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Evolution of Public Spaces in the Urban Core of Tripoli, Libya:

Dynamics of Growth and Change.

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Thesis Submitted for the Degree of Doctor of Philosophy in Architectural History and

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February

2018

Abstract

Tripoli has undergone a dramatic transformation from a historical Islamic port city into a metropolis. Layers of urban interventions in the built environment mainly by Ottoman and Italian colonization and modernization reforms, each era forms a layer with its unique dynamics that distinguish the growth and change of built form and the public spaces within it. This historical research aims to understand the evolution of public spaces in the urban core of Tripoli, defined by the old medina and its context, their continuity and disruption within the urban context, by investigating the forces behind their growth and change in three layers of time: Tripoli under the Ottomans rule, Tripoli as an Italian colony, and the post-colonial era.

The research design is a historical interpretive research, analysing all means of historical data (i.e. archives, Travellers' documentation, documented movies and historical photos). The research tests an original method; A historical simulation research, by turning historical evidence (maps- photos- aerial views) into a 3D model, recreating the urban spaces and virtual-walk through in these different sets of time. This research of public spaces is an original attempt to build knowledge around public spaces by combining historical, observational, qualitative data with experiential data, to conduct an architectural and urban spatial mapping and analysis of the core area of Tripoli. A unitary approach to public spaces and its historical context. *Physical, Social, Economic, Political, Temporal, and Sensorial.*

The research shows the historical dynamics that shaped public spaces in Tripoli. The Roman origin of the city challenged by the Ottomans. The Ottoman city segregated by the Italian colony, and how the decisions of the post colony regime have disturbed the continuity of these spaces. The research explains how public spaces took the shape they have and why some important historical spaces in Tripoli lost their momentum.

Acknowledgements

In the name of Allah, the Most Gracious, the Most Merciful,

This doctoral thesis would not have been possible without the continuous support and encouragement of those whom I owe deep and genuine gratefulness.

First on the list are my family. My gratitude goes to my beloved parents, for their faith in me and teaching me to be ambitious and determined to fulfil my dreams. To my husband for his love and continuous support under the extraordinary exhausting journey we went through together. A special thank you to my daughter Malak and my son Ali for their patience, sparing me years of their lives to achieve my goal, your smiles, encouragements and kind prays always shined hope even in my darkest days. May Allah bless you for the time, health, and energy you gave me to complete my studies.

My deepest gratitude goes to my first supervisor Prof. Stephen Kite for his understanding, patience, guidance, and most importantly, his friendship during my graduate studies as his help, advice, and supervision were invaluable. I also greatly thank my second supervisor Dr.Julate Davis for her critical academic consultancies. I like to thank also my former supervisor, Dr.Cristan Suau, for his initial assistance during the early stage of this study, before his departure from Cardiff University.

My genuine thanks are also extended to the Postgraduate Research administrative staff of WSA, Cardiff University, in particular: Katrina Lowis, of whom have kindly helped and supported me through my difficult times during this journey.

My special gratitude is also extending to my former colleagues and friends who did all they could to ease the collection of my data inside and out Tripoli.

Lastly, and by no means least, I would like to conclude by thanking Ms Alison Brown, My Masters Supervisor for encouraging me to start my PhD Journey.

Thank you all

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Chapter 1

Introduction

In many historic North African cities, it is common to find an old Islamic walled port city (medina), conserved in the centre of a dynamic and constantly transforming metropolis. Traditional methods of conserving walled cities - focusing on the medina in isolation - have in some cases negatively affected the integration of the medina in its wider historical context. Challenges of continuity and changes to the physical structure (urban growth), social changes (immigration, population growth), and political leaders and their interests, all played a role in driving the growth and change of urban form and consequently changed the public spaces within it.

In this research, public spaces are comparable to the veins in the body: they need to be connected to support and drive the flow of movement. Public spaces in this research include streets, midan, squares, entry and exit points of the walled city, the port, the coastline, and open spaces in public buildings. In the case of historical centres such as the old medina Tripoli, continuity was disrupted at various points in its extended history, due to different stages of urban growth and interventions.

Tripoli is a city that has undergone a dramatic transformation: from a historical port city founded by the Phoenicians, then controlled by the Romans (146 BCE - 450 CE), to being invaded by Vandals and the Byzantines during the fifth and sixth century. It became an Islamic city as it fell to Arab Muslims in 645, was occupied by the Spanish in 1510; forty years later it came under Turkish control and became part of the Ottoman Empire. During the colonisation of North Africa in the early 1890s it was taken over by the Italians (1911 - 1943) and only gained independence in 1951[1]. Today Tripoli is a metropolis, the largest city in Libya, home to almost a third of the country's population. This transformation has been followed by large-scale interventions in Tripoli's built environment, and the public spaces within it.

The effects of the urban growth of the old medina of Tripoli and its historic urban context needs to be understood before addressing any future urban regeneration and conservation

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[1] Mabel Loomis Todd, *Tripoli the mysterious* (Boston: Maynard and company, 1912).

plans. Tripoli's urban fabric, located on the Mediterranean coastline, consists of diverse layers that are rich in historical urban artefacts and intangible cultural values. The integration of the walled city with its surrounding urban context is a key element in protecting, upgrading and sustaining Tripoli's historical urban core: physically, socially and visually. On the one hand, this approach results in transformation through regeneration; on the other hand, the historical urban spaces and their underlying values can be preserved. Public spaces in Tripoli are well-known for their historical significance to Libyan people's lives, they remain cultural sites, even though decisions in the mid-20th and 21st centuries eroded the importance of their physical form, and their use.

In the field of urban planning, there is on-going debate regarding people's relation to urban spaces. Urban spaces are considered to be a prerequisite for enhancing urban life and play a significant role in social transformations. Recently there is rising concern about the quality of urban spaces in the city and their role in forming new lifestyles, values, and attitudes towards the city. Public spaces in Tripoli should be considered in terms of their historical meaning and connotations, as well as the everyday experiences of people using the space; however, few studies have been framed around the historical context of urban space concentrating on public spaces in Tripoli.

This research focuses on the dynamics of public spaces in a historical context, taking into consideration the international debate concerning the identification, preservation and valorisation of historical cities. The latest UNESCO recommendation, adopted on 10 November 2011, emphasises the significance of layering urban values, with recognition of the importance of understanding the city's social, cultural and physical form in the historical urban context:

> The historic urban landscape is the urban area understood as the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of historic centre or ensemble to include the broader urban context and its geographical setting[2].

Thus, this research investigates the evolution of public spaces in core of Tripoli across three layers of time (Ottoman Empire, Italian colony, Post-colony) and identifies the forces behind urban growth and change in each time period. The research will also outline the general characteristics of these spaces and the effect of the changes that took place, and investigate the continuity between different layers of time. The research will focus on the

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[2] Part of the recommendation on the Historic Urban Landscape1 adopted by the General Conference at its 36th session Paris, 10 November 2011.

areas where these three layers interact: the old medina, the port, the Italian fabric and the coastline. These areas represent Tripoli's historical core.

This study builds on the existing literature about Tripoli, providing an in-depth understanding of how public spaces in Tripoli evolved to be how they are today. This is the first study to investigate growth and change in public spaces chronologically. It will make a significant contribution to the understanding of the dynamics between the old Islamic medina and its surrounding built fabric. Furthermore, the research could serve as a reference for urban researchers in Tripoli as English literature on historical Tripoli is limited. This research will not only add to the literature and knowledge in the field of urban spaces in historical cities, it would develop a new method to examine urban changes in historical urban studies.

The research strategy is two-fold: phase one is a historical analysis of public spaces in Tripoli that seeks to illuminate the forces that shaped the spaces in the city. The research identifies the characteristics of the public spaces and their development, and then evaluates the continuity within these spaces across the three layers of time. Phase two of the research develops an original method of investigating historical spaces. The research uses historical photos (photo mapping) to generate a 3D model of these spaces in order to investigate the effects of the changes that occurred.

This research investigates the dynamics of public spaces in their wider context, including: the urban evidences and their surrounding built environment, both historic and contemporary; infrastructures; land-use and spatial organisation; and, the visual relationship with the overall setting. The research also considers social and cultural forces and values, social and economic activities, the unique characteristics of public spaces, and intangible dimensions related to diversity and perception.

This research is significant as it is the first dedicated to investigating public spaces in Tripoli, a first step in a forthcoming line of research focusing on examining Tripoli's public spaces and their role in the city. It also provides a base for comparing Tripoli with similar North African cases. In addition, this research developed an original methodology in investigating public spaces in historical urban research by generating 3D models of historical sites using photos. This research method is unique in urban research field, as it is mainly dominated by archaeologist and computer science research.

The dissertation is organised into seven chapters: following this introduction is Chapter Two, a literature review that provides a theoretical perspective, including a theoretical focus on the concept of public spaces in general theory, summarising the main debates related to approaching public spaces in the city, public spaces in coastal cities and their relation to the port, as well as public spaces in the Islamic context. It also reviews the literature on photo-modelling as a tool to recreate historical urban structures, and its use as an urban research tool. It also includes the research design, outlines the research aim and question, and describes in detail the research methodology, the adopted methods and techniques employed in this research, and how and why this research strategy has been chosen.

Chapter Three covers Tripoli under Ottoman rule. It first chronologically traces the urban interventions as they occurred and how they affected the evolution of public spaces. It then summarises the characteristics of public spaces during Ottoman rule, and concludes with an analysis of virtual changes using the visual model with a video recording of the walk through the 3D model spaces, thus demonstrating the continuity of the public spaces during Ottoman time.

Chapter Four, building on the previous chapter, covers Tripoli's public spaces during Italian colonisation. It starts by chronologically investigating the forces behind urban growth and change at different stages of the colony. It considers forces such as the effects of Italian invasion, the Italian's interests and visions of the city. It then characterises the public spaces in Tripoli during the Italian colony and analyses the continuity of these spaces in relation to the older Ottoman fabric. The chapter ends with an analysis of the visual changes in the public spaces using the second regenerated model (the 3D model of Tripoli's spaces during the Italian colony), including the recorded video of the walk through these spaces.

Chapter Five covers Tripoli under Gaddafi's rule. It first examines the forces of growth and change in the city as it transitioned from being an Italian colony to being independent, and then focuses on the Gaddafi regime by outlining the type of rule the city was under. The chapter concludes with an analysis of the continuity of public spaces in Tripoli, including the virtual changes using the visual model with a video recording of the walk through the spaces.

Chapter Six presents the results of the 3D modelling methodology used in this research. The chapter starts with a description of the overall idea and - particularly as part of urban history research - it highlights the strengths and weakness of this method. It then outlines the data

generated by the research in different sets of time. Further, it analyses the quality and accuracy of the end result of this method.

Chapter Seven forms the conclusion of the research. It offers a brief summary and assessment of the main findings and how these relate to the research questions raised. It also includes a discussion of the significance of the findings. The chapter concludes by explaining the main challenges and limitations of the research, and possible future research opportunities.

Chapter 2

Literature review

2.1. Introduction

Tripoli has undergone a dramatic transformation, from a historical Islamic port city to a large metropolis. This has been achieved through large-scale and incremental interventions in the built environment in the form of Ottoman and Italian reforms made to the Islamic city. Each era forms a layer with unique dynamics that distinguish the built form, cultural and natural value. Public spaces, Islamic urbanity, colonisation, city resources (such as the city's port and waterfront) will be the focus of this research.

The topic of public spaces is very broad, thus the literature selected for this research will address major concepts relevant to the dynamics of public spaces. The literature review will be structured as follows: firstly, a discussion of general theories around public spaces; secondly, a review of the concept of public spaces in the historical context of the research (the Islamic, colonial, and port city contexts); lastly, an outline of the photo-based 3D modelling concepts and techniques, and an evaluation of the strengths and weaknesses of each concept.

2.2 Public Spaces general theories

Definition wise the term Public Space in the dictionary is an open space that is public; relates to or involves people in general rather than being restricted to a specific group; an empty area that is available to be used.[3] Based on these definitions, the main dynamics of public spaces are those associated with people (social) and space (physical). However, as the space cannot be separated from its context, we need to investigate it as part of its evolving context. This research focuses on understanding the dynamics of growth and change of public spaces of Tripoli within in the urban context of Ancient Islamic Colonial Port City – the definition of public space in this research and the approach used will be defined at the end of the literature review.

In English language literature, the topic of public spaces has been widely debated, between architects, planners, geographers, urban and social researchers, constituting different waves of research concerning public spaces and the approach of space in the urban context. An important reference that gathered the perspective of different research fields on the topic of spaces is

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the work of Ali Madanipour, *Urban design and dilemmas of space* (1996).[4] His attempts to conceptualise space in a way that combines different views and could be shared with other research fields was an inspiration of this study. Madanipour argues for an approach that "refers to our objective, physical space with its social and psychological dimensions"[5], a process that builds understanding by "monitoring the way the space is being made and remade, at the intersection of the development processes and everyday life"[6]. In order to understand the need for such an approach, the research outlines the existing research approaches and methods used to investigate urban spaces. The literature review will be organised into groups following the development of the theories: public spaces and the physical form; public space as a social space; public spaces as an experiential space.

2.2.1 Public spaces and the physical form:

One way that researchers approach public spaces is by considering their purely physical form. The focus of this kind of research is on the physical space, regardless of its social relations. Order, unity, balance, proportion, scale, hierarchy, symmetry, rhythm, contrast, context, detail, texture, harmony, beauty: all of these factors represent urban tools to understanding public space in its physical form.

The physicality of space in its urban context can be seen addressed in large-scale projects; architects such as Le Corbusier (1887-1965) [7] had a vision for the urban form, an idea of the ideal city, consisting of high-rise building blocks surrounded by a net of streets. He developed projects such as "Ville Contemporaine" a city for three million inhabitants in 1922, and "The Radiant City" in 1935. Le Corbusier's theory has been heavily criticised: the city cannot be seen as a "machine"; people live in these cities too[8]. By using high-rise buildings, he did not just separate the space from the urban fabric, he separated daily interactions from these spaces too; the public spaces around the blocks lost their social qualities. The physicality of space can also be seen in small-scale projects. Krier (1979)[9] considered spaces in an urban context to be those that are framed by buildings. He defined spaces as: "all types of space between buildings in towns and localities"[10]. Squares, streets, parks, paths and all spaces between buildings are considered public spaces, under this definition the spaces can be

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[4] Ali Madanipour, 'Urban design and dilemmas of space', *Environment and Planning D: Society and Spaces*, 14 (1999), 331-355.
[5] Madanipour, 1996. p.331
[6] Ibid., p.332.
[7] Gerald Steyn. 'Le Corbusier's town-planning ideas and the ideas of history', *SAJAH*, 27 (2012), https://repository.up.ac.za/bitstream/handle/2263/21479/Steyn_LeCorbusier%282012%29.pdf?sequence=1 (83-106).
[8] Robert Fishman, Urban Utopias in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier (Cambridge: Massachusetts: MIT Press, 1982).
[9] Robert Krier, *Urban Space* (Rizzoli International Publications, 1979).
[10] Ibid., p.120.

understood by analysing its physical form by defining its basic geometry: spaces such as streets, squares, playgrounds, were nothing more than voids created by buildings.

> Since every architectural volume, every structure of walls, constitutes a boundary, a pause in the continuity of space, it is clear that every building functions in the creation of two kinds of space: its internal space, completely defined by the building itself, and its external or urban space, defined by that building and the others around it.[11]

This definition and theory have been strongly critiqued: urban space cannot be generalised to all spaces between buildings. Spaces are not simply created and defined by the built elevations surrounding them. However, tracing the process of building the physical form of the public space reveals important aspects such as continuity, accessibility, reflections on the cultural elements of the space, and the dynamics that encouraged the evolution of public spaces in the city.

2.2.2 Public space as a social space

A different approach towards public spaces is to consider them as relational spaces. Jacobs *The Death and Life of great American Cities*, 1961[12] and Lefebvre *The Production of Space,* 1991[13] thought of space as being relational, focusing on both the physical and social functionality of space: "All buildings, objects and spaces in an urban environment, as well as the people, events and relationships within them"[14].

Jacobs (1961) was the first to combine activities and place as an added quality of the urban space. In her book *The Death and Life of Great American Cities*, she argues that urban space is important because of the activities that take place within them, and she defines three main dynamics that affect the social use of urban space: the availability of primary uses in the area, intensity, and permeability of the physical urban form (i.e.: mixture of building types, age, size, and condition). So, beside the structural form there is a need to recognise that the activities that take place in the urban space are what keeps it alive: "places are not just a specific space, but all the activities and events which made it possible" [15].

Lefebvre (1991) argues that in order to understand the space we need to search for its meaning and the way it has been produced. He argues that space is not a neutral, a pre-

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[11] Ali Madanipour, Design of Urban Space: An Inquiry into a Socio-Spatial Process (John Wiley & Sons, 1996).
[12] Jane Jacobs, The Death and Life of great American Cities (Vintage Books, 1961).
[13] Henri Lefebvre, *The Production of Space* (Wiley, 1991).
[14] Madanipour.1999.
[15] Matthew Carmona and others, Public Places - Urban Spaces is a Holistic Guide to the Many Complex and Interacting Dimensions of Urban Design (Routledge, 2012).

existing given, but rather considers an on-going production of spatial relations, looking to the public space as a continual process of social development.

Other researchers evaluated social aspects of the public space created through human dynamics. Jan Gehl, in his book *Cities for People* 2010[16], defines human activity in three types: first, necessary activities, functional activities such as going to school and shopping, which he considers to have minimal influence on the built environment; second, optional activities such as taking a stroll, which have a considerable influence on the urban space; third, social activities that are often spontaneous, such as passing conversation. The activities that take place in a space form an important part of its qualities.

Gehl also points out three qualities of a space: flexibility or multi-functionality; micro-climate of the built environment; and, scale. Gehl emphasised the importance of the relationship between scale and social activities: large-scale (holistic, the city as seen from a distance); middle-scale (development scale, individual quarters, the organisation of space and buildings); and, small-scale/eye-level scale (the human landscape, the city as experienced). Such a scale hierarchy illuminates the dynamics that form public spaces in a city; at each level a different research method is required, so further details can be revealed. For example, William Whyte's (1980) influential research *The Social Life of Small Urban Spaces*[17] reveals the effectiveness of research on the street level. By using focus group observation and time lapse techniques, Whyte explained why some small spaces in New York work better than others, highlighting influences like the sun, wind, trees, water, food or different elements that draw people's attention, including street performers and the availability of seating places within the space.

Another key concept when considering the dynamics of public spaces is the degree of accessibility for all people. The accessibility of an urban space can be assessed both physically and visually. Accessibility in the urban space can be described as the freedom or ability for the individual to achieve their basic needs and sustain their quality of life. In order for a space to play a role in social life, the space needs good visibility from inside as well as outside[18]. Accessibility explains the usability of a public space, and is also one of the formative dynamics that directs the sequence of human movement and drives the development of the spatial and social hierarchies in a public space. Therefore, studying accessibility is crucial for this study.

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[16] Jan Gehl, *Cities for People* (Island Press, 2010).
[17] William Whyte, *The Social Life of Small Urban Spaces* (Conservation Foundatio, 1980).
[18] Ali Madnipour, *Public and Private Spaces of the City* (Psychology Press, 2003).

