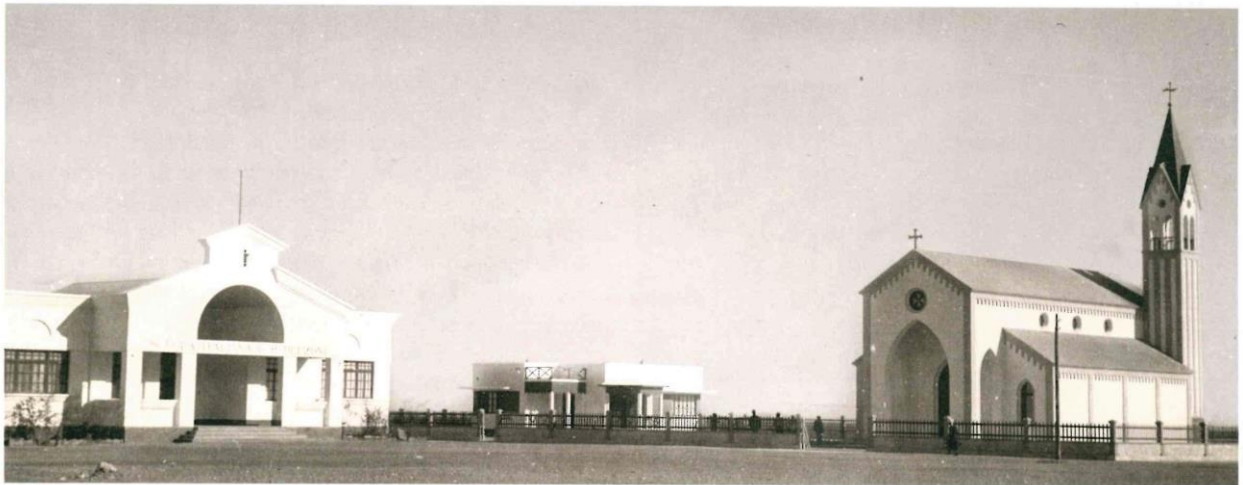
**Figure (26):** Map of Quseir from 1875. Source: Klunzinger, *Memories From My Life as a Doctor and Naturalist at Koseir on the Red Sea*.

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**Figure (27):** Map identifying the mineral mines, especially phosphate, and their relation to Quseir. Source: Antonella Cabassi, *Kosseir, A Phosphate Shipping Town: Building Beyond the Mediterranean, Studying the Archives of European Businesses (1860-1970)*.

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**Figure (31):** Picture of the primary school and Saint Barbara Church in Quseir (1938). Source: Antonella Cabassi, *Kosseir, A Phosphate Shipping Town: Building Beyond the Mediterranean, Studying the Archives of European Businesses (1860-1970)*.



**Figure (28):** Picture of the house of the director of Quseir's mine (1938). Antonella Cabassi, *Kosseir, A Phosphate Shipping Town: Building Beyond the Mediterranean, Studying the Archives of European Businesses (1860-1970)*.

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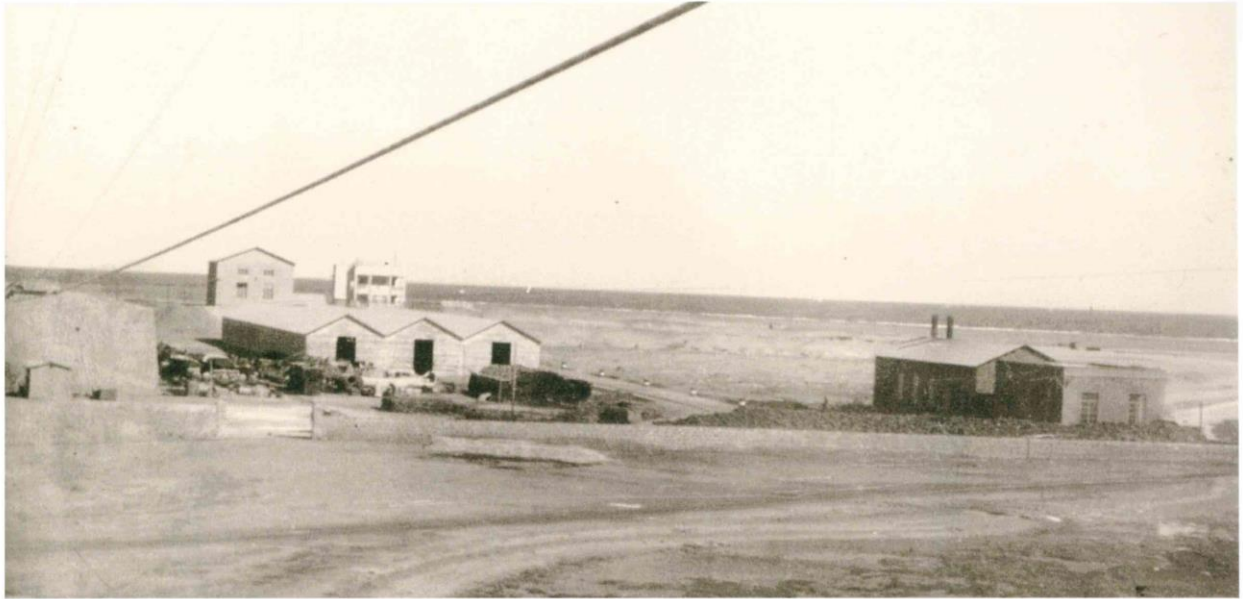


**Figure (29):** Mines of Quseir. Source: Antonella Cabassi, *Kosseir, A Phosphate Shipping Town: Building Beyond the Mediterranean, Studying the Archives of European Businesses (1860-1970)*.

**Figure (30):** Panoramic view of Quseir port from the funicular pier. Antonella Cabassi, *Kosseir, A Phosphate Shipping Town: Building Beyond the Mediterranean, Studying the Archives of European Businesses (1860-1970)*.

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Overall view of Kosseir mining town from an aerial ropeway  
Port of Kosseir from the upper aerial ropeway platform



**Figure (31):**A view of Quseir’s mining town. Source: Antonella Cabassi, *Kosseir, A Phosphate Shipping Town: Building Beyond the Mediterranean, Studying the Archives of European Businesses (1860-1970)*.

**Figure (32):** An aerial view of Quseir port. Antonella Cabassi, *Kosseir, A Phosphate Shipping Town: Building Beyond the Mediterranean, Studying the Archives of European Businesses (1860-1970)*.

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## 11. QUSEIR AND SUEZ AS MILESTONES OF OVERLAND ROUTE

John Cooper in his book *The Medieval Nile* (Cooper, 2014) discusses the strategic geographical location of the Red Sea ports in relation to the Nile ports, and notes that: “In different degrees at various times in its history, Egypt has been *a nexus of long-distance movement* of people and their goods.” In other words, it could be said that it has always been the gateway to the overland route from the East (the route between Asia, Africa, Europe) to the West. Between the eastern and western maritime was the development of trade routes. As a result, ports were established to receive ships which have been carrying commodities and goods to and from Egypt since the time of the ancient, pharaonic Egypt civilization. They were also pilgrimage activities that started during the Mamluk or Arab conquest era. During the Islamic period, Egypt was in the political centre of the Muslim world, especially during the Fatimid, Mamluk and Ottoman eras; therefore, as Cooper writes, “trade with and through Egypt across the Mediterranean and Red Seas *formed an integral part of the Medieval intercontinental trade*” (Cooper, 2014). This is also reiterated by several other scholars; for example, Al Syed Abdelaziz, a professor of antiquities at Alexandria University, assures in his book *The Red Sea in the Islamic Era – البحر الأحمر في العصر الإسلامي* that the Red Sea and its ports were the only trade route, especially after the Fatimid era, and Quseir, Aydab, and Qulzum (Suez) flourished as harbours of trade and Pilgrimage. Goda, Cooper and Abdelaziz have largely the same view of the Islamic era (Medieval Egypt), where Egypt’s main ports on the Red Sea covered each possible route from north to south (or vice versa) using the Nile, the Red Sea or a combination of the two. During the Arab conquest period, Egypt’s main port on the Red Sea was at Qulzum, which was located at the top of the Gulf of Suez. It was connected to the Nile through the Canal of the Commander of the Faithful (Goda, 2016). During the eleventh century, the Fatimid period, international commerce activity was focused on Aydhab’s coast. In the late fourteenth century, in the Mamluk period, Aydhab became neglected and Quseir was founded as a new alternative to connect the Nile with the Red Sea. Quseir was between Qulzum and Aydhab, neither too far north nor too far south along the Red Sea. Of course, it did not take three days from the Nile, like the route to Qulzum, but neither did it take the three weeks, like the route to Aydhab did. It took only five or six days, and it offered a compromise between the relative dangers and advantages of river and sea, and traveling by land. The route from river to desert from Cairo to Quseir, passing by Qus in

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the middle, either downstream or upstream, was two weeks faster than the route to Aydhab. In addition, being connected to the Nile river through Qus created a much shorter trip than traveling through Aswan, due to the different river conditions in the two locations (Cooper, 2014).

Egypt's prestigious position as a key overland route was threatened when the main trading route was moved by the Portuguese from south and east of the Mediterranean through Egypt and Syria to the Cape of Good Hope off the coast of southern Africa. There were resulting economic, demographic, and cultural changes which had a major effect on the cities and the settlements of Egypt. These changes continued with the beginning of the Ottoman period until the French campaign and Muhammad Ali's era. At the time, the Italian cities like Toscani, Florence, and Venice were progressing towards the Renaissance era. Families active in commercial activities such as the Medici family in Toscani and Florence became wealthy, and became patrons that helped lead to the flourishing of the Renaissance era, building libraries. On the other hand, Egypt and Syria witnessed a decay in culture and civilization from its peak in the Mamluk era, when there had been a huge renaissance, still documented by the Mamluk heritage found in various countries. There was also a noticeable effect on the south and east of the Mediterranean, including the port cities of the Red Sea such as Suez and Quseir, and the port cities of southern Europe in Italy and France.

Kamal el-Din Hussien discusses in his book, *Bonaparte and Quseir and the Major Battles in the Southern Upper Egypt* - *بونابارت والقصور والمعارك الرئيسية في جنوب الصعيد* what Monsieur Piere Simon Girard, chief engineer of roads and bridges and member of the Royal Academy of Sciences, said about the trade movement (import and export) through Quseir during the French campaign in Egypt. Girard says it was natural that the fertility of Egypt and the aridity of the Arabian Peninsula would lead to a rise in extensive trade relations between these two neighbouring countries. Through trade routes via the Arabian Peninsula, Egypt also traded a huge part of its land products with textiles and spices from India, with Arabs traders storing these goods in their ports. Trade between Egypt and the Arabian Peninsula by sea was done by small ships coming from ports of Jeddah and Yanbu to anchor in Egypt at Quseir or the Suez, or overland by caravans crossing the desert between the Nile and the Red Sea (Hussien, 1996).

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However, Cooper explains that Aydhab and Quseir were the capitals of the Red Sea during different ruling periods in the Islamic era based on political will. He cites the same reason as behind choosing Farma and Alexandria. Cooper believes that, from the navigational calculations, Qulzum is the optimum route, as it takes two to three days by land or even five days by the Canal of the Commander of the Faithful, while transiting commodities and individuals between Qulzum and Farma along the Mediterranean coast takes three days, in comparison to Quseir which take five days to travel from the Mediterranean. But according to Goda in his book, *Suez: City of History* السويس مدينة التاريخ , Qulzum port had a shallow water level which limited the number of ships which could dock at its harbour. In addition, the land route after the landfill the Canal of the Commander of the Faithful, from Cairo (Fustat) to Qulzum (Suez) was dangerous, with the probability of theft. The route of Quseir–Qus–Cairo (Fustat) was much safer and more stable. Quseir, in the Mamluk period, was connected to the route from Aden to Jedda to Al-Tur for trade carried out along the Red Sea.

During the Ottoman period, Qulzum (Suez) retained its strategic place and Quseir became the second Red Sea harbour and port after Suez. Suez, became that capital of the Red Sea and military port. However, the crucial turning point for the importance of this region was the opening of the Suez Canal, when it became a strategic location not only for Suez or Egypt but at the international level (Piaton, 2016). After the opening Suez Canal, the economic wealth of the Red Sea region emerged in the natural riches and minerals that are unique to this region, particularly gold and iron. The area is also rich in oil. More recently, one of the strongest economic edges for this region has been the touristic value of its unique marine biodiversity. The Red Sea coast is one of the most important tourist areas in Egypt, attracting huge numbers of foreign tourists each year, partially based on its unique and fragile marine environment (Hamdan, 1984).

Cooper mentions that the journey between Alexandria, Sicily or Tunisia took between three to four weeks, and that between Alexandria and Spain nearly twice that. One seventeenth-century traveler, Joseph Pitts, says that the journey from Algiers to Alexandria took up to thirty or forty days. Due to the time interval taken by crossing the Mediterranean, Mediterranean navigators decided to take one long journey across the Mediterranean to and from Egypt during the sailing season. The Nile navigation season and commercial traffic was



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in the interval of August to September of the Mediterranean sailing season, so it was relatively short but safe. The Egyptian Nile's other maritime interaction was through the Eastern Desert to the Red Sea. During the seventeenth and eighteenth centuries, there was a direct connection via the Canal of the Commander of the Faithful. However, by this canal or by land, the circulation of people and commodities took place between the Nile and the Red Sea during the medieval period by one form or another through numerous routes. In addition, these two navigational spheres interacted with the Mediterranean, which controlled the navigational seasons in both. The Red Sea introduced a different navigational atmosphere than the Nile and the Mediterranean, providing a maritime corridor to the Indian Ocean connecting Asia with Egypt and thus with Europe.

In addition, the route was not only restricted to trade but played an important role in cultural diversity. Sufism and monasticism were established in parallel along the pilgrimage route and in cities such as Quseir, Qena, Sohag, Luxor and the regions around them. Cemeteries of Sufi sheikhs can be found in region, for example that of Sheikh Hasan El-Shazly. The Red Sea region in Egypt is also full of monasteries, including those of St Paul and St Antony. Pilgrimage and trading routes included a route to Al-Andalus (Spain), a second route coming from North Africa (especially Morocco, Algeria, Tunis), and a third route coming the south and the middle of Africa through Darb Al-Arbaeen.

## **12. THE HISTORICAL RELATIONSHIP BETWEEN NILE PORTS AND RED SEA PORTS: CAIRO/FUSTAT – SUEZ/QULZUM AND QUS – QUSEIR**

Cooper illustrates that the time taken to travel from Fustat via the Canal of the Commander of the faithful along the Nile to Qulzum (Suez) on the Red Sea is five days, in comparison to the four days which Herodotus described the journey taken through the Canal of Darius which branched from the Pelusiac branch of the Nile near Bubastis. The time was probably the same but differed based on the currents in the canal and the presence, or lack of, favourable winds for sailing. The French archaeologist Claude Bourdon identified a path on the sides of the canal located in the southern Isthmus of Suez.

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After the Canal of the Commander of the Faithful was demolished, the trip between the Nile and the Red Sea was only made overland. The easiest and quickest route was between Fustat (Cairo) and Qulzum (Suez). The duration of the trip, according to a number of sources over several centuries, was between a day and night and four days. The trip between Qulzum and Al-Farma (Pelusium) along the Isthmus of Suez was three days.

Journeys through the Eastern Desert between the Nile of Upper Egypt and the Red Sea ports took longer. The main journeys during the medieval era were to Quseir and Aydhab. The overland route to Quseir from the Nile at Qus was through Wadi Hammamat. In the early centuries of Islam, the route to Aydhab was from Aswan, but it was changed in the Fatimid period to start from Qus instead. The duration of the trip from Qus to Quseir was seven days, while from Qus to Aydhab took longer; Al-Idrisi, an Arab geographer, took it in less than twenty days, while the traveller Nasi Khusraw made the trip in sixteen days. As for the famous traveller Ibn Battuta, he made the journey from Esna to Aydhab in fifteen days.

Through Aswan, a variety of routes were available to the coastal area, one of which was through the gold mining centre of Wadi Allaqi. Abu Al-Fida, another Arab geographer in the fourteenth century, estimated the time to Wadi Allaqi town at about twelve days, and then the time for the trip to Aydhab at eight days, which makes the duration of the whole journey about twenty days. Al-Bakri, an eleventh century geographer, estimated the time for the whole journey at about eighteen days, whether through the mines or the northerly route through Al-Wadi.

The journey durations estimated by geographers and travellers show how difficult navigation on the river Nile was. It took a long time over a long distance, especially for vessels transferring commodities. The time of an unbroken trip from Aswan to, for example, Alexandria or Tinnis was over a month. As rather than the journey through Alexandria canal (Al Mahmoudya), the trip from Cairo to Qus takes up to three weeks. The travellers' strategic plans were combined with the commercial life on the Nile river. The trading network on the Nile was an open system which interacted with the trading activities on the Red Sea on one side and the Mediterranean basin on the other.

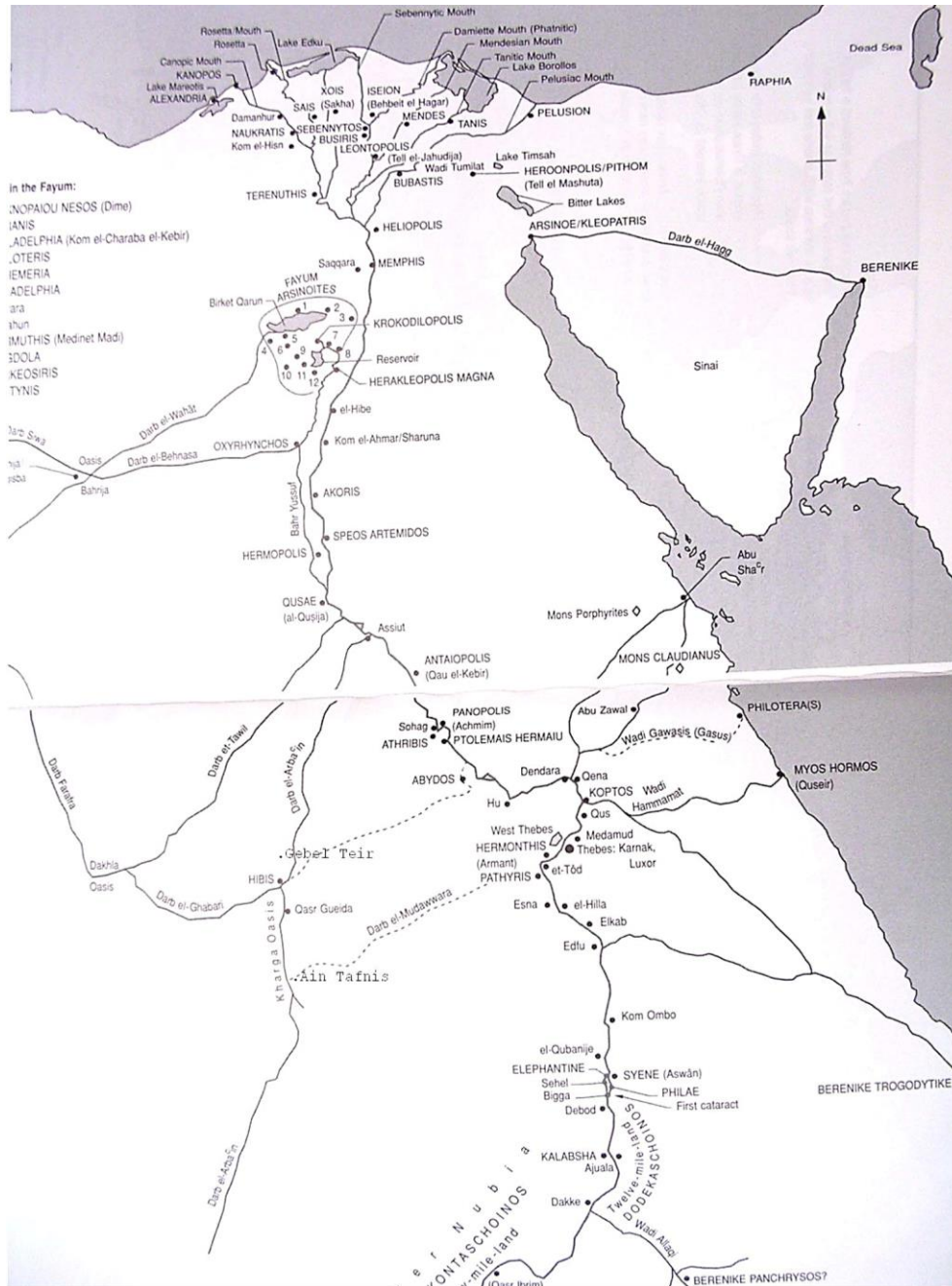
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**13. HOW DID THE SHIFTING GEOGRAPHY OF THE OVERLAND ROUTE IMPACT ON RED SEA PORTS?**

The overland trade route in the beginning would start from India or China (the Silk Road) and reach Aydhab or Quseir ports, and through caravan land routes which include oasis, continue until Ques, one of the southern river ports, and through the Nile to Cairo and Bulaq river port. The commodities were transferred either through Mahmoudyah Canal or land routes or railways to Alexandria and from there to Europe.

