



RE IMAGINING ROSETTA'S RIVER EDGE

By

Hagar Mohsen Abdelatif Abdelghany

A Thesis Submitted to the
Faculty of Engineering at Cairo University
In Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE

In
Urban Design: Revitalization Of Historic City Districts

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Re Imagining Rosetta's River Edge

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Summary:

This study investigates the relationship between historic cities and the Nile taking the city of Rosetta as a case study. In ancient times, a reciprocal relationship between Rosetta and the Nile was achieved which helped Rosetta to thrive. The city-river relationship was interrupted with the construction of Aswan dam in the 1960s. Following the same pattern, the General Organization for Physical Planning (GOPP) proposed a waterfront project not taking the environmental dimension into consideration. In addition, The impact of climate change is putting the livelihood of people as well as the city especially historic structures highly at risk. This thesis aims to bridge the gap in the proposed waterfront project, by reintegrating the natural environment of the river with the city while taking into consideration the possible impact of climate change. It's assumed that this approach would help to revitalize both the river edge area and nearby historical buildings in addition to improving local people quality of life.

Disclaimer

I hereby declare that all information disclosed in this master thesis is a product of my original and individual work. Neither this work in its complete form, nor any of its parts has been submitted to any university other than the Brandenburg University of Technology Cottbus-Senftenberg and Cairo University for the award of any academic degree. Furthermore, I confirm that all sources other than my own have been duly acknowledged.

Name

Date

Signature

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Nomenclature

BP: British Petroleum Company

CAPMAS: Central Agency for Public Mobilization and Statistics

FAO: Food and Agriculture Organization

GIZ: German Agency for Technical Cooperation

GOPP: General Organization for Physical Planning

IPCC: Intergovernmental Panel on Climate Change

MOA: Ministry of Antiquities

UNESCO: United Nations Educational, Scientific and Cultural Organization

UNFCCC: United Nations Framework Convention on Climate Change

UNDP: United Nations Development Program

Abstract

This study investigates the Nile river edge in historic cities, particularly the case of Rosetta. Rosetta is a traditional historic city on the Nile delta where urban settlements and the river strongly interact. This interaction can be observed through many layers of the city yet, it is clear at the river edge.

Historically, a reciprocal relationship between Rosetta and the Nile was crucial for Rosetta to survive. The city-river relationship was severely impacted as a result of many project that aimed to control the river course. Most notably, the construction of Aswan dam in the 1960s. On another level, the General Organization for Physical Planning (GOPP) proposed a waterfront project not taking the environmental dimension into consideration. This shift towards a more engineered approach negatively affected the natural environment of the river hence, weakened the historic interaction between Rosetta and the Nile. In addition, The impact of climate change is putting the livelihoods of local people as well as the city especially historic structures highly at risk.

This thesis aims at bridging the gap created by the partially constructed GOPP based project for waterfront development. The proposed project depends on reintegrating the natural environment of the river with the city's fabric while taking into consideration the possible impact of climate change. It's believed that this approach would help to revitalize both the river edge area and nearby historical buildings in addition to improving local people quality of life.

Chapter 1: Introduction

This chapter includes the research focus, starting with an introduction followed by the research methodology and structure, problem field and finally research hypothesis and objectives.

1.1 Introduction

Throughout history rivers operated as magnets for urban settlements (Way, 2018), providing water supply, irrigating agriculture, facilitating transport, and supporting ecosystems which people livelihoods depended on. However, because of rapid urbanization and economic growth human interventions started to control the natural river landscape, both on the regional scale by constructing heavily engineered infrastructures, and on the city scale by favoring more structured river edges. (Tai, 2015).

This approach had a negative impact on the natural environment of the river which disturbed its historic interaction with cities alongside. In addition, the impact of climate change has put many historic cities at higher risk. Therefore, recent approaches were developed towards the direction of reintegrating the natural environment of the river with the city's fabric through unconventional design solutions, as an attempt revive the reciprocal relationship between cities and rivers.

This paradigm can be traced in Egypt as well, In ancient times the Nile provided the required factors for the ancient Egyptian civilization to flourish. Later on, many physical interventions (e.g. dams,...) have been constructed to control the annual flood of the Nile. In order to support agriculture and protect threatened urban settlements. This process has influenced the water availability, soil fertility, and accelerated shoreline erosion, especially in the delta region. As a result, the interaction between Egyptian cities and the Nile was negatively affected. Furthermore, according to IPCC assessment, the Nile delta is one of the most endangered areas to be affected by sea level rise (IPCC, 2007).