The third approach to considering public spaces is based on their political and cultural aspects. Although the concept is not new, the relevance of public spaces as a place for gathering and social interaction has been clear in light of recent worldwide political events. In 2011 a wave of political unrest and change started in the Arab world and spread to some European countries. Under these circumstances, public spaces a powerful force in terms of people's voices being heard. As this research is limited to the time prior to the Arab Spring, the political role of Tripoli's public spaces in the revolution is a subject for future research.

2.2.3 Public spaces as an experiential space

How individuals interact with public spaces is another consideration. Researchers have investigated how people configure the city space by recalling a mental image of their everyday experience. The influential work of Kevin Lynch, *The Image of the City* (1960), used a technique called mental mapping. Lynch distinguished five elements that build up a city: paths (channels where people move); edges (linear elements such as railway lines); districts (sections of the city with a distinction character); nodes (strategic places people can access and interact within); and landmarks (reference points). All of these together give people a sense of the city, "the sense of the whole"[19]; together they create an image of the city, in Lynch's words:

> In such a whole path would expose and prepare for the districts, and link together the various
> nodes. The nodes would joint and mark the paths, while the edges would bound off the
> districts and the landmark would indicate their cores. It is the total orchestration of these units
> which would knit together a dense and vivid image, and sustain it over areas of metropolitan
> scale.[20]

Yet, in his research Lynch focused on the city in a fixed moment of time; he studied the five elements of the city regardless of their evolving urban context. The dynamics of the city as a constantly changing phenomenon are most evident in historical cities, where the urban form and the city it represents cannot be fully understood without context. Even though the method used by Lynch is restricted to the current users of the space, examining the relation of these five elements could enable the understanding of the evolution of public spaces.

Another method of understanding public spaces is through people's perception of the spaces, considering how entry and exit points, space sequences and links, are elements that contribute to individuals' perception of space. Paths can be considered a perceptual line that connect public spaces: by moving from one space to another the individual experiences spaces in relation to each other, where they have been and where they anticipate going[21]. This

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[19] Kevin Lynch, *The Image of the City* (MIT Press, 1960)
[20] Ibid., p.108.
[21] Frank Ching, *Architecture Form and Space* (John Wiley & Sons Inc, 1943)

movement through different spaces affects our perception of public spaces as a whole. Public spaces in the form of nodes are regarded as destinations; entry and exit points are important elements that support a space, especially in the context of walled cities. A narrow path with an open field of vision will encourage movement continuity and induce progression or sequence of events[22]. Encouraging people to circulate through spaces can be done in three different ways: physically, i.e.: the continuance of an arcade; socially, i.e.: designing places with social interaction in mind such as in Islamic cities where part of the path becomes a *fina,* a social interactive space, making the street progressive[23]; or, visually, by connecting the space so that what people see naturally directs their attention and movement.

2.3 Public spaces as part of the city evolution:

Interest in public spaces has increased, especially concerning cities with historic origin. The evolution of cities, their buildings and public spaces, do not just explain the identity of a city, but also provide valuable information in terms developing the city and meeting the demands of a future, modern, culturally diverse city. The history of the city in selective layers of time needs to be evaluated in order to understand public spaces, as "each of these past layers is loaded with historic significance, with war and struggle that may still be alive in people's memories"[24].

Public spaces in the historical context can be considered in terms of their physical, social, symbolic, and psychological roles as arenas for 'social interaction'. Spaces gain unique values over time: values from all the events that have taken place within them and imbued them with an important cultural and historical identity. These spaces not only shaped the cultural identity of an area, they formed part of its unique character and value system, and provided a sense of place for local communities in a dynamic changing city, and carried these qualities throughout time.

Spaces can either be pre-designed and intentionally manmade, or evolve organically over time and remain subject to future change. UNESCO introduced its recommendation and action plan in 2011, defining historic areas broadly as the often-quoted principle:

> Every historic area and its surroundings should be considered in their totality as a coherent
> whole whose balance and specific nature depend on the fusion of the parts of which it is
> composed and which include human activities as much as the buildings, the spatial organization

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[22] Ibid., p.92.

[23] Besim Hakim, 'Learning from Traditional Mediterranean Codes. The essence of the traditional system prevalent in the Mediterranean region is found in the ethics and values related to habitat'. *The town paper Council report,* iii/iv. 2003. <http://www.tndtownpaper.com/council/Hakim.htm>.

[24] Ali Madnipour, Public Space and the Challenges of Urban Transformation in Europe (Routledge, 2014), p.5.

and the surroundings. All valid elements, including human activities, however modest, thus have significance in relation to the whole which must not be disregarded.[25]

Within this holistic framework of public spaces evolution, changes gradually occur: changes to the physical form, to the types of activities that take places, to the visual aspects of these spaces. Such changes can either reinforce or restrict the space.

The second section of the literature review concerns public spaces within the research context: in the context of a port city, in the Islamic context, and in the Italian colonial context. Each topic is vast and varied; the selection of research for this literature review is based on the formation of public spaces and the dynamics behind their growth and development.

2.3.1 Public spaces and the port city

Far from offering a complete overview of port city development studies, it is more important to draw attention to the primary dynamics - the spatial and social activities - that dictate the development of public spaces in coastal cities. Port cities have various features that relate to the growth of public spaces: the port, coastline, waterfront, social economic activities, and trade routes.

> The port–city evolution appears to be gradual rather than linear or chaotic, and in many cases largely influenced by regional factors and local strategies.[26]

As this study is concerned with the evolution of public spaces in a port city, as well as sustained linkages between the port and old medina, the literature has been limited to these key issues. Brian Hoyle (1988)[27] studied the development and dynamics at the port city interface. Hoyle summarises the relationship between the port's function and size of the city and developments in different stages. Port cities started as markets for international goods; the harbour was an essential part of the city, surrounded by trader's dwellings. It was a place with combined functions: dwelling, storage, and trade and business administration. In the mid-19th century, the port city expanded to support industrial developments: bigger steam ships meant bigger spaces were required. The port changed from a place for trade to nodes of transportation and trade; this functional transformation resulted in the expansion of the urban fabric of the city: more people, more activities and more space were needed for labour. Developing technology resulted in larger and larger ships: the small ports could no longer manage, and new industrial ports were developed in different locations, often leaving the

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[25] UNESCO, Recommendation on the Historic Urban Landscape (2011)
[26] César Ducruet and Sung-Woo Lee, 'Frontline soldiers of globalisation: Port–city evolution and regional competition'. *GeoJournal*, 67 (2007), 107–122.
[27] B. S. Hoyle and others, Revitalising the Waterfront: International Dimensions of Dockland (Wiley-Blackwell, 1988)

inner-city port as a tourist site. This social and economic transformation leaves its mark on the physical shape of city.

Rosa and Palma's (2013)[28] research on port city regeneration focused on the relationship between the historic city and the sea, comparing their case study Naples with different European cities. They emphasised the importance of culture as a way to overcome the post –industrial decline in interest in the port.

> Several port cities have invested in their cultural resources to exit from the post-industrial
> decline and recover the relations between port and city, in order for these interventions to be
> truly effective and allow wider processes of urban and sustainable regeneration to be
> triggered[29].

Urban centres are growing, rapidly changing the integrity of the port and the historic parts of the city:

> New functions were assigned to historical settlements, particularly in the service sector and
> tourism, which contributed to the welfare of the community, but often, also, to uncontrolled
> development and improper use of heritage assets, causing a progressive loss of material and
> non-material value[30].

This integration could take different forms: physical, functional, visual, and perspective-based.[31] Such loss is evident in many historic Islamic Arab cities: they become a port city with no port, interventions and land reclamations shifting the waterfront away from the old Islamic medina.

2.3.2 Public spaces and Islamic city

Studies on Islamic cities in the Arab world, especially in English literature, can be divided into three types based on their location: Middle East, North Africa - named Maghreb (Hakim 1983, 1998, 2001; Huet, 1983; Saoud, 2004)[32], and Gulf cities (Al-Hemaidi and Kassab 2001;

[27] Cetin Murat, 'Transformation and perception of urban form in Arab city', *International Journal of Civil & Environmental Engineering,* 10 (2010), 30-34.

[28] Fortuna De Rosa and Maria Di Palma, 'Historic Urban Landscape Approach and Port Cities Identity and Outlook'. *Sustainability*, 5 (2013), 4268-4287.

[28] Ibid., p.4282.

[30] Ibid., p.4270.

[31] Scamporrino, M, 'Mega ships and micro heritage. The tutela and valorization of the historical elements in the functional transformation of the Levorin harbour', in *Architecture, Archaeology and Contemporary City Planning.* by Giorgio Verdiani and Per Cornell (Spain: Valencia, 2015), pp.122-131 (p.125)

[32] Basim Hakim, 'Arab-Islamic Urban Structure', *The Arabian Journal for Science and Engineering*, 7 (1982), 69-79.

- Basim Hakim, 'Urban form in traditional Islamic cultures: further studies needed for formulating theory'. *Cities*, 16 (1999), 51–55.

- Basim Hakim, 'Reviving the Rule System An approach for revitalizing traditional towns in Maghreb', *Cities*, 18 (2001), 87–92.

- Huet Bernard, 'The Modernity in a Tradition, the Arab-Muslim Culture of North Africa'. *Mimar.* 10 (1983).

- Rabah Saoud, The Impact of Islam on Urban Development in North Africa (FSTC Limited, 2004).

Murat Cetin, 2010)[33]. Bearing in mind the differences between the regions, lessons can be learned from all, however this review will concentrate on the studies concerning North Africa.

Researchers have approached public spaces in Islamic cities based on city formation. Islamic cities are either those created as an Islamic city (these are rare and include the city of Fustat in Egypt and the city Qayrawan in Tunisia)[34], or they are cities that have been developed from pre–existing surrounding communities, such as cities of Roman origin (A-Sayyad, 1995). Whether the city is originally built as an Islamic city or developed to become one, the formative forces are similar.

In his early studies, Basim Hakim (1980)[35] outlines the planning principles of the Islamic city taken from (Sharia), a set of planning principles and behavioural guidelines. He reflected this information in spatial form, which gives a better understanding of why the Islamic city is in this organic form.

Researchers have also focused on the main elements of the Islamic urban form and the way they are spatially arranged. City elements such as the Friday Mosque: beside its basic function as religious community centre, the mosque and its courtyard as a contained public space serves as a meeting space, and in some cases becomes the main element that drives the evolution of the urban form[36]. The markets in the medina: either covered markets or trade activities in the open spaces[37]. The madrasa (Islamic school): the higher institution for teaching Islam[38]. The streets are a public space in the Islamic city: general public streets to private narrow ended streets, and the city walls[39].

Public institutions in the Islamic world have been replaced by the (Al-Awqaf). This replacement changed the city's built form: public buildings normally part of the urban centre - i.e.: city hall, banks, community centres and courts - do not exist in the Islamic city. Furthermore, the absence of formal planning institutions raises questions around whether

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[33] Waleed Al-Hemaidi, 'The metamorphosis of the urban fabric in Arab-Muslim City: Riyadh, Saudi Arabia'. *Journal of Housing and the Built Environment*, 16 (2001), 179-201.
[34] Anne E. Lester, Cities, Texts, and Social Networks, 400-1500: Experiences and Perceptions of Medieval Urban Space (Routledge, 2010), 45-65.
[35] Hakim, 1982.
[36] Nezar AlSayyad, 'Cities and Caliphs: On the Genesis of Arab Muslim Urbanism', *Journal of Near Eastern Studies*, 54 (1991), 224-226.
  Stefano Bianca, *Urban Form in the Arab World: Past and Present* (London, Thames and Hudson, 2000).
[37] Bianca, 2000. p122.
[38] Hakim, 1999. p53.
  Bianca, 2000. 112.
[39] Susan Slyomovics, The Walled Arab City in Literature, Architecture and History: The Living Medina in the Maghreb (London: Routledge, 2001).

the Islamic city has planning principles, or is it rather an organic city that develops based on site constraints, building materials, and size of community.[40]

2.3.3 Public spaces and Italian colony Tripoli

The North African region has been made up of different and diverse colonies; French, Spanish, British and Italians. Each ruling power contributed to the colony's urban formation and development. Tripoli was an Italian colony for 34 years, during which time the Italians built the Italian quarter, the largest part of Tripoli's historical core. In the late 1980s, Mia Fuller studied Tripoli's colonial architecture and urban form. Fuller found there was a relationship between power and urban form in the colonial period; she explained this as a conflict between the Italian and Primitive. Based on the Italian ideology, three sets of times can be defined: the first from 1923 to 1928, where the focus was on Tripoli as the fourth shore, tracing the Roman remains and leading to a new empire:

> We were already there...we left signs that not even the Berbers, the Bedouins and the Turks
> could erase; signs of our humanity and civilization, signs...that we are not Berbers, Bedouins
> and Turks. We are returning.[41]

Second, from 1929 to 1936, when the nature of colonial architecture emerged as the dominant concern and a discourse of planning began to occur. Finally, from 1937 to 1940, when the new questions of colonial urbanism became fully pronounced.

Another researcher interested in the Italian colony is McLaren (2006)[42]. In his book *Architecture and Tourism in Italian Colonial Libya: An Ambivalent Modernism*, he emphasises both the political role of the Italian colony and its effect on urban planning, and the importance of Tripoli as a tourist centre.

Fuller and McLaren differ in the way they approach the urbanism of the Italian colony. Where Fuller compared the Italian colony in Libya to other countries - namely Eritrea, Somali, Ethiopia - McLaren focuses on Libya solely. However, both conducted their research based on interpretative studies available outside of Libya, and solely focused on the city during the Italian colony. Interpreting the colonial era with consideration of the former Ottoman era could give new insight into the dynamics shaping public space in Tripoli.

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[40] Hisham Mortada, Traditional Islamic Principles of Built Environment (London: Routledge, 2003). Bianca, 2000. p.259.

[41] Mia Fuller, 'Building Power: Italy's Colonial Architecture and Urbanism, 1923-1940', *Cultural Anthropology*, 3 (1988), 455-487.

[42] Brian McLaren, Architecture and Tourism in Italian Colonial Libya: An Ambivalent Modernism (University of Washington Press, 2006)

To conclude, in this research public spaces are a variety of open spaces with different characteristics in the urban fabric: Roman spaces, Islamic spaces, colonial spaces, post-colonial spaces, all which connects the historical layers of the city's urban fabric. Public spaces in the historical urban context in Tripoli include: the port, squares, midans, streets, waterfront, open and closed markets, city entrances and exits. Public spaces during the timespan of this research are dynamic and gradually changing, either in their physical form or in terms of social uses and consequently how these spaces are perceived and represented.

This research approach public spaces as an ongoing process of growth and change. Changes in public spaces are considered by examining the changes in physical form, changes in the social activities that take places in and around these spaces, as well as the changes in the perception of the spaces. An approach that investigation the dynamics forming public spaces, interpreting the historical context of public space, their physical form, the development of activities happening in and around the public space is an attempt to highlight the underlying quality of the urban spaces in Tripoli. In order to assist sustaining public spaces in historical context without compromising their character and identity.

2.4 Photo based 3D modelling.

Photo modelling is not a new concept: it is developed and heavily utilised, especially in the computer science field. Generated 3D models in the literature are referred to in various ways, such as "Cybercity", "Virtual City", or "Digital City". Even though the aim is the same - to build a virtual city of the existing city - in the literature different research projects developed different methods and techniques, and consequently yielded different results. Research in the computer field includes: *Singh, S. Jain, K and Mandla, R. (2013); Mohan, S and Murali, S. (2012); Oh et. al. (2001); Reid, A and Zisserman, A. (2000); and, van den Hengel et. al. (2006).* The following section will discuss the research threads that are close to the present study, based on the modelling process.

2.4.1 Multi photo modelling:

2.4.1.1 Geomatics research; a thread of research based on the extraction of a 3D model using methods such as remote sensing, geographical information systems, and Photogrammetric[43]. The Photogrammetric, a fusion of photographs and laser, "is the most effective solution to create 3D city model. It gives a better result and good accuracy"[44].

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[43] Surendra Pal Singh and others, 'Virtual 3d City Modelling: Techniques and Applications', in International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences. 8th 3DGeoInfo Conference & WG II/2 Workshop, 27 – 29 November, (Istanbul, 2013).
[44] Ibid,. p.85.

However, the accuracy of this 3D model method and its error margin depend heavily on the resolution of the satellite images. The process is also constrained by the cost of the laser equipment, and the availability of satellite images as some countries restrict aerial flight.

2.4.1.2 Structure from motion (SfM): SfM is based on the idea of extracting a 3D model from a projection of 2D photos. This is a fully automated system based on photo sequencing, during which the camera takes photos of the structure from different angles, taking into an account the need to overlap photos in certain instances (i.e.: edges, corners). The corresponding points in the images are identified (fig.1a). The rays intersecting these points are generated, after which the 3D structure is automatically restructured (fig.1b).

a. Photos of the structure from different sides.   b. Corresponding points in in the photos

c. Redefining the position of these points in a 3d space and forming the shape of the structure.
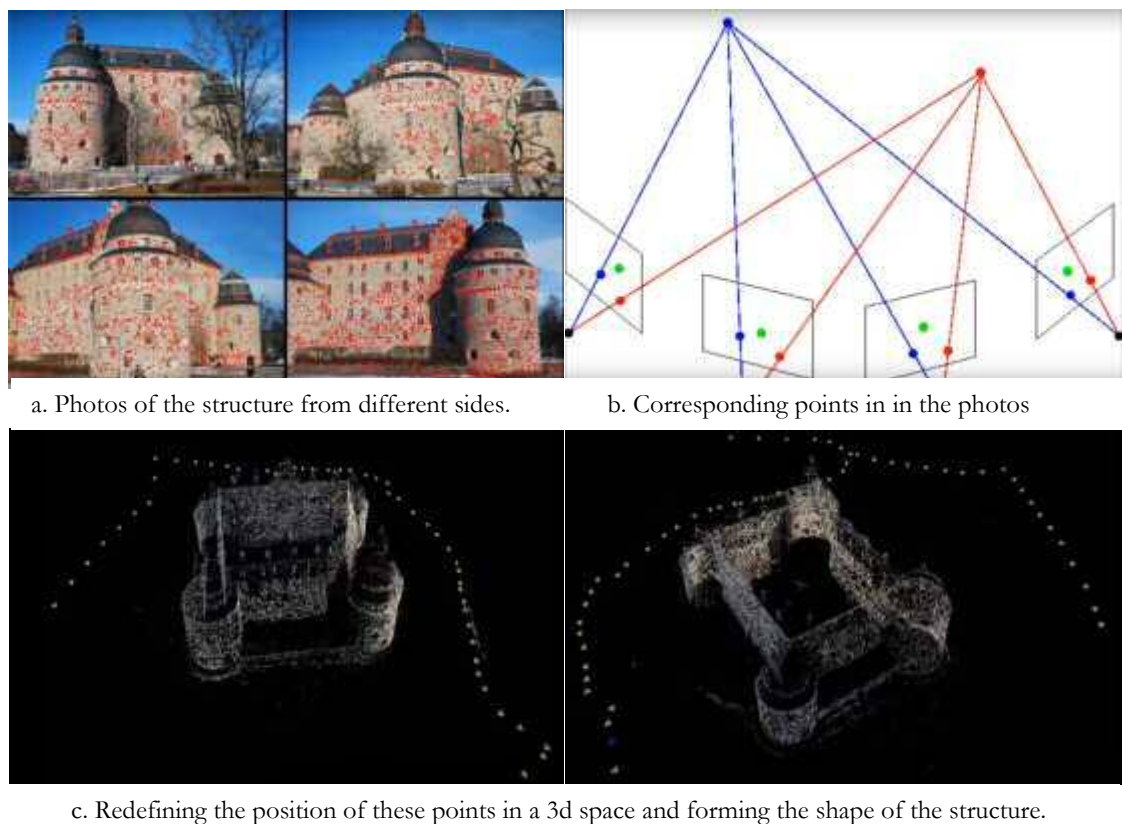
Figure 1 The structure from motion modelling process.

Source: https://www.youtube.com/watch?v=i7ierVkXYa8

Photo Tourism is a system that inspired a new line of research; it involves exploring photo collections in 3D. Goesele *et al.* (2007) is one example of this kind of research. A multi-view stereo algorithm "capable of computing high quality reconstructions of a wide range of

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scenes from large, shared, multi-user photo collections available on the Internet"[45]. Structures can be rebuilt by creating depth maps that are then combined into a single mesh.

Example of the photo tourism modelling results. St. Peter cathedral modelling: its corresponding depth maps and its shaded renderings depth map

Figure 2 Modelling using the photo tourism approach. Source: Goesele 2007.

Even though this system produces some good results, it cannot be employed in the context of historical research, as photos are limited and taking new photos is impossible as many historic buildings are demolished or changed.

2.4.2 Single-view modelling techniques

> 3D reconstruction from a single image must necessarily be through an interactive process in which the user provides information about the scene structure. Such information may be in terms of vanishing points or vanishing lines, co-planarity, spatial inter-relationship of features, surface normal, and camera parameters. Some of the traditional approaches based on shape, shading and texture have complicated user interaction in terms of specifying the inputs.[46]

Drawing perspectives from photography, deconstructing prospective images. A prospective image is one in which all the parallel lines on the plane lead to a vanishing point. Each image has a unique vanishing point that depends on the height of the camera, the type of lens and the angle of the camera, the type of lens and most importantly the location of the camera. Depending on the content prospective photos could include 1 point perspective, two points prospective, or three points prospective.

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[45] Michael Goesele and others, ' Multi-view stereo for community photo collections ', in: *The international conference on computer vision.* (Rio de Janeiro, 2007).
[46] S Mohan and S Murali, 'Multi-View Stereo Reconstruction Technique', in: *Image Based 3D Modelling and Rendering from Single View Perspective Images*, by S Mohan and S Murali (IGI Global, 2013). 604-619.
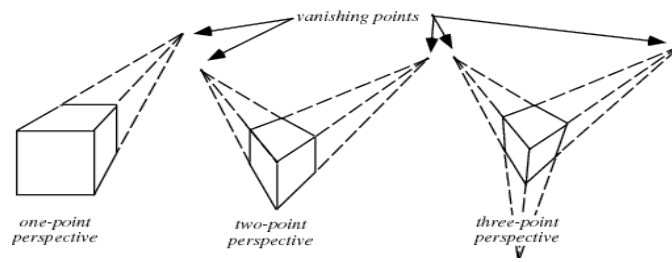
Figure 3 Illustration of parallel lines and the convergence to vanishing points. Source:
<http://mathworld.wolfram.com/VanishingPoint.html>

The latest version of SketchUp includes single modelling techniques under the name of PhotoMatch. PhotoMatch is a feature that allows the researcher to first configure the image's vanishing points by manually configuring the parallel lines, and then trace over a photograph and model its geometry[47].

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[47] A. CriminisiI. Reid A. Zisserman, 'Single View Metrology'. *International Journal of Computer*, 40 (2000), 123–148.

Figure 4 configuring the photos vanishing points using SketchUp.

source: Sketchup help centre. https://help.sketchup.com/pl/article/3000115

This is a powerful modelling aid in the architectural field, as it has become an automated process. Researchers such as Sinha et al 2008.[48] developed "snap line segments to vanishing directions" in the form of vanishing point constraints, that snip the extra lines when intersected in the plane. The automation of the process results in smooth modelling, however, this automated technique needs more than one photo to fully generate the structure.

Figure 5 configuration of the vanishing in different photos of the structure and snipping the intersections

Source: Sinha, S. et al. 2008

Tripoli's urban core transformed dramatically across the span of the research: new urban developments were constructed and buildings were demolished. The research is limited to the photos that already exist of the space. Thus, for this research a single-view modelling

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[48] Sudipta N. Sinha and others, 'Interactive 3D Architectural Modelling from Unordered Photo Collections'. *ACM Transactions on Graphics*, 27 (2008).

method was used to rebuild Tripoli's core areas in three different sets of time. Following this, a walk through tour was generated within the site to provide a valuable perspective on the urban changes.

2.5 Research Aims:

The researcher's personal experience and general observations of different historic North African cities raised the question of why public spaces in some historical cities work better than others. Work refers to the continuity of social activities between the old and the new spaces. North African cities have similar history, geography, culture and religion, all of which is reflected in the Islamic core surrounded by a colonial urban fabric followed by a spread of rapid urban city development[49]; yet public spaces within these cities vary in terms of their conservation and sustained development.

The research aims to **understand the evolution of public spaces in Tripoli, the sense of continuity and disruption, by investigating the dynamics behind their growth and change.** The research investigates the dynamics of public spaces in Tripoli within the processes of formation and modernisation, with a practical focus on the physical connections between the public spaces, their underlying social activities, and the visual continuity. Understanding these dynamics can help to resolve questions around how Tripoli's historic public spaces can be sustained without compromising their character and identity, defining a methodological approach towards conservation and the development of public spaces in the old medina, so that they do not lose their historical qualities and significance.

2.5.1 Research objectives:

The main objective of this research is to study the evolution of public spaces in their historical urban context in Tripoli: configuring the origins of public spaces and tracing their transformation through time, and ascertaining how and why public spaces in Tripoli are the way they are today.

Objective 1: To trace and investigate the historical roots of Tripoli's urbanization as evidence of the initial emergence of Tripoli's public spaces.

Objective 2: To identify the dynamics that shaped public spaces in the old medina of Tripoli and which gave it its uniqueness and special characteristics

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[49] Stanley D. Brunn and others, *Cities of the World: Regional Patterns and Urban Environments* (Rowman & Littlefield, 2003).

Objective 3: To examine the connectivity of public spaces in Tripoli's core area, in each layer of time, as well as the connectivity between the three layers: Ottoman rule, the Italian colony, and post-colony

Objective 4: To develop an original methodology of investigating the visual change in public spaces. To generate a 3D model of the buildings and urban fabric from the historical photos, regenerating the historical sites, and then conducting a virtual walk along the site in different sets of time. This method transforms the researcher from an observer of the change to experiencing the change.

2.5.2 Research Questions:

1- What are the distinctive characteristics of public spaces in Tripoli? And, what role did the building of and public response to key urban artefacts and monuments play in the dynamics of public spaces over time?

2- What are the key connections between Tripoli's public spaces in the old medina, up to 2011?; between the urban fabric and the waterfront/port?; between the old medina and the Italian colonial quarter?; between the evolving urban spaces themselves?

3- How do social activities contribute to the evolution of public spaces? Which spaces are used/neglected, where they are located? And, how are they connected to the rest of the medina? What type of social activities takes place in the public spaces? These questions will be considered in each layer of time

4- How can new methods of 3D urban modelling enable a visual investigation and experiencing of the evolution of public spaces in the defined research periods?.

2.6 Research Methodology and Methods

Public spaces as a topic is diverse and thus requires the adoption of a diverse research methodology, bearing in mind the strengths and weaknesses of each.

A combination of interpretive historical research, simulation research and case study research (fig.6) is the best means of answering the research questions.
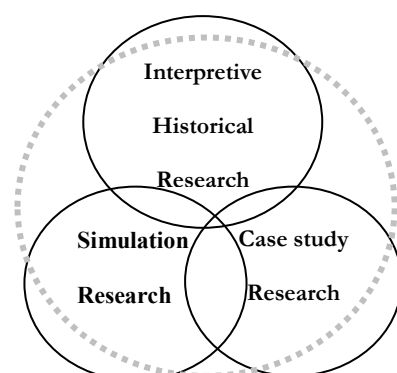
Figure 6 The research Strategy intersection of the mixed methods used in this research.

The research was a three-phase process. In order to understand the forces shaping the city, the research tackles public spaces and their dynamics in three different periods of time, namely: the Ottomans, Tripoli as an Italian colony, and post-colony. These three phases of time were each analysed using the above outlined integrated mixed method strategy. In each layer, the research first identified the most significant urban evidence, and the ways they contributed to the development of public spaces in Tripoli. Second, the research concentrated on case studies, offering an analysis of public spaces in the core medina (the intersection area of the three layers). Third, the research developed three virtual models of the spaces and a virtual walking tour.
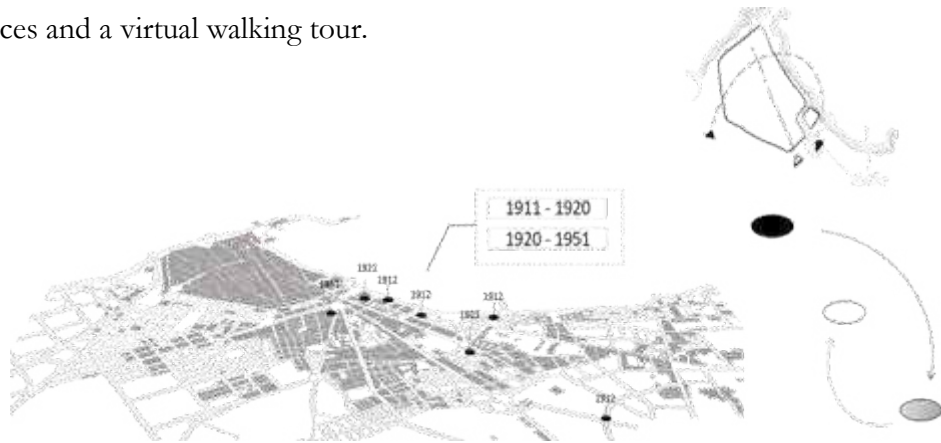
Figure 7 Chronologically investigating the urban evidence in each layer of time.
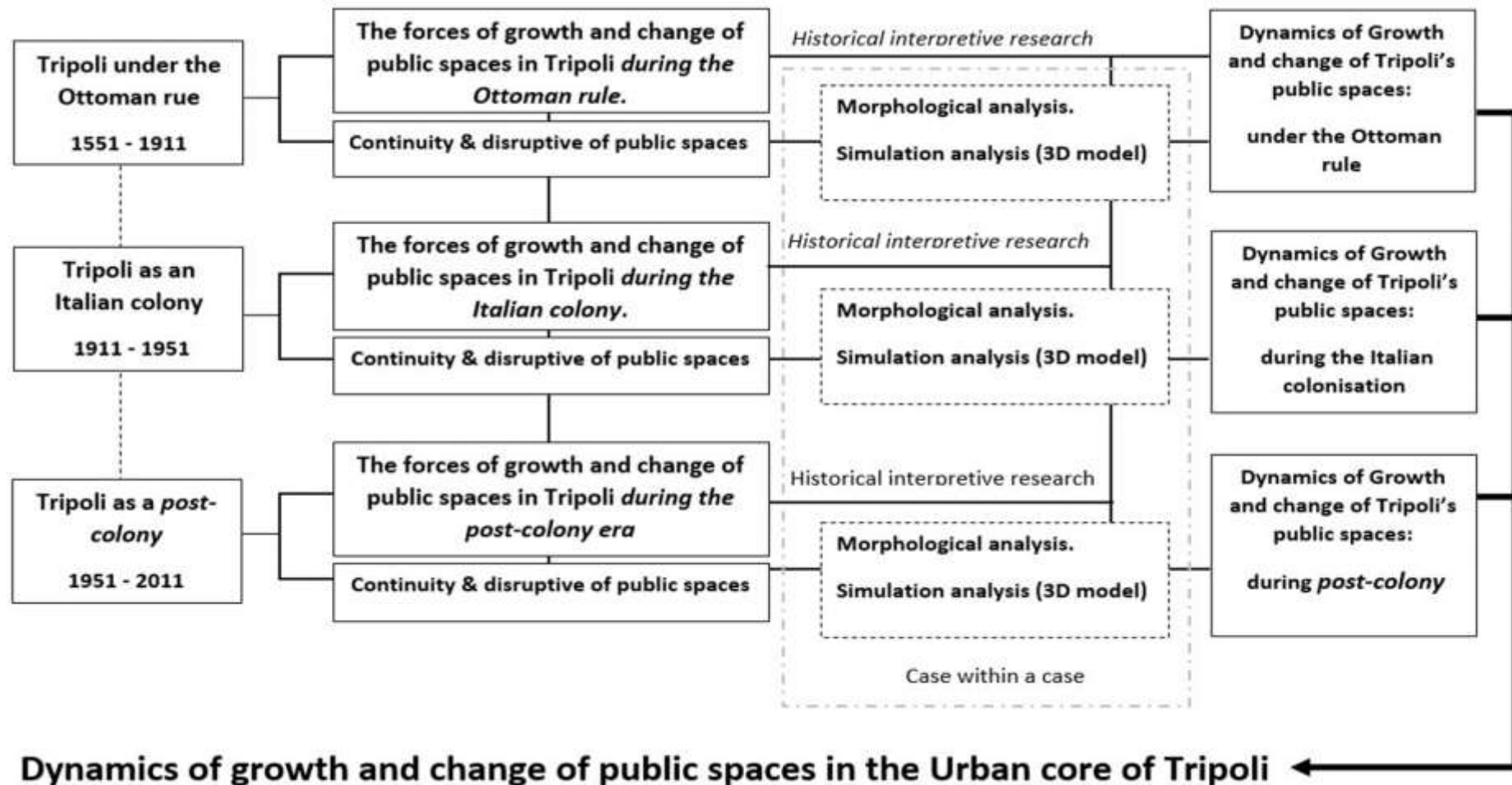
Figure 8 The three layers two stage research design. Diagram of the research aims and the methods

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Research Methods

Four methods were used in conducting this study: 1) A description and content analysis of collected archival materials concerning historical artefacts and their role in forming Tripoli's public spaces; 2) spatial mapping analysis; 3) photographic analysis; and, 4) modelling. The methods and data gathering tactics used in this research can be explained based on the main research objectives separately, as each question needs to be addressed differently.

1- What are the significant urban elements that contributed to the urban city? This question is explored using interpretive historical research

Interpreting historical archives from the Ottoman time: data gathered from secondary sources (namely accredited travellers) and documentation before and after Ottoman control over Tripoli. The sources were investigated chronologically. Some historical sources proved important to the research, as they mentioned influential elements of the city that no longer exist. Sources such as Al Abdari was the only document to mention Tripoli's Grand Mosque and Islamic school[50]; evidence of this mosque as shown in this research is mapped during the Spanish invasion. Another primary source regarding the Ottoman era is *Letters Written During a Ten Year's Residence at the Court of Tripoli*, a book published in 1816 based on 100 letters written by the sister-in-law of the British Consul in Tripoli (Miss Tully), covering Tripoli between 1783-1793. This book gives detailed descriptions of the city and its urban spaces. Secondary sources included the work of Nura Lafi, an Algerian researcher interested in investigating the urban administration's policies and reforms during the Ottoman time.

During the second layer, the colonial time, data for the analysis was gathered from maps of Tripoli developed during the Italian colony and archives. The research also depended heavily on the qualitative data captured in the photographs taken of the public spaces during the Italian colony. Photos from the Libyan Centre of Archives and Historical Studies (LCAHS), the archival collection of the Library of Al-Saraia al-Hamra Museum (ASHM) and the Central Museum of al-Saraia al-Hamra Tripoli (CMSH), and official historical libraries of the medina, as well as the private collections of some key informants in Tripoli, were chronologically sorted and geographically referenced. The first years of the colony and the wartime struggle were covered by Ms Mabel Loomis Todd during her two years in Tripoli with her husband. She detailed her observations in a book called *Tripoli the mysterious* (1912), which focused on North African culture and depicted the struggle of the city during the Italian invasion

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[50] Both demolished prior to the Ottomans.

Data concerning the third layer of the research, the post-colonial era, are traced on both maps and photograph analysis. There was a lack of reasonable explanation as to why certain changes took place during the Gaddafi regime. The main sources of data are archival data photographs, secondary sources, government documents, and recollections written in articles published after the Gaddafi regime. Data sources also included all means of documentation: published and unpublished documents, images, maps, archive, videos, memoirs or diaries, formal and informal documents.

What are the dynamics of historical public spaces in old medina Tripoli? This question focused on the physical form of public spaces in Tripoli and was approached with a morphological analysis: the formation and development of public space throughout time, the topography, surrounding built environment, infrastructures, land use and spatial organisation, the visual relationship with the overall setting and with the port, focusing on spatial patterns, connectivity, and social activities. The public spaces were analysed in terms of their accessibility and connection with waterfront and the port. Data for this analysis uses gathered from all means of documents: archival documents - Libyan, Italian and Ottoman - maps, formal and oral archives, photos.

The question of examining changes in social activities within Tripoli's public spaces requires investigating social and cultural practices and values, and social economic activities in the old medina using both historical interpretive research (archival review, oral history) and qualitative research investigating the contemporary situation (informal interviews with senior residents living in Tripoli's old city). Photographic and textual data are required in order to explore the different types of social activities taking place in public spaces, identifying vulnerable and marginal public spaces within the historical urban city.

4-To investigate visual changes, the historical photos of Tripoli from all three layers of time were gathered. Data for the Ottoman time consists mainly of photos taken either prior to the Italian invasion, or in the first years of colonisation (1911). Photos of the Italian colony provide insight into the 32 years of Italian colonisation. The Italians used photography to advertise the colony and so there is much documentation of public spaces before, during, and after Italian interventions have taken place. The researcher and other Libyan photographers provided the photographic data of the final time layer.

4- The modelling method used in this research is effective with a limited number of photos: the full structure of a building can be built using just two photos, and if it is in its urban context one photo could regenerate the structure. It is due to these factors that the modelling was possible, by using historical photos of buildings that no longer exist. The research uses

the vast photographic documentation of Tripoli's core. The researcher relied heavily of archival historical photos in four places in Tripoli namely; The Libyan Centre of Archives and Historical Studies (LCAHS); Archival collection of the Library of Al-Saraia al-Hamra Museum (ASHM), Central Museum of al-Saraia al-Hamra Tripoli (CMSH), Official historical libraries of the Medina of Tripoli, as well as private collections of some of the study's key informants in Tripoli, including public figures, and historians.

This methodology and data gathering method are the most suitable for answering the research questions. This approach addresses the dynamics of public space, taking into consideration historical, social, physical, and visual analyses of the urban space.

2.7 Limitation

Public spaces, urban spaces and historical spaces are well-established subjects in academic research. However, in the case of Tripoli, research conducted before 2011 generally displays favour towards the Gaddafi regime, either the result of fear or loyalty. Thus, resources and published research during the Gaddafi time must be viewed critically and questioned.

This thesis considers the evolution and change of public spaces as part of the city's urban context, in which the country is in its transitional face. The study considers where and how the public spaces have transformed and change in different setting of time. Thus, the research focused on the areas where these time periods intersect, to study the continuity of the change, rather than evaluating the entirety of public spaces in each layer.

The study is set to explore the changes up till the end of the Gaddafi regime 2011, as not much have physically changed in terms of public spaces in Tripoli. Even though socially the spaces became more accessible, there are no longer public restrictions, the unstable condition of the city, limited the usability of these spaces. Any analysis of the usability of public spaces before the country regained its control and become safe, could not be possible.

2.8 Future research:

Tripoli could be a suitable comparison case analysis to other similar cases in North Africa, such as Alexandria, Tunis and Tangier, all of which share a similar religion, geographical location, and colonial history (Fig.9).

a. Tripoli b. Alexandria c. Tangier d. Tunis

Figure 9 Location of case studies along the North African coast line. Source: Google earth

In future research, the developed models could be transformed into interactive models that could enable researchers to investigate and simulate other aspects of the city. It could also be developed with other modern technology such as Virtual Reality, allowing the user to experience and relive the urban changes.

Chapter Three

Dynamics of public spaces and built environment of Tripoli under the Ottomans

3.1 Introduction

This chapter outlines the research findings concerning the forces behind the historical transformations of Tripoli's public spaces under Ottoman rule, tracing the roots and origins of the primary elements[51] that contributed to this evolution. The analysis chronologically addresses the political, social, urban factors and events that shaped public spaces in Tripoli. The research is based on reasoned analysis of urban evidence, directly mapping the urban changes under the Ottomans as a starting point for the urban change in the next layer off time. This chapter is divided into two sections. Section one investigates the forces of evolution and change in Tripoli's public spaces, as well as defining the main characteristics of public spaces during Ottoman rule. Section two is a morphological analysis examining the sense of continuity in Tripoli's public spaces: physically, socially, and visually during this time.

Section one (empirical research) starts in 1551, when Tripoli had no formal documentation or mapping of its urban fabric or public spaces. However, examining the notes and descriptions of historic travellers and geographers who visited Tripoli provides, to some extent, important urban evidence of the medina's evolution. Understanding the forces behind this founding urban evidence and analysing the effect on Tripoli's public spaces (i.e.: streets, courts, gates, and markets) explains how the medina's public spaces took their form.

Section two (morphological research) examines public spaces at the end of Ottoman rule in 1911, investigating the continuity of public spaces in three different forms: physical, social, and visual. This section of the research is based on a combination of 2D map analysis and a simulation-based analysis using a 3D model developed by the researcher of the main public spaces during Ottoman times. The chapter concludes with a summary of the main forces that shaped public spaces in Tripoli during the Ottoman period, and their general characteristics, as a base for the analysis of the next chapter (Tripoli during Italian colonisation).

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[51] Urban artefact with a dominant nature, its uniqueness based on either its form or function at that time.

The urban forces of evolution and change in Tripoli's public spaces during Ottoman rule:

The medina of Tripoli has undergone various dramatic urban transformations during its long history. Founded as a port city by the Phoenicians, developed by the Romans between 146 BCE - 450 CE, invaded by Vandals during the sixth century, it fell to Arab Muslims and became an Islamic city in 645 CE. It was occupied by the Spanish in 1510 CE; forty years later it came under Turkish control and was part of the Ottoman Empire for more than 400 years before becoming an Italian colony in 1911[52]. Tripoli gained independence in 1951. During each of these transitions, Tripoli's urban form and consequently its public spaces transformed and evolved.

Although the time span for this research is set from the Ottoman involvement in Tripoli beginning in 1551, evidence of significant urban forces prior to that date could not be excluded from the research. The Ottomans entered Tripoli after most of the city had been destroyed by former Spanish troops. Apart from the medina's walls, castle, the Roman triumphal arch and a few religious buildings, the urban fabric was ruined [53]. These Roman remains, however, can be considered important urban artefacts, as they were a significant factor in the subsequent urban evolution[54]. There is much urban evidence in Tripoli from times before Ottoman rule, which conceivably had an important effect on the development of the urban fabric of Al-medina. These elements are valuable in an investigation and evaluation of the transformation of public spaces in Tripoli's medina before Ottoman time.

Based on urban evidence that is either still standing in the medina, or is mentioned in archival documents, two key transitional points in the history of Tripoli prior to the Ottomans can be identified, whose influence can still be seen in the medina today: the Roman time and the Muslim conquest. The present research started by conducting a historical interpretative research (using map analysis combined with archival data research), investigating the medina of Tripoli prior to the Ottomans: its urban forces, physical form and social activity.

The analysis will include exploring the built form of the old city and its relation to public spaces, highlighting the urban elements that drove the development of public spaces in both the Roman settlement and the later Islamic medina, i.e.: the Roman port, streets, markets and Islamic mosques and schools.

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52 Khalifa Altlesi, *The story of the city of Tripoli with Arab and foreign travellers* (Tripoli: Arab book house, 1974). [In Arabic]
53 Omar Al-Baronie, *Spaniards and the Knights of St. John in Tripoli* (Tripoli: Maggie printing press, 1952), p.67. [In Arabic]
54 Najib Al-Keep, *The City of Tripoli through the History* (Libya: Al- Dar Al-Arabia Lil-Kitab, 1978), p.27. [In Arabic]

3.2 Urban forces prior to the Ottomans:

3.2.1 Tripoli as a Roman settlement:

Tripoli, like many Islamic cities, evolved from Roman urban origins. Though research on Roman Tripoli is limited to archaeological studies, descriptions of the medina's Roman features can be found in the wider research context – (the Roman Libya)[55]. Other cities within the Roman Empire with similar origins have been widely researched in literature. The best example of this is the work of J. Sauvaget[56] from 1941. He summarised the Roman influence on the city Demas (Damascus) and its later Islamic form. In his research he states that the Roman urban elements influenced and shaped the city in two ways: internally and externally. External forces include the basic Roman plan, the Roman walls, the gates, the temple, and how they were maintained after the Muslim Conquest. Internally, Sauvaget considers the effect of the Roman street network and the grid plan that was developed into zigzagged streets with dead ends and blind alleys. The existence of the Roman urban form in Damascus guided the later Islamic form; this happened similarly in Tripoli prior to the Ottomans.

Thus, analysing the main morphological component of the Roman remains underlying the medina can be used to partly explain the perception of the medina's public spaces and how they evolved. Tripoli was strongly positioned in comparison to other Roman cities in Libya due to its location beside a natural port. Together with two other Roman settlements, Sabratha and Leptis Magna, Tripoli formed the region of Tripolitania[57]. The surviving Roman remains in the other two cities could be an indication of the sophisticated urban development of Roman Tripoli.
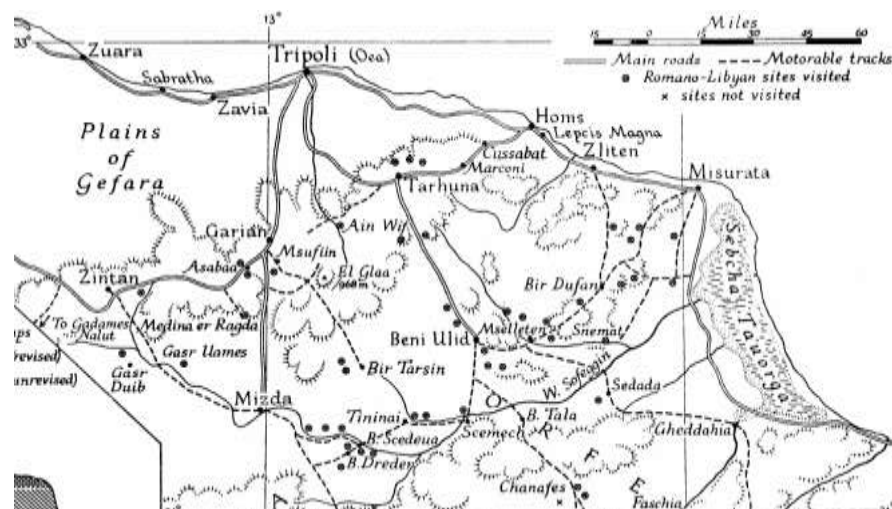
Figure 10 Roman sites in Tripolitania. Tripoli was known as Oea. Source: Goodchils 1950.

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[55] Due to the occupation of Tripoli throughout history, the Roman buildings were either demolished or neglected to a bad state, so most of the Roman studies were concentrated on the other two cities of Tripolitania region.

[56] Somaiyeh Falahat, Re-imaging the city: a new conceptualisation of the urban logic of the Islamic city (Wiesbaden: Springer Vieweg, 2014)

[57] R. G. Goodchild, 'Roman Tripolitania: Reconnaissance in the desert frontier zone', *Geographical Journal*, 115 (1950), 161-171.

1. Entrance to excavations
2. Byzantine gate
3. South Forum Temple
4. Antonine Temple
5. Temple of Liber Pater
6. Capitolium
7. Temple of Serapis
8. Curia
9. Basilica of Justinian
10. Seaward Baths
11. Temple of Hercules
12 & 13. Christian Basilicas
14. Baths of Oceanus
15. Peristyle house
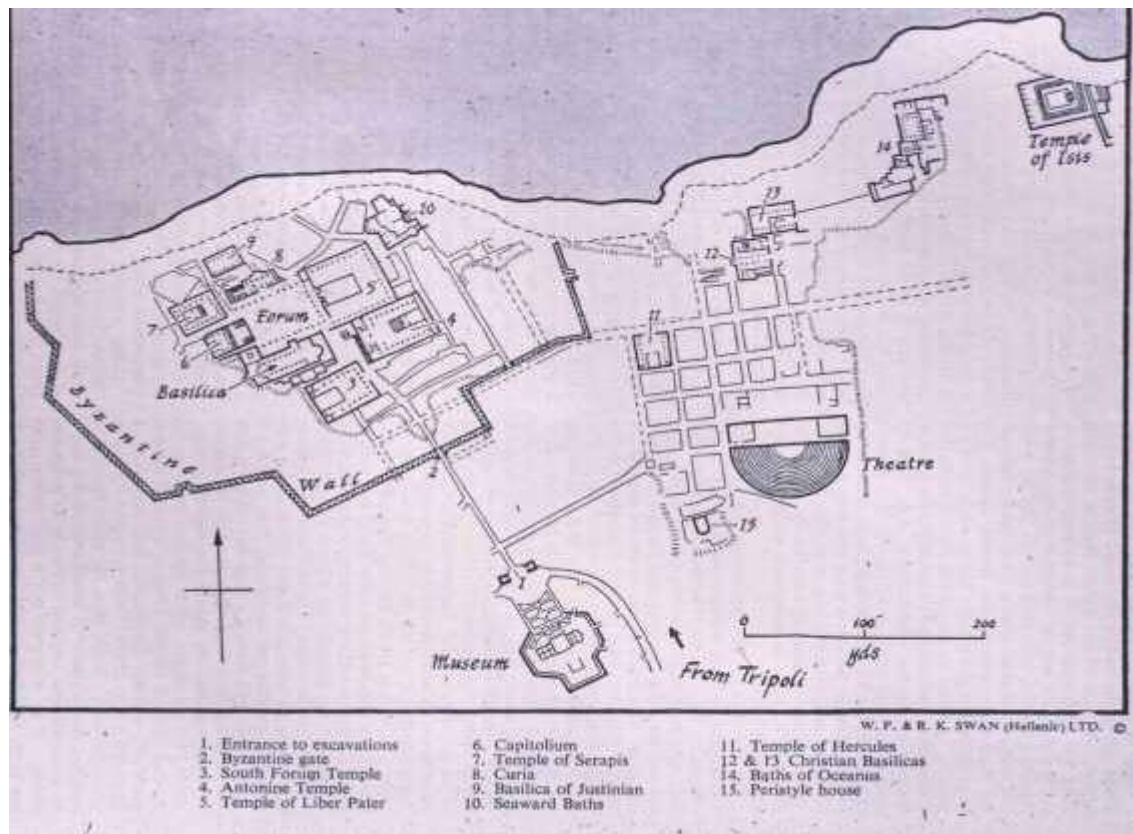
Figure 11 Roman city of Sabratha[58]. Source: Raymond Schoder, Collection.

The setting of the Roman site in Tripoli is not easily defined. The only Roman remains in the city today are the arch and a few archaeological from the Roman wall surrounding the Roman city[59]. In addition to the unsettled history, corruption and neglect, early archaeological attempts to document Roman Tripoli were rejected by the Ottomans, as noted by the sister-in-law of the late Richard Tully, the Britannic Majesty's Council in the court of Tripoli, Miss Tully. In her book *Letters Written During 10 Years Of Residence In Tripoli*, she writes:

> Europeans are often tempted to bring these antiquities to light: and they might doubtless make
> great and useful discoveries, but the Moors [locals] and jealous Turks will not permit them to
> disturb a stone, or move a grain of sand on such an account; and repeated messages have been
> sent from the castle on these occasions to warn Christians of their danger.[60]

The absence of pre-Italian studies on the Roman sites in Tripoli was also confirmed in the writings of the British archaeologist who led the Department of Antiquity of Cyrenaica 1953-

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1966; Richard Goodchild: "The existing cartography of [Roman] Tripolitania is based almost entirely on Italian work"[61].

It was not until the early years of the Italian colonial period, when Italian archaeologists, headed by Federico Halbherr, arrived in Libya in 1910 and led the first scientific explorations in Tripolitania[62], that was light shed on the existence of the Roman urbanity in the medina Oea, as it was known during the Romans, as described below:

> Mosaics and foundations have been found between Bab-el-Gedid and the sea and also in the neighbourhood of the former Spanish Fort which stood on the harbour mole; a Phoenician cemetery of the Roman period has been excavated at the Forte della Vite; and there are remains of what may have been a private house under the new Cassa di Risparmio on the waterfront north of the Castello. Under the Castle itself, the construction of the docks tunnel brought to light a network of heavy concrete foundations, some platforms of sandstone blocks, remains of mosaic pavements and a few large cipolin marble columns; all of which suggest that a large public building stood on this spot[63].

However, archaeologists have not been able to give a full picture of what the city was like, due to its poor condition. Alongside the archaeological discoveries, more can be said about the Roman influence on Tripoli's urban fabric through interpretation of historical maps and cartographies, and through analysis of five important Roman features in Tripoli: The Roman port, the walls, gates, arch and street network. This research will consider the outcome of these primary urban elements and their relation to the later urban developments in the medina.

3.2.1.1 The Roman Port:

The Roman port, known today as the medina old port, was closely connected to the formation of Roman Tripoli's urban fabric. It can be clearly seen that the port played an important role in driving the orientation of the city's urban fabric and the public spaces within it[64]. As aforementioned, during Roman times the city was an urban settlement with trade activities that relied mainly on the usability of the port[65]. The fact that the Roman walls surrounded the medina from all sides toward the land but opened directly on the port indicates the strong physical, social and visual connection between the port area and the Roman settlement. By picturing the area inside the medina walls as an empty space in a room, the port was the main *door* to that room, the main non-physical gate to the spaces in the city

[61] Goodchild, p.162.
[62] Galaty Michael L and Watkinson Charles, *Archaeology under Dictatorship* (New York: Springer, 2004)
[63] D.E.L. Haynes, *Ancient Tripolitania* (Nabu Press, 1953). p.80
[64] Ali Andishe, The political and economic history of the three cities (Tripoli: Dar Al Jamahiriya, 1993)
   Jon Wright, *History of Libya since ancient time* (C Hurst & Co Publishers Ltd, 2012)
[65] D J Mattingly, *Tripolitania* (London: Routledge, 2003)

(fig.12). The port formed the main drive for the orientation and spatial organisation of the public spaces in the medina.
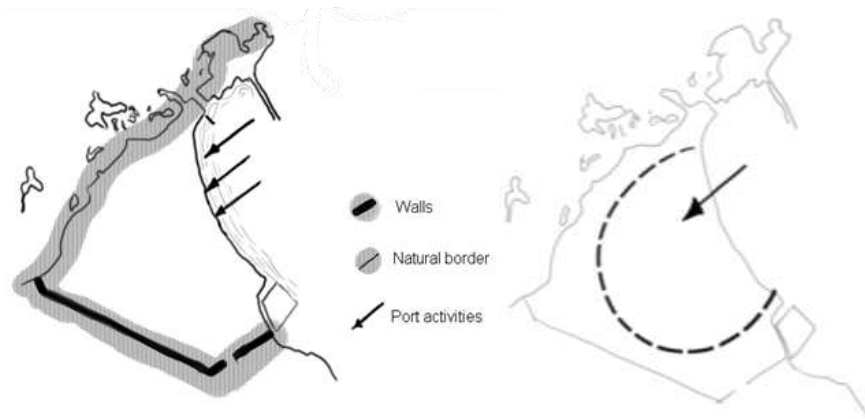
Figure 12 The Roman port and the Roman settlement

Tripoli as part of the Tripolitania was a fertile region that exported olive oil, gold and slaves imported from the Sahara. The port was busy, with trader's daily activities, unloading and transporting good to the city. Tripoli relayed on caravans as a way to gather/transport goods from/to South Africa cities (fig.13), the sound, the movements, even the smell are shared and transferred openly through public spaces. All the port activities were under the sight of public spaces users. All of which implies the importance of the Roman port as an urban element in people's daily life.[66]
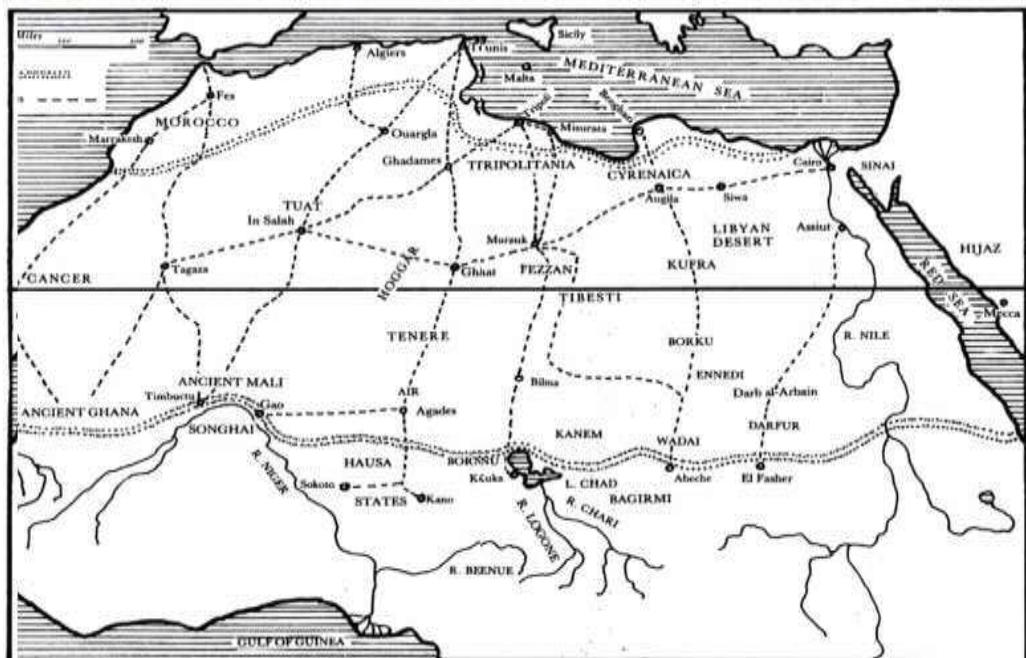
Figure 13 Roman trade routes of Northern Africa. Source: Wright 1989.

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[66] Olwen Brogan, 'The Camel in Roman Tripolitania'. *Papers of the British School at Rome.* 22 (1954). 126-13.

3.2.1.2 The Roman walls & gates:

Tripoli's Roman walls contained and defined the inner space of the settlement. The Roman walls were unique to the North African cities as they surrounded the settlement from the land only, leaving the city exposed directly to the harbour, physically and visually (fig.14).

Based on the map, the city had two boundaries, first the water edge (the North and the East side), and the land (the South and West side), but historical texts mention another natural boundary, a saline soil on the side of the Roman walls limiting the size of the city[67].
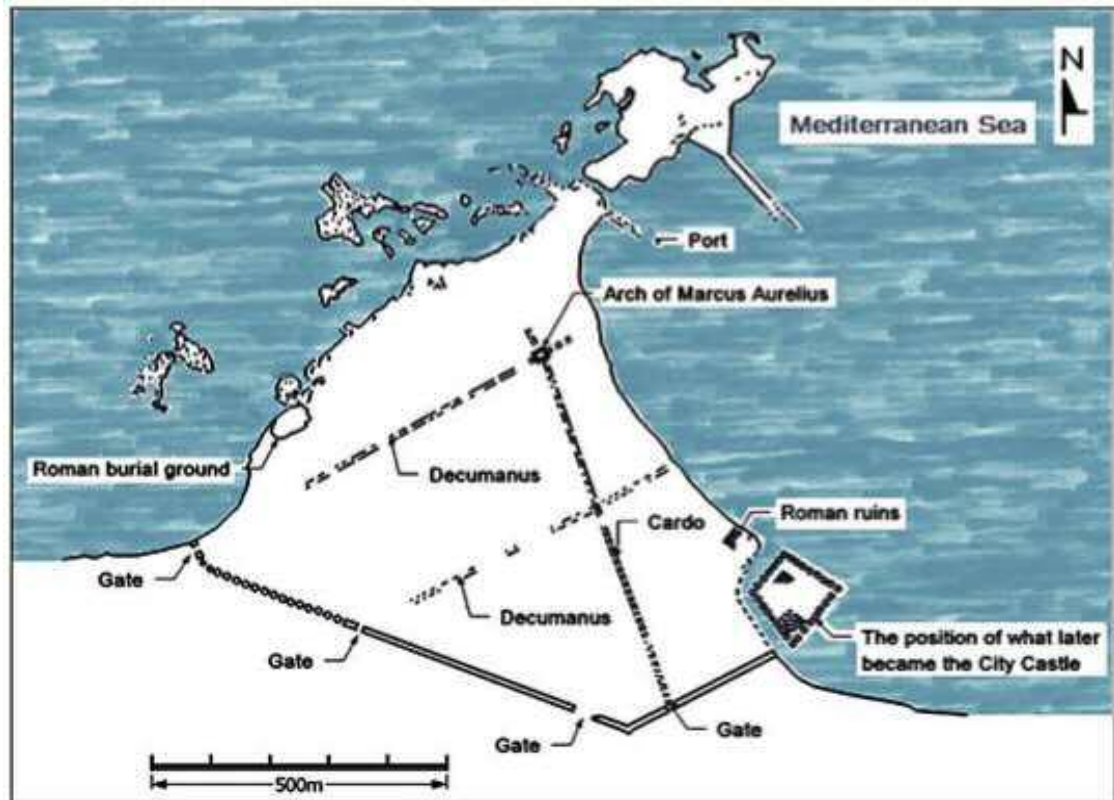
Figure 14 Map of Roman Tripoli the layout and origins of the city during Roman times, ca.160s CE. Source. Modified from the description of Amoura, 1993:67

Despite the paucity of evidence, it can be said that Roman Tripoli, with its walls embracing the sea, must have had a balance of security and openness. The fact that the Roman settlement functioned as a trade centre importing and exporting goods by both land and sea, indicates the security of the waterside, a safety that influenced the development of public spaces in the city. Furthermore, as a North African city where the weather is generally hot, public space in Tripoli benefited from the wall opening toward the sea as this encouraged the summer breeze to cross the city and cool the heat of summer sun, making these spaces more pleasant to use. The openness towards the waterside also extended the city's public

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[67] Abu- Obeida Al Bakri, *Al-Masālik wa'l-Mamālik* (Dar Al Arabiya lelKitab, 1992).

spaces visually to include the wide sea space; all straight streets ended with an open vista of the sea.
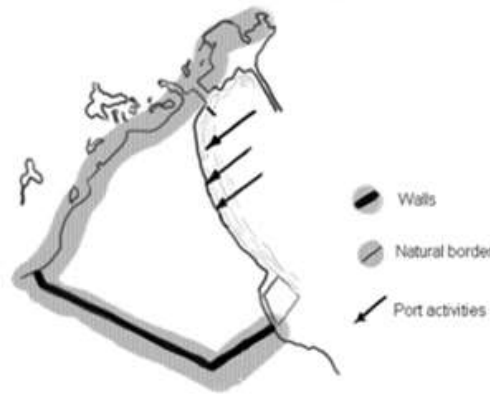
The Romans walls surrounded the city from the land side and the sea formed a natural boundary to the city. The main entrance to the city was from the sea side, the port area.

Figure 15 The Roman walls and Tripoli's natural borders during the Romans time.

Tripoli as a Roman city appears on maps to have had only four gates; none of which, however, formed a main entrance to the city. The gates controlled the flow of travellers to/from the other two Roman cities in the Tripolitania region, yet - due to the remote distance - these gates were less active than the port area. The main activity of the city occurred on the waterside: Tripoli, along with the other two Roman cities in the region, became a major reception centre for goods (i.e.: pottery, ceramics, glass, marble, weapons, textiles, and wool) in Central Africa. Exports were sent to Rome and some Mediterranean ports[68]. The gates had less effect on the development public spaces - they acted as the city's back doors.

3.2.1.3 The Roman Arch:

The third key element of the Roman urban fabric still stands in the medina today: the Marcus Aurelius arch (121-180 CE), a triumphal arch built by Septimius Severus[69] to honour the Roman Emperor. The arch was meant as a memorial gift to the emperor of Rome Marcus Aurelius[70], The significance of this arch as an urban element to this research can be summarised considering two main factors: the physical factors ;its location, approach, entry, path configuration, access, developing a sequence of spaces and its view, and social factors ;iconic element for local identity and pride.

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[68] Hassun Abu Madina, *The Geography of Tarabulus Al Gharb Port* (Misrata: Dar Mkatabat Alshab, 2005) [In Arabic]
[69] Anthony Birley, *Septimius Severus: The African Emperor* (London: Routledge, 2002)
Septimius Severus was born in 145 in Tripolitania and later became the Emperor.
[70] Ibid,. p.82.
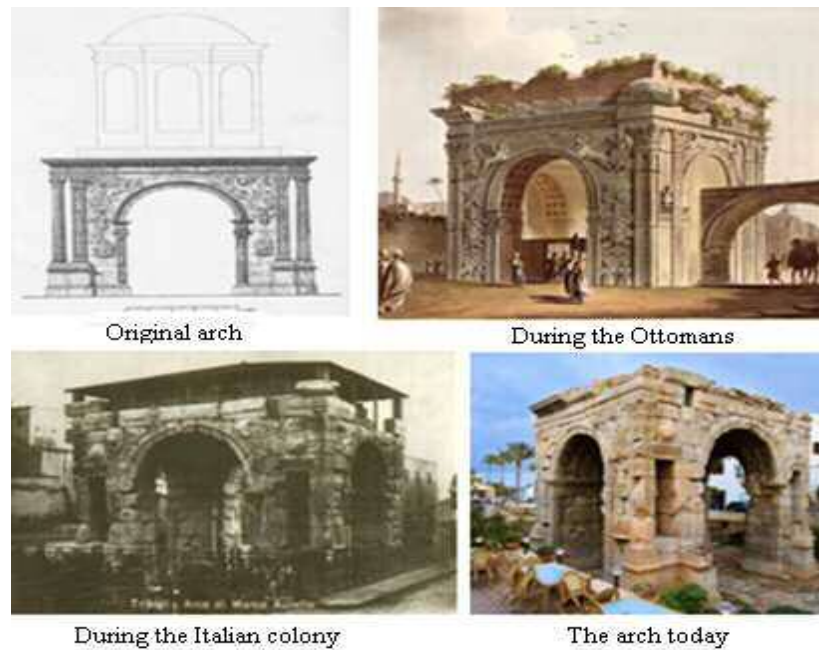
Figure 16 The Roman arch in Tripoli in different layers of time.

The significance of this arch as an urban element to this research can be summarised considering two main factors: the physical factors (its location, approach, entry, path configuration, access, developing a sequence of spaces and its view), and social factors (iconic element for local identity and pride).

Therefore, the place chosen for such a monument would have likely been important. The chosen location would have been physically and symbolically significant: a place that is easily accessed/approached and visually seen by both locals and visitors, from in and out of the city (Fig.17). Positioning the arch close to the Roman port, facing the sea, not only emphasised the importance of the port area as an entrance space, it also formed the centre for a main public space in the Roman city [Arch Space].

The location of the Roman arch reinforces the idea that the port was the main entrance to the Roman city.

Figure 17 Location of the Roman arch and its relation to the old port.

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[71] Haynes,1953. p.80

Bearing in mind the Roman arch was built in 163 A.D. (the later years of Roman Tripoli), the intersection of the two main paths connecting the port space to the city gates already existed. This could explain why the arch did not align perpendicularly with the paths, as shown in (fig.18).
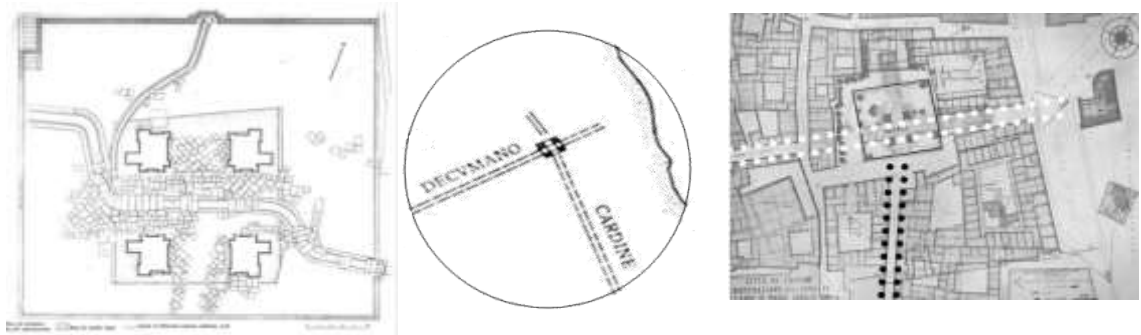
Figure 18 Ground Plan of Tripoli's Roman arch. Figure 19 The Roman arch and the intersection of two Roman paths. Source: Department of archaeology, Tripoli, Libya

However, even though the arch didn't form the intersection between cardo axis and the main decumanus axis (as shown), it did reinforce their importance. The arch upgraded the intersection by transforming the space from being a node developed by the intersection of two paths, to a landmark, giving the space iconic value (fig.20). The arch also added to the sequence of spaces in the Roman city, directing the flow of movement from the port space through the arch space and to either of the gate spaces[72]. The movement through these spaces not only improved the functioning and activities within the spaces but also added a visual continuity to the Roman paths (fig.20).

There is a strong correlation between the port space, the arch spaces and the city gates.

The two Roman streets connecting these spaces together were the main paths in the city.
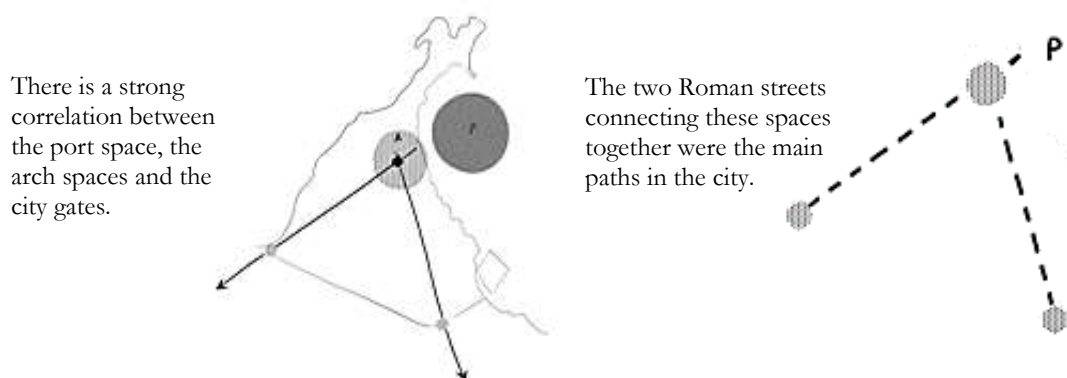
Figure 20 The Roman arch relation to the port and the Roman gates.

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[72] Spaces that are outside the two Roman gates.

Evidence of these paths is found in Ms Tully's description of the city hundreds of years later, in 1819:

> The town stands on a foundation of rock. Here and there are a few remains of pavement, some of which are very ancient, and appear evidently to be Roman[73].

> Here is one of the famous Roman highways, leading from this place to Tunis: it is called by the Moors [the Arab Libyan] the great western road. For some miles from Tripoli it has undergone no change whatever but remains in the same state as the Romans left it. It is extremely broad and smooth, and there are still existing remains of houses the work of former ages, many of them built of stone by the Romans.[74]

The contrast of the arch size and form with its surroundings made it visibly notable from a considerable distance. Even with the absence of the wall on the seaside, the arch visually acted as an indicator of the city's main entrance. Furthermore, the span of the arch is wider on the road leading to the port, indicating the important role of sea access to the city[75].

Socially, the arch of Marcus Aurelius became and still is a landmark in Tripoli. The arch was an iconic urban element; it was respected and protected by locals. During the Islamic conquest - except removing some details i.e. the faces of the men on the sides of the arch - the arch was preserved in its full form. The prominence of the arch in the mind of the people protected it from several attempts of destruction and reuse of its stones in constructing other buildings during the later Ottoman Empire[76].

Evidence of the arch's physical form was found in detailed descriptions of the arch in different historical texts, but the researcher was not able to find any clear indication of how the space around the arch was used socially, and if there were any social activities in, around or even related to the space during the Islamic conquest. The arch today has lost parts of its structure due to absorption into the Ottoman urban fabric, however description of its full form is found in traveller documented visits to Tripoli throughout history. It was described in detail by Al- Abdarī [77] during his travel to Tripoli in 1289 as:

> A stone building that goes back to the Roman time, with a high dome on top of another dome, the lower dome had a locked door with pictures of a lion on each side of the entrance, the lions were held back by a man.

> Except for its sandstone foundations and a cement filling round the outside of the dome, it is built throughout of white Greek marble, an extravagance which distinguishes it at once as a

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[73] Tully, 1819. p11.
[74] Tully, 1819.p232.
[75] Salma K. Jayyusi and others, *The City in the Islamic World, Vol 94/1* (Leiden : BRILL, 2008)
[76] Altlesi, 1974. p.100.
[77] Mohammed Al-Abdarī, *Al Rihla Al Magharibia* (Algeria: Al Ma'arif Press, 1999) [In Arabic]

monument of more than ordinary pretensions. In form, it is a Janus or four-sided arch of rectangular plan and stood over a cross-road, part of the original paving of which has survived. A niche for statuary and a free-standing column stood to each side of the arches on the two longer elevations (east and west) which presumably faced on to the more important street[78].

Through the research, the Ottomans, although they cannot be accused of deliberately neglecting the arch, viewed the arch as an earlier monument of no physical or symbolic significance - they simply appropriated it for functional purposes by converting it into storage, a construction dump, and eventually, under the late Ottoman rule, a shop (fig.21). Through these actions the Ottomans did not only distort the arch, they also neglected and undermined the public spaces surrounding it. The arch was built as a freestanding monument for people walk through and around: the Ottoman intervention affected the space both visually and physically, by merging the arch with the urban fabric, as will be shown in a later section of this chapter.

The integration of the Roman arch in the Ottomans urban fabric transformed the Roman arch from a free-standing monument in its own spaces to a privet structure used as for different purposes. This transformation not just affected the arch spaces, it also affected its connection with the other spaces in the medina specifically the port and the medina main gates.

Figure 21 Photos of the Roman arch uses during the Ottomans. Source: Libyan Centre for Archives and Historical Studies.

The arch formed an urban artefact, a persistent element in the constantly shifting composition of the city. The arch stands today on the North side of the medina next to the historical port. As will be shown in this research, the arch and the space around it have transformed dramatically over time. The arch was neglected by the Ottomans, fully exposed and restored during Italian colonisation, and later undermined by post-colonial planning and urban decisions. The arch space is today an isolated space that is hard to access, with no direct social or visual connection to the port area or any other public spaces in the medina.[79]

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[78] Haynes, 1953. p.81.
[79] In the researcher's personal experience, people live and work in Tripoli (close to the arch area) for years and have no idea that such arch exists.

Figure 22 The Roman arch in Tripoli today. Source: the researcher's photo (July 2015)

In summary, the medina in Roman times developed a strong urban identity in which public spaces were defined as safe with a strong visual presence. Through an analysis of the Roman elements that are either still standing in the medina today or are evidenced in historical texts, it is evident that there was a relationship between the five elements of the city. The Roman arch (landmark), the city gates (nodes) and the Roman port (natural edge), the street grid (paths), can explain the city's clear form[80]. Even though the urban fabric of the city was mostly destroyed by the Vandals during the 5th century (fig.23), the vision and primary elements of the Roman spatial system have influenced the redevelopment of the urban fabric in later years.

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[80] Lynch, 1960.

Figure 23 One of the earliest obtainable plans of Tripoli. (567).
Source: Furlani, Paolo, cited in Paulus Swaen. Swaen.com/antique-map-of.php? id=2690

3.2.2 Tripoli during the Islamic Conquest (645 – 1510 AD)

The Islamic conquest spread over most of the coastal lands of North Africa. Tripoli entered a new era by accepting Islam as a religion. Since the commander Amr ibn-al- Aas entered Tripoli in 643 AD it has been an Islamic city. However, for the interest of this research the term Early Islamic Tripoli is used to describe Tripoli in its first 500 years of Islam (645-1510AD), to distinguish it from the later Islamic period (Ottoman years). It is necessary to make this distinction as the urban fabric built during the early years was largely destroyed by the Vandals, prior to the Ottomans, and therefore the later Islamic fabric of Tripoli is largely Ottoman-related.

Tripoli's urban form - as many other North African cities - transformed in order to contain and spread this new religion. The general changes that Islam introduced to urban cities are widely researched in English sources. In the case of early Islamic Tripoli, the main Islamic urban elements influencing the development of public spaces which this research will focus on are: The Grand Mosque, the Islamic school, the changes to the Roman walls/gates, the markets and baths. Even with the lack of detailed maps depicting this stage of time, a lot can be revealed regarding how these urban elements affected the development and transformation of public spaces through examining their approach and entry, path configuration, access, and how the sequence of spaces was developed. The following section focuses on these five urban elements during early Islamic Tripoli.

3.2.2.1 Tripoli's Grand Mosque and Islamic school

Public spaces in Muslim cities are closely related to religious places. In the Muslim urban model, each city has at least one main mosque named The Grand Mosque or what is known in the literature as The Friday Mosque. This is a place for weekly gatherings in the medina, a place people go to do the Friday prayer[81]. Attached to the Grand Mosque is a place to teach the Quran and the Islamic belief called madrassa an Islamic school, attracting people of different ages (starting as early as three years old). Much attention was given to the architecture and planning of these Islamic buildings in North Africa. Various famous examples still exist today: (the great mosque of Kairouan in Tunis 670 CE, El-Mursi Abul Abbas Mosque in Alexandria 1307CE, Grand Mosque of Tangier in Morocco 1095CE.

Most of these historical mosques are not just designed for Islamic practice only; they also serve as a main public space in the city. Apart from praying they are also a place for every day socialising, religious/social celebrations, and during wars they act as a rallying point. Thus, they would be in locations accessible by all - both physically and visually. Throughout history they developed into iconic urban elements of the medina, promoting a sequence of public spaces in and around them in what later became the medina core; Tripoli was no exception.

There are traces of Tripoli's Grand Mosque evidenced in the documentation of travellers and cartographies drawn by Spanish troops in 1510 that support that early Islamic Tripoli fits this model. Tripoli's Grand Mosque was a fine construction located at the core of the city, close to the harbour and the Roman arch, as described by the celebrated Moroccan scholar Al-Abdari [82] in his book *Al-Rihla Al-Maghribiya* [in Arabic] documenting his travel across North Africa in 1309, as following:

> In the city, there is a grand mosque. The mosque is fascinating and the school is a building
> that I have never seen like in all the Maghreb[83].

Further historical evidence of the Grand Mosque in Tripoli is provided by the map drawn by the Spanish in 1510 CE (fig.24). This map depicts that the Grand Mosque is located close to the Roman arch and next to the port. The location of the Grand Mosque is another indicator that the area next to the historical port and the Roman arch could have developed into an urban centre for the medina. Both the Grand Mosque and the Islamic School were demolished prior to the Ottomans gaining control over Tripoli, along with most of the other

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[81] The Friday prayer in Islam is more rewarded as a prayer in congregation.
[82] Al-Abdari,1999. p.13.
[83] Translated by the researcher [In Arabic].

Mosques of this period. The Grand Mosque was not replaced during the later years, meaning Tripoli lost the Islamic urban elements that influenced and drove the public spaces in the medina prior to the Ottomans control.
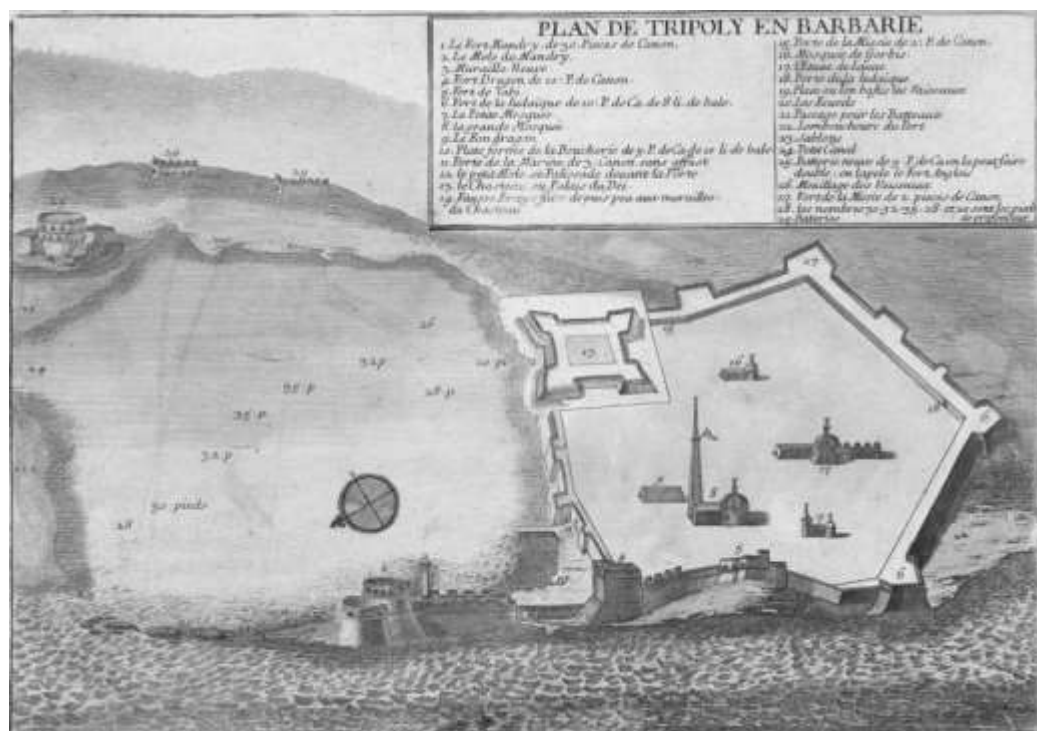
The only evidence of Tripoli's Grand mosque number 8 on the map. It shows its location, its size and its design. Along with the other urban elements of the medina: the Islamic school number 17 on the map, the castle, the walls, the port as the main entrance to the city.

Figure 24 Plan of Tripoli Barbarie. De Fer, Nicolas, 1646-1720.

Special Collections and Archives, DePaul University Library; Chicago, IL, USA 60614. At: http://library.depaul.edu/Collections. At https://dpuspecialcollections.omeka.net/exhibits/show/mediterranean/item/201

Beside the Grand Mosque, there were other small mosques in Tripoli that influenced the evolution of the medina. These mosques were built during the early Islamic era and rebuilt over and over in later years. The Amr bin –al-Aas mosque, the first to be built inside the medina walls, although described as a small and humble mosque, was built in a significant location. It was located south east of the city next to the main gate by which the Muslims entered the medina, along with other later historical mosques. This concentration of early mosques, in the south east of the medina far from the sea, explains the later evolution of this area into what is known today as the Muslim quarter (whereas the other two are known as the Jewish and the Christian quarters).

3.2.2.2 The city walls and gates

Reshaping the medina Roman walls during the early Islamic period affected the public spaces in the city. The Roman walls (as in Alexandria) were knocked down by Amr bin –al-Aas in 644 AC and rebuilt again in later years. Due to the rise of pirate activity, the fourth side was added, enclosing the medina on the harbour side. This was followed by another inner wall named Al Sitar [in Arabic] (the curtain wall)[84], a shorter inner wall running around the inside of the earlier walls, set at a distance from the main walls and thus making a path between the old Roman walls and the curtain wall[85]. Reshaping the walls during the Islamic Conquest affected the medina both physically and visually. The development of the fourth side of the wall physically separated the urban fabric from the port, created an inside/outside space and limited the access to the port area. Furthermore, it developed a new gate, a one entry point to the city, a space named in this research as the entrance space (fig.25).

Analysis of the special information given in the historical texts. The medina walls, the arch, the curtain walls, the port and the main entrance.
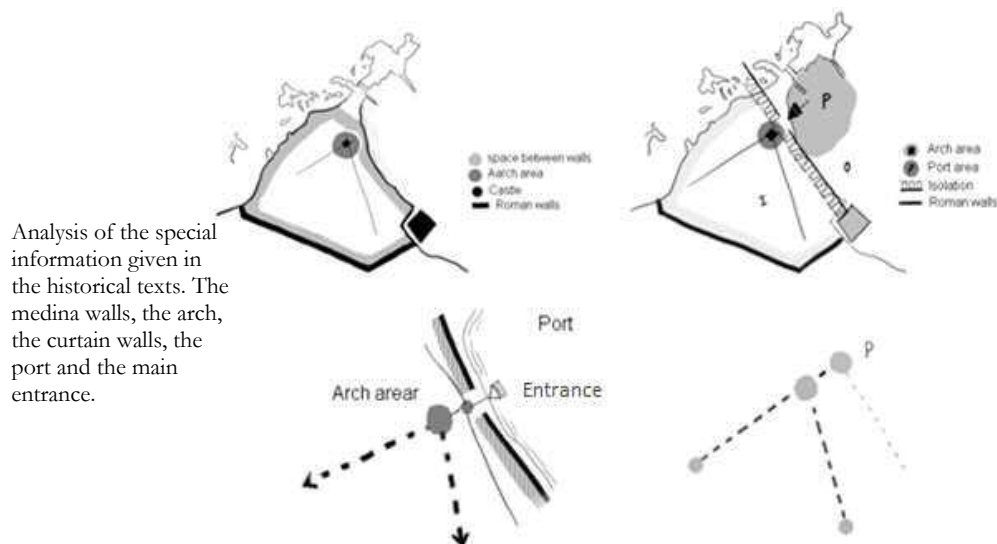
Figure 25 The change in the city public spaces after building the fourth side of the walls.

3.2.2.3 The Medina Markets.

Despite unrest in the early years before the Islamic era, the medina was well known for its history of trade activities, mainly by sea. These activities developed a strong correlation between the port, the markets and the medina entrance. Descriptions of the medina markets documented by different travellers unanimously agreed that the medina's main markets first developed outside the city walls in the area between the port and the medina walls (fig.26). The oldest description is offered by Ibn Hawqal during the 10th century in his book *The Face*

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[84] Abu Mohammed Al-Tijani, *Rehlat Al-Tijani* (Al-Dar Al-Arabiya Ll-ketab, 1981) [In Arabic]
Description of the medina's curtain walls found in the accounts of Abu Muhammed Al-Tijani in his travel (Rihlaht Al-Tijani) documentations in 1306.
-Curtain wall: a wall built to reinforce the existing Roman wall.
[85] Al-Tijani, 1981.

of the World, he described Tripoli's markets as huge, wide, diverse, and well developed[86]. Furthermore, other travellers added a water well and a small mosque outside the medina walls (next to the port).

> A white city made of white stones on the edge of the sea, its land is good for agriculture, fine markets, huge in size located outside the medina walls that the governor (Sultan) transferred some of these markets inside the city walls, the city have fruits that cannot be seen in other places in other Maghreb cities.[87]

> Different cloths, wool fabrics, and other food and trade goods that enter and export the city by sea from and to the Roman and other Maghreb lands. [88]
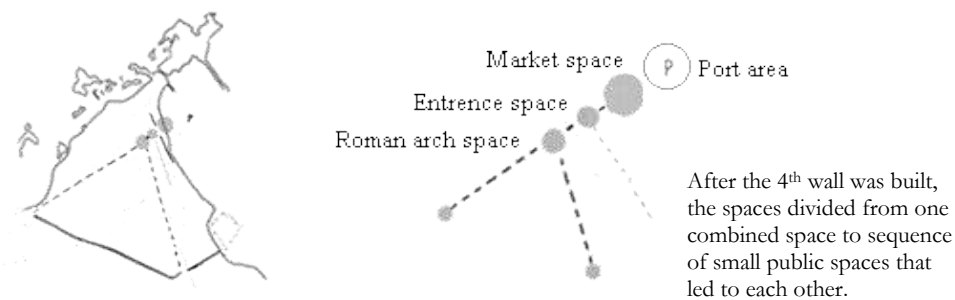
Figure 26 The market space in the area between the port and the Roman arch.

3.2.2.4 The Streets and Baths

As discussed in the previous section, Tripoli maintained the Roman grid system characterised by wide, straight streets, even after Islamic intervention. Al Tijani described the city streets in his documented travel in 1306 CE as:

> The city streets are amazingly clean, wide and straight, crossing the city vertically and horizontally, from the beginning of the city till the end just like (chess board), the streets so wide that (Al-Rkh) can easily pass through.[89]

Travellers during the Islamic time also mentioned the existence of public baths. The idea of building public baths in the medina was not an Islamic intervention; the baths were part of

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[86] Muhammed Ibn Hawqal, *The face of the world* (Beirut:Dar Sader, 1928) [In Arabic]
"A white city made of white stones on the edge of the sea, its land is good for agriculture, fine markets, huge in size located outside the medina walls that the governor (Sultan) transferred some of these markets inside the city walls, the city have fruits that cannot be seen in other places in other Maghreb cities" [In Arabic]. p.56.
"Different cloths, wool fabrics, and other food and trade goods that enter and export the city by sea from and to the Roman and other Maghreb lands" [In Arabic]. p.57.
[87] Ibid,. p.56.
[88] Ibid,. p.57.
[89] An imaginary bird known among Arabs for its huge size.

the former Roman city. However, their function changed. As mentioned by Al Tijani in 1306 CE, Tripoli had three baths, one named *The City Bath* due to its location.

> The city bath (Al hamam) is located next to the castle (Al-kasba), it has a small court but its architecture was amazing. It was part of the castle until it was sold. Today it used for mosques purpose.
>
> Even though the city has two other baths but they are not as fine as the first one[90].

Dr. Magda Sibley, an expert on the subject of Hammames in North Africa have studied Tripoli's Hammams and referred to location of the Roman baths:

> The organisation of the arteries inside the medina was basically planned on the Roman grid. Hence the hammāms of the medina were also located on these main arteries, as was also the case of the Hadrianic baths built by the Romans in Leptis Magna, few kilometres East of Tripoli[91].

The usability of the existing Roman baths for prayer preparation developed a physical connection between them and the mosques in Tripoli, whether or not they were located in the same place[92].

> The public bath plays an important role in the social activities of the Muslim community. It is the venue for a number washing rituals and the conduct of major ablutions before prayers. It is also a meeting space for interaction of various social groups, which regularly visit the hammām[93].

In later years this concept evolved to combine public baths and mosques in a form of an Islamic complex in Tripoli during the Ottomans, i.e. Darghut and Qarahmanli's complexes.

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[90] Al Tijani, 1981. p.68.
[91] Magda Sibley and Iain Jackson, 'The architecture of Islamic public baths of North Africa and the Middle East: an analysis of their internal spatial configurations'. *ARQ: Architectural Research Quarterly*, 16 (2012). 155-170
[92].Ibid,. p.94.
[93] Ibid,. p100.

3.2.3 Summary of the medina pre Ottoman

Time/ Year	City function	Population	Urban evidence (urban elements)	City Urban Form
Foundation	- Originally built as a Phoenician settlement	Small settlement	- Natural harbour - Availability of agricultural land*	Nothing remaining from the original Phoenician city.
Roman city	- Trade centre; from/to Europe and north Africa	Increase in the urban population reaching 30,000	- Marcus Aurelius Arch - Ruins of: Phoenician cemetery / private houses/ docks tunnel under the castle - Roman baths - Roman walls - Roman Port	-The city had two entry points from the land and was open to the harbour. - The streets are wide and straight with grid system - The intersection of the main two roads is defined by the Roman Arch.
Vandal	- The city transformed to a Fort. - Trade activity has declined rapidly.	Population decline from 30,000 to 7000	- Churches built - City walls reinforced - Castle maintained - Reinforcing the city defences and building new towers.	- Neglected city -Scattered churches - Public buildings have been turned to fortified residence - The city turned to a fort.
The late Islamic years	- Islamic urban settlement - An active trade centre	- Increase in Tripoli population.	-Masjid Amr Ebn Alaass. The first city mosque. - Islamic school (Madrassa) -The city's Grand Mosque. - Baths - City walls; demolished and rebuilt	- The city is double walled - Streets are wide and linear crossing the city from North to South, South and West. - Main building with courts - Open spaces used as markets inside as well as outside the city walls.

Time/ Year	City function	Population	Urban evidence (urban elements)	City Urban Form
			- Water supply inside and outside the city walls - Open markets outside the city's wall. - Water supply inside the city but people rejected to drink from, and another that is outside the city.	- City has three Mosques; one which was (The Grand Mosque). - There are three baths
Late Islamic years	- Military base - Decline in the trade activities.	Dramatic decline in population due; - People fleeing the city - Sold as slaves - Died in the war.	- Parts of the walls have been turned down to use stone reinforce the castles defiance. - Two towers added on both sides of the castle	- City destroyed during the fight. - The urban fabric was damaged and neglected.
Ottoman 1551	The Ottomans entered a city that is mostly destroyed - Abandoned by it its people - lost in 32 years what it was built in 500 years			
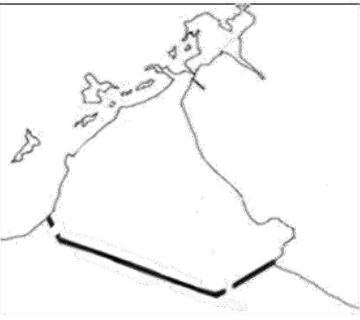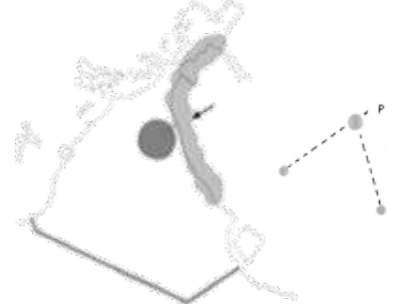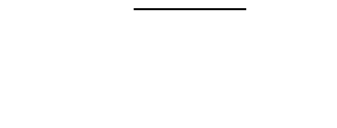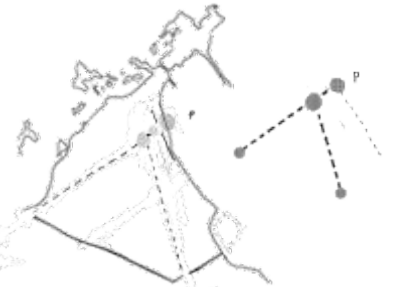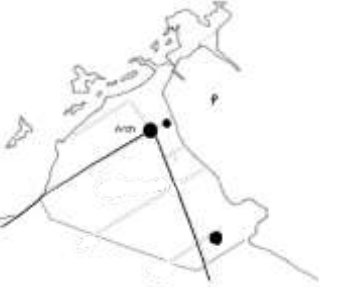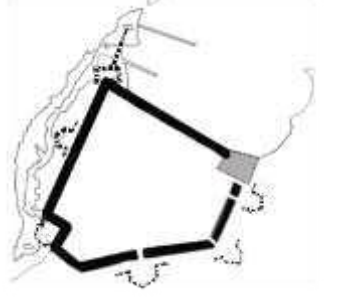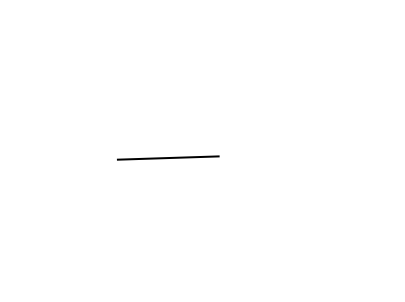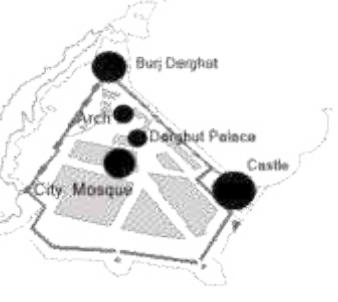
	City walls	Streets	Open spaces	Main buildings
Roman city				
Islamic city		—		
Late Islamic years			—	

Table 1 Summary of the main spatial system of the medina Tripoli prior to Ottoman rule
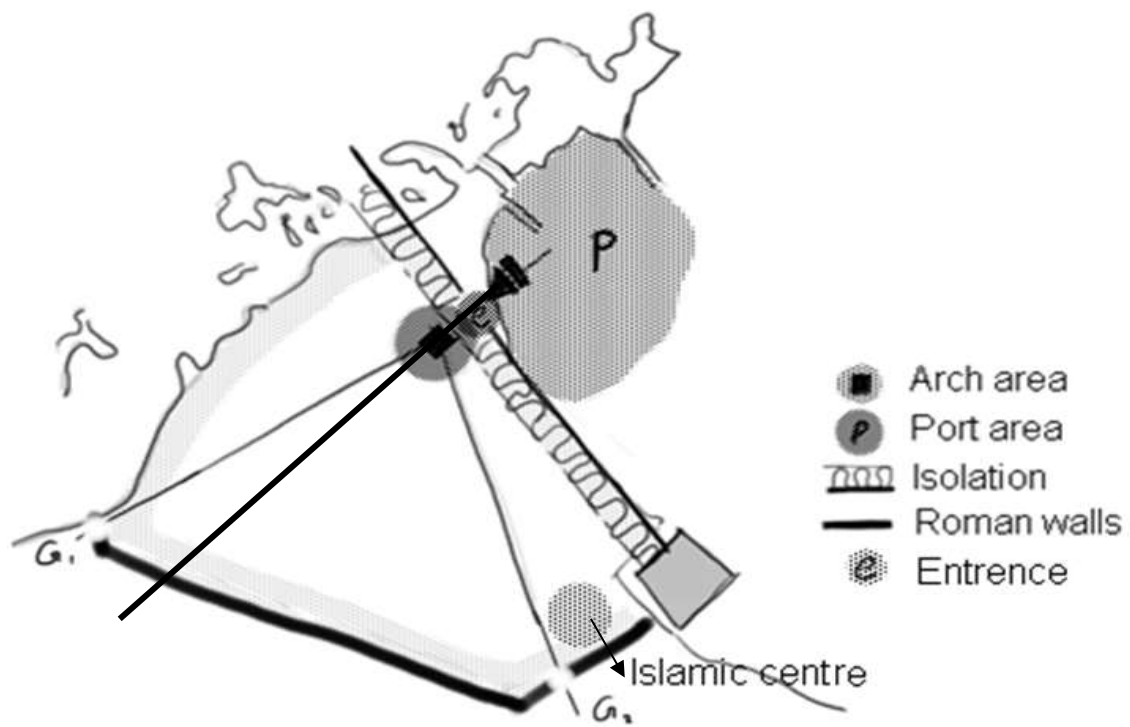
Figure 27 Summary of the main spatial system of the medina Tripoli prior Ottomans stage.

3.3 Forces of growth and change during the Ottoman Empire 1551-1911

The Ottomans ruled over Tripoli for 360 years, from 1551 until Italian colonisation in 1911. During this extended time, Tripoli evolved organically; there were no formal planning regulations to manage the development of public spaces within the urban form. the urban growth was guided by "senior consultants gathered within the Masjid"[94] It was not until 1853 - the last 60 years of Ottoman control - that the first planning authority was formed to guide urban growth and change in the medina. In order to understand the forces that shaped public spaces in the medina at this stage, it was necessary to analyse both periods in detail. Due to the differences in data sources for both times, different methods were used.

The evolution of the organic urban form (the first 300 years): information around Tripoli at this time only exists in the experience of people who lived in the medina[95], in the form of textual context, maps and some existing Ottoman buildings. The research built a comprehensive description of the public spaces in the medina, by linking historical Ottoman public buildings - buildings mentioned in textual contexts- to their spatial location in the medina and analysing their effect on the public spaces evolution.

Secondly, Tripoli during the last 60 years of Ottoman control: named in academic sources the Ottomanization of Tripoli. Sources for this period vary from formal maps, documents, to historical photos. As mentioned in the research methodology, a wide photo archive collected from different sources in Tripoli (Department of Archaeology, Libyan Centre for Historical Studies, Islamic History Archive, Libyan National Council Peru, Libyan Jihad Centre for Historical Studies, Management of the Historical Cities Authority, The National Archives of Libya, and Red Castle Archives) allowed the researcher to generate a 3D model of sections of the medina and therefore perform a presentational and morphological analysis of the Ottoman fabric, focusing on the continuity of public spaces (physical, social and visual).

Ottoman cities are widely known for their urban organisational and architectural significance. Different cases are found in the literature, however, most of these cases occur in the later years of the Ottoman Empire. A general configuration of the Ottoman city was summarised by Fatma Acun[96] (2002)*;* she characterises the Ottoman fabric based on its geographical

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[94] Ahmed Hamid, 'Some missing Islamic landmarks from Tripoli city', *Athar Al-Arab*, 6 (1993). p.84.
[95] Klaske Havik, Urban Literacy. A Scripture Approach to the Experience, Use, and Imagination of Place (PhD Thesis, TU Delft University, 2012).
"Rather than on maps, surveys, theoretical investigations and planning documents, lived experience exists in people's thoughts and memories, and it is predominantly this space that we encounter in the evocative descriptions of places and spaces". p.71.
[96] Fatma Acun, 'A Portrait of the Ottoman Cities', *The Muslim world*, 92 (2007). 255-285. p.206.

region. Through her study she defines the North African region as following: The elements of the Islamic city included the congregational mosque, the market and the public bath situated at the centre of the city.

> Other elements were the narrow, winding, maze-like streets, blind alleys and the inner courtyards, buildings said to have been the product of the unplanned nature of the cities.
>
> The most distinguishing feature of the Ottoman cities was the planned construction of külliyes [Souk/market] by the sultans and statesman through the waqf system. They consisted of a harmonious unity of buildings such as mosque, hospital, library, imaret, public bath, madrese and other similar buildings. Commercial buildings such as bedesten, shops, caravansaries and mills were constructed in order to support the külliyes. These buildings dynamically reshaped both the architecture and the social and economic life of the cities [97].

Public spaces could be understood by investigating the dynamic experience of its urban surroundings

> In writing about spaces, the aspect of action implied by the space: a passage, a pathway, a threshold, a door, an opening to another space, can play a part in the narrative. Space can encourage characters to move, pass though, undertake action. In literary reflections about changes in society, architectural and urban scenes not only serve as the decor against which narratives of activity can unfold, these scenes also play an important part in depicting social practices [98].

Public spaces are closely related to public buildings, whether these buildings (urban elements) are for religious purposes, trade or another form of social activity[99]. One way to analyse and understand the forces behind the development of public spaces in Tripoli during the first period - both physically and socially - is by examining historical Ottoman public buildings individually, buildings that are either standing in the city today or are mentioned in historical texts. By investigating public spaces as part of the medina's evolutionary process, not as individual spaces in the urban fabric, new knowledge regarding the transformation of public spaces in the city and the way we see them today can be revealed. The base for the next analysis are data drawn from historical investigation of traveller's diaries, geographical documentations, and historian writings of Tripoli during this set of time, using a descriptions approach;

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[97] Acun, 2007. p.206.
[98] Havik, 2012. p.96.
[99] Nora Lafi, ' The Ottoman Municipal Reforms between Old Regime and Modernity: Towards a New Interpretative Paradigm ', in The First Eminönü International Symposium (Istanbul, 2007).
Nora Lafi, a researcher in Ottoman urban studies specialist in North Africa and the Middle East.

> A descriptive approach can … teach architects to pay close attention to materiality, sensory perception, atmosphere and memory – in other words, to the lived qualities that architecture and the city can entail [100]

The organic form of the Ottoman medina Tripoli (1551 till 1853)

The research examines the urban context of the medina during the Ottomans in light of the following three facts: firstly, the city was mostly destroyed prior to the Ottomans; secondly, the existence of Roman and early Islamic urban elements; and thirdly, the medina's 300 years of organic growth, where urban changes were made by notable individuals, "members of the most prestigious guilds, traders and landowners"[101]. The foundation for the next analysis is data drawn from a historical investigation of travellers' accounts and diaries, geographical documentation, and historian writings of Tripoli during this set of time, extracting descriptions of Ottoman public buildings in a chronological order, studying their foundation, location, function, design, and spatial relation with other city elements in the medina.

The growth of public spaces was influenced by five main urban forces, including: the effect of the urban elements prior to the Ottomans, the power and control of the ruling individuals, the diversion of culture and religion in the medina, unstable population growth due to natural and manmade disasters, and finally the power of tombs presence. The next sections will summarise these forces of growth and the subsequent changes in Tripoli using a combination of both a descriptive analysis and a map analysis, to enable a visualisation of the changes that occurred in Tripoli's public spaces.

3.3.1. The first Ottoman rule Tripoli from 1551 till 1771

One of the main driving forces behind change in the medina was the interest of Ottoman individuals who ruled Tripoli. The researcher found that all the public buildings - whether they are still standing in the medina today or they only exist in historical texts - were built by the ruling individuals. Tripoli's Ottoman rulers used their power and wealth[102] to contribute to Tripoli's urban fabric. Stepheng Dale (2010) examines the ruling power and their establishments in pre-industrial Muslim empires (Ottoman empire). Dale found a strong correlation between public places that were developed by the ruling individuals in different cities, and concluded that:

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[100] Havik, 2012. p.206.
[101] Lafi, 2010. p.5.
Nora Lafi, ' Mediterranean Connections: The Circulation of Municipal Knowledge and Practices at the Time of the Ottoman Reforms, c. 1830-1910 ', in Another Global City: Historical Explorations into the Transnational Municipal Moment, 1850-2000, by Pierre-Yves Saunier and Shane Ewen c(London: Palgrave Macmillan, 2008).
[102] Lafi, 2010. p.6.

The architectural remnants of Muslim rule: the fort or palace, the mosque, and the bazaar. A fourth structure, the royal tomb, is often found in Muslim cities, within mosque grounds or located nearby. These buildings symbolized military power, religious affiliation, commercial prosperity, and dynastic prestige. [103]

Another study analysing the image of the Ottoman city carried out by Heghnar Zeitlian Watenpaugh (2004) confirms the influence of the Ottoman rulers in transforming the cityscape of Aleppo using major interventions in the urban form[104]. These interventions formed what is known in the Ottoman urban city as Kulliyes, a social centre consisting of a multitude of buildings that played an important role in enhancing social life in the city.[105] The Kulliyes typically contains: a mosque, madrassa, market, bath, and in some cases a tomb.

The Ottoman rulers' contributions in Tripoli were mainly public buildings and urban complexes. These complexes, due to their size, location, architecture and function, have dominated the fabric of the city and influenced its future development. Bearing in mind that these buildings served as indoor public spaces, predominantly for men's use, this research focuses on what outcome these individual buildings had on public spaces overall. The next section is therefore structured around the various rulers and their establishments, describing and identifying the social life of the medina under their rule and examining their direct effect on the urban fabric.

3.3.1.1 Murad Agha 1551-1553

Murad Agha[106] was selected as the first Ottoman ruler of Tripoli. Being an Ottoman military admiral, despite his short ruling years and due to fears of attack by Saint John Knights, the city's growth during his ruling years was military-oriented. The medina's defences were enhanced, the city walls reinforced, new towers were built and the castle was strengthened. Even though the city showed singes of urban growth as houses were built/renovated, and agricultural and commercial activities started to grow, the sense of fear could still be seen in public spaces. During Murad rule public spaces were militarised, the medina's main gates were closed at sunset, and the Ottoman army scattered throughout the medina streets[107].

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[103] Stephen Dale, 'Empires and Emporia: Palace, Mosque, Market, and Tomb in Istanbul, Isfahan, Agra, and Delhi'. *Journal of the Economic and Social History,* 53 (2010). p.213.
[104] Heghnar Watenpaugh, The Image of an Ottoman City: Imperial Architecture and Urban Experience in Aleppo in the 16th And 17th Centuries (BRILL, 2004). p.46.
[105] Z. Hale Tokay, *The Effects of the Ottoman "Kulliyes" on the Formation and Development of the City in the Historical Context.* (Mimar Sinan University, 1997) <http://www.transanatolie.com/English/Turkey/Architecture/ottoman_kulliyes.htm> [accessed 13 November 2014].
[106] An Ottoman military leader who was living in Tajoura, joined force with the Libyan troops to overthrow Knights of St. John.
[107] Altelesi, 1997. p.80.

Murad Agha's main contribution was building the first Ottoman mosque in Tripoli named (Murad Agha Mosque), to which he attached a personal tomb. This mosque was built outside the city walls, in the village where most of the medina locals migrated to prior to the Ottoman war over Tripoli, named Tajoura[108], located 35 kilometres to the east side of the medina (fig.28). The mosque resembled a fortress rather than a mosque[109].

Figure 28 Location of Murad Agha mosque outside the medina walls.Source: generated by the author using google earth

This complex is relevant to the research, even though it was built outside the city walls, as it represented the first Ottoman demonstration of the use of power and control to develop the urban context. Murad ordered three hundred Spanish builders, imprisoned by the Ottomans, to build a fine mosque in a short period of time in order to gain their freedom[110]. Such a demonstration of power became commonplace across the years; other rulers used skilled prisoners to build later Ottoman public buildings in the medina.

The mosque was built in 1552, using remains from another Roman city (Liptus Magna). A square plan mosque with a vault structure roof as shown in (fig.29), it is unique to Tripoli, though other mosques in Tunisia with a similar structure can be found [111].
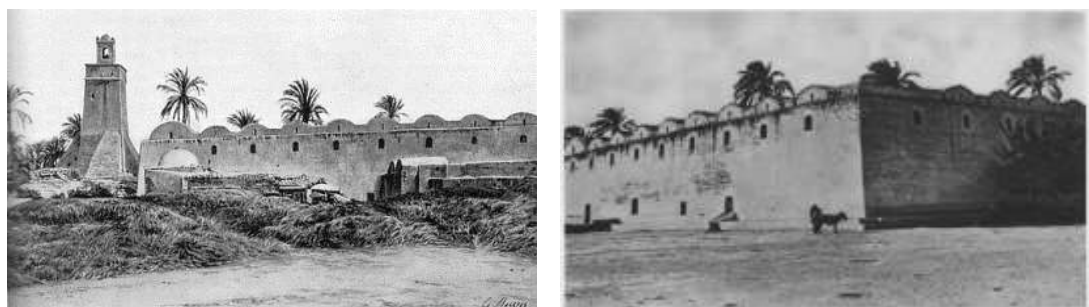
Figure 29 Murad Agha's mosque & grave.Source: http://mirathlibya.blogspot.co.uk/2014/03/blog-post.html

Another important urban element in this complex that influenced the development of the medina is the tomb. Tombs in the Ottoman urban form took two forms: freestanding tombs that could be found anywhere in the city, or tombs connected to an urban complex such as

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[108] Tajoura, is a small village east of the medina.
[109] Saeid Ali Buhlfaia, Historical Background of Libyan Mosque Architecture: Assessment and Criticism of Mosques in Ajdabiya City (MSc Dissertation, Middle East Technical University, 2006).
[110] Jayyusi, 2008. p.389.
[111] The later Libyan mosques had their distinct form of multi dome structure.

a mosque[112]. Tombs are urban elements that develop into social spaces where people regularly visit to pay respects to the dead. This conception led to the formation of biggest public square in the medina.

Early Islamic doctrine in North Africa banned Muslims from building graves in or around mosque courts. Murad Agha's mosque was the first to be found in Tripoli with the arrangement of a mosque and tomb in its court; this kind of layout is not mentioned in any of the earlier historical accounts of Tripoli. Other Ottoman rulers continued building mosque/tomb complexes in later years.

Recently, due to Islamic doctrine differences, most of the graves attached to the mosques were recently destroyed, and the social activities in and around these spaces have ceased. A step that was condemned by the UNESCO Director-General, Irina Bokova: "I condemn the destruction of the Murad Agha Mausoleum, a historic landmark that belongs to all Libyans,"[113]

Figure 30 The destruction of Murad Agha's tomb in Tripoli in 2013.

Source: http://archive.almanar.com.lb/article.php?id=660493

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[112] Watenpaugh, 2004. p.48.
[113] UNESCO, *Press Service*. <https://en.unesco.org/news/unesco-director-general-condemns-destruction-libya%E2%80%99s-murad-agha-mausoleum-and-offers-heritage?language=en> [accessed 27 August 2016]

3.3.1.2 Dargut Pasha 1553 - 1565

Dargut Pasha, a military commander in the Ottoman navy[114], was the second Ottoman ruler to govern Tripoli. Under his rule the medina's urban form continued to be driven by a military perspective. Dargut redrew the medina boundaries, reshaping the city walls and building his establishment Dargut Complex between 1553 -1565. Each of these interventions affected the development of the medina's spatial structure in later years.

Dargut's changes to the medina walls affected the structure of public spaces. Reshaping the walls did not only change the shape and dimension of the medina as shown in (fig.31), but also changed the arrangement of the medina's main access and approaches. When rebuilding the walls, one of the former main Roman gates that led directly to the arch space was closed[115], despite continuing high levels of port activity. This transformation undermined the significance of the Roman arch as central public space and the Roman spatial structure.

Change in the walls   Change in the roads & gates
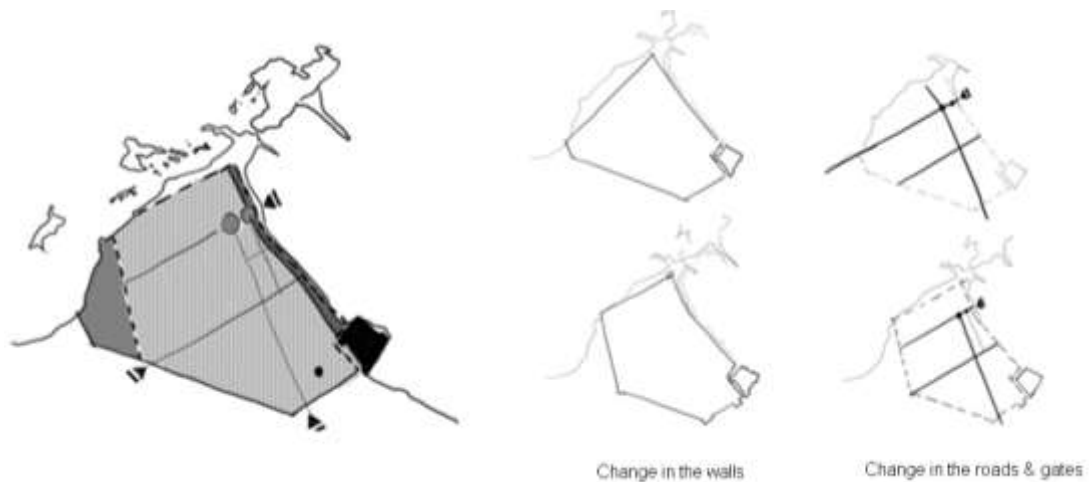
Figure 31 The changes on the Roman walls and its effect on the main city access.

After three years of Dargut's rule, he ordered the construction of the first Ottoman mosque in medina Tripoli in 1554; this was the first non-military public building established in the medina. Dargut built a complex consisting of a mosque and a Turba [InArabic], meaning (tomb), for him and his family. This was the first step in forming Tripoli's Kulliye; in later years other buildings were added next to the complex to include Hammam Dargute, a public bath (Hammam) and other elements in later years.

Dargut's contribution to the urban fabric was significant in terms of evolving the city's public spaces. This mosque was the first Ottoman mosque to be built inside the medina; bearing in mind that Tripoli lost its Grand Mosque prior to the Ottomans, there was a possibility of

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[114] Jayyusi, 2008. p.389.
[115] The gate was rebuilt in later years.

replacing it with another to act as a central mosque. Therefore, both the design and the location of Dargut's complex are important to this research.

Khalifa Altlesi, a well-known Libyan historian, translated gathered travellers' descriptions of Dargut's mosque in his book The Story of The City. They refer to it as the Medina's Main Mosque, even though the mosque was small and humble. Its fame came from the people who used it:

> Even though Tripoli was an Islamic city for a long time, it does not have any decent mosque, [due to former medina destruction] which driven Durgut to build his mosque. The mosque still exists today close to the sea.

> Nothing significant about this mosque either except for the fame of the name given to it. It is used by most of the Turkish commanders which made it the main mosque in the city [116]

It appears that focus of Dargut's establishment was the tomb rather than the mosque itself. This assumption explains why, even in the absence of other grand mosques, Dargut's complex did not become the city's Friday Mosque. This belief is based on three facts: firstly, contrary to the former Ottoman ruler, he chose to adjust a small Spanish church built for Maltese sailors to be the first Ottoman mosque in the medina, instead of constructing a new building[117]. The structure of the church was not suitable to be a mosque: the inner space needed to be widened so it would adhere to the design principles of a mosque[118]. He also had to restructure the roof of the church using a multi-dome system to join it to the extensions on both sides (fig.32).

Secondly, the size of the mosque compared to the tomb. From the complex floor plan, it is clear to see the difference in size between the mosque and the tomb. Compared with the former leader Murad Agha, the tomb is almost the size of the mosque itself. The location and orientation of the tomb, which faced the sea, could also be explained from a military perspective as traditionally the Ottoman admirals continued to be saluted after their death by the firing of canons to the sea in front of their graves. In interviews with old residents of the medina Tripoli, they explain that this tradition continued until the early 1950s, when a Turkish military ship fired canons toward the sea, saluting Dargut's grave.

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[116] Altlesi, 1974. p.91.
[117] Jayyusi, 2008. p.392.
David Mallia, ' The survival of the Knights' Church in Tripoli ', *Malta Historical Society*, *Proceeding history week* (2011), 28-46
[118] As the wall facing gibla (Mecca)should be longer than the other.
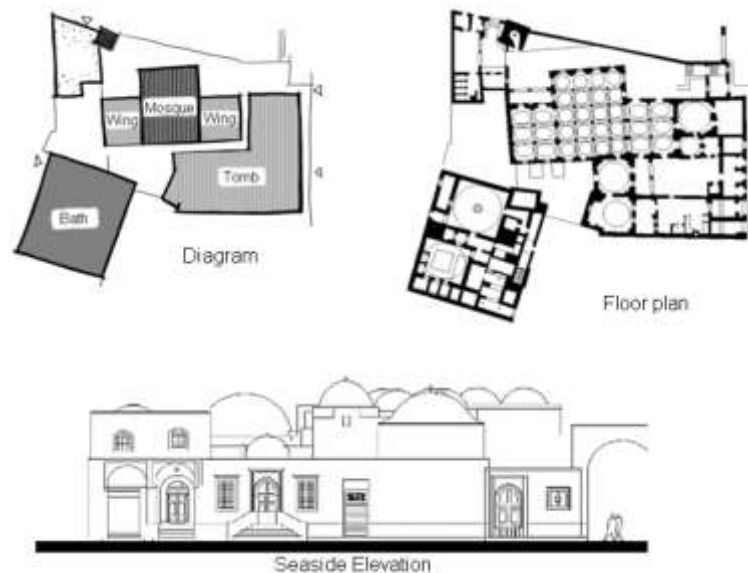
Figure 32 Plan of Dargut's complex.Source: Redrawn and analysed based on a survey by Aurig emma in 1947.

The final evidence relating to the importance of Dargut's tomb relates to its location. Being the first Ottoman public building built inside the medina walls - and bearing in mind the state of Tripoli prior the Ottomans - the location of the complex was a turning point in terms of the medina's spatial structure. By mapping the location of Dargut's complex and examining it in light of the former analysis of the medina (Tripoli prior to the Ottomans), in particular comparing Dargut's mosque to the demolished Grand Mosque (fig.34), the location chosen was non-central, it was far from the medina entrance, and set at a distance from the former Roman main access (fig.33). The outcome of this complex played an important role in turning the Ottomans away from the former Roman grid system, the Roman arch and the central spaces.

Figure 34 Location of historical Dargut Mosque complex in the medina today. Generated by the researcher based on digital map to Tripoli

Figure 33 Dargut buildings compared to the location of the Grand Mosque
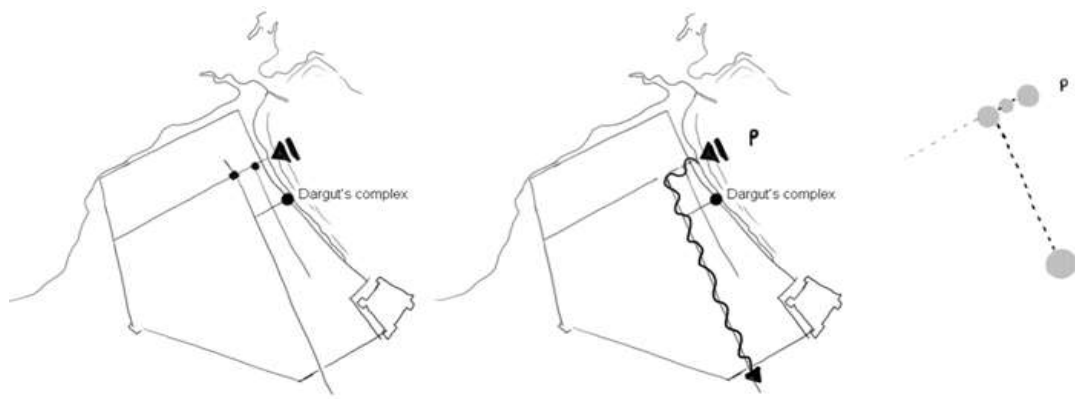
Figure 35 The location of Dargut's in the medina and its relation to the medina gates and main paths.

After Dargut's death, different people governed Tripoli. Tripoli did not rest[119]; the medina continued to grow, increasing the city's defences, maintaining the walls, and building more towers and weapons storage (fig.36-37).
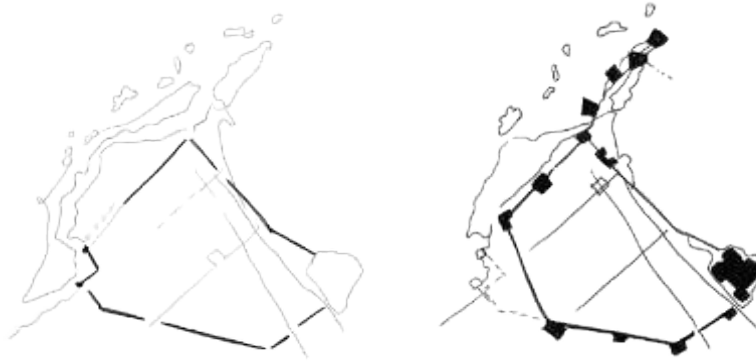
Figure 36 Extension and defences built around the medina redrawn by the researcher. Source L. Micara 2013

Figure 37 Tripoli defences and towers redrawn by the researcher. Source:L. Micara 2013

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[119] Wars on both sides; on the seaside due to pirating activities in the Mediterranean held by the Ottomans, and from land attacks in the desert against Arab tribe in order to spread authority and continuing tax collecting.

3.3.1.3 Osman Pasha (1649- 1672)

The next key Ottoman individual who contributed to the medina's urban form was Osman pasha. Osman pasha was one of the Ottoman's non-military influential rulers who contributed heavily to Tripoli's urban form, due to both his long-standing rule and the city's stability. During his rule, the medina began to develop its Ottoman urban centre. Even though Dargut's complex did not become the city's Friday Mosque, it had a strong influence on the evolution of the later urban growth. Findings indicate that the later general Ottoman public buildings built by Osman pasha were mainly concentrated in the area between the Roman arch and Dargut's establishment (fig.21). This concentration of public buildings formed a place that could be called Tripoli's urban centre, or as known to the Ottomans as a Kulliy. The following public buildings ranged in size and function: religious, diplomatic, security and governing. These buildings were constructed over an extended period of time.

Firstly, in 1615, a Catholic Church was built for the non-Muslim community residents in medina at that time; the chosen location for the church was opposite to the Dargut mosque (fig38). Together this formed an urban centre and a base for further development in the area, as will be discussed in later sections[120].
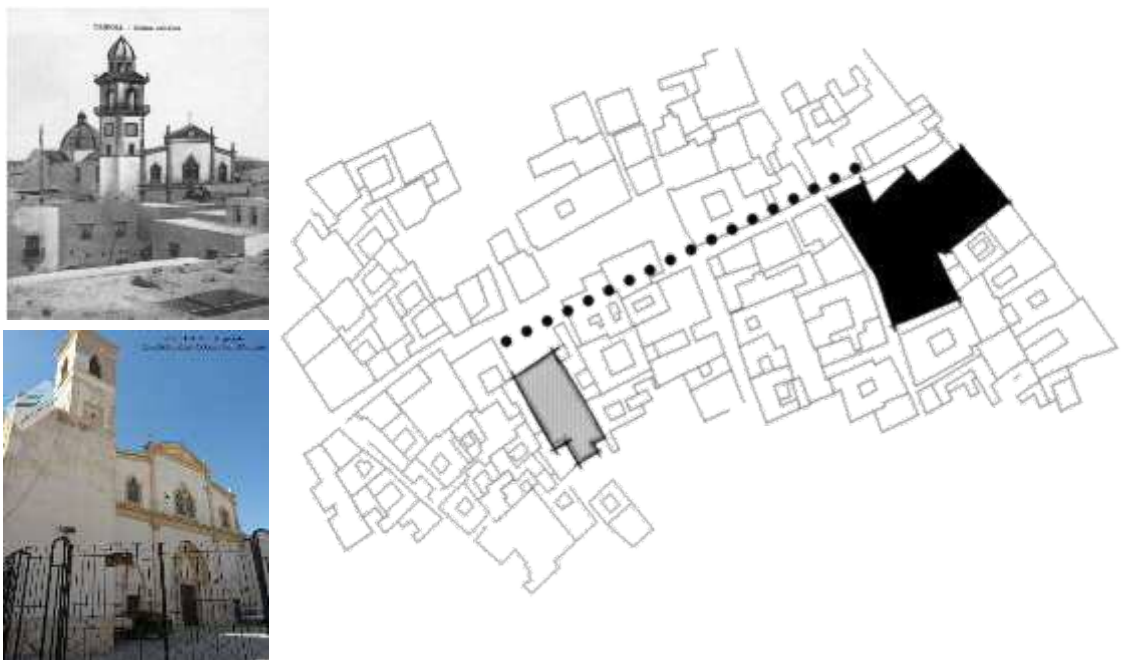
Figure 38 Location of the Church in relation to Datgut mosque Generated by the researcher based on digital map to Tripoli. Sources: Mudawana Mawajat Albahr

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[120] The church is still in the medina today, since it was built it continued to function until 1970, when its activity stopped after evacuation Italians.
*The city contained another religious building (The Jewish Temple), located to the west side of the medina next to the city walls, serving a Jewish community of around 1200. However, at this time of the research) not much has been written about this building.

Secondly, the French consulate was built in Tripoli, as diplomatic relation between Tripoli and Foreign countries strengthened, France in 1630 sent its first ambassador to Tripoli, thus a French counsel was built. The building was almost square shaped, approximately 400 square metres and two storeys; the centre of the building is an open courtyard with doors to many rooms with different functions and purposes, the reception of guests or political meetings. The French consulate in the medina was located not far from the Roman arch; the street leading to it is still called French Street. The location chosen for the French consulate derived later counsels namely the British, Spanish, Italian and American councils to be built in the same area. The following map shows the location in respect to both the church and Dargut's mosque.

Figure 40 Sketch of the French street.
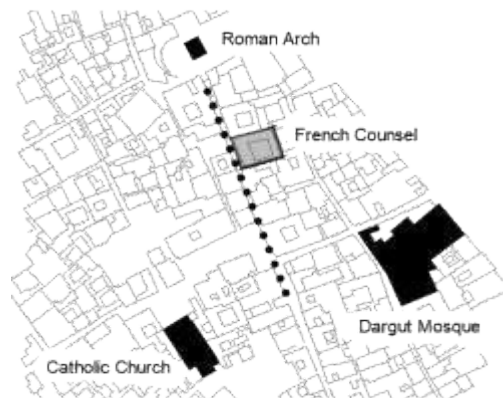
Figure 39 Location of the Church in relation to Datgut mosque Generated by the researcher based on digital map to Tripoli

Figure 41 Internal view of the former French canceler today. drawn by the researcher from photo
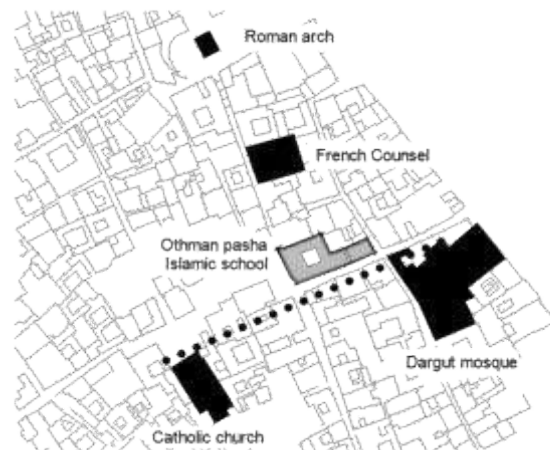
Figure 42 Location of the French Counsel in medina Generated by the researcher based on digital map to Tripoli

The importance of the counsel to this research because it served as a tread centre for Europeans goods as fully explained by Ms Tully in her letters, she describes the trade

activities of these counsels in Tripoli in everyday life and their role during the dramatic events Tripoli has passed through i.e the drought and the plague.

Thirdly, Osman pasha established the medina's first Ottoman Islamic School, located next to Dargut's mosque. The school had a courtyard and surrounded by doorways and windows, a small mosque, which came in one of the corners of the courtyard as shown in, the main entrance to the school directly overlooking Drgout pasha street. (fig.35).
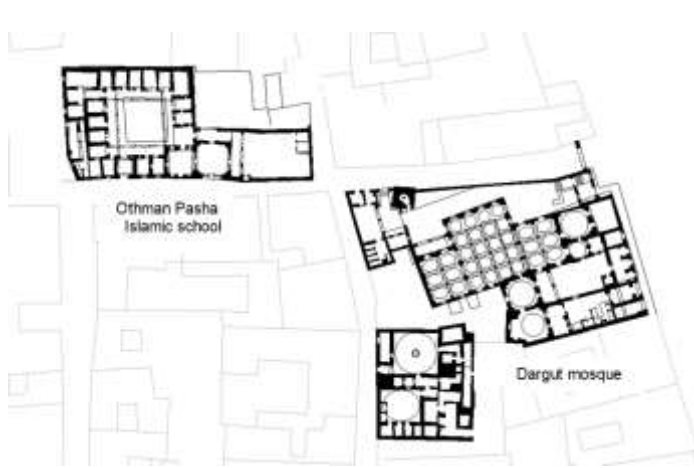
Figure 43 Osman Pasha Islamic School & Dargut mosque Generated by the researcher based on digital map to Tripoli

Figure 44 The concentration of medina's public buildings forming an urban centre in the medina.
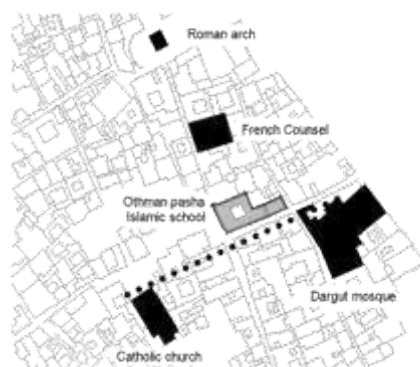
Figure 45 Location of Othman pasha school in medina today in relation with the other buildings. Generated by the researcher based on digital map to Tripoli

-Fourth, the Ottoman prison also known as the Turkish prison, which was built by the governor Osman Pasha in 1664. It has 86 cells were most its prisoners of Turkish who were rebelling against the rule of the Turkish governor, however, this building after the end of Ottoman rule turned into a church and has been called St. Giurgiu's Roman Catholic Church which due to its location next to the church created public spaces known today as the (Church Midan)[121].

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[121] Telesi, 1997.
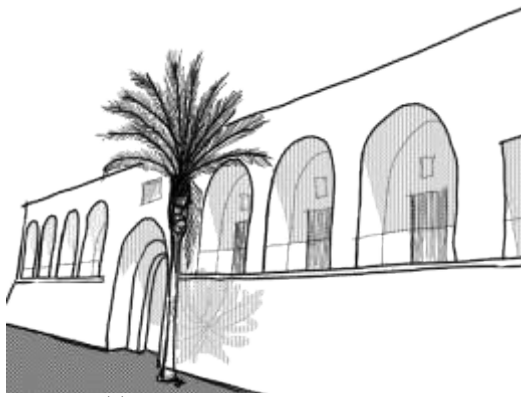
Figure 47 The main elevation of the Ottoman prison Drawn by the researcher from photo

Figure 46 Location of the prison in medina Generated by the researcher based on digital map to Tripoli

Fifthly, Cast Fundok[122], another public building built by Osman Pasha in 1669, today stands at the end of Musher market, close to the Clock Tower. Fundok is an Arabic name for a place where traders store and sell their goods on the ground floor and resident in the upper floors, the importance of this building for this research was in both its function and location. Architecturally, the hotel has two floors, surrounding a rectangular courtyard. It has 100 rooms and a well in the courtyard that acts as a water supply.

Although the Fundok still functions in the medina today, there is little information regarding its size or any architectural details from the time of the research. However, what is interesting and can be examined is the location of the market: it deviated from the main historical Roman path leading to Bab Alhurria to be closer to the sea, thus connecting the urban development next to Dargut's complex to the newly opened gate called Bab-Manshia (fig.48). This will be explained in detail in coming sections.