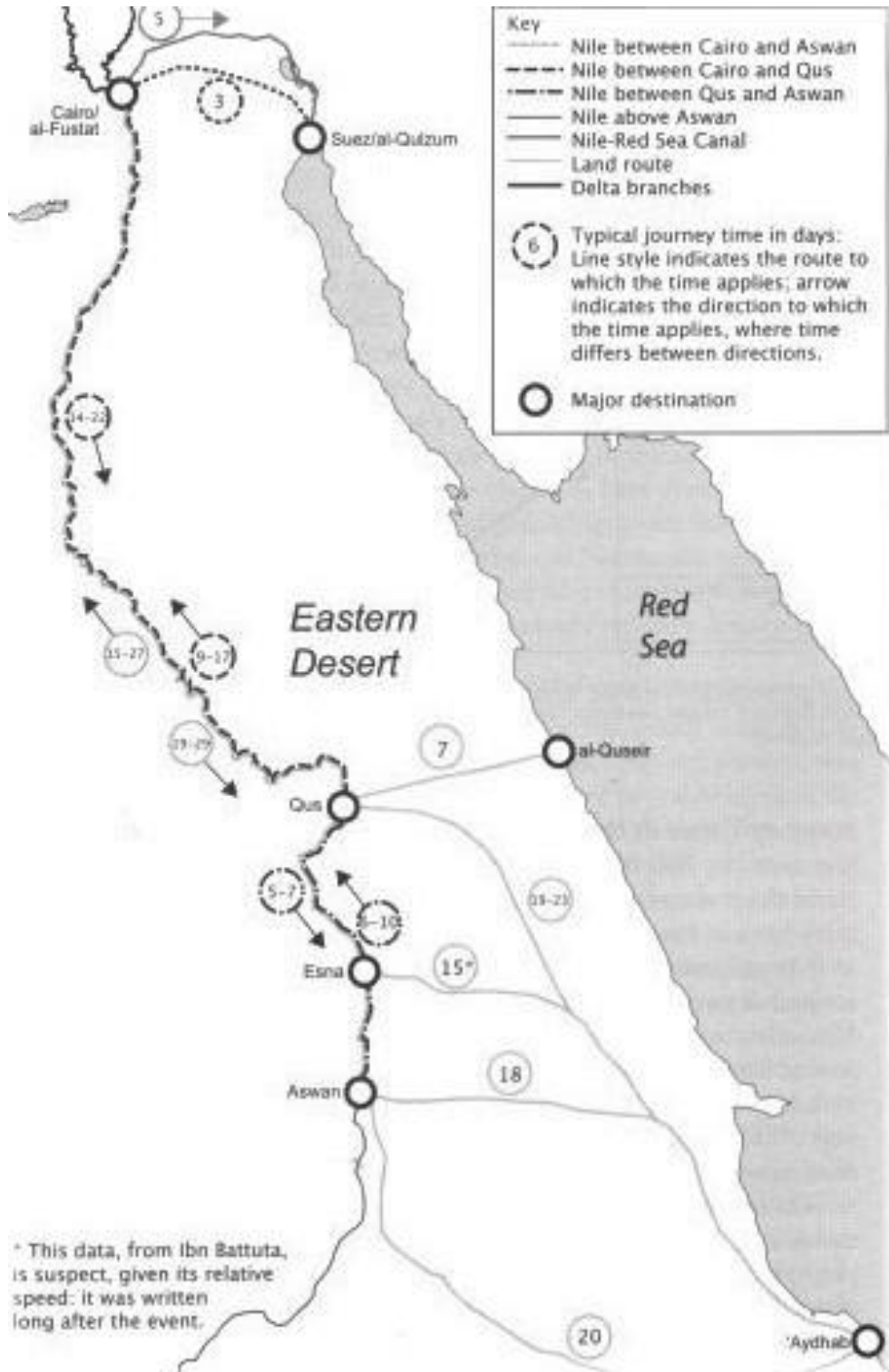
The change in the overland route happened due to two reasons. Firstly, the decision by Ottomans in Egypt to consider Suez as the capital of the Red Sea region, representing the eastern front of Egypt. They turned Suez into a military base with a defensive navy combating piracy and foreign invasions coming through the sea. Secondly, the opening of the Suez Canal, which is the main reason behind the major change in the overland route and the drastic changes that occurred in the southern cities of the Red Sea region. The route shifted from south to northeast then to the capital. This caused the development of the southern cities like Quseir, Ayydhab, etc., to slow, and a series of new cities sprung up along the Suez Canal.

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**Figure (33):** Map clarifying the names of the Egyptian cities during the Greek and Roman eras. Source: Paul Lunde & Alexandra Porter, *Trade and Travel in the Red Sea Region* - 2004

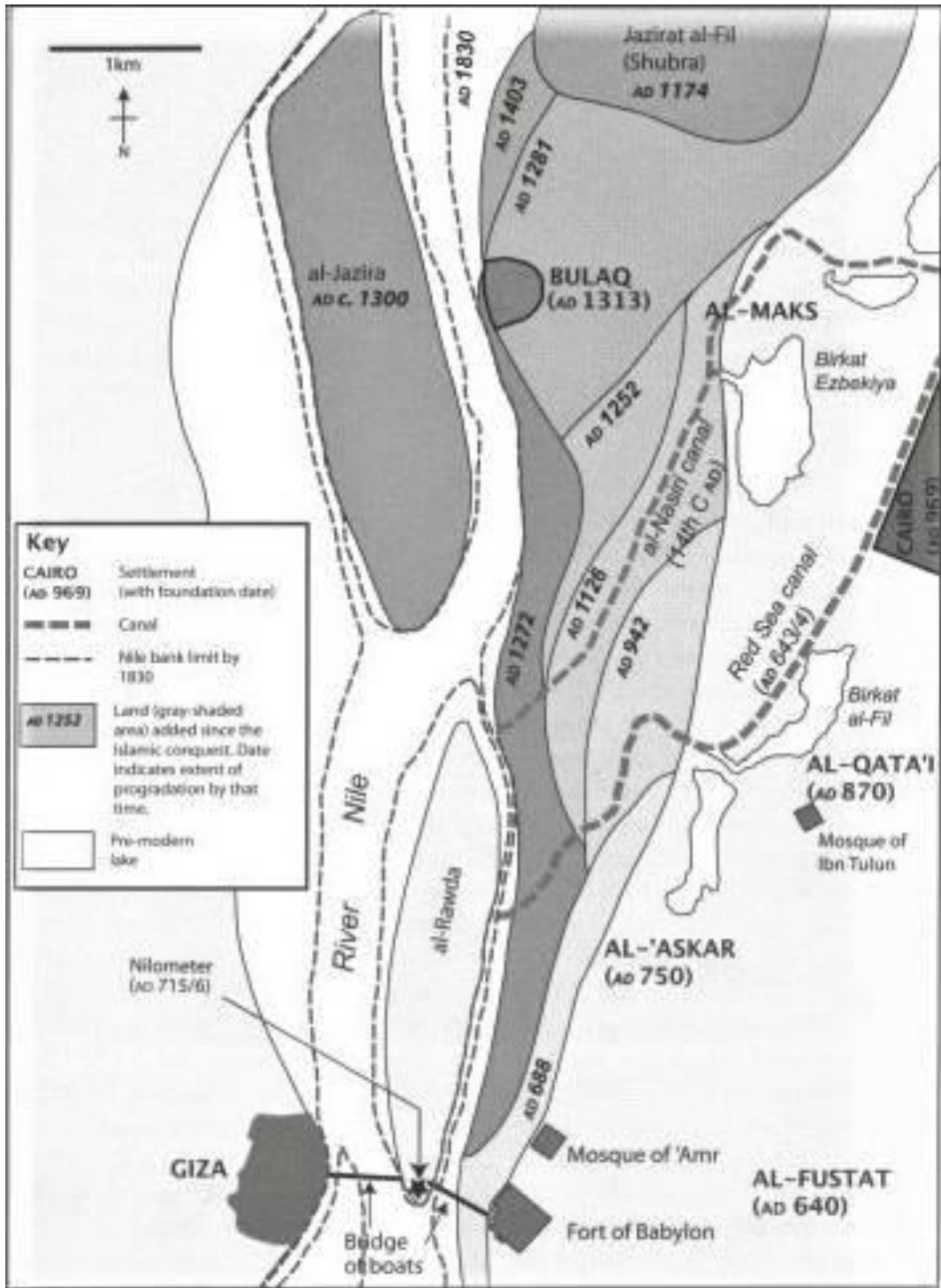
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**Figure (34):** Map clarifying the number of days of travel from the Nile to the Red Sea and the journey between the ports and cities. Source: John Cooper, *The Medieval Nile*.

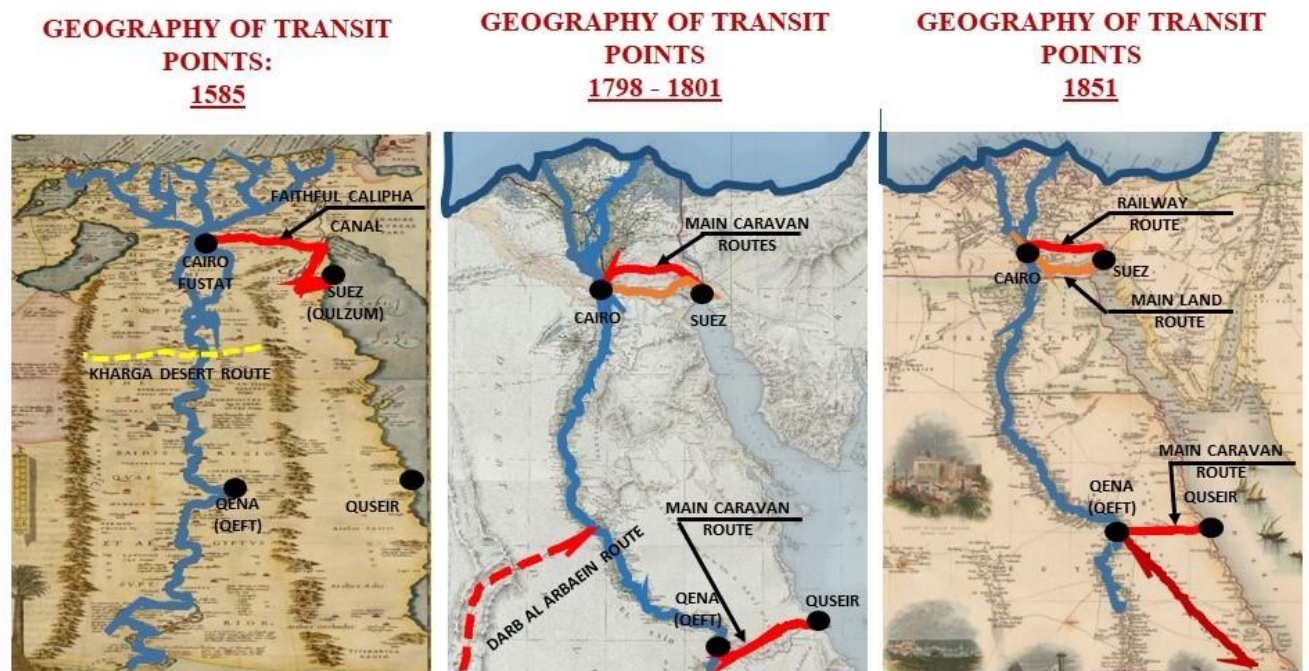


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**Figure (36):** Map clarifying the location of Bulaq Nile port in Cairo. John Cooper, *The Medieval Nile*.

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**Figure (37):** Maps clarifying the transit points in cities and routes from 1585 to 1851. Source: Analysis done by the researcher based on historical sources.

#### 14. SUEZ EXISTING HERITAGE

The following map, taken pictures and analysis was done by the researcher through conducting field work at the city of Suez.



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SUEZ BASE MAP:

Suez is 124 km from Cairo, the capital of Egypt. Suez is the capital of the Suez governorate. It is well known for its strategic location between the two continents of Africa and Asia. It is considered as a strategic city in Egypt due to the presence of the Suez canal.

The two red squares are zooming on the urban context which has heritage in Suez.

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SUEZ BASE MAP  
(PORT TAWFIK):

- LAND MARKS
- RESIDENTIAL (MAINLY HERITAGE)
- COMMERCIAL & LEISURE
- GREEN AREAS - GRADENS
- EDUCATIONAL
- ADMINISTRATIVE
- BORDER OF HISTORICAL PORT

- |  |                               |
|--|-------------------------------|
| 1. Monument of the Indian Soldier  |                               |
| 2. Learning center and Lookout Post of Canal Authority                     |                               |
| 3. & 4. Workers' Houses of the Canal Company                               |                               |
| 5. Houses for Employes of the Canal Company                                |                               |
| 6. Private Houses  |                               |
| 7. Villa For Employee of the Canal Company                                 |                               |
| 8. Square and Place known as Francals                                      |                               |
| 9. Apartment Building for Employees of the Canal Company                   | 19TH<br>TO<br>20TH<br>CENTURY |
| 10 Rest House of the Pilots of the Canal Authority<br>Company (DEMOLISHED) |                               |
| 11. Former Administrative Building of Canal<br>Company (DEMOLISHED)        |                               |
| 12. Technical Offices of the Canal Company                                 |                               |
| 13. Canal Company Co-operation   |                               |
| 14. Naval School of the Canal Authority                                    |                               |
| 15. Elementary School of Canal Authority                                   |                               |
| 16. Ancient Greek School (DEMOLISHED)                                      |                               |
| 17. Dock of the Canal Company  |                               |
| 18. Commerce Basin   |                               |
| 19. Arsenal Basin  |                               |

Square (1): The opening of Suez Canal had created this small town that was few kilometers far from the old city of Suez. It is part of present Suez city. Port Tawfik was established on an industrial surface and it is the entrance to Suez Canal. This industrial surface was constructed and designed by the engineer La Ros. It was built by the material and soil came from the incision of Suez Canal. Port Tawfik was the head quarter on many transportation companies.

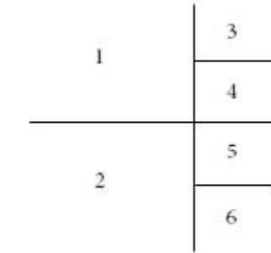
The Parisian engineer, Charles Marette, was assigned by the Canal company to build the administration headquarters of the company with classical style and constructed with cement blocks. It was designed in 1892/1891. This building was destroyed in 1967 war. Also there were new workshops which was designed by the engineer Paul Albert , it was constructed with reinforce concrete. Most of port Tawfik buildings was constructed based on iron frames. Most if the offices and the housing of Canal company was designed also by Paul Albert.

Indian soldier Memorial denotes to the 4 thousand Indian officers and soldiers who died in Egypt and Palestine during the first world war. This memorial was designed by two Scottish engineers who are John James Burnet and Thomas Smith Tait. The monument of the memorial got destroyed in 1967 and only the base of the monument that is present till today.

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EUROPEAN HOUSING



Architect: Paul Albert,  
Date: 20<sup>th</sup> century (1923)  
Former use: Residential,  
Present use: Residential  
Construction material: Rubble stone and Red bricks  
Present Status: In good condition

The housing is for European workers and employees who used to work for the Canal company. The workers' houses were built to be two stories. Rubble stones was used as construction material and red bricks were used in the house roof. The facades were decorated with balconies. There is a garden for each house. The ground floor was composed of dinner room, a kitchen and a laundry room. As for the bedrooms, they were in the first floor.

The employee's houses were constructed at the beginning at 1894 and 1897. Then in 1907, Perrier, the chief of engineers of the Canal company designed other houses. Then came Paul Albert and designed many new employee's houses beside a rest house for the guides of the Canal. In 1931 – 1930, he designed more villas for the employees and private houses. Henri Rauby, the company architect, in 1950 built new villas to compensate the ones were destroyed in 2nd world war. Also in 1950, the Canal company announced a competition to build apartment housing, and Lang office in Cairo designed an H shape apartment building.



KEY MAP

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### SUEZ BASE MAP (OLD CITY)



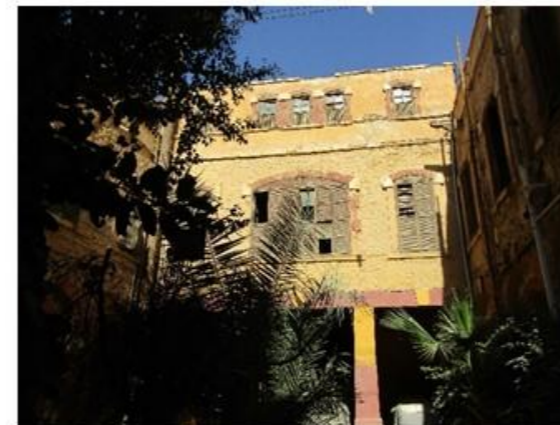
- LAND MARKS
- RESIDENTIAL (MAINLY HERITAGE)
- RELIGIOUS BUILDINGS

1. Mohamed Ali's Palace ... 19th Century
2. Al Massagerya (Messageries) House ... 18th Century
3. Greek Church ... 20th Century

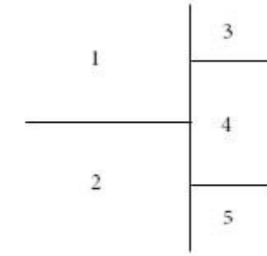
Square (2): The location of the old Arabic city of Suez. This quarter was the location of the old ottoman city of Suez. It is got demolished for several reasons, the main reason is the drastic change which happened to Suez urban context after the opening of Suez Canal. As its is mentioned before Khedive Ismail during his visit to Paris , he was affected by Haussmann's efforts of modernizing Paris. He assigned Ali Pasha Mubarak to re-plan Cairo and Suez. The city morphology turned from a compact into a chess grid one, especially with the new port-scape.



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MESSAGERIES HOUSE:



Architect: unknown  
Date: 18<sup>th</sup> century,  
Former use: French Campaign scholars used to live in it,  
Present use: Residential,  
Construction material and System: Bearing walls and wooden structure.  
Present Status: Deteriorated and needs to be conserved.

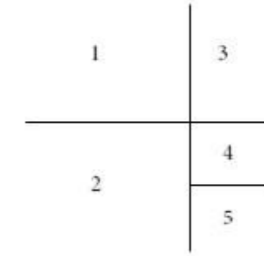
Biet Al Massagerya, the name is driven from "Messageries" French word, The house of Passengers or Travellers. This is one of the oldest houses in Suez city. It is a 300 years old house which was built before Suez Canal Opening. The house is older than cities like Ismalia and Portsaid. Napoleon Bonaparte and the scholars of the French campaign in Egypt used to live in this house. It represents a trace from the Arabic – Islamic context of the city

- 1 & 4 . Represent the Entrance façade of the house. The "Mashrabya" , wooden structure along with Islamic ornaments placed in the widows and balconies
- 2. The Side façade where there is also another "Mashrabya" ,
- 3. The entrance to the courtyard.
- 5. The main façade of the Courtyard of house.



KEY MAP

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1 & 2 Unknown architect, 17<sup>th</sup> – 19<sup>th</sup> century, construction system is bearing walls. A view of a collapsed “Hammam” and the slum area around it. “Hammam” was one of the urban components of the Arabic city. It is a place where people go for bathing, relaxation and social interaction. However this activity became redundant with the new modern urban fabric, but still there are few existing “Hammams” in Cairo

3. Unknown architect, 16<sup>th</sup> – 19<sup>th</sup> century, construction system - material are bearing walls made of stones. An old entrance to “Hara”, which is the smallest street unit in the Arabic city. The Hara used to have a gateway on its entrance, and usually it is a dead end street or as what is known as “cul de sac”.

4 & 5. Unknown architect, 18<sup>th</sup> -19<sup>th</sup> century, construction system is bearing walls. Traces of structures from the Arabic phase in Suez.

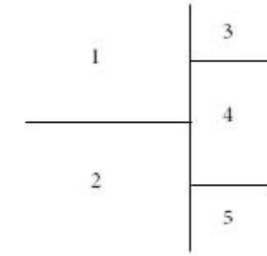


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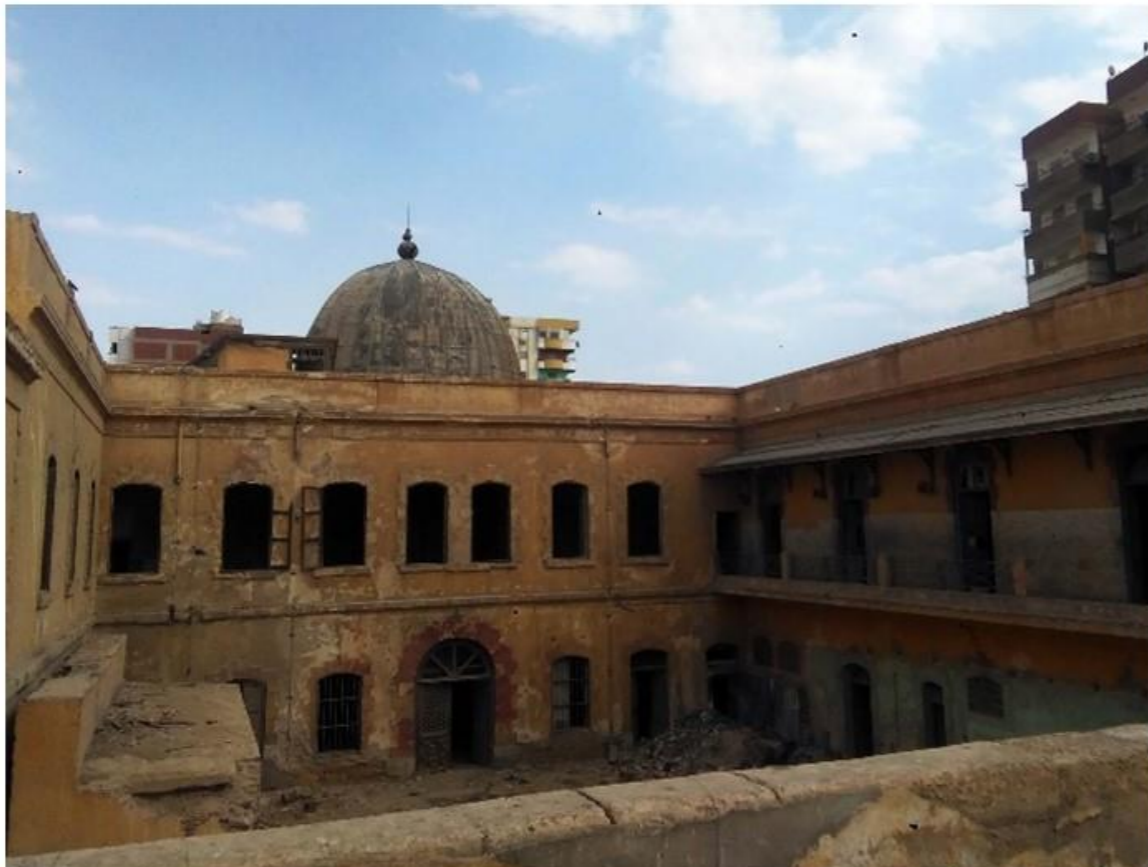
MOHMAD ALI PALACE:



Architect: unknown  
Date: 19<sup>th</sup> century,  
Former use: The head quarter of the ruler Mohamed Ali in Suez, afterwards it became the City hall and Suez governorate headquarter.  
Present use: Abandoned  
Construction material and System: Bearing walls, wooden structure and stones.  
Present Status: Deteriorated and needs to be conserved.

Mohamed's Ali Pasha Palace was built in 1812 during Mohamed Ali ruling. Afterwards, It was used by Saeed pasha for his stay during the incision of Suez Canal and in 1886 part of the palace was established as a supreme court. After 1952, it was used as the head quarter of Suez governorate till 1982, where it turned into a supreme court complex. Then the Ministry of Antiquities considered it as heritage but till this moment it is abandoned and in critical condition

1. Mohamed's Ali Pasha Place- A Bird's view,
2. The internal courtyard of the palace,
3. The spiral wooden stairs.
4. An inner view of one of the Palace's rooms.
5. The entrance of the Palace.

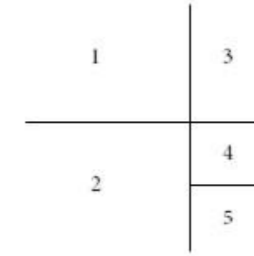


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CHURCHES



1 & 2. Unknown architect, 20<sup>th</sup> century, One of the Greek churches and its convent building that were renovated lately after a recent fire.

In Suez, since 1869, the Greeks living in Suez had formulated a committee to support activities in school and church. San Giovanni church is the first Greek orthodox church, and its location was in the ottoman district of the city. In 1889, this committee turned to represent the official Greek community in Suez and they continued to support education and church activities. With the opening of navigation of Suez Canal, the number of Greeks living in Suez had noticeably increased. In 1905, the Greek community bought a piece of land from the Egyptian government with an area of 4000 m<sup>2</sup>. They started constructing the school in 1912 till 1917. As for the new orthodox church, the construction started in 1917 and in 1923 the first mass prayer was held in the church.

3. The Main entrance of the church.

4. The Convent of Egyptian Nuns called "Al Raa'ey Al Saleh"

5. Evangelical Church in Suez.



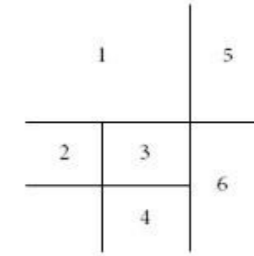
KEY MAP



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RESIDENTIAL BUILDINGS:



Unknown Architects, Examples of Residential Buildings from the 40ies and the 50ies era , it is obvious how they were influenced by the European architecture, especially the Parisian one.

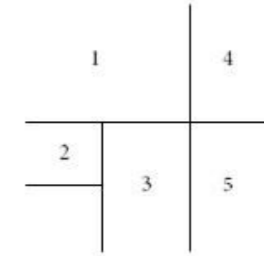


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MODERN ARCHITECTURE



1 & 2 & 3 Different views of "Sydi Ghareeb" mosque, one of Suez city landmarks (It isn't historical but it has a spiritual value "Sufi" sheikh")

4&5 Different examples of the Modern architecture of some residential buildings in Suez, some of them are slums especially with the Grey – red façade.

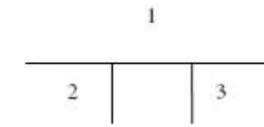


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SUEZ CORNISH & WATER FRONT



Different views of the present Water Front of Suez – (Suez Cornish).



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### **15. ARCHITECTURE CHARACTER OF SUEZ**

According to Professor Ali El Souissi, a professor at Suez University, if the character of Suez' architecture is analysed, it reveals a model that no longer exists at present. This model is known by "Baghdadli" architecture (Souissi, 2017). The model construction is based on sandwich panel walls, which have upright wooden veins of 4 centimetres by 10 centimetres, placed every 40 centimetres, then iron cushions sized 2 centimetres by 1 centimetres, placed and fastened with screws every 5 centimetres. On the other hand, there are stones placed which are bought from the seashore called *hagar al-mankabi*. *Al-qasromel* mortar is used to build the stones covering the Baghdadli wooden structure and afterwards the two sides of the wall are painted with *qasromel* mortar as well. Lime is mixed with sea water and applied afterwards. The ceiling has wooden veins of 25 centimetres by 25 centimetres and there are wood panels covering the ceiling to be the base of the next floor. The houses are usually four floors. During the war of 1967 and until 1973, when Suez was struck with missiles, the houses that were built with reinforced concrete were destroyed. In the houses built in Baghdadli style, the missile only penetrates the house exits the other side, without destroying the whole structure; in other words, the house remains intact.

Unfortunately, all the houses in Baghdadli style were destroyed after the 1973 war, when wood merchants from Cairo came to Suez and offered the owners of the houses huge sums of money. The ruins of the houses were bought, as they were a treasure. The type of wood used for the houses was pitch pine, which was not affected by marine environment to the extent that boats were made out of it. The people of Suez therefore made their houses from this wood, and the wood traders bought it at the lowest price to sell it at a higher price.

Also, most of the past buildings in Suez had Islamic architectural features, such as *mashrabiya* and an inner courtyard. As Suez was a cosmopolitan city, there was also another architectural character model. This model emerged after the opening of the Suez Canal and the establishing of the Suez Canal company. The French company ran the Suez Canal at that time and it had built houses for its workers, engineers and captains in the colonial style. In their construction of houses, they used local materials and resources. The stone used in all the houses built in Port Tawfik came from Suez, and the stone used in the houses built in Ismailia

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and Port Said came from the Fayed and Abo Sultan area. The Suez houses had truss roofs which were covered with slanted bricks, although it rains infrequently in Suez. The houses were surrounded by a garden and a fence. There were also houses in Suez in the Gothic style, while there buildings of foreign communities in Suez such as the Italian, Greek, and French communities had different character.

## 16. SUEZ CITY'S IMPORTANCE THROUGH HISTORY

There are two fundamental books about Suez by Claudine Piaton, *L'Isthme et L'Egypte* in 2016 and another one in 2011 among a series of books about the canal cities, called *Suez: Histoire et Architecture*.

Piaton, in *L'Isthme et L'Egypte*, illustrates how Suez city was one of the most important cities not only within Egypt but also on the international level, after it became the door to various international trading activities after the opening of the Suez Canal. The turning point in Suez city's evolution is the opening of the canal.

Firstly, however, it is necessary to know how the city was established. Goda and Piaton illustrate that the city's most ancient core started around the well of fresh water, the water of which came through a canal from the Nile until it reached the Red Sea (Piaton, 2011) (Goda, 2016.) The trade between the Nile and the Red Sea necessitated the construction of a canal which linked the Nile with the Gulf of Suez, and this turned the area into an active trading area (Ghalab & Noshi, 2010)( . Noshi demonstrates in his book *Suez* from 2010, how the Canal of Osiris was dug at the beginning of the fifth century BC. It was considered as one of the most ancient water canals and was dug by King Sonosert the Third, during the pharaonic era. The canal was used to transport goods, commodities, and merchants.

If trading was local during the ancient Egyptian era, it was international during the Platonic era. During and after Alexander the Great's era, Egypt played an important role, especially through the Red Sea ports, in trading with India, China and the Far East. The Platonic leaders in Egypt carried out land reclamation, canal creation, and established cities. Their trading activities included the Mediterranean basin and the Red Sea, and they therefore established desert routes between the Nile and the Red Sea. They re-dug the Canal of Osiris and they

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founded Arsinoi, city which became a big port before the establishment of Qulzum and Suez. (Ghalab & Noshi, 2010) (Goda, 2016).

Piaton, in her book *Suez: Histoire et Architecture*, says that, during the Greek era (246 BC), the Greeks established a city north of the present-day Suez city under the name of *Qulzum*. The city structure was based on a grid model, with the streets oriented from north to south and from east to west. Afterward, the city became the strategic wheat storage location for the Roman empire and they established a castel, or “upper city” (its location and remains was later known as Qulzum hill). The Romans also established a water supply system into the city coming from the city’s ancient well, public baths (Piaton, 2011).

However, during the forties of the first century AD, Christians founded a settlement near the Jewish one. The Christian monks started to connect with the rest of them who were living in the mountains of Saint Antinous in the Arabian desert. This lead to the spread of Christianity all over the city and Athanasius became the saint of Qulzum. The essential building which was established in this era was the church of Athanasius.<sup>4</sup>

After Amr Ibn El-Ass conquered Egypt, the Caliph Omar Ibn El-Khattab gave an order to him to re-open the pharaonic canal, which was a vital connection between the capital and the Red Sea. (Cooper, 2014) Many mosques and shrines were established, but unfortunately, most of them were destroyed due to the collapse of Qulzum after 767. The old Canal of Osiris was re-dug again during the Arab conquest era in Egypt in 634–644 AD, where the Caliph Omar Ibn El-Khattab ordered Amr Ibn El-Ass to maintain the same old pharaonic canal, and it was renamed the canal of Amir El-Moemenin or Amir El-Moemenin gulf. The ships used to come from Fustat (now Old Cairo) to the city of Qulzum through the canal until, during the Abbasid ruling era, due to political factors the Calipha Jaafar Al-Mansour ordered the canal be filled in due to his fear that the revolutionaries would reach Fustat, the capital. Due to the fear of losing their authority over Cairo, they closed the canal (Ghalab & Noshi, 2010) . The closing of the canal and the lack of a freshwater source lead to people abandoning the city. However, it continued to be in use until the Ottoman period during the sixteenth century, when they decided to make it the capital of the Red Sea. It was their east military port against

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<sup>4</sup> Unfortunately, there are no remains of this church existent.

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the piracy movements from the Arabian Peninsula. A fortress<sup>5</sup> was built by the ruler near to the port. It was also the biggest wheat storage for the pilgrimage trips to Mecca and Medina (Manar AlGammal, 2016).

The city underwent several changes during the various eras that preceded the Islamic conquest of Egypt (Fatimid, Ayyubid, Mamluk) until the Ottoman period, which began in 1517 AD. In this period they decided to make it the eastern military port and they established a defence fortress near the port beside a big military fleet to stop the Spanish invasion along the Red Sea shores. Suez became during this era the main port for trading and transferring pilgrims - commodities including the strategic wheat storage carried to the Holy lands in Mecca and Medina.

During Mohamed Ali's era, he restored and rebuilt the fortress and secured the most important land route from Suez to the holy land, passing through Sinai. The military port and fleet were reinforced during his era in order to protect Egypt not only from the Wahhabi campaigns and piracy coming from the Arabian Peninsula but also from other foreign invasions. Mohamed Ali established a ruling line under his name and was the one behind the idea of creating a railway network that connects Alexandria to Cairo then to Suez; unfortunately, it wasn't implemented during his rule. (Piaton, 2011)

Suez's commercial importance comes from the fact it had the oldest canal linking the Nile and the Red Sea, which facilitated the trading activities between the three continents (Africa, Asia, and Europe). The commercial significance of this city came even before the opening of the canal, as it was one of the ports responsible for transferring Muslim pilgrims to the holy land.

The religious importance of Suez comes from this role as the land route for the pilgrimage to Mecca. It had seasonal religious activities in its city centre, and some of the pilgrims who used to pass by the city were buried there after their death, becoming Sufi saints of the city. One of them is the famous saint Sidi Al-Gharib<sup>6</sup>. The British, who colonized Egypt, worked on maintaining the activities that served this seasonal religious activity, such as health

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<sup>5</sup> The fortress survived even after the wars of the twentieth century (1956, 1967, and 1973) until it was totally demolished in the 1990s.

<sup>6</sup> Gharib غريب means "The Stranger" in Arabic language

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facilities. As mentioned above, the city was the transit point for pilgrims, especially those from North Africa and the southern Mediterranean countries, where they would rest and start to prepare for their trip to Mecca and Medina.

## **17. SUEZ CITY'S EVOLUTION FROM THE OTTOMAN ERA IN TERMS OF BUILT ENVIRONMENT**

Suez is on the northern part of the Red Sea in the western coast of the Suez Gulf, which made it in the entrance to Africa through the Red Sea and into Asia through the desert of Sinai. The port of Suez has several advantages and particular geographical features. It is much nearer to Cairo and to Asian markets. It was the main military and pilgrimage port during the Ottoman period, when three main forts were established unfortunately all of which have since been destroyed. It is also well known as the main pilgrimage land route since the Arab conquest of Egypt, as noted above. Suez had diverse roles and importance that can be seen through the evolution of its port-scape.

The location of Suez in Egypt led to its establishment as a cornerstone for strategic projects that were implemented from the late eighteenth century to the early nineteenth century. The following projects were proposed:

- 1) A northern land route;
- 2) A railway network between the ports of the Mediterranean and Red Sea;
- 3) An aquatic connection between the two seas.

The location of Egypt between the Mediterranean and the Red Sea led to the idea of connecting both seas. The Suez Canal was one of the various strategic projects that were planned even before the Mohamed Ali era.

## **18. SUEZ CANAL AS A TURNING POINT IN THE EGYPTIAN URBAN CONTEXT**

The Suez Canal did not only reconfigure the physical geography of the whole region but also changed strongly the world economy. It was where progress was found due to industry, and



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this progress was not only industrial and financial but also on the urban and social scale (Balran & William). It was the reason behind the creation of cities such as Ismailia Somalia and Port Said, besides the drastic changes it brought about in Suez.

The Western forces saw the Suez Canal as a crucial factor in their post-war strategy. British Conservatives such as Winston Churchill<sup>7</sup> considered the Suez Canal as “Britain’s rightful position”. Both he and Eden<sup>8</sup> emphasized the “importance of the Suez Canal as an imperial lifeline and claimed international security would be threatened by British withdrawal.” After the 23 July Revolution, Gamal Abdel Nasser<sup>9</sup> and the Free Officers<sup>10</sup> of the Revolutionary Command Council (RRC) were concerned about the British garrison in the Suez Canal region. In order to achieve the British eviction, the RRC thought of two most important vital aspects, one of which was the canal. The British authorities claimed: “There was no strategic alternative rather than to conserve and maintain the British base in the Suez Canal.”

#### **19. MODERNIZATION MOVEMENT IN THE RED SEA PORT CITIES (INFLUENCE OF FOREIGN OCCUPATION)**

The modernization movement started in the Red Sea region during the eighteenth and nineteenth century, and the presence of the French expedition and the British occupation were factors behind the change in the cityscape. In the Ottoman period during Mohamed Ali’s rule, and even before that, there were three strategic projects which were proposed, and the Suez Canal was the result of one of them.

But to be specific through the mapping analysis and city chronology study of the Red Sea cities, especially Suez, the noticeable modernization was obvious and can be traced through maps right after the opening of the canal in 1869. The new city architecture and urban pattern was initiated by building new facilities supporting the canal’s activities, based on a chess grid format.

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<sup>7</sup> Winston Churchill, prime minister of the United Kingdom , 1940-1945 and 1951-1955.

<sup>8</sup> Robert Antony Eden, prime minister of the United Kingdom during the Suez Canal crisis in 1956.

<sup>9</sup> Gamal Abdel Nasser, the second president of Egypt from 1954. He was one of the leaders of the Free Officers Movement in the Egyptian military that lead the 23 July Revolution against the British occupation and King Farouk.

<sup>10</sup> Free Officers Movement that led the revolution of 23 July 1952 in Egypt.

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It is known that Khedive Ismail became fascinated with the modernization of Paris by Haussmann after he visited the European city. The Cairene and Suez developments were highly influenced by this visit.

As mentioned before, Khedive Ismail decided that Cairo and Suez should be refashioned based on his vision. He ordered Ali Pasha Ismail to start the Suez Canal project and to plan for a new, modern Cairo. As Haussmann had completely transformed the old quarters of Paris, so Khedive Ismail assigned Ali Pasha Mubarak to envisage modern Cairo as a sort of dual city: the old medieval city juxtaposed with the new “Paris on the Nile.” In Suez, the new port-scape would be a major turning point in the city’s morphology, character, and development.

Unfortunately, with the modernization movement that happened with the opening of the canal, most of the city fabric was re-planned based on the Khedive’s vision and Ali Pasha Mubarak’s planning, and part of the old Arab city fabric was demolished. Today most of the diverse features are not appealing, and most of Suez’s heritage was destroyed during the wars (1956/1967/1973) and in the vast urbanization after the mid-seventies, when the residents of Suez had to build their houses by themselves, as the government neglected its role in reconstructing the city after the war.

Although this kind of urbanization process was carried out randomly until the 1990s, there are still traces of the old heritage, port-scape, and buildings in the city, such as the Suez Canal company building. It is also still known as the city of Sidi Al-Gharib (*al-gharib* meaning the stranger). Sidi Al-Gharib was a Sufi sheikh who lived and died in Suez, and during the war people used to talk about him as the a holy figure who was protecting the city. Until this day lots of people visit the mosque named after him, where his tomb is located.

After the opening of the New Suez Canal and the establishment of the Suez Canal Economic Zone, the city is considered one of the most strategically significant cities in Egypt.

**20. THE SYMBOLIC ROLE OF THE SUEZ CANAL AND THE INFLUENCE OF THE NATIONALIZATION PROCESS ON THE BUILT ENVIRONMENT OF RED SEA CITIES**

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There were a number of different reasons for the nationalization of the Suez Canal. First, Egypt's non-alignment<sup>11</sup> leadership in neither the West camp nor the Soviet Union camp, and the arms deal with Czechoslovakia. Second, the most powerful reason, which was that the peak of the crises between Egypt and the Western forces was the financing of the Aswan High Dam project. The High Dam construction decision was one of the prime decisions by the Free Officers. It was aimed at boosting the electricity generation power in the provinces and small villages, and at organizing the irrigation system to increase the amount of agricultural land. The Aswan High Dam also served the national plans for upgrading industry and agriculture, and became a symbol of New Egypt (Metz, 1990).

In 1956, based on the decision by Gamal Abdel Nasser to nationalize the Suez Canal,<sup>12</sup> the Egyptian government since became the main stakeholder of the Suez Canal Company and the canal region (the industrial area, oil and supplies transportation, and shipping), especially after the government promised to compensate the Suez Canal company stakeholders (French and British) and give access to all ships to pass. France, Britain, and Israel started a tripartite war against Egypt, and in the end, the canal cities became the battlefields, particularly Port Said and Suez. Suez was the core of the popular resistance movement, and it became known as the City of Resistance (Metz, 1990).

At the beginning of the nationalization process, all French and British families started to leave Suez, evacuating the houses and facilities were built especially for them. It was well known there were many quarters and districts in Suez built specifically for the French, British, Italians and Greeks, especially in Port Tawfik. The Greeks were the biggest diaspora community, numbering around 10,000 individuals (Piaton, *L'isthme et l'Egypte au temps de la Campagne Universelle du Canal Maritime de Suez (1859 -1956)*, 2016). All foreign nationalities had their own markets, shops, schools, churches, other services and leisure zones including clubs. These facilities and zones were not used by the Egyptian citizens of Suez. Most of these churches, schools, houses, and facilities were destroyed by the series of wars in

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<sup>11</sup> The Non Alignment Movement which was established by Nasser, Tito and Nehru to be an independent force from the world's two main forces, the US and the Soviet Union.

<sup>12</sup> Nationalizing the Suez Canal, which was implemented by Mahmud Yunis, an engineer, who took control over the Suez Canal authority company with the assistance of the Egyptian-Greek crew. It is known that the canal's ownership was under an international company with headquarters in Paris.

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1956, 1967 and 1973, leaving few traces of heritage, one of which is the European housing of the British and French engineers who used to live there.

## 21. CONCLUSION

There are seven cities in the Red Sea governorate: Zafarana, Ras Gharib, El Gouna, Hurghada, Safaga, Quseir, and Marsa Alam. Suez, is located in Suez governorate, which is bordered to the south by the Red Sea governorate. The two oldest port cities of the Red Sea region are Quseir and Suez.

Quseir was established in the ancient Egyptian era and was known as Tao. Its port was used by Queen Hatshepsut to send ships to receive goods, especially gold, from the Land of Punt and the Horn of Africa. During the Greek and Roman period it was named Myos Hormos. However, Quseir was re-founded twice more, once during the Roman era and then during the Mamluk era. The existing old city of Quseir is the one founded by the Mamluks. It played a role in the storage of the wheat which was shipped from Egypt to the holy cities of Mecca and Medina. It then became part of the trading and pilgrimage route and it flourished during the fifteenth to sixteenth century, and was the capital of the Red Sea region until the Ottomans nominated Suez to be the main port and capital of the Red Sea instead. The desert route between Quseir to Qus (now Qena) until Fustat (Cairo) and then to Farma or Alexandria was the safest trading land route for merchants and pilgrims. Quseir continued to be the second capital of the Red Sea and was still flourishing with trading and pilgrim activities until the opening of Suez Canal, after which the city started to decline due to the shifting of the overland route to the North. In 1912, Emilio Cortese, an Italian engineer, discovered phosphate in the area, and an Italian colony was established in which residents of the Italian city of Agordo came to live and work.

The Quseir–Qus–Fustat–Farma route was safer than the Suez–Fustat–Farma route, as mentioned above, although the Quseir route took a bit longer. Farma and Tennis were two cities on the Mediterranean, but they declined and were destroyed over time. The Alexandria and Mahmoudiyah Canal were used afterwards instead.

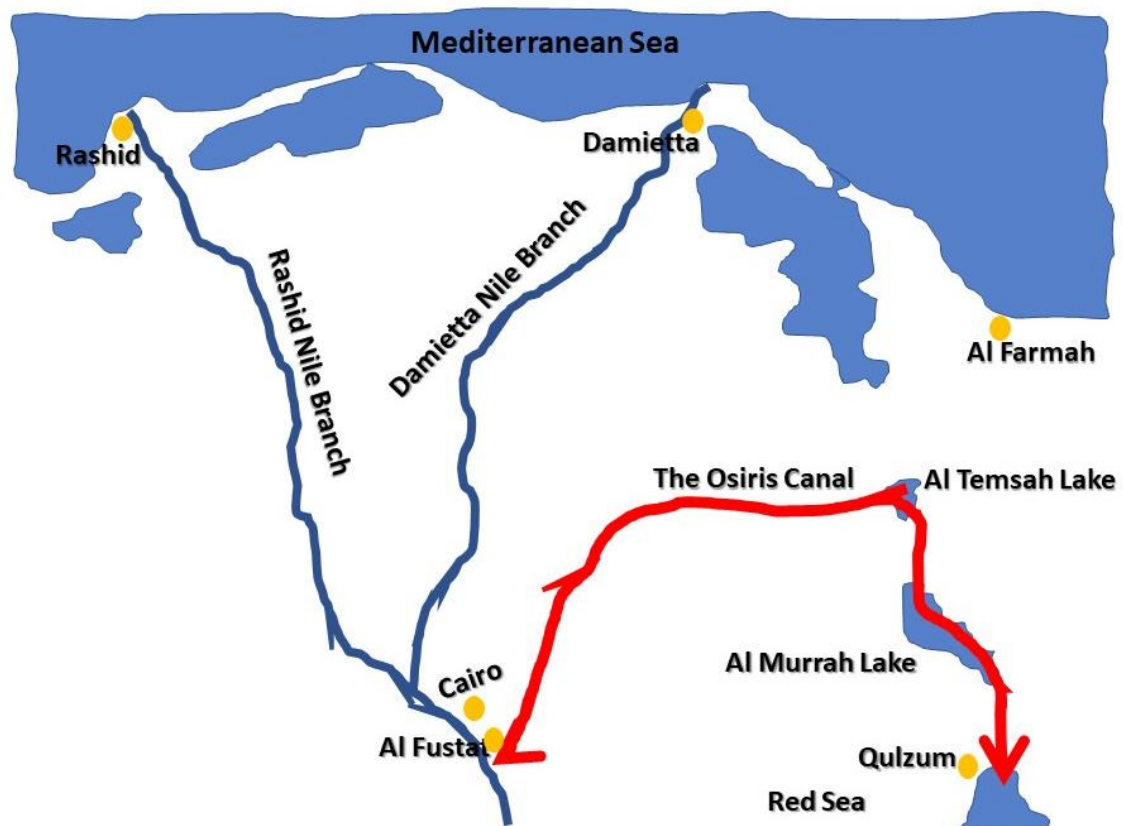
Along with Canal of Osiris, which connected the Nile river with the Red Sea, came Suez. King Sonosert commanded the digging of this canal to transport commodities and merchants. Suez was known during the Greek period as Qulzum. Qulzum became the strategic wheat

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storage location during the Roman empire. The city went through changes after the beginning of the Islamic empire until the Ottoman period, when Suez was selected as the capital and main port of the Red Sea. It was the site for trade in commodities like wheat, as well as for transporting merchants and pilgrims to the holy cities of Mecca and Medina. However, the opening of the Suez Canal in 1869 was a turning point for the city. During the visit of Khedive Ismail to Paris, he was impressed by Haussmann's modernization process. He assigned Ali Pasha Mubarak to plan Cairo and Suez. The new city's architecture and urban context was a chess grid, initiated by the construction of new utilities supporting the Suez Canal's activities. The new port-scape helped generate a major transformation of the city's context. The Suez Canal was nationalized in 1956 and the city saw wars in 1956, 1967 and 1973, which partially destroyed it. There were reconstruction efforts by the local residents at the end of the 1970s.

The architectural theme of Quseir is different than that of Suez; most of the buildings in Quseir have walls constructed with coral masonry or rubble stone and a wooden structure. There are mashrabiyyas which cover the openings of the facades. There are also wooden balconies and ceilings from the trunks of palm trees, and there is a yellow-greenish-blue colour scheme. As for Suez, the old construction style that was used for most buildings was called Baghdadli style. There is no clear trace of the architecture of the old Arab city in Suez except for Al-Massageria house and the Mohamed Ali palace. Other than that, there are some European architectural buildings that survived the war, such as the housing of employees and workers of the canal company, and a church, and some residential buildings. In the rest of the city, the buildings are modern.

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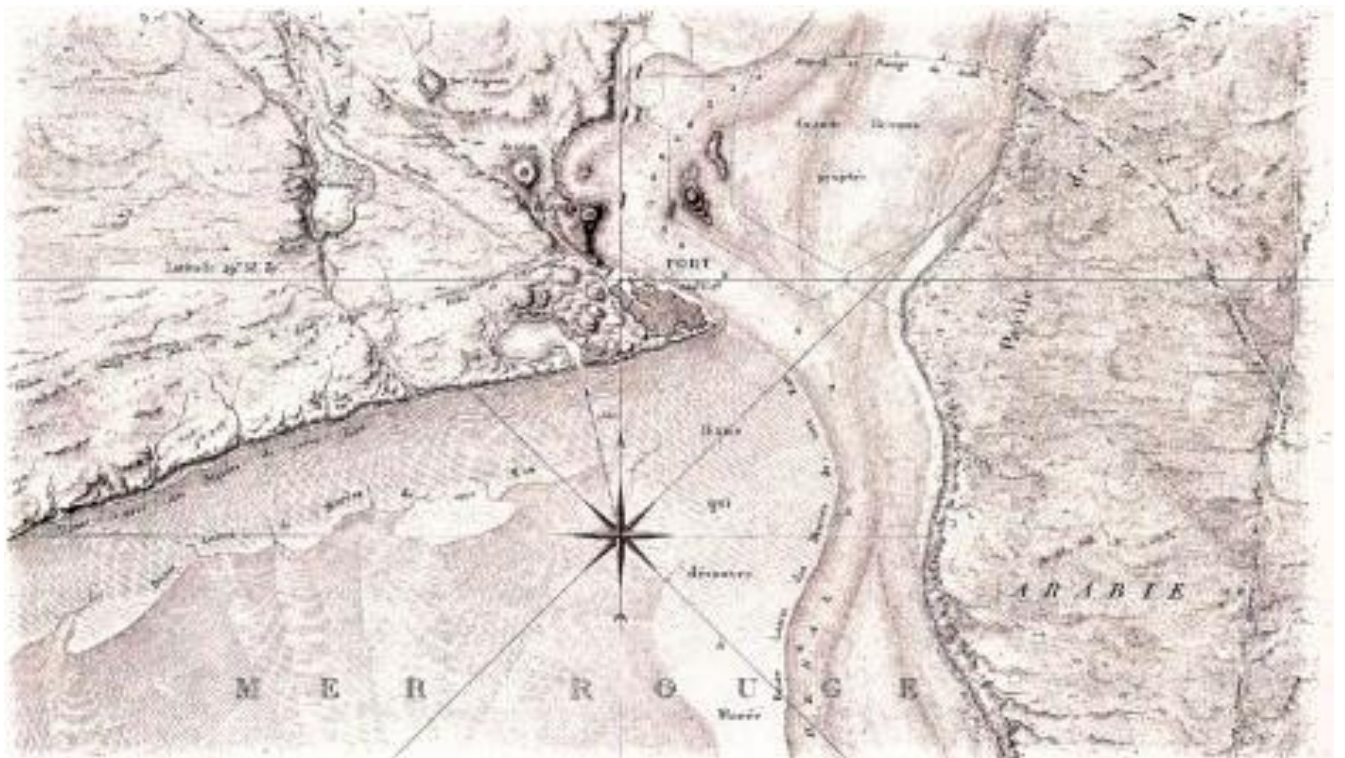
**Figure (38):** Sketch of the ancient Canal (Osiris Canal) between the Nile and Red Sea **done by the researcher**

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**Figure (39):** Image from 1930-1932 of the Qulzum archaeological site from the Greek and Roman era. Source: Claudine Piaton, *Suez: Histoire et Architecture*.

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**Figure(40):** Map of Suez city during the French campaign (1798 -1801) in Egypt... Source: Commission des sciences et arts d'Égypte, *Description de l'Égypte*.

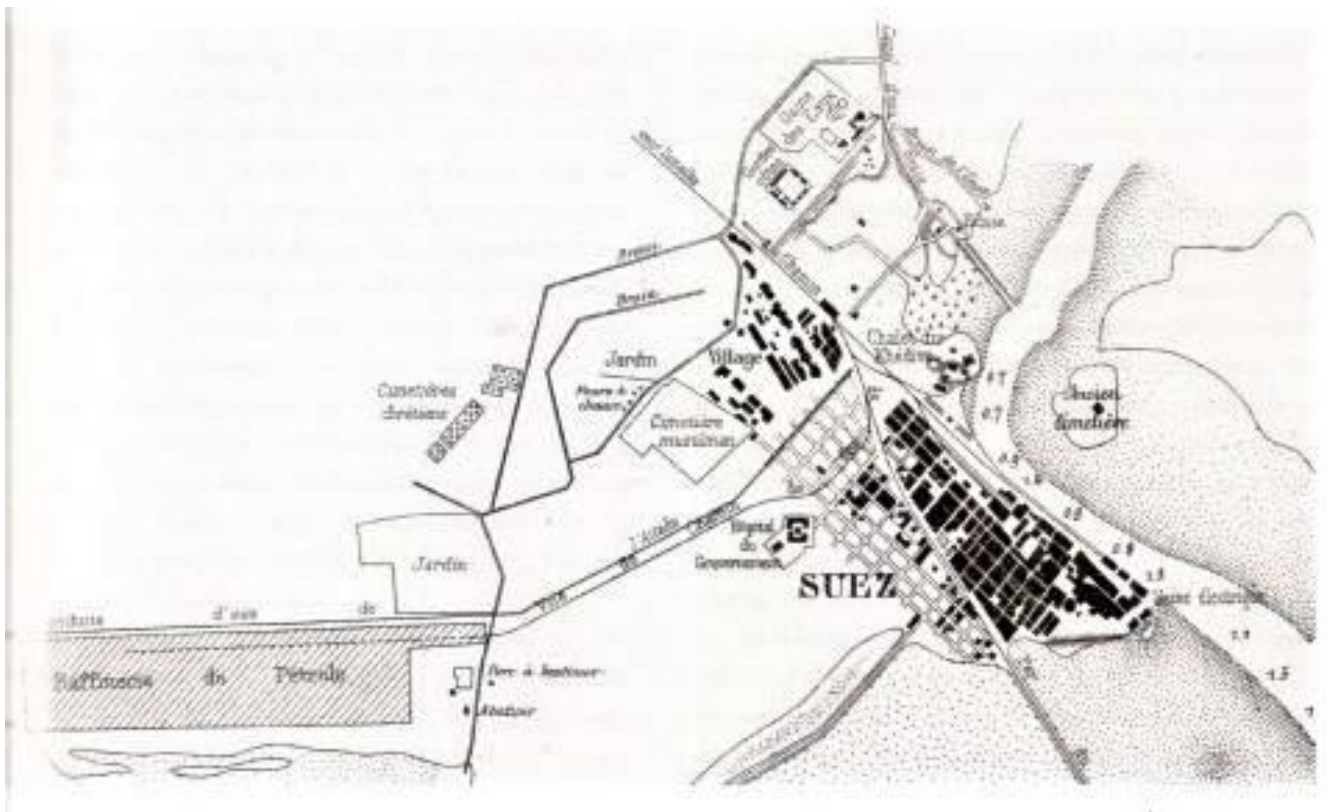


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**Figure (41):** A map of Suez city in 1869, the year of the opening of the Suez Canal. Source: Claudine Piaton, *Suez: Histoire et Architecture*.

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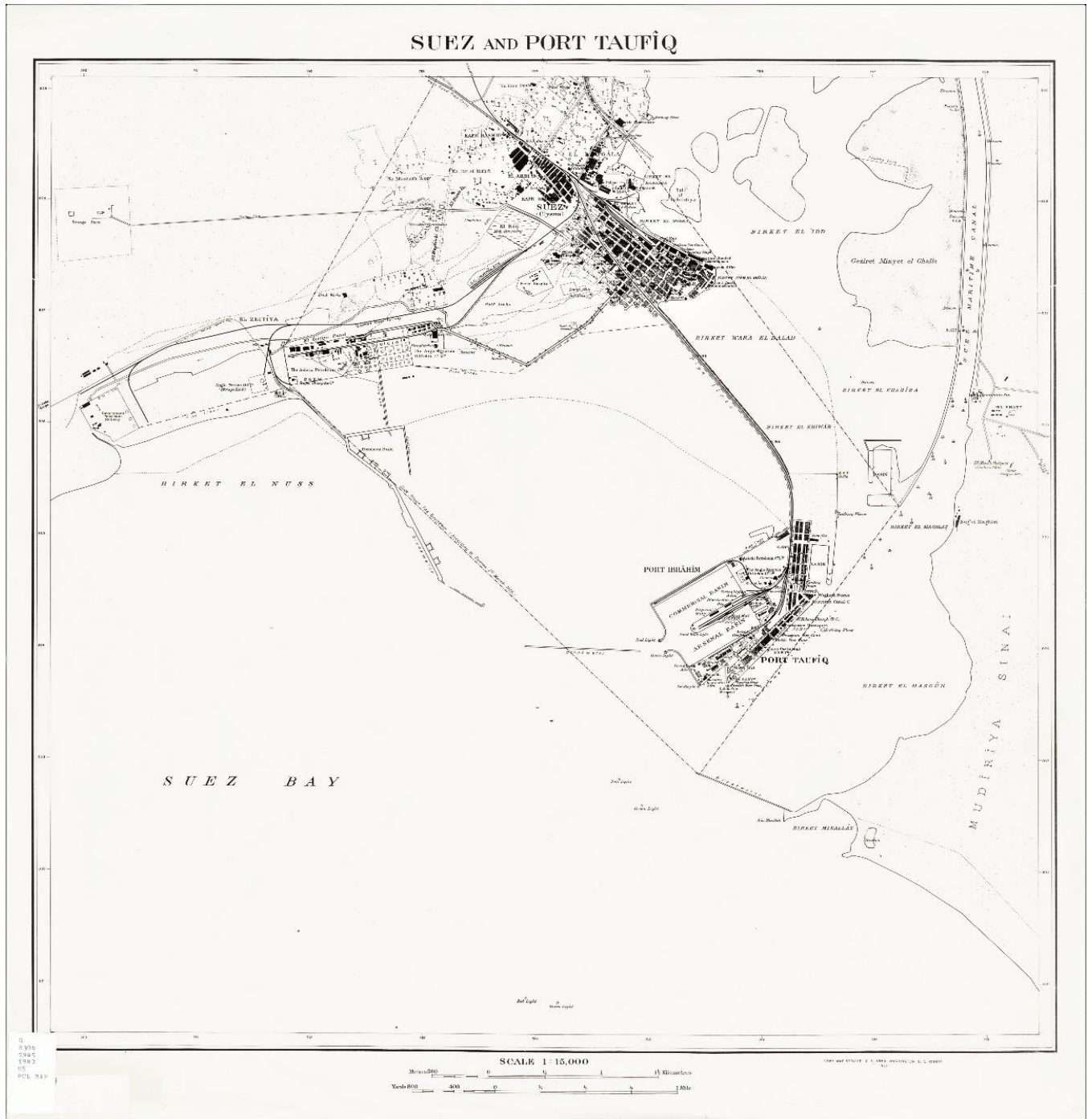
**Figure (42):** Map of Suez city in 1913 showing the first petroleum refinery. Source: Claudine Piaton, *Suez: Histoire et Architecture*.

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**Figure (42):** Map of Suez city in 1920 showing the city development. Source: Claudine Piaton, *Suez: Histoire et Architecture*.

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**Figure (44):** Map of Suez city in 1942. Source: Berkeley CED Library.

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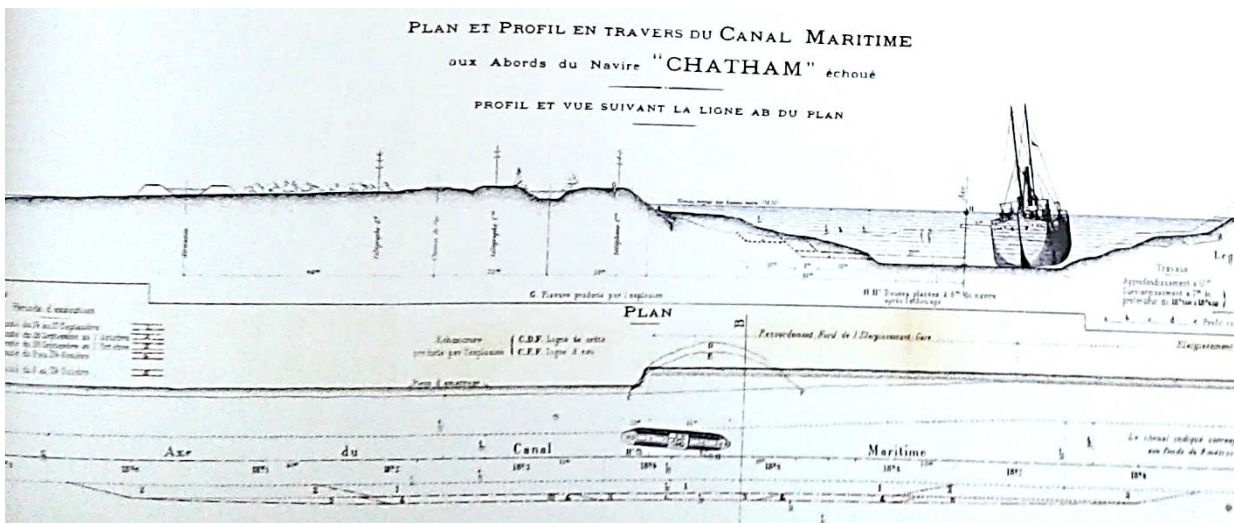
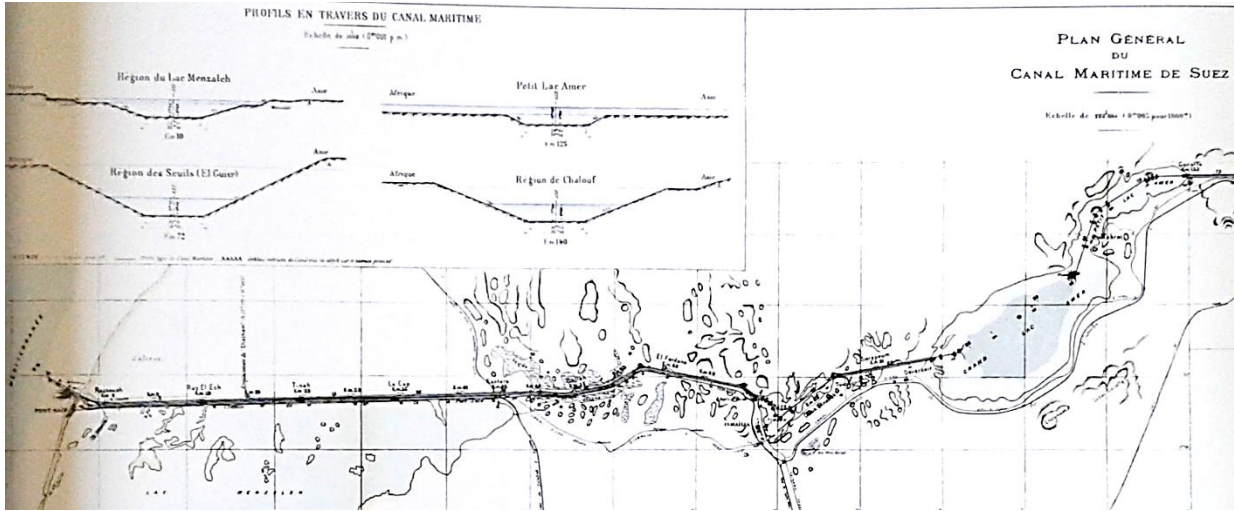
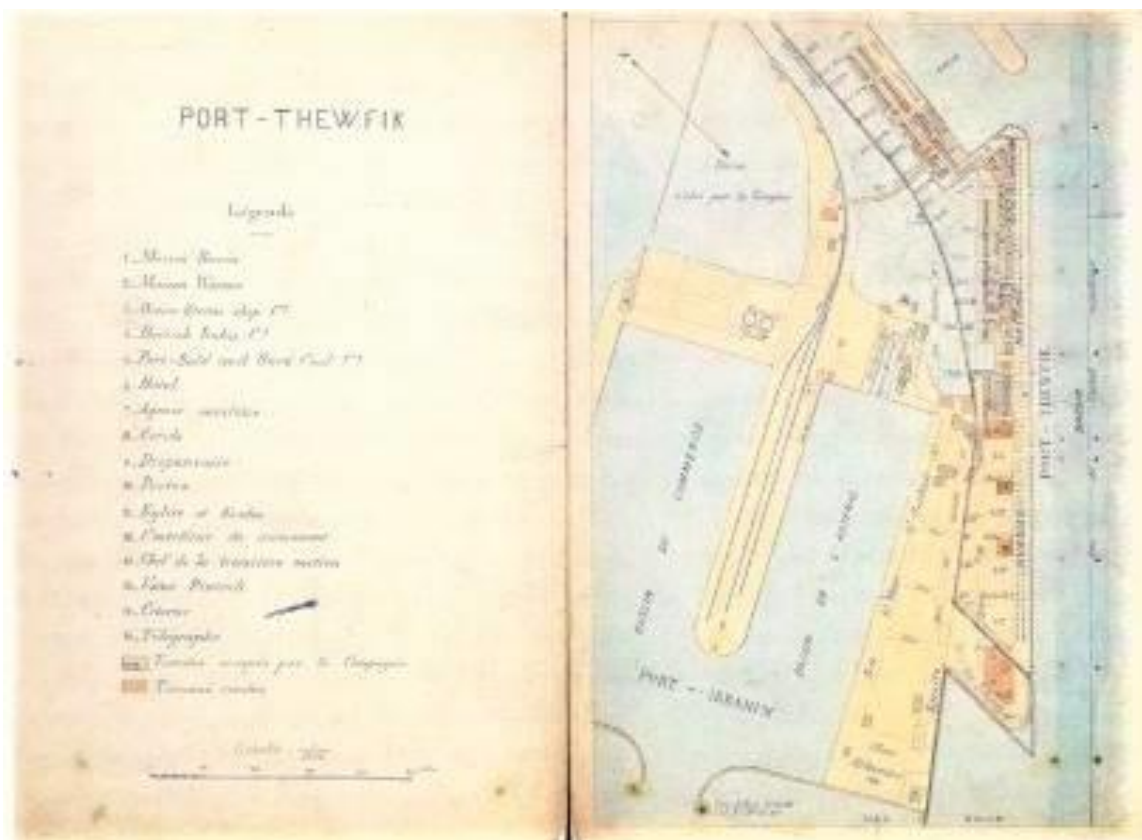
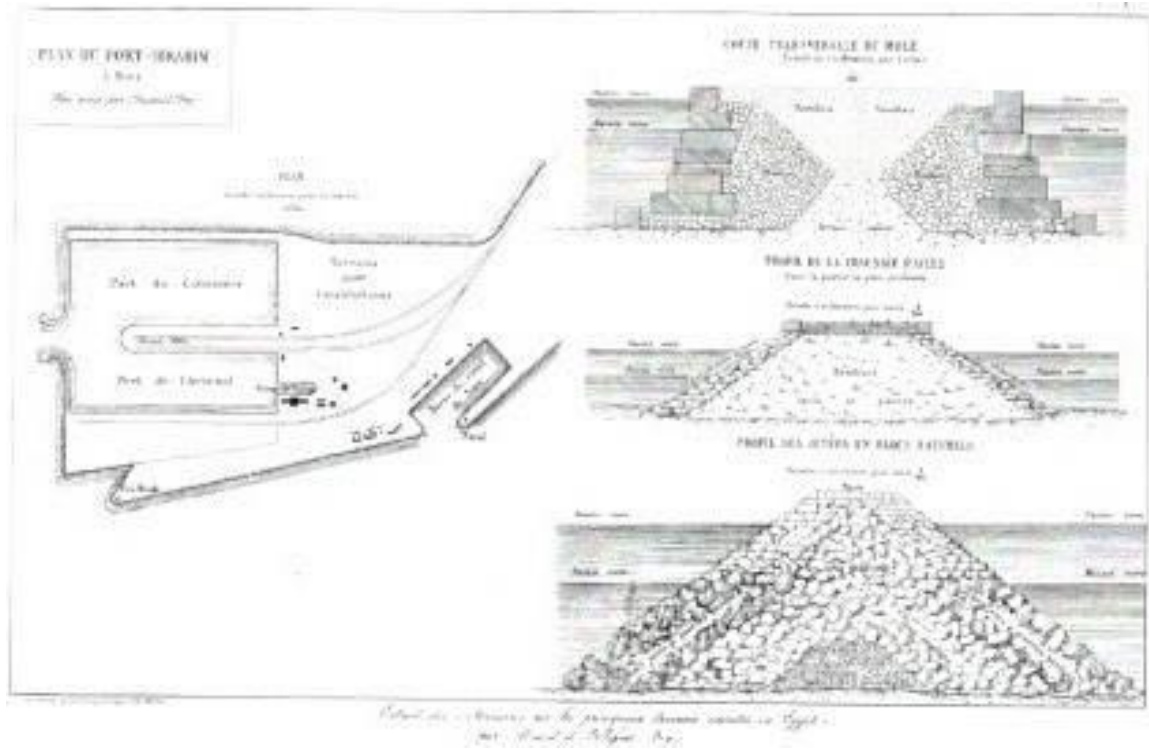


Figure (45): Technical drawings of the Suez Canal in 1868. Source: Alian Balran, *Suez: A History*.

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**Figure (46):** Port Tawfik, 1880. Claudine Piaton, *Suez: Histoire et Architecture*.

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**Figure (51):** The old Arab city of Suez. Source: Claudine Piaton, *Suez: Histoire et Architecture*.



**Figure (47):** A train in Suez in 1900 carrying Al-Mahmal, the cover of the Holy Kaaba, on its way to Mecca. Claudine Piaton, *Suez: Histoire et Architecture*.

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**Figure (48):** The fish market in the old Arab city of Suez. Source: Claudine Piaton, *Suez: Histoire et Architecture*.



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**Figure (49):** The archaeological site of Qulzum Hill and, in the background, Al-Arbaeen district, 1913. Source: Claudine Piaton, *Suez: Histoire et Architecture*.



**Figure (50):** The first connection between the Mediterranean sea and Al-Temsah lake in 1862. Source: Balran Alian, *Suez: A History*.

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**Figure (51):** An image of the architectural character of the buildings in the eighteenth century and the railway connecting Port Tawfik with Suez. Source: Claudine Piaton, *Suez: Histoire et Architecture*.

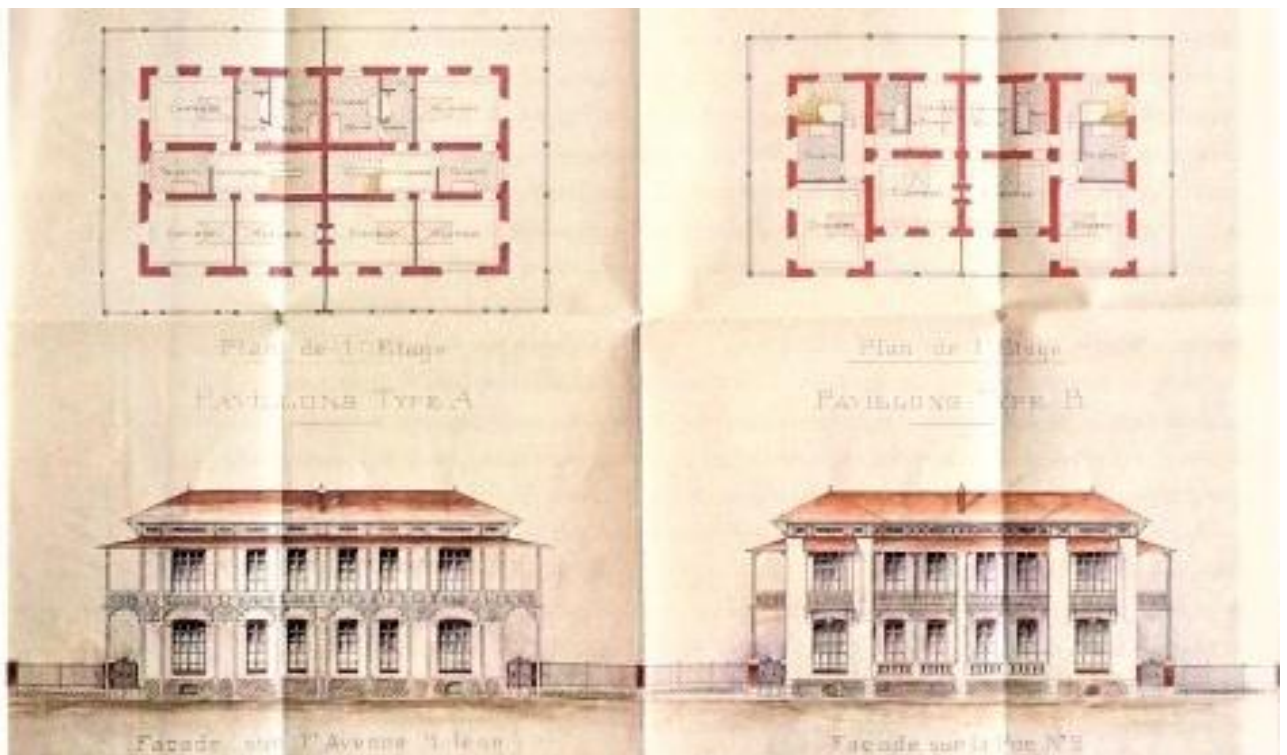


**Figure (52):** An image of Al-Massageria (Messages) House in 1922. Source: Claudine Piaton, *Suez: Histoire et Architecture*.

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**Figure (53):** An image of the old P& O company building which was destroyed in 1956. Claudine Piaton, *Suez: Histoire et Architecture*.



**Figure (54):** Drawings of the residential housing for Suez Canal employees in early twentieth century. Claudine Piaton, *Suez: Histoire et Architecture*.

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**Figure (55):** A drawing of Port Tawfiq Church in 1885. Claudine Piaton, *Suez: Histoire et Architecture*.

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**Figure (56):** An aerial view of Suez during the 1956 war. Source: UK National Archives.

**Figure (57):** Suez during the 1973 war. Claudine Piaton, *Suez: Histoire et Architecture*.

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**CHAPTER FIVE:**  
**MAPPING AS AN ESSENTIAL TOOL IN VIEW OF**  
**URBAN TRANSFORMATION AND HERITAGE**

## 1. WHAT IS CITY MAPPING?

Based on the researcher analytical method, mapping aims to define the most important features of the urban fabric and the changes which have occurred to the city context. Mapping monitors the historical and natural evolution of the city urban fabric; it denotes the most crucial features, such as fortifications, water canals, caravan routes, railways, and significant buildings. These features are considered the milestones of heritage, which has accumulated on them over the years. The features are the elements which play a role in the city formation. Mapping also shows how the urban fabric of a city is a living context.

## 2. HOW DOES MAPPING MONITOR THE FACTORS WHICH INFLUENCE THE BUILT ENVIRONMENT?

When urban territories are mentioned, the first issue should be discussed is their urban character. Urban character is a complex composition; it is what gives significance and identity to any built environment, whether it is a city, a territory, or a district, until it reaches the scale of a street or a single building.

Gamal Hamdan stresses the importance of geography in the formation of the urban context; he emphasizes that the character of each location comes from the combination of geography with history and society. In this aspect, his is based on the “loci” concept. This concept defines the character of a place based on geography as a secondary dimension, with history as the main one. Kevin Lynch, by contrast, analysed urban character based on the spatial configuration, or the image of the context and the morphology structure.

According to Hamdan in his book *The Personality of Egypt: The Study of the Genius of Place* شخصية المكان، دراسة عبقرية المكان، مصر، topography and geography of locations, combined with history and the demographic capacity, are what play a crucial role in urban composition. Geography gives importance to the context, while topography shapes the morphology. History articulates morphology through time and social factors such as culture and tradition. In Hamdan’s opinion, locations are perceived as the optimum outcome of location characteristics and time. The components of urban morphology are natural elements such as seas, mountains, rivers, and site potentials or constraints. Even the nature of locations influences not only the form, size, and type (rural or urban) but also the society living there (Hamdan, 1984).

This approach is oriented towards history and heritage more than other characteristics and features. Methods of monitoring and analysing city creation and transformation depend on several factors, but the main one is history. The concept of the loci depends mainly on special characteristics which give the city or territory a special identity and significance. The locus differs from one context to another, and every locus is unique. Loci are not only related to heritage or traditional contexts, but can also be present in contemporary contexts. They are also influenced by geographical location.

Regarding Lynch’s approach, the visual image of a city or urban territory is mainly based on conceiving the urban character. In his book *The Image of the City*, he highlights methods of analysing the urban context. His first method of analysis depends on five main elements. Landmarks are the most distinguished buildings with significance and influence on the surrounding urban morphology. Nodes represent the gathering spaces, such as a square or a street. Paths are the circulation or flow of

**CHAPTER FIVE: MAPPING AS AN ESSENTIAL TOOL IN VIEW OF URBAN TRANSFORMATION AND HERITAGE.** movement of pedestrians. Edges represent the boundaries or constraints of the urban territory. Districts are the regions/areas/territories at different scales. He later added a sixth element, gateways, which are the entrances to different districts or territories. A second method refers to four elements and components. The space grain emphasizes the solid and void features of the morphology. The building typology defines the character, especially material, texture, and ornaments. The façade grid, theme, rhythm, solid and void are the third component. Finally, the skyline represents the silhouette of building clusters in the urban morphology, or how buildings interact with the sky (Lynch, 1960).

Based on Nasamat Abdel Kader and Sayyed Al Toni's discussion in their publication *The Problem of Character and Tissue* إشكالية الطابع والنسيج, the classifications of urban tissue are various and diverse. There are three main categories, fine, linear and spot, which form the morphology's pattern. The urban tissue is another term of morphology; it is mainly a representation of built capacity. Fine urban tissue especially, in old contexts, is very common, tending to be spontaneous and dense. Fine urban intersecting has a specific theme and the spaces and shapes are not formal shapes. There have been many studies conducted to conclude a structure, hierarchy, and pattern of morphology in fine urban tissue settings. Also, the clustering of buildings at high capacity and in non-standard shapes is found; in fact, some of them were built based on the form of the land plot. The percentage of spaces are less than the built one. The streets are mostly like intertwining vines. Next is the linear urban tissue, which is more organized. It is planned not in the sense of planning, but in the sense of following a geometrical grid or structure or forms. The style and pattern of building clusters takes the shape of a line, and the ending of one building is connected to the ending of the other. The cluster is mainly ventilated by several vertical openings, either ducts or small courts. The building capacity is medium or average, and there is balance between the percentage of buildings and spaces. The linearity shapes the morphology, and the main theme of spaces tend to be dynamic, in a linear direction both ways. The geometrical structure may be represented in the form of a grid or a module. The spaces are either closed or semi-closed, not private or semi-private, as this is social classification, not a physical one. The building attachments are continuous but not rigid, in terms of the possibility of shifting horizontally, but not intersecting – rather, they are bonded. The spot urban tissue is based on the building by itself, surrounded by spaces around it. The intensity of built capacity is low and also follows a geometrical structure and composition. The percentage of spaces ranges from 60 percent up in the spatial configuration of the urban morphology. The context follows the form of spots, squares or any other form, whether geometric or not. These spaces can be soft or hard landscape, public or private spaces, and they are mostly semi-closed or opened. The main theme of spaces is static, forming squares and wide streets which can be accessed from any direction (AbdelKader & AlToni, 1997).

### **3. THE TOOLS OF MAPPING AND CITY PROFILING**

1. Geography and region definition (three different scales):

1.1 City

1.2 Region

1.3 Territory

2. Monitoring city transformation through maps and chronology:

2.2 Historical evolution of urban morphology

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2.3 City timeline

2.4 Existing heritage and architecture – urban character

3. Social and economic analysis:

3.1 Case study matrix (industries/port uses; old and new, etc)

3.2 Interviews with local community

**4. WHAT IS THE RELATIONSHIP BETWEEN HERITAGE AND URBAN CHARACTER?**

Urban heritage has a fundamental role in defining the city's identity. Heritage is a place where the city constructs its identity. Historic territory development creates spaces connected to public amenities and network of the region. Public spaces, especially in historic territories, revive and strengthen the sense of belonging of the residents of the local community.

On the urban and architectural scales, historic territories and quarters demonstrate the know-how of civilizations. Each civilization has its own urban and architectural character. Historic territories present the complexity of each civilization, where they are still intact and have not deteriorated. They are important elements in organizing the life of a city. They represent the historical and cultural memory of the city in the shape of heritage. This heritage can denote aesthetic, historical, symbolic, political, social and economic value. The cultural aspect of a city, territory, or quarter can be explored through these values, which can be represented in a public space or building, as if drawing on them confers identity (UNESCO, 2008).

**5. PORT DYNAMICS AND CITY TRANSFORMATION**

Veenboer in his Master's thesis "The Port-City Relationship" discusses how ports through history were the core of the development of many cities. The port gave the possibility to engage with international trade, allowing for longer-distance trade than traditional land routes and transportation. Growing port activities also allowed urbanization and the growth of the city. He illustrates different models of port-city relationships, and he also highlights the maritime and shipping industry has gone through many fundamental changes, especially since globalization, which has influenced the connection and relationship between ports and the cities they are located in. Unfortunately, due to this change, ports are treated as separate entities from the cities themselves.

In earlier time periods, in fact, many cities were established due to their port activities. Veenboer emphasizes that ports led small towns to grow into cities, initiating urban development connected to the level of prosperity of trade, where the port and the city either flourished together or declined together. It is noticeable that through history, each coastal city included a port and the port maintained the city. A good connection to trade routes and proximity to natural resources were key factors in finding an appealing location for a city. Most of important cities have been established around ports, whether in coastal regions or on rivers. There are also examples of cities which lost their economic significance but through the port they got developed due to good water connections in the early historical stages of the city. Having good water connections led to the development of these cities in the past, which gave them the ability to gain advantages from their trade accessibility. The evolution

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and dynamism of port cities is affected by several local factors, such as the activities conducted via the port, such as trade, pilgrimage (in the past), and industrial or petroleum activities (in the present).

## **6. WHAT ARE THE OTHER FACTORS WHICH INFLUENCE PORT CITIES:**

### **6.1 GEOGRAPHY**

Geography plays a fundamental role in influencing the form and shape of the location (context/tissue/morphology). It affects marine port cities differently than river cities. For example, seacoasts, riverbanks, and deserts are constrained, which limits and orients the configuration/shape/form/morphology of urban territories. In fact, they can be potentials, as being near the sea or a river can be effective and allow for particular industries (land uses). Quseir has minerals (phosphate and gold) versus mountains and mines port industries. Topography, including contours, defines different regions and uses in urban territories based on the level of land (the contour).

### **6.2 SOCIAL AND ECONOMIC IMPACT**

In order to discuss the social impact and economic mobility, it is necessary to define what the city is first. As mentioned above, according to Hamdan city construction differs from one geographical location to another and is also influenced by the civilization in each location. He emphasized that, since the evolution of mankind, societies have built rooted environments based on the civilization present, and he considered the city transformation process through time as overlapping layers of development. If we analyse each civilization, we will find social and economic factors which play an important role in articulating the city form.

When social norms are introduced, they play a role in forming the urban morphology and its specific character. The norms of society presented mainly in culture and tradition are one of its components. One tradition is based on Paul Oliver's definition: "There are only buildings that embody tradition," and: "It is a product of culture and ecology." Distinctive features of urban morphology have a specific culture. The peak of culture is presented in the urban character, which gives the morphology its identity, where heritage is found.

The tradition embodied in culture is what should be "handed down" from one generation to another, forming the morphology structure and configuration. There are societies which have succeeded in implementing such a process, where the old and the new context can be found interacting in a coherent way. These societies maintain and revive existing context, of course including heritage. In some cases, the society was able to not only to conserve the heritage but also to form a new context which has the same principles as the existing one, along with new economic activities.

Kevin Lynch, in his *A Theory of Good City Form*, explains how mercantile ports turned into industrial ports, affecting the growth of the city, and how new economies and land uses fostered the transformation process of ports. Small ports turned into industrial ports mainly through steam power and cheap labour. The merchant trade from overseas turned into an inner-city activity, while industry, especially petroleum, took over the port area. This caused the growth of the city, not on an ordinary path depending only on historical evolution, but sometimes based on incomprehensible values which came from different cultures, especially Western ones.

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**7. HOW DOES THE BUILT ENVIRONMENT BEAR EVIDENCE OF HISTORIC ROLES?**

The historical role of the Red Sea cities can be seen by viewing the built environment of these cities; for example, through the urban morphology study and chronological analysis of Quseir, several important facts and features which shaped up its urban fabric can be established. The analysis of the city's built environment transformation and development reveal that there are two main types of the urban fabric; one is spontaneous-compact, and the other is planned via a grid. The first type reflects Islamic culture and urban concepts and the second reflects the modern industrial requirements and concepts. The combination of the two types together expresses a part of the city's character. Quseir's street pattern is one of the spatial features that has changed over decades and centuries. In the present day, the regional road separates the city's urban mass into two: the old historic centre, which represents mainly the old Islamic city, and the rest of the city, which is modern (industrial or touristic). The narrow streets of the old historic centre form a spontaneous network with semi-private spaces to access the residential buildings. Due to the narrowness of the streets there is a sort of special relationship between the buildings/streets/open spaces and an indication of the local society's culture. Cornish Street presents the eastern front of the city which used to be the location of vital activities. This street comprises a percentage of the city's heritage and has a great potential or being revived through an efficient conservation strategy, which could be a good catalyst of development also. Through such different physical features, the city's built environment bears evidence of its historical roles.

**8. QUSEIR MAPPING**

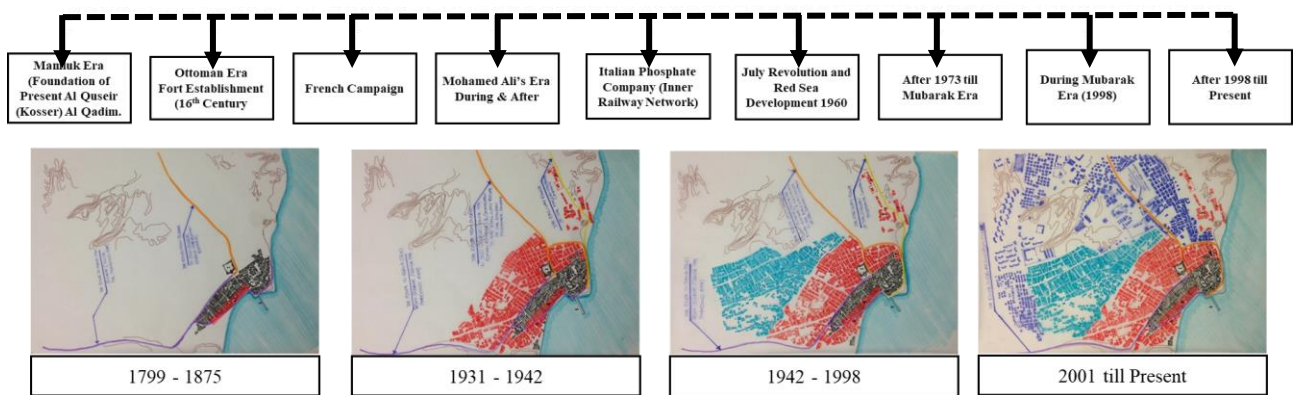
As mentioned before, Quseir is a port city which lies on the western coast of the Red Sea in the south of Egypt. The present city where the historic centre and port exist, known as Quseir Al-Qadim, is the core which was founded in the fifteenth and sixteenth century by the Mamluks and Ottomans after the decline of Ayydab in the fourteenth century. In the model of a typical defence city, the Ottomans established a fort which stands today as a symbol of the significance of the city's past. The desert route between Quseir and Qus (now Qena) was the safest trading route for merchants. Also, the city was a well-known sanctuary for Sufi sheikhs from North Africa. Until the Ottoman period, Quseir was the capital of the Red Sea region and was flourishing, due to major trading activities and routes passing through it. This changed upon the opening of the Suez Canal, and the city began to decline. In 1912 phosphate was discovered in Quseir by an Italian engineer, and in the 1920s Italians established a phosphate industry in Quseir. The "Fosfati" factory was built by Cortese, an Italian engineer, and he also established the nucleus of an Italian colony which continued evolving until 1954. Such drastic changes can be monitored through the following maps, especially after the change of the port use. What is unique about Quseir is that it is living evidence of heritage in the Red Sea, comprising typical architecture and an urban fabric built by traditional methods of construction and coral stones.

From the field survey, it can be seen that the city is formed from three urban patterns. The first is the old city core, which includes the fortress and the old quarantine. This area features old, traditional architecture which is constructed by bearing walls and is three or four floors high at maximum. The second pattern is the governmental housing which depends on the grid system. The third pattern is shown in the informal settlements around the city, as in area which is near the valley in the west, and in the area which is north, where the phosphate company was located. In this informal settlement, there are some buildings which have the same architectural character as the old, traditional buildings in the old core of the city, while the other percentage of buildings are trying to imitate modern

**CHAPTER FIVE: MAPPING AS AN ESSENTIAL TOOL IN VIEW OF URBAN TRANSFORMATION AND HERITAGE.**

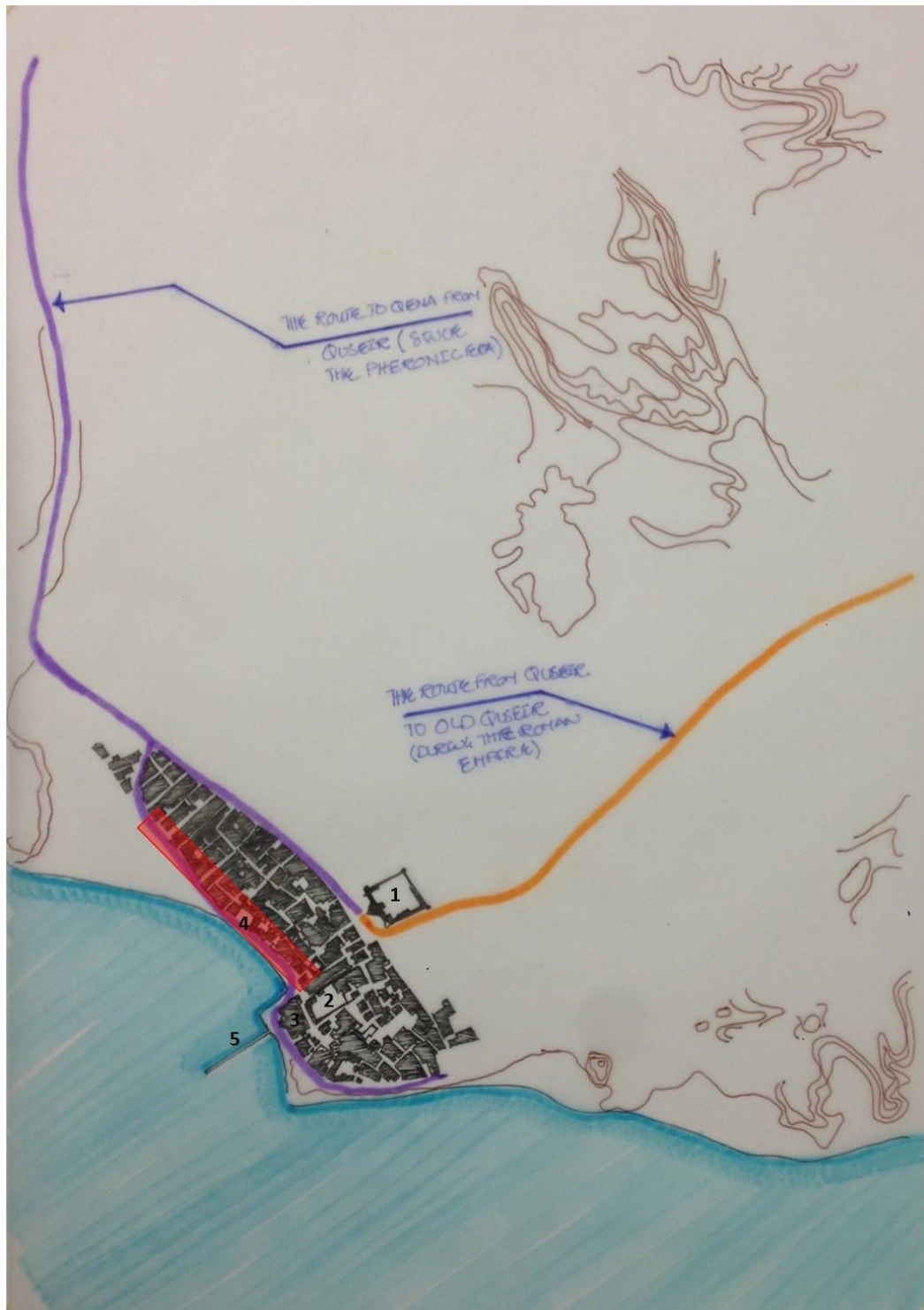
architecture, even in construction, which is reinforced concrete. As is seen from the analysis of the maps and atlas, the architecture and the urban features are different, and this is the result of its geographical location as a port city. Quseir as a port city is the agglomeration of different historical periods. It lost some of its aspects but still has some features which represent the historical periods through which Quseir evolved. The following maps are an analytical demonstration of the evolution of Quseir’s urban morphology since the French campaign on Egypt until the present time. The urban development of the urban morphology started from the city’s port.

From the fieldwork and interviews with the local community, some of the problems which face the historical core of Quseir were observed, such as that there is no official sewage system for the city. Based on the case studies, interviewees complained about the unhygienic environment, as the sewage goes into trenches in the ground in front of each house and then the municipality workers come and empty the trench. Of course, the method is primitive, besides the horrible smell. There were complaints also about the unavailability of freshwater, the deterioration of the roads and public services, and the need for the transportation network to be upgraded.



**Figure (58):** Quseir city timeline, the evolution of city urban context through time.

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**Urban Tissue 1799 - 1875**

- |   |   |
|---|---|
| 1. Fortress   | 2. Quarantine (Former Wheat Storage for Mecca). |
| 3. Old Police Station (Former House of Mohamed Ali) | 4. Souq   |
| 5. Old Port & Marina.                               |   |

**Figure (59):** Different colours in urban context denote the urban morphology’s evolution through different historical phases. Source: Analysis by the researcher based on historical maps



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**Urban Tissue 1931 - 1942**

- |   |   |
|---|---|
| 1. Fortress   | 2. Quarantine (Former Wheat Storage for Mecca). |
| 3. Old Police Station (Former House of Mohamed Ali) | 4. Souq   |
| 5. Old Port & Marina.                               | 6. Sufi Cemeteries & Mosques                    |
| 7. Italian Phosphate Colony (1920ies - 1950ies)     |   |

**Figure (60):** Different colours in urban context denote the urban morphology’s evolution through different historical phases. Source: Analysis by the researcher based on historical maps

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**Figure (61):** Different colours in urban context denote the urban morphology’s evolution through different historical phases. Source: Analysis by the researcher based on historical maps

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**Urban Tissue 2001 - Present**

- 1. Fortress
- 2. Quarantine (Former Wheat Storage for Mecca).
- 3. Old Police Station (Former House of Mohamed Ali)
- 4. Souq
- 5. Old Port & Marina.
- 6. Sufi Cemeteries & Mosques
- 7. Italian Phosphate Colony (1920ies – 1950ies)

**Figure (62):** Different colours in urban context denote the urban morphology’s evolution through different historical phases. Source: Analysis by the researcher based on historical maps

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## 9. SUEZ MAPPING

Suez is on the western coast of the Red Sea in the northeast of Egypt in Gulf of Suez. It is an entrance to Africa through the Red Sea and into Asia through the desert of Sinai. Suez port has a number of advantages and particular geographical features. It is much nearer to Cairo and to Asian markets. It was the main military and pilgrimage port during the Ottoman era, when three main forts were established, unfortunately all of which are now destroyed. It is also well known as the main pilgrimage land route since the Arab conquest in Egypt. Suez had diverse roles and importance which can be seen through the evolution of its urban morphology and port-scape. The modernization movement which happened with the opening of the Suez Canal, where most of the city fabric was re-planned based on Khedive Ismael's vision and Ali Pasha Mubarak's planning, lead to the demolition of the old Arab city fabric bit by bit.

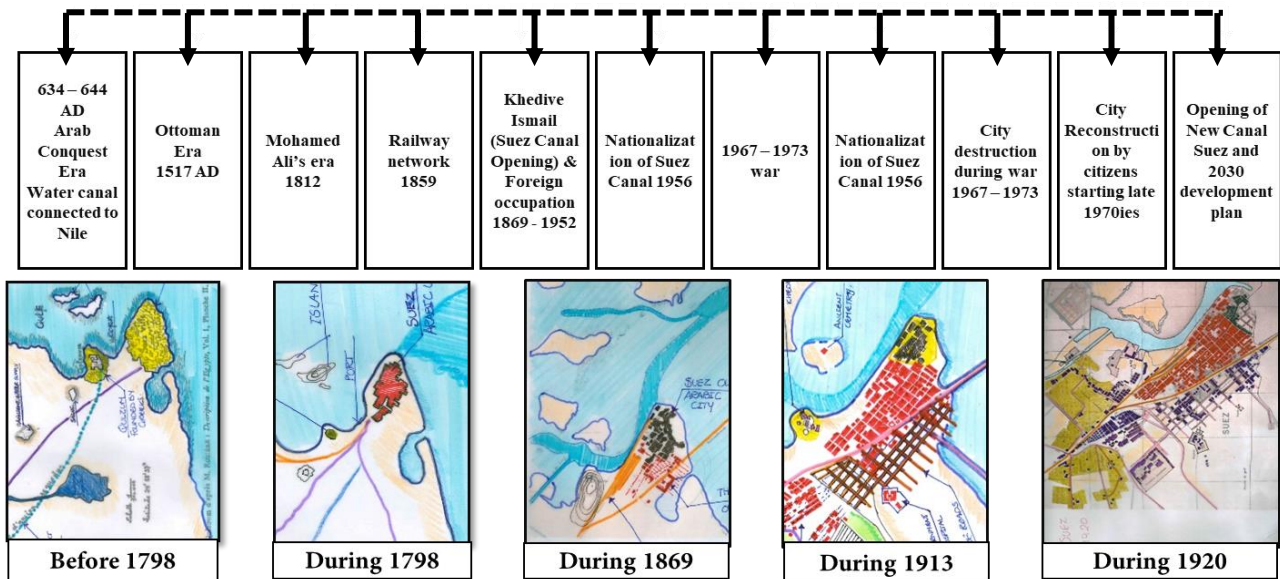
It can be seen through map analysis and city chronology that the modernization movement started in the Red Sea region during the eighteenth and nineteenth century. The presence of the French expedition and the British occupation were factors affecting the cityscape. In the Ottoman period, during Mohamed Ali's rule, and even before then, there were three strategic projects which were proposed and the Suez Canal was the result of one of them. The first project was developing the northern land route of Egypt which primarily connects Egypt through Sinai and Palestine to the Arabian Peninsula where the holy cities of Mecca and Medina are. The second was a railway network between the ports of the Mediterranean and the Red Sea. The third was an aquatic connection between the two seas, which was developed afterward into the Suez Canal. Through mapping, a noticeable change was traced right after the opening of the canal in 1869. The new city architecture and urban pattern was initiated by the building of new facilities supporting activities, based on a chess grid. The change in Suez's planning was the result of the visit of Khedive Ismail to Paris in 1867, where he became fascinated by the modernization process carried out by Haussmann. "Paris on the Nile" is the title of a book by C. Myntti on the transformation of Cairo in view of the celebrations of the opening of the Suez Canal in 1869. Haussmann's plan of a new, modern Paris greatly impressed him, to the extent that he decided that Cairo and Suez should be refashioned along the same lines. At the time, on his return, he ordered Al Pasha Ismail to start the Suez Canal project and to plan for new, modern Cairo. While Haussmann completely transformed the old quarters of Paris, Khedive Ismail assigned Ali Pasha Mubarak to create a sort of dual city: the old medieval city juxtaposed with the new "Paris along the Nile." As for Suez, the new port-scape was a major turning point in the city's morphology, character, and development.

It is well known that there were many quarters/districts in Suez built especially for the French, British, Italians, and Greeks, especially in Port Tawfik. . The Greeks were the biggest diaspora community, numbering around 10,000 individuals. All foreign nationalities had their own markets, shops, schools, churches, other services and leisure zones including clubs. These facilities and zones were not used by the Egyptian citizens of Suez. At the beginning of the nationalization process, all French and British families began to leave Suez, evacuating the houses and facilities which had been built especially for them. Most of these churches, schools, houses, and facilities were destroyed by the series of wars in 1956, 1967 and 1973, leaving few traces of heritage, one of which is the European housing of the British and French engineers who used to live there.

Today, most of the historic features are not appealing anymore, and most of Suez's heritage was destroyed during the wars, and in the vast urbanization after the mid-seventies when the residents had to re-build their houses by themselves, as the government neglected its role in reconstructing the city after the war. The urbanization process had been carried out randomly until the 1990s, but there are

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still traces in Suez of heritage, port-scape, and buildings such as the Suez Canal company and the European engineers’ houses, Al-Massageria house, Mohamed Ali’s palace and the Greek church. Suez is also known as the city of Sidi Al-Gharib;<sup>1</sup> Sidi Al-Gharib was a Sufi sheikh who lived and died in Suez, and during the war, people used to say he was protecting the city. Lots of people visit and pray in his mosque, where his tomb is located, to this day. However, Suez is now considered, after the opening of the new branch of the Suez Canal and the establishment of the Suez Canal Economic Zone, as one of the most strategic cities in Egypt. The highway and route that links the present capital, Cairo, and Suez are being given major upgrades, as there will be a new administrative capital located between Cairo and Suez. What happened during Khedive Ismail’s era is re-occurring, as the new administrative capital is under construction and its location is near to Suez and linked to the economic activities along the canal.



**Figure (63):** Suez city timeline, the evolution of the city urban context through time.

<sup>1</sup> Gharib غريب means “The Stranger” in Arabic language

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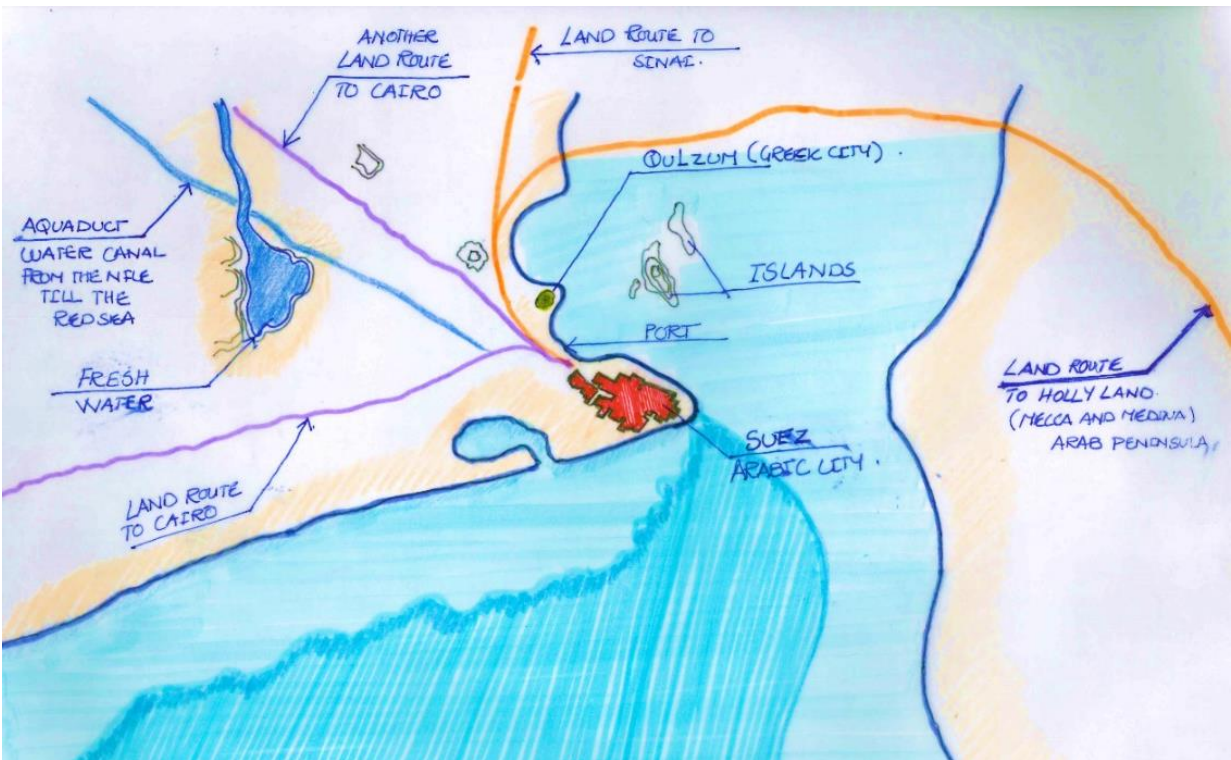
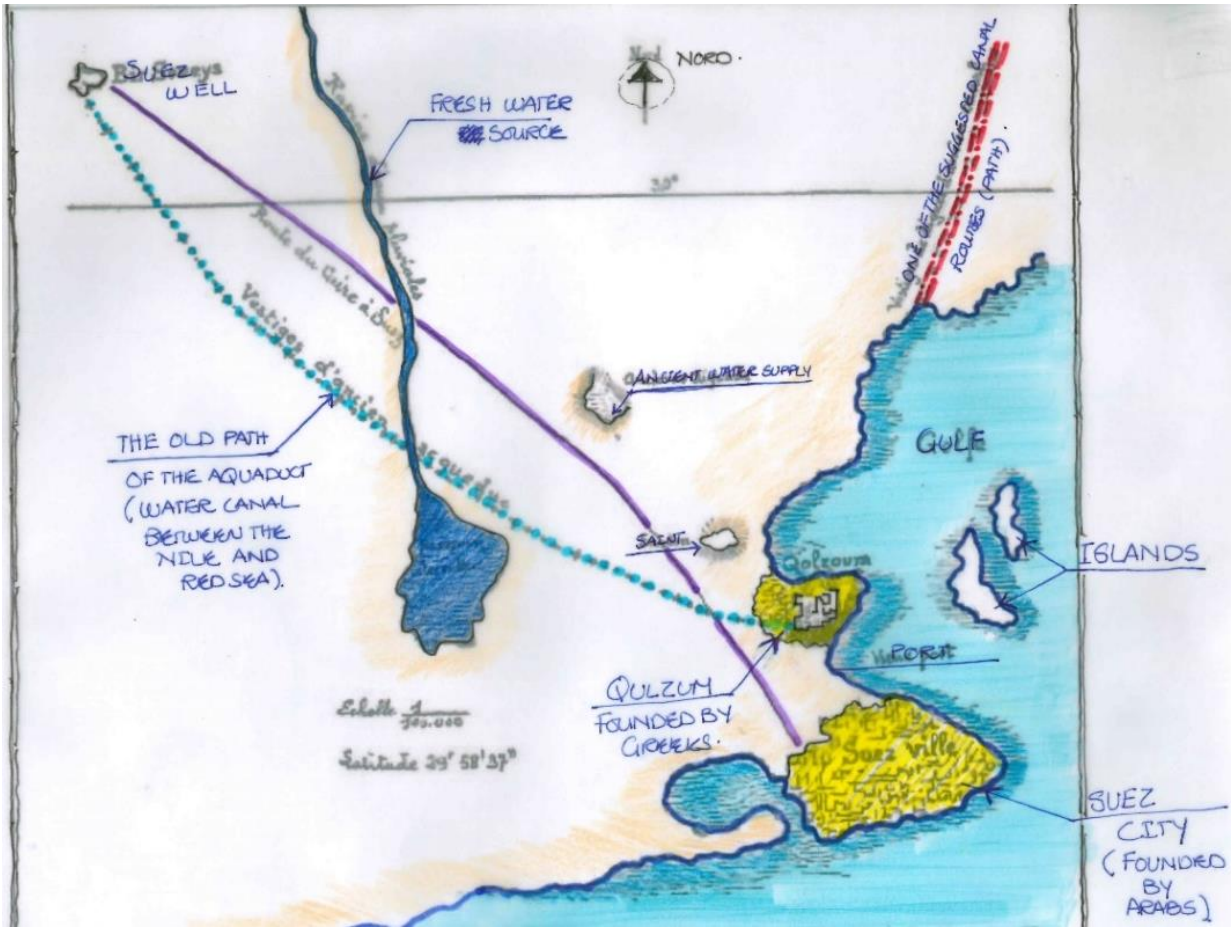


Figure (64) & (65): Analysis of the evolution of Qulzum (Suez) before the opening of the Suez Canal. Source: Researcher's analysis. Source: Analysis by the researcher based on historical maps.

The book “*Description de l’Égypte*” was one of the biggest achievements of French campaign. Napoleon’s engineers and architects documented each detail of the tangible and intangible aspects of the Egyptian life: geography, maps, territories, landscapes, architecture, monuments, society, culture, and costumes. Such documentation was one of the major turning points in the Egyptian sciences, for example cartography.

Following the French campaign in Egypt, there were proposals for major geographical planning projects. The Suez Canal was one of the various strategic projects that was going to be done, but there was a mistake in calculating the two sea levels. And there were several proposals for an Isthmus of Suez path. This was before Mohamed Ali’s modernization efforts in Egypt. Most of these projects were proposed from the late eighteenth century, and started to be planned and implemented in the early to the mid-nineteenth century. The following projects were proposed:

- A. The northern land route of Egypt.
- B. A railway network between the ports of the Mediterranean and the Red Sea.
- C. An aquatic connection between the two seas (Gouda, 2016).

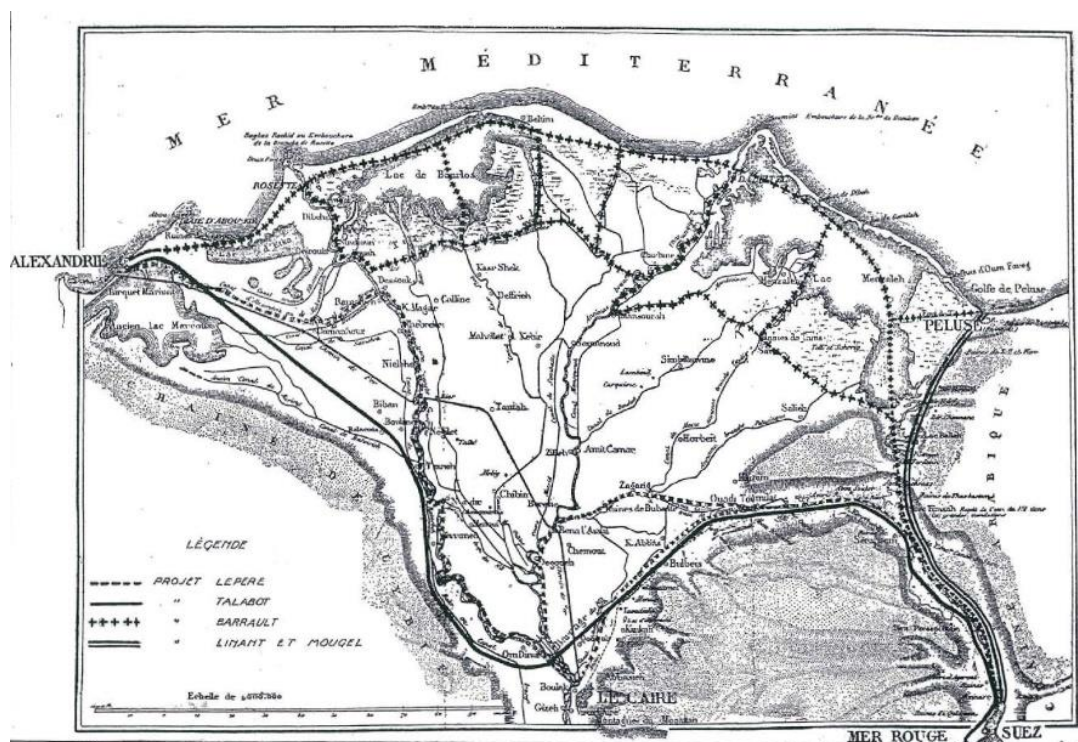
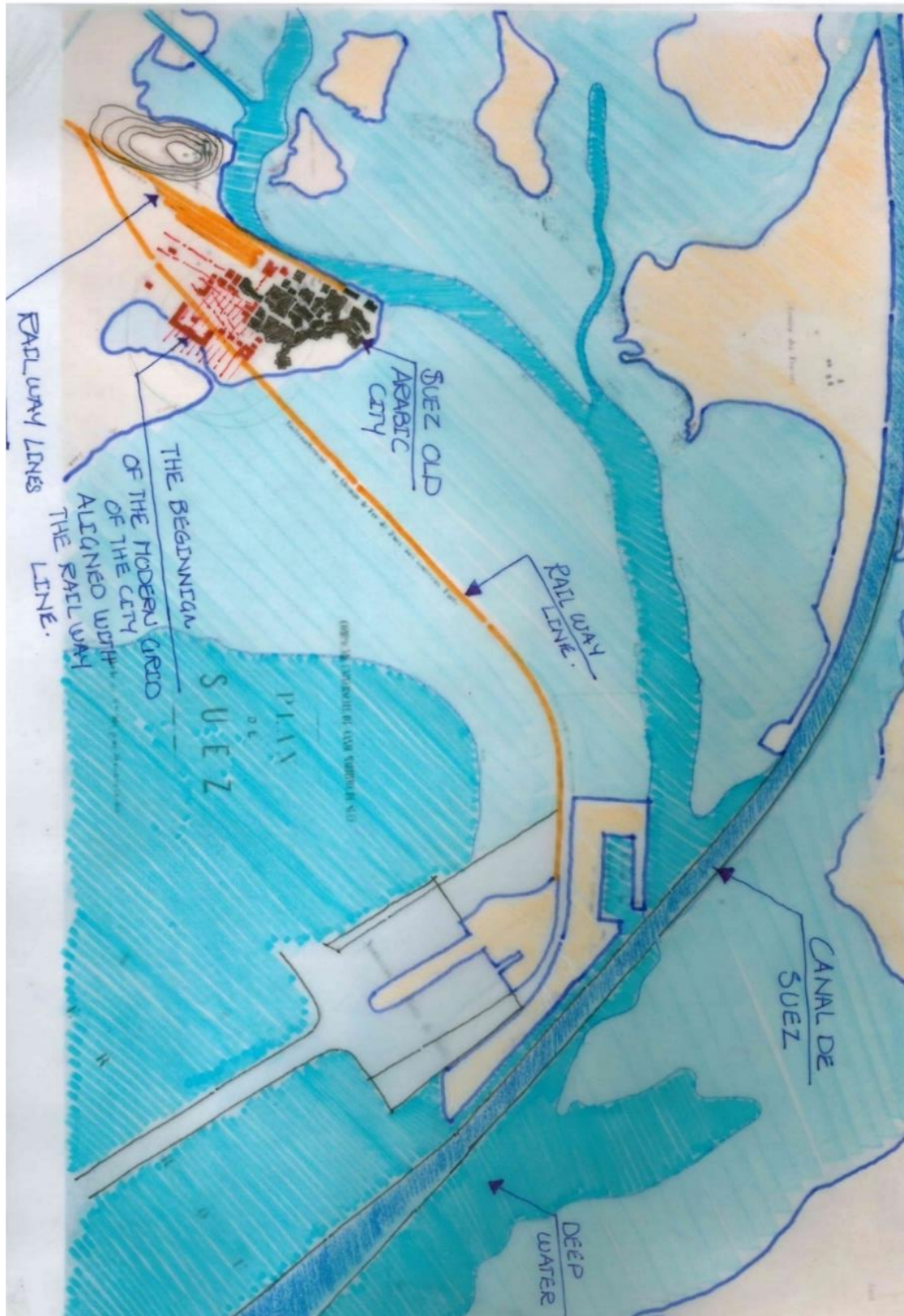


Figure (66): Several proposals for the Isthmus of Suez path.

Mohamed Ali was known as “the pioneer of the modern state;” he proposed several projects which pushed Egypt towards modernity, not only on the military or educational level, but also on the urban level. He was the first to put in place a water distribution policy in Egypt, and he dug inland waterways and constructed Qanatir (rectifier bridges). He built forts and established an Egyptian navy, especially on the eastern front of Egypt (Suez). He reinforced and secured the main northern land route from Egypt to Sinai and the holy lands in Palestine and the Arabian Peninsula. One of his major projects was digging the Mahmoudiyah Canal in 1818 to facilitate the Nile river navigation system and to serve Egypt’s external trading.

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**Figure (67):** Analysis of the evolution of Suez during the opening of the canal in 1869. Source: Analysis by the researcher based on historical maps.



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The transformation of Cairo took place in view of the celebrations of the opening of the Suez Canal in 1869. Khedive Ismail had visited Paris two years earlier, in 1867, when the Exposition Universelle was held in Paris. The exposition was Baron Haussmann's "pièce de résistance", where he had transformed Paris city. Haussmann's plan greatly impressed Khedive Ismail, to the extent that he decided that Cairo should be refashioned along the same lines. This visit gave him the inspiration for Paris on the Nile. He appointed Ali Pasha Mubarak as minister of public works and he gave him the responsibility of the following:

- 1) Supervising the execution of plans for the quarter of Ismailia and Tawfiqiya.
- 2) Redeveloping the older and vacant lands peripheral to Ezbehiya.
- 3) Drawing a master plan for the entire city in accordance with the style of Paris.

Haussmann had almost demolished medieval Paris, with only the exception of few remarkable monuments; new building codes (for the building style, height, position of entrances, windows, and materials) were to unify the townscape under construction, so that modern Paris could fully embody the model of a capitalist city (Myntti, 1999).

The relationship between the existing historic city and its nineteenth-century extension was influenced by the local reality. In Cairo, any intervention was almost impossible in the medieval part of the city. The only possibility to start an "orderly" urban fabric was the empty areas along the eastern banks of the Nile. Bulaq and Ezbekiya became crucial locations in this process.

In Cairo, the old city was left intact. A few modern streets were surgically cut through the dense fabric, such as Clot Bey Street and Muhammad Ali Street. Streets carved out of the existing city took up to forty years to complete, and such streets built on urban policies that began with Muhammad Ali's laws for urban modernization. Khedive Ismail's plans were thus a continuation of policies that existed for decades prior to his vision for urban expansion (Raymond, 2000) (ElKot, 2015)

The British were concerned about controlling the Suez Canal even after the occupation of Egypt in 1882, as there was competition between them and the French authorities to control the canal. They took advantage of Egypt's economy through buying most of the assets of the Suez Canal company (in partnership with the French) besides assigning British representatives to each Egyptian ministry.

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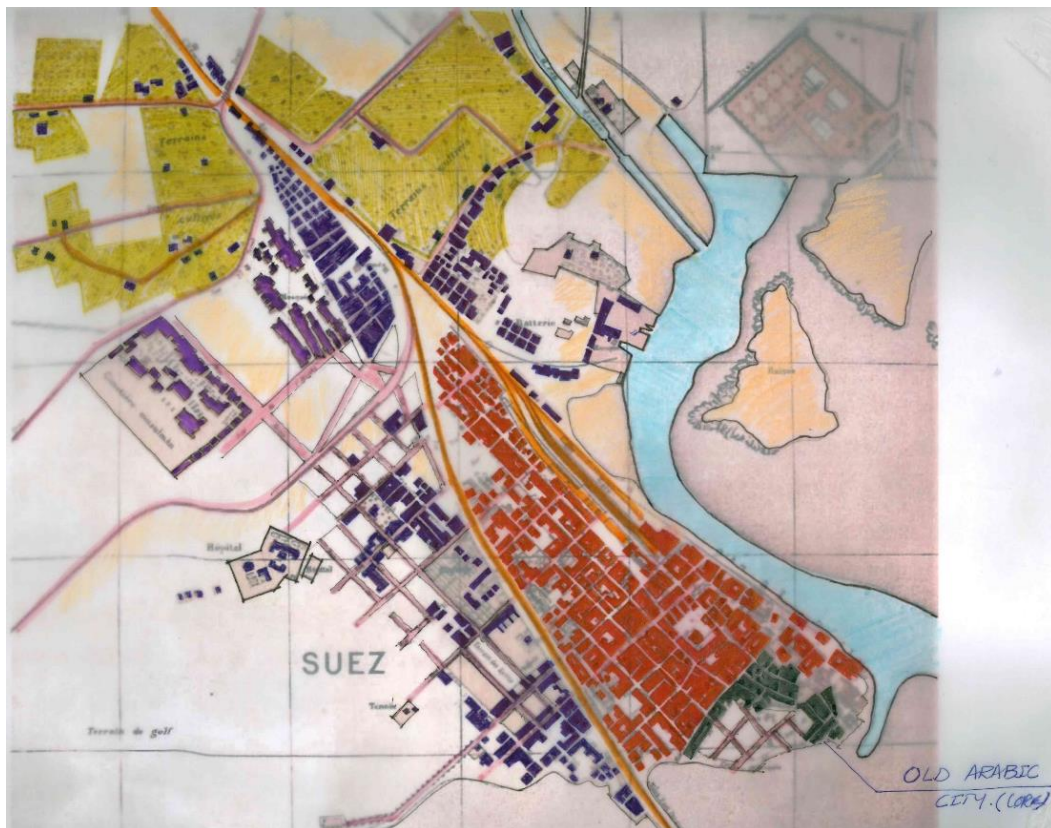
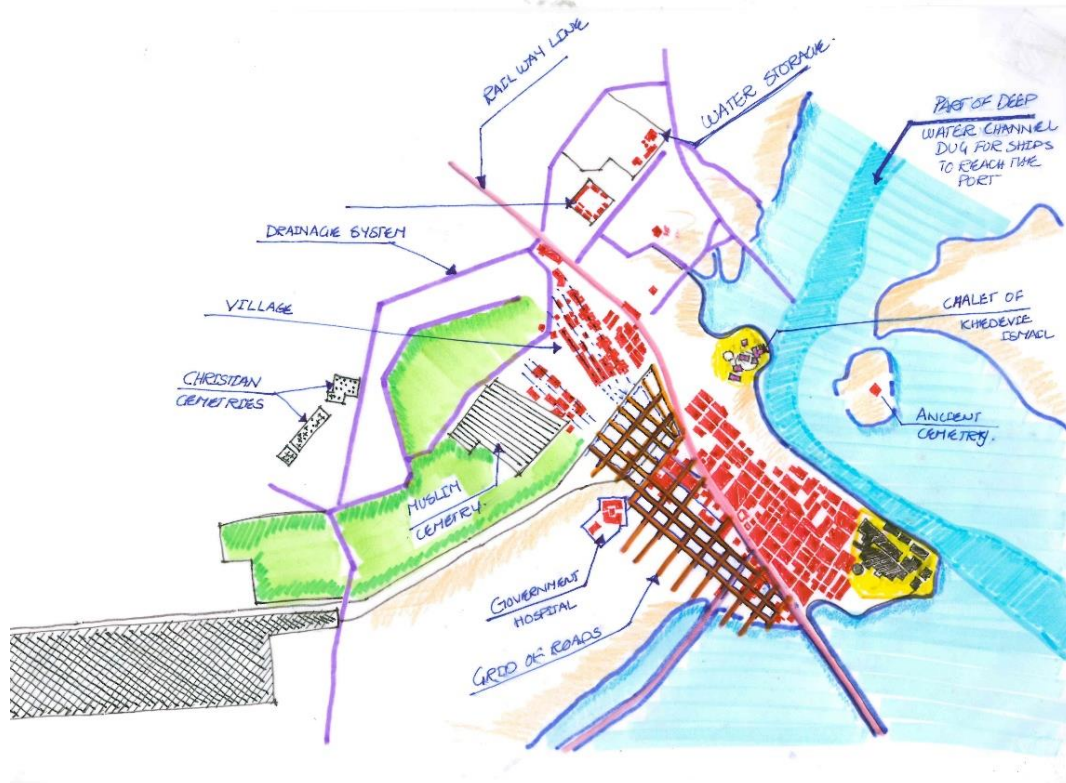
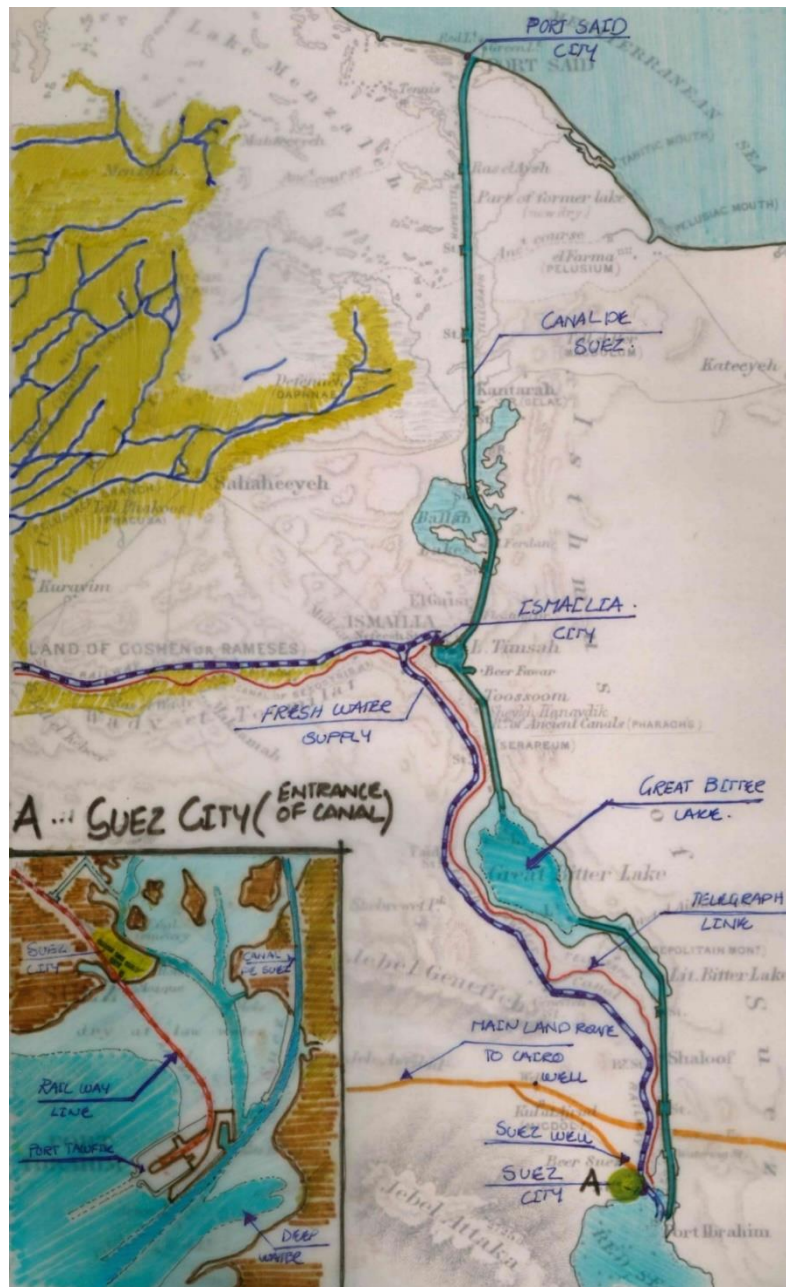


Figure (68) & (69): Analysis of the evolution of Suez after the opening of the Suez Canal, and the effect of the port-scape on the city's growth. The first figure is from 1913 and the second from 1920. Source: Analysis by the researcher based on historical maps.

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**Figure (70):** Analysis clarifying the railway route between Suez and Cairo and between Port Tawfik and Suez. It also shows the telegraph route from Suez to Cairo. Source: Analysis by the researcher based on historical

## 10. THESIS CONCLUSION

The thesis idea was initiated to contribute to scholarly work done on the Red Sea. There was an awareness of how few studies were done on the Red Sea basin, compared to the huge studies done on the Mediterranean basin. The thesis introduces a methodology of mapping and chronological analysis which were applied to the oldest two port cities, Quseir and Suez, on the Red Sea in Egypt. This methodology was used to prove that these cities comprise an outstanding heritage which is a milestone of civilizations and that these cities acted as transit points in the trading and pilgrim routes turning Egypt into an overland route because of its strategic geographical location. The outcome of this methodology is an academic record and an urban atlas documenting heritage in both cities. In the researcher's opinion, the methodology followed steps and analysis that can be applied to other port cities in the Red Sea basin. However, there will of course be some differences from one city to another due to the diversity of the cities' context, architecture, and local society.

The thesis started by mentioning the challenges which face heritage in Egypt, and how the state of Egypt at present is similar to the state of Europe in the 1960s and early 1970s. Although the social awareness of heritage is also rising in Egypt, led by pioneers and professionals in the field of heritage, there is a real risk of heritage demolition due to the ongoing national development projects.

There are three national projects to be implemented in the Red Sea region. With the opening of the new branch of the Suez Canal, there are many investments coming into Egypt, adding new ports and economic zones in the canal area. The Golden Triangle project proposes several activities, one of which is an industrial complex. Having this complex near to Quseir may jeopardize the old city's heritage context. The new horizontally oriented redrawing of the Egyptian governorates will shrink the area of the Red Sea governorate to 9,000 square kilometres. The community of Quseir rejects the idea of the new horizontal division. In their opinion, the proposal will distribute the heritage territories that belong to the Red Sea society into new governorates, with local communities that do not know the history and value of this heritage.

The notion of heritage has transformed over the last two centuries, during the colonial, postcolonial nationalist and globalization periods. The conservation movement has developed since the eighteenth century from the "stylistic restoration" approach until the twentieth and twenty-first centuries, when it reached the "urban conservation" approach, ascending from the scale of artefacts and buildings until it reached the scale of territories, quarters, and landscapes. Although the notion and laws of heritage in Egypt have been updated, the concept of urban conservation is still new. The variety of administrative entities which are responsible for heritage in Egypt should raise questions as to whether the National Organization for Urban Harmony is efficient or not. In addition, a national record of heritage territories in Egypt should be established, based on mapping techniques.

However, through mapping the present heritage in Quseir and Suez, it can be seen that the percentage of the existing heritage architecture and urban context is higher in Quseir than in Suez. This is of course due to the wars which Suez witnessed in 1956, 1967 and 1973. Another reason is the fact that the society of Quseir look up to their heritage and consider it a great inheritance left by their ancestors. Through historical chronology, it can be noticed that, although Quseir was founded in the ancient (pharaonic) Egyptian era, it flourished in the fifteenth and sixteenth centuries. Quseir was like any Arab/Muslim city; it had a main *souq* (market) and a number of mosques and shrines, as well as the port. The port played a role in trading and pilgrim routes coming from Asia, connecting them to the

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Quseir – Qus – Cairo (Fustat) route, until it reaches Al-Farma, or Alexandria on the Mediterranean coast, and then to Europe. Qus and Fustat are two ports of the Nile river. Sometimes the route is vice versa, where it comes from Europe or North Africa along the Nile until it reaches Quseir and from Quseir to Asia, especially to Mecca and Medina for pilgrims. However, Quseir continued to be the main port in the Red Sea until the nineteenth century when the Ottomans decided that Suez would be the main one, even before the opening of the Suez Canal. In 1912, phosphate and other minerals were discovered in Quseir by Emilio Cortese, an Italian engineer. He founded an Italian colony in Quseir. There was another port established, along with a railway to transfer phosphate. A few houses, administration buildings and a church were built. The phosphate factory was nationalized in 1954. The industrial port established by the Italians did not drastically change the urban fabric in Quseir's old city. There were foreign communities living in Quseir, especially from North African countries such as Morocco, Tunisia, Algeria, and also from the Arabian Peninsula. A comparison of Quseir at present with the past shows that the opening of the Suez Canal has affected its economic state and its importance as a port. But the old city is still existent and compact, although some of its buildings are in bad condition.

Regarding Suez, it was established during the ancient Egyptian era, along with Canal of Osiris, which connected the Nile with the Red Sea. It was known as Qulzum in the Greek and Roman eras. Amr Ibn El-Ass entered Egypt and he re-opened the canal, re-naming it the Canal of Amir El-Moemenin. Afterwards it was filled in and the trading route went from Asia to Qulzum (Suez) to Fustat (Cairo) to Al-Farma to Europe, or vice versa. Although it was a shorter route, it was less safe than the Quseir route. However, Suez flourished during the Ottoman era in Egypt, as they decided to make it the main port of the Red Sea and the port of the first Egyptian navy. Then came the opening of the Suez Canal, which turned the city into a strategic site. This was one the reasons behind the change in the overland route. Khedive Ismail was affected by his visit to Paris, as mentioned above, and he decided that Cairo and Suez would be re-developed. The canal affected the planning of the city, turning it from an Arab city with compact tissue into a grid one. There were Greek, French and Italian communities living in Suez, but after the nationalization in 1956, they returned back to their countries. Suez witnessed a series of wars in 1956, 1967 and 1973, as mentioned earlier, which of course affected its architecture and urban context. It lost most of its heritage during the war. However, comparing the past and present of Suez, it is still considered a strategic city. The industrial port, in the case of Suez, has turned the whole urban context into a modern one and totally destroyed the old Arab city.

In the end, a comparison of Quseir and Suez will find that both are cosmopolitan cities, but the culture, architecture and urbanism which influenced each are different. In Quseir's case, there was influence, borrowing and adoption among the cities and countries on the Red Sea basin, especially from the Arabian Peninsula and Yemen. If the old city of Jeddah is taken as an example, observing the architecture and urban configuration of the city will recall instantly the architecture in Quseir; although they are not typically identical, they have the same theme. This invokes a question about which city influenced the other: did the Mamluk and Ottoman era in Egypt affect Jeddah, or the reverse?

Based on the UNESCO world heritage list, under the title of "Historic Jeddah , the Gate to Mekkah," Jeddah was founded as an official port by Caliph Othman ibn Affan for trading and pilgrimage routes, and especially to receive commodities coming to Mecca. Goods and commodities coming from Asia and Africa were sold in Jeddah. It was considered as a "gateway" to Mecca for pilgrims who reached the holy land by sea. UNESCO mentions the fact that the urban morphology of the old city of Jeddah is an outcome of cultural exchange of values, construction material and techniques, between the

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sixteenth century and the beginning of the twentieth century, coming from the Red Sea area and along the Indian Ocean trading routes. In the urban context of Jeddah, traditional *souqs* (markets) and *wikalas* (hotels) used to host merchants and pilgrims are found (UNESCO, *Historic Jeddah, the Gate to Makkah*, 2020).

The ancient houses in the old city of Jeddah of two to three storeys date mainly to the Mamluk era. The facade openings are covered with *mashrabiya*, wooden structures and decorations. Some of these decorations are dated to the Ottoman era in Egypt. Most of the houses which are higher than three floors, between six and seven storeys, are dated to the nineteenth and twentieth century. There was a shortage in the construction land lots inside the walled city, therefore the buildings were built higher. The construction system is that of bearing walls, coral masonry and wooden beam structures (Mortada, 2014).

As for Suez, it was also a typical Arab or Muslim city, as can be observed from the architectural style of Al-Massageria house, which is three hundred years old. This changed after Khedive Ismail visited Paris and decided to modernize Cairo and Suez. Suez was influenced by Europe, especially Paris. The architectural style is not comparable in the two cities. Baron Haussmann's plans for Paris called for a strict building code that dictated building styles and elevation dimensions, including window sizes and heights of floors, which created a certain level of uniformity not found in Suez. On the other hand, Ali Pasha Mubarak, Khedive Ismail's planner, did include some building requirements, mostly minimum building costs, to guarantee a certain level of building quality; but he did not define architectural styles. This opened the door for real estate developers and speculators to hire their architect of choice, most of whom came from Mediterranean countries, particularly France and Italy, where the profession of architecture was well established. The architect conceived and built mostly residential blocks utilizing various architectural styles, including some attempts at incorporating "local" motifs. The end result is a much more diverse style compared to the architectural uniformity of Haussmann's streets (Elkot, 2015).

Finally, what is important as well is the society's awareness towards heritage. During the interviews conducted with society in the researcher's field work, in case of Quseir the young generations were concerned about their city's heritage but in Suez case, it was the old generations instead. For Quseir, as mentioned before its society was proud of its heritage and they were seeking assistance of how to document and conserve it. For instance, while interviewing Ali Sayed, the co-founder of Roaya NGO and Mostafa Sebak, the owner of Quseir hotel, they both spoke about the importance of Quseir's heritage. They were seeking to register the heritage of Quseir on the national scale by trying to contact National Organization for Urban Harmony. They have no problem with the national projects held by the government except for the project of redrawing the governorates as mentioned in the beginning of the thesis in chapter 1. They mentioned how Quseir city is suffering from fresh water scarcity and the lack of sewage system. They dream of better future for Quseir and they hope one day their city would be registered on the UNESCO list of heritage.

In case of Suez, old generations especially who witnessed the war episode were very aware of the history of the city. During the interview with Dr. Ali Souissi, architecture professor at Suez University and Mr Sayed Abu Talib, a citizen of Suez, both of them were narrating the history of Ataka district which is the oldest district in Suez (it was the place of the Arabic city of Suez) and Messagria house. They mentioned the old methods of construction which were used in buildings, such as "Baghdadli". They remember how in their childhood, they used to have Greek neighbours even after 1956. They were narrating how the city stood resilient during the war and the residents were volunteering in the

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At the end, the researcher hopes that mapping Quseir and Suez heritage and urban change would be a contribution to conservation field and efforts in Egypt and an addition to the scholarly work on the Red Sea region.



**Figure (71):** The first picture is from Quseir and the second picture is from Jeddah. It is seen the similarity of the architecture and urban character. Source: First Picture is taken by the researcher and the second picture is from MIT library website.

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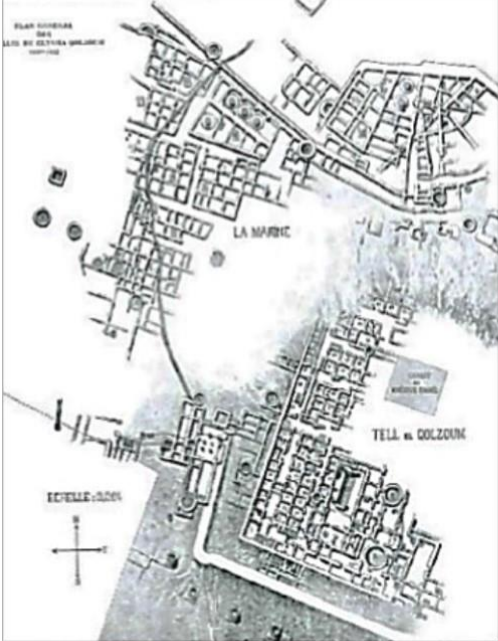
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ANNEX.

## ANNEX

ANNEX.

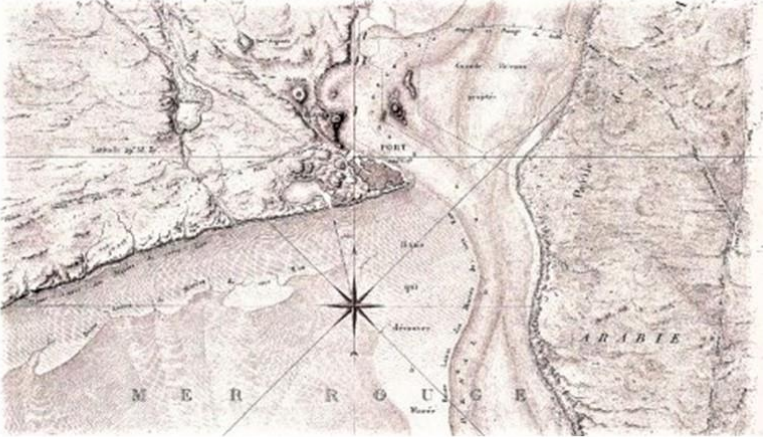
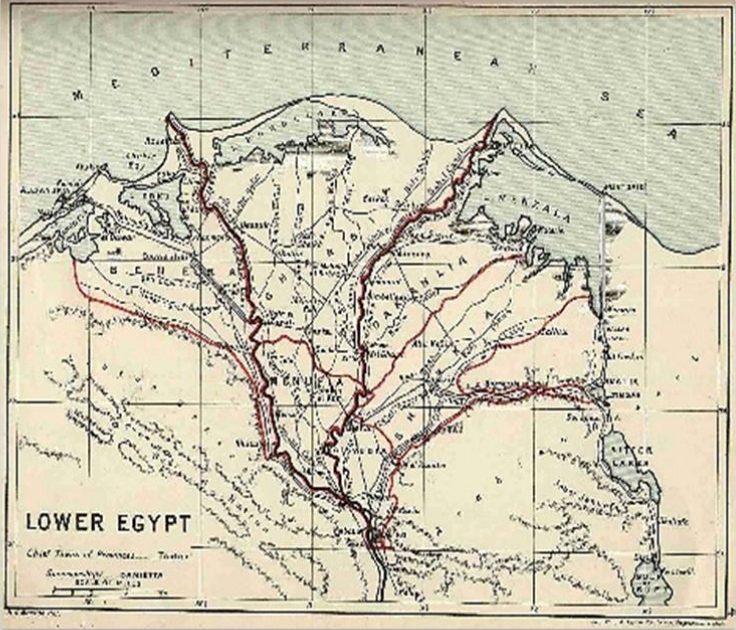
SUEZ CHRONOLOGY:

<b>PHARONIC 1849 BC</b>	FORTIFICATIONS	SEVERAL FORTIFICATIONS	
	PORT UTILITIES	THERE WAS NOT PORT YET	
	MAJOR URBAN TRANSFORMATION	THE CITY WAS FORMED AROUND THE POINT WHERE THE FRESH WATER WHEEL EXISTED	
	CANAL	THE FIRST CANAL ESTABLISHED BETWEEN THE NILE AND THE RED SEA BY KING SENOSERT	
<b>GREEK and ROMAN 246 /284 BC</b>	FORTIFICATIONS	THERE WEREN'T NEW FORTIFICATIONS BUILT BUT THE CITY WAS NAMED AL QALZUM	
	PORT UTILITIES	A PORT GOT ESTABLISHED	
	MAJOR URBAN TRANSFORMATION	THE TRANSFORMATION HAPPENED THROUGH BUILDING A CITY WALLS AND HAVING THE STREET ORIENTED ON A CHESS GRID	
	CANAL	NO MENTION ON THE CANAL STATE	

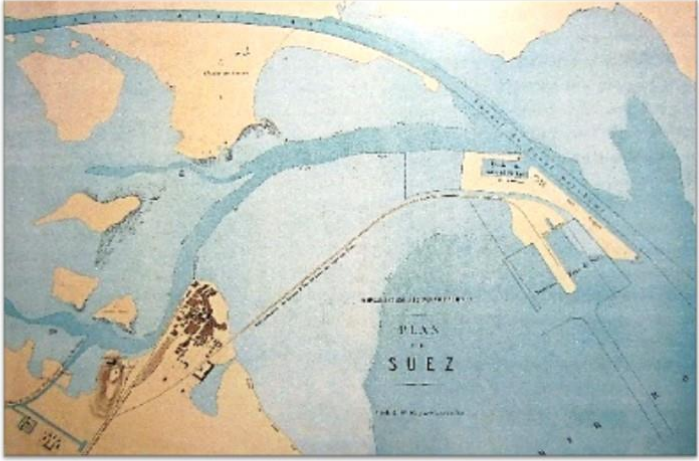
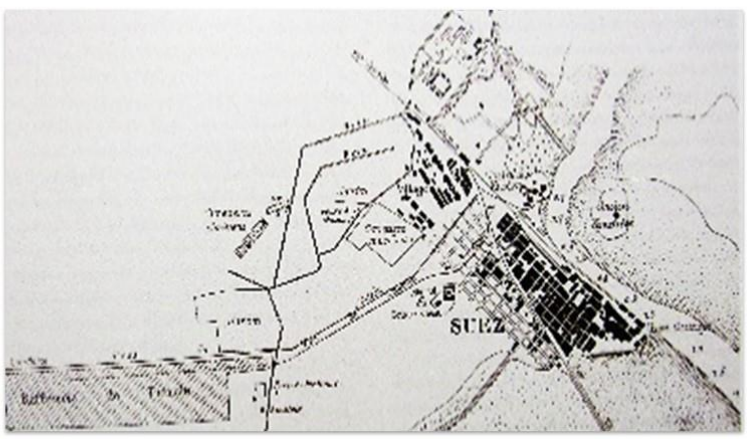
ANNEX.

<b>ARAB CONQUEST 639/646 AD</b>	FORTIFICATIONS	NO MENTION OF FORTIFICATIONS	
	PORT UTILITIES	STILL THERE WEREN'T A FORMAL PORT	
	MAJOR URBAN TRANSFORMATION	THE CITY STARTED TO HAVE MOSQUES AND MARKETS	
	CANAL	AMR IBN EL ASS RE-DUG THE CANAL UNDER THE AUTHORITY OF CALIPHA OMAR IBN EL KHATAB	
<b>ABBASID And MAMLUK PERIOD 750 - 1517</b>	FORTIFICATIONS	NO MENTION OF FORTIFICATIONS	
	PORT UTILITIES	STILL THERE WEREN'T A FORMAL PORT	
	MAJOR URBAN TRANSFORMATION	THE CITY HAD DECLINED AND RESIDENTS LEFT DUE TO THE LACK OF FRESH WATER RESOURCES	
	CANAL	CALIPHA GAFFAR ORDERED TO LAND FILL THE CANAL	

ANNEX.

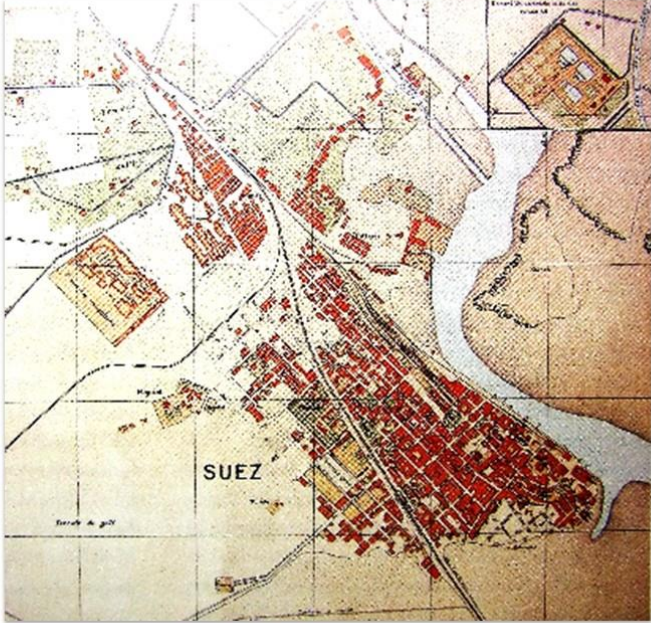
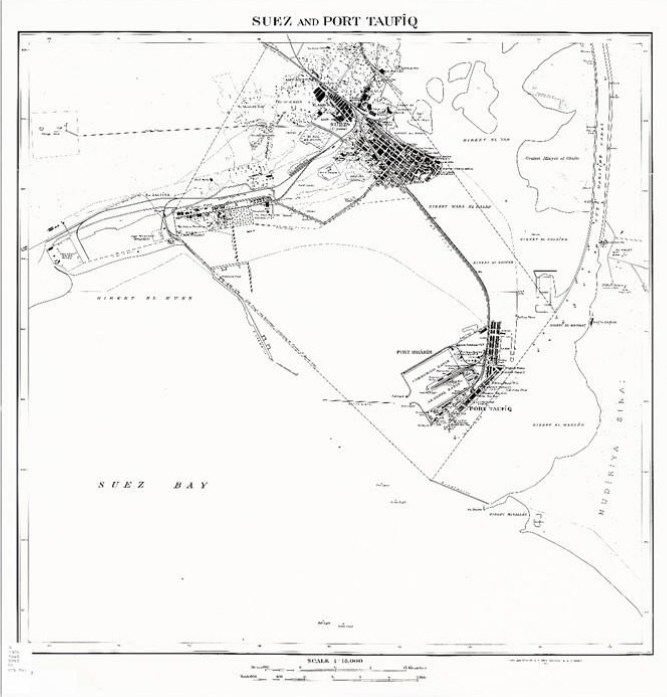
<b>OTTOMAN And FRENCH CAMPAIGN 1798</b>	<b>FORTIFICATIONS</b>	<p>A MAIN FORTRESS WAS ESTABLISHED</p>	
	<b>PORT UTILITIES</b>	<p>A MILITARY PORT WAS ESTABLISHED AND IT WAS USED FOR TRANSFERING PILGRIMS TO THE HOLLY LAND AS WELL AS WEAT TO MECCA AND MEDINA</p>	
	<b>MAJOR URBAN TRANSFORMATION</b>	<p>THERE WERE MAJOR TRASFORMATIONS IN THE CITY WERE IT BECAME THE TRANSIT POINT WERE THE PILGRIMS PREPARE THEMSELVES FOR THE HOLLY LANDS AND BACAME ONE OF THE STARTEGIC TRADING PORTS</p>	
	<b>CANAL</b>	<p>THE IDEA OF ESTABLISHING A NEW CANAL THAT IS CONNECTING BETWEEN THE RED SEA AND THE MEDITERENEAN.</p>	
<b>Ottoman during Mohamed Ali ERA 1805 -1848</b>	<b>FORTIFICATIONS</b>	<p>REBULT THE FORTRESS AND RESTORED IT</p>	
	<b>PORT UTILITIES</b>	<p>NO CHAGE , IN ADDITION HE SECURED THE ROUTES TO THE HOLLY LANDS</p>	
	<b>MAJOR URBAN TRANSFORMATION</b>	<p>THERE WERE THREE PROJECTS THAT WERE DISCUSSED DURING HIS ERA. HAVING A CONNECTION BET WEEN THE MEDITERANEAN PORTS AND THE RED SEA CITY PORTS. ESTABLISHING A RAIL WAY NET WORK BETWEEN ALEXANDERIA AND CAIRO AND TO SUEZ. HAVING A CONNECTION BET WEEN THE MEDITERRANEAN SEA AND THE RED SEA. BUILDING A PALLACE FOR THE RULER MAOHAMED ALI'S</p>	
	<b>CANAL</b>	<p>NO CHANGE.</p>	

ANNEX.

<b>KHEDIVE ISMAIL ERA 1869 AD</b>	FORTIFICATIONS	NO CHANGE	
	PORT UTILITIES	BECAME A STRATEGIC PORT FOR TRADING AND TRANSPORTATION NOT ONLY ON THE LOCAL LEVEL- EGYPT BUT ALSO FOR EUROPE AND ASIA	
	MAJOR URBAN TRANSFORMATION	MAJOR TRANSFORMATION AS KHEDEVIE ISMAEIL GOT INFLUENCED BY PARIS PLANNING OF HASSMANN AND HE ORDERED ALI PASHA MUBARAK TO DESIGN THE NEW MODERN CITY OF SUEZ BASED ON SAME DESIGN CONCEPTS	
	CANAL	The incision of a canal between the Mediterranean and the Red Sea	
<b>1913 AD</b>	FORTIFICATIONS	NO CHANGE	
	PORT UTILITIES	THERE WAS AN EXPANSION IN THE PORT AND PETROLEUM ACTIVITIES INITIATED	
	MAJOR URBAN TRANSFORMATION	AS IT IS NOTICED FROM THE MAP, THAT URBAN DEVELOPMENT WAS VAST AND CONTINUED TO GROW BASED ON THE CHESS GRID.	
	CANAL	NO CHANGE	



ANNEX.

<b>1920 AD</b>	FORTIFICATIONS	NO CHANGE	
	PORT UTILITIES	BECAME A STRATEGIC PORT FOR TRADING AND TRANSPORTATION NOT ONLY ON THE LOCAL LEVEL- EGYPT BUT ALSO FOR EUROPE AND ASIA	
	MAJOR URBAN TRANSFORMATION	THE CITY CONTINUE TO DEVELOP AND GREW FAST	
	CANAL	NO CHANGE	
<b>1942 AD</b>	FORTIFICATIONS	NO CHANGE	
	PORT UTILITIES	THE PORT-SCAPE DEVELOPED MORE AND MORE INDUSTRIAL ACTIVITIES WHERE ADDED	
	MAJOR URBAN TRANSFORMATION	NO CHANGE	
	CANAL	NO CHANGE	