

THE SEA PORT AS A CATALYST FOR URBAN DEVELOPMENT

THE CASE OF MOMBASA PORT

UNIVERSITY OF NAIROBI
SCHOOL OF BUILT ENVIRONMENT

Department Of Architecture And Building Science

MBARAK SIHAM AHMED
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DEDICATION

To my dad, for tirelessly and endlessly supporting me throughout my education.

DECLARATION

I hereby declare that this thesis is my original work and has not been presented in any other University or Institution for the purpose of awarding a degree to the best of my knowledge.

Author:
Mbarak Siham Ahmed B02/34538/2013

Date:

This thesis is submitted in partial fulfilment of the examination requirements for the award of the Bachelor of Architecture degree, in the Department of Architecture and Building Science at the University of Nairobi.

Supervisor:
Professor Jerry Magutu

Date:

Year Master:
Architect Norbert Musyoki

Date:

Chairman:
Architect Musau Kimeu

Date:

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To the Almighty God; The Creator, The Eternal Bestower of Form, The Eternal Shaper.

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Kenya Ports Authorities, KPA

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ABSTRACT

The relation between cities and ports has evolved over time with one of the main goals being to find a balance through a model of coexistence. In recent times, Port Authorities (PA) have significantly changed their approach to the relationship they have with their cities. In the last decades of the 20th century, these powerful organizations took the first steps to relate with their cities. They freed up obsolete central port areas and began a new stage in the relation very often also benefitting from the real estate process and getting funding for the expansion of the port. Port cities share their urban spaces with their industrial ports and also manifest inclusion of public life at their docks, giving way to the integration of the segregated port and city of industrial port. There has also been a gradual demand by the public for the valuable waterfront land as well as growing port development strategies to integrate the cities' concerns in their port masterplans so as to reconcile conflicts for land with the city.

Putting emphasis on the integration of the public within the seaport and port proximity zones without underestimating the importance of port-city relationship, this study seeks to therefore understand the catalytic drivers of urban development around port areas that result in holistic success of social inclusion within the seaports by reviving the urban pulse of the urban spaces along the waterfronts and around the port areas.

This exploratory and explanatory study includes a review and critical examination of relevant literature on the study and the analysis at a global perspective of port cities and their relationship. It also makes use of multiple research tools that entailed observation and structured interview for data collection to establish whether Port of Mombasa portrays a successful port- city relationship, looking at the various manifestations of port-city integration and level of inclusivity within the port precincts. The results of the study reveal that the Port of Mombasa operates and governs the waterfront but is not successful as a social public space.

CHAPTER 1

INTRODUCTION



1.0 BACKGROUND OF STUDY



Fig1.1: The Rotterdam Waterfront at Old Harbour
Source: Henryk Sadura's Getty profile, 2018



Fig1.2: Helsinki West Harbor Waterfront redevelopment
Source: Port-city development in Rotterdam: a true love story, 2010

Ports regions seem always to have been at an advantage when compared to those regions which are not situated by port zones and the former have always been characterized by a relatively high standard of living which has also been reflected in their cultural achievements (Vleugels, 1969). Port regions have ever since been correlated to vibrant waterfronts and community friendly neighbourhoods. Due to their proximity to ports and docks, port waterfronts are perceived as attractive poles for the quality of every day's life. The visual contact with water give an added value to the waterfronts, boosting the multi-functionality of the ports that are adjacent to them.

The city-port connectivity does not belong to a specific scientific category, because of the diversity of city-port issues and the usual functional separation of port and urban dimensions. For centuries, ports and their cities have developed hand in hand, the port creating the prosperity of the city. This changed with the industrial revolution, globalization and the expansion of cities. Port cities and their areas are essential elements of the urban environment in a context of increasing globalisation, which is seriously hampering the ability to revitalise the unmaintained infrastructure associated with dilapidated port areas.