Therefore, this research is taking the historic city of Rosetta as the study area. Rosetta is located at the northern tip of the Nile river, where one can find immense diversity of natural ecology suffering enormous conflicts with human habitation and activities. In addition, the environmental problems and the subsequent spatial issues in the city especially the historic structures are in urgent need for a solution.

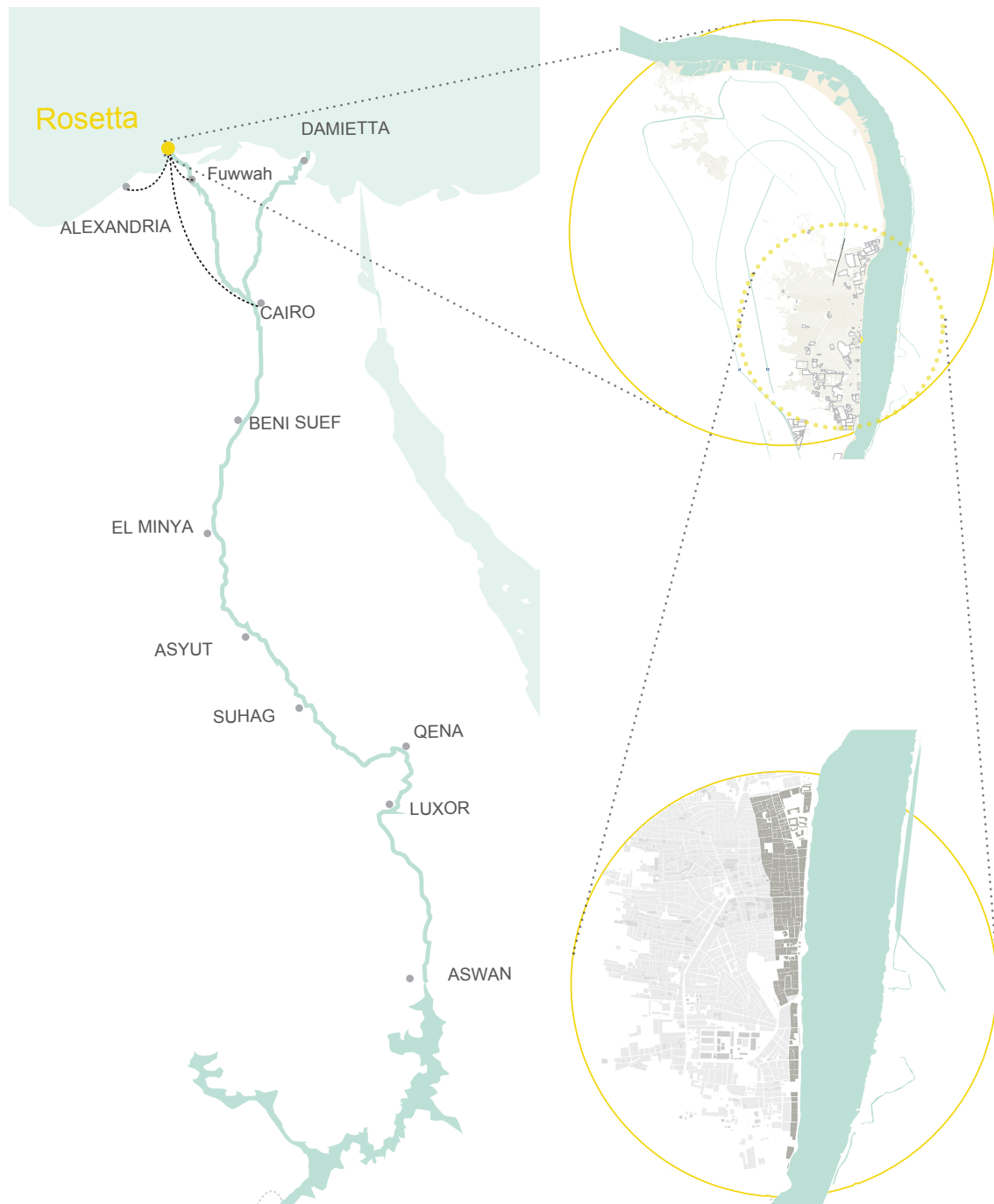


Fig (01): Maps show the location of Rosetta (Author, 2018)

1.2 Research Problem

In 2009 El Behaira province started implementing the first *phase of “the national project for developing the city of Rosetta”* adopting the touristic development model. Under this vision the river edge was developed as touristic promenade supported with different touristic services such as, restaurants, hotels, yacht marina, docks. (2008, GOPP). The project was not implemented completely yet, it had a great impact on the historic city.