Due to the rising attention towards environment, the port-city relationship has gained a new meaning since the sea-ports have been seen as the genesis of both negative and positive facets affecting the public realm. While the former are as a result of port expansion, the latter are a result of transforming obsolete unkempt port areas into urban neighborhoods, evident in the urban spaces along Port of Rotterdam's Old Harbour waterfront (Fig:1.1)

In recent years, a number of harbor cities worldwide have been at the forefront of regeneration and re-building their reality based on revived cultural centers, new commercial activities and international links rather than basing their success on the industrial activity synonymous with their past lives. In the last decades, urban waterfronts have been rediscovered for urban redevelopment. No longer used for port industry activities, many derelict port areas have been transformed into upcoming neighborhoods as seen in Port of Helsinki's West Harbour in Finland (Fig:1.2). Often, these projects resulted in a uniform type of architecture being developed, without any link with the actual port. Some ports have been obliged to maintain their activities near, or return them to, urban area while social acceptance of port operations remain low and security measures require strengthening.

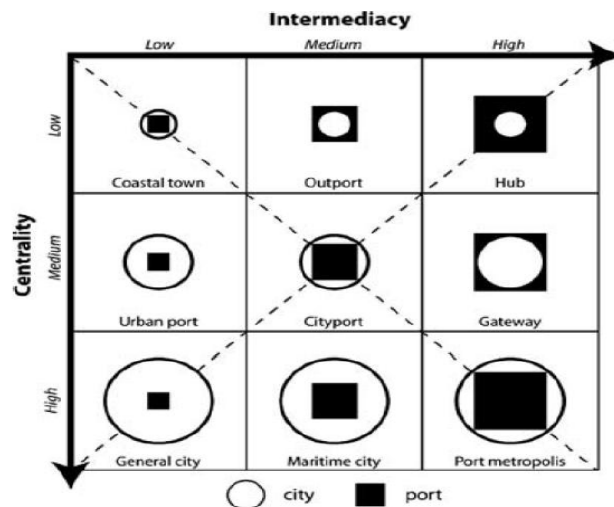


Fig1.3: Port City Relationship in Urban Growth
Source: Development Paths of Port-Cities: Specialization vs. Diversification, 2010

In the course of the development of the relationship between city and port, the separation between city and port was inextricably linked and in many respects interdependent, and their relationships were clearly completely symbiotic. Until the 19th century, the port was the heart of all transport routes for the cities, and it was firmly anchored in the city (Pinna 2007). The development of the port cities went briefly from the defence of fortresses in the Middle Ages to commercial, storage and production centres. In the 1850s, the expansion of the port began to extend beyond the borders of the city. The relationship between the city and the port remained very strong because the port and the city are totally linked with a variety of linkages between port growth, urban development, industrial expansion and regional architecture (Hoyle, 1981). Up until recently, harbours formed the core of urban development in all port cities.

1.1 PROBLEM STATEMENT

Port and maritime functions play a major catalytic role during the initial stages of urban growth in a port city (Fig1.3). These functions gradually lose their importance as cities grow other urban functions, however maintaining the city port reconciliation (Murphey, 1989). The image of a port calls to mind many words but community friendly and aesthetically pleasing are rarely among them. With their precarious stacks of shipping containers and large pieces of machinery, ports are places that people tend to want to avoid. Yet for logistic and historical reasons, ports are often located near the heart of cities, taking away valuable urban space and desirable waterfront land from the public. There are also a number of developments currently occurring which could be catalysts to bringing the city and port into closer co-operation and possibly into a renewed relationship. Looking at the spatial model of port city evolution (Bird, 1963), lack of space and congestion at urban core has led to the relocation of modern terminals at non-urban locations and revitalization of former port areas into waterfront redevelopment (Hoyle, 1989).

The fortification of the major seaport terminals on the Mombasa Island as a result of current security concerns and modern operations has isolated the community and eradicated any form of social inclusion that was evident in the Pre-Colonial period which witnessed the interaction of the Old Port with the Island's residents within the open Government Square fronting the English Garden waterfront, the latter creating a vibrant urban pulse and activities within and around the port areas. The lack of social integration around the modern day port areas and within the terminals has led to the Port suffering a poor image among the public and creating an imbalance between the port operations and the urban setting of the public realm (Torre, 1989).

Putting emphasis on the integration of the public within the seaport and port proximity zones without underestimating the importance of port-city relationship, this study seeks to therefore understand the catalytic drivers of urban development around port areas that result in holistic success of social inclusion within the seaports by reviving the urban pulse of the urban spaces along the waterfronts and around the port areas.

1.2 RESEARCH OBJECTIVES

The study's aims and objectives.

- i. To analyze the urban character of the port areas and the derelict port waterfront and the opportunities of urban development along the waterfronts as a result of the seaport.
- ii. To explore the relationships between the port and the city, their areas of transition and their effect on the urban fabric of Mombasa.
- iii. To establish the design strategies for ports as waterfront developments, their urban spaces and the various ways to integrate the public dimension for urban development.

1.3 RESEARCH QUESTIONS

- i. What is the relationship between the sea port, the derelict port waterfront and the quality of urban space and urban character along the waterfronts?
- ii. How has the the relationships between the port and the city and their areas of transition affect the urban fabric of Mombasa?
- iii. How does urban design create strategies for the public spaces around the port and port oriented developments to include the public dimension?

1.4 JUSTIFICATION OF STUDY

Maurizio Sabini, in his dissertation titled “The Architecture of Mombasa” puts forward the idea that the Port of Mombasa is a key propelling element of Mombasa’s growth and refers to the Port as “The Heart of Mombasa”. Evolving activities within and around the port areas, however, have led to dilapidation of the infrastructure and specifically degradation of the urban fabric of these areas. This negates the statement made by the General Manager of the Port of Antwerp in Belgium that says, “Ports regions seem always to have been at an advantage when compared with those regions which are not situated by corridors and the former have always been characterized by a relatively high standard of living which has also been reflected in their cultural achievements.”

This therefore creates the need to investigate and understand the drivers of urban influence that are as a result of the Port’s presence in order to ensure holistic success of the Port-city linkages. It is also important to observe and analyze the correct attempts made to design and sustain the urban spaces around the port areas, putting emphasis on the derelict and unkempt waterfronts. Comparing to the traditional setup of the Old Port where the social inclusion was vibrant in nature and open spaces bustling with activities, it is evident that there is need to regenerate the open modern port areas through design for human interaction and integration.

1.5 SIGNIFICANCE OF STUDY

With the study focusing on the integration of the society within the port proximity zones, there is need to understand and analyze ways to introduce and maintain constructive public inclusion without compromising the port operations. This will be achieved by first reviewing and drawing lessons from the Old Port of Mombasa and trying to find ways to revive the old traditions of social embracement into the Mombasa Port Terminals.

The research carried out is aimed at granting addition to the colossal body of knowledge in relation to successful design of derelict port areas to incorporate the public dimension. The lessons drawn from the research will guide and offer architectural design considerations and guidance on urban revitalization of unkempt infrastructure in order to cultivate social interaction and keep the open spaces vibrant.

1.6 SCOPE AND LIMITATIONS

The scope of study is limited by geographical constraints and by parameters of study in the chosen cases within the time frame provided for the research.

1.6.1 Scope of study

The degradation of the Kilindini Harbour as a waterfront development, the open urban spaces around the port areas and along the Coastline of Mombasa is indisputable. However, the study's focus is on the Kilindini Harbour (fig1.4), specifically the derelict and renewed waterfronts along the berths. By virtue of its urban relationship with the berths within the harbour, Mombasa's water edge is briefly looked at in line with the county's vision 2035 tourism management plan that highlights the rehabilitation of the Kilindini Harbour as a waterfront development project. It is also quite clear that the bodies of authority involved have realized the need for the existing conditions to be improved to boost the social, cultural and economic aspects. The study involves the analysis of the port city relationship and its catalytic role on the redevelopment of the urban precinct specifically on the cohabitation of the social dimension with the economic vocation.

1.6.2 Limitations of study

Owing to the time constraints of the research, the study is limited to the derelict and renewed waterfronts along the berths within the Kilindini Harbour. Lack of enough authoritative information especially on the local case study carried out within Kilindini Harbour constitutes a shortcoming of the study. However this is compensated with primary data collected by the author, creating a framework for future documentation. The present study has also relied largely on qualitative methodology of data collection and is therefore restrictive. Taking of digital photographs within Kilindini Harbour is strictly prohibited and the author did not receive special permission.

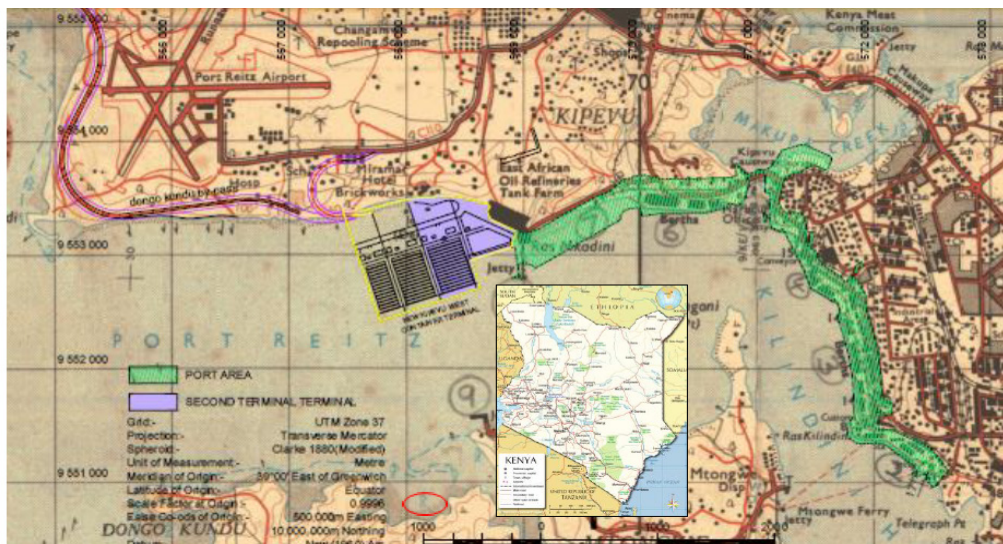


Fig1.4: Kilindini Harbour highlighting the port area in green
Source: Kenya Ports Authority archives, 2018



Fig1.5: A map showing Mombasa Island
Source: Google satellite maps 3/09/2018

1.7 DEFINITION OF TERMS

Buffer zones- An area of land designated for environmental protection and separation between the port functions from the city.

Derelict- Abandoned and dilapidated

Imageability- Ease of expressing a mental image of a space, built structure of urban context

Inclusivity- Policy of including people who might otherwise be excluded or marginalized

Multi functionality- Ability to profess more than one benefits to public use

Port master plan- Series of activities that help shapes a port's development and growth and port's strategies to prepare proposals for grants

Port precincts- Spaces, both built and open, enclosed within or governed by a working seaport. The boundaries are either definite or imaginary.

Public realm- Space around, between and within buildings that are publicly accessible, including streets, squares, parks and open spaces. These areas support or facilitate public life and social interaction.

Social inclusion- Process of improvement so that individuals could take part in places based on identity

Water- land transition- Open spaces that visually connect the disjoint between water and land in an urban context

Waterfront- Broad interface between land and water such as oceanfront that has become the prime real estate of urban (re)development projects. It has a special type of land use.

1.7 ORGANISATION OF STUDY

CHAPTER ONE gives a brief overview and a background of the study, contextualising the situation at hand. The problem statement is also asserted, making clear why there is need to carry out the study. To further alleviate the implementation of the study, research objectives and questions have been developed. The scope is defined and the limitations of the study are outlined. This chapter creates the genesis to guide the research all through to achieve the main aim.

CHAPTER TWO critically reviews the literature on port city regeneration, their evolution at a global scale looking at the phenomena of derelict port areas and their current state. The chapter also provides a study of the urban historic port areas and their appropriate characteristics. This is to aid in establishing the variables that need to be observed as the research is carried out. The variables are then correlated to the urban port areas to establish the key principles and conceptual form work inherent to the port waterfront regeneration.

CHAPTER THREE involves identifying the major sources of data collection, both primary and secondary. The primary data is collected using visual observation, analytical sketches and notes, photographic records, interviews and interaction. Secondary data entails the critical review of information material relevant to the study. The information material is identified as published and unpublished material. The chapter also defines the research parameters that will be applied in carrying out the research to establish enough feedback for the outlined research questions.

CHAPTER FOUR analyses and presents the primary data collected from the fieldwork conducted for the study. The case study locations were chosen on the basis of their prominence, accessibility and richness in architectural content. The case study criterion was limited by time and budget. Comparative analysis is undertaken by reviewing international precedence against the local situation in Mombasa.

CHAPTER FIVE wraps up the study and derives conclusions and recommendations from the findings drawn from the fieldwork analysis. The chapter also recommends further related research areas of investigation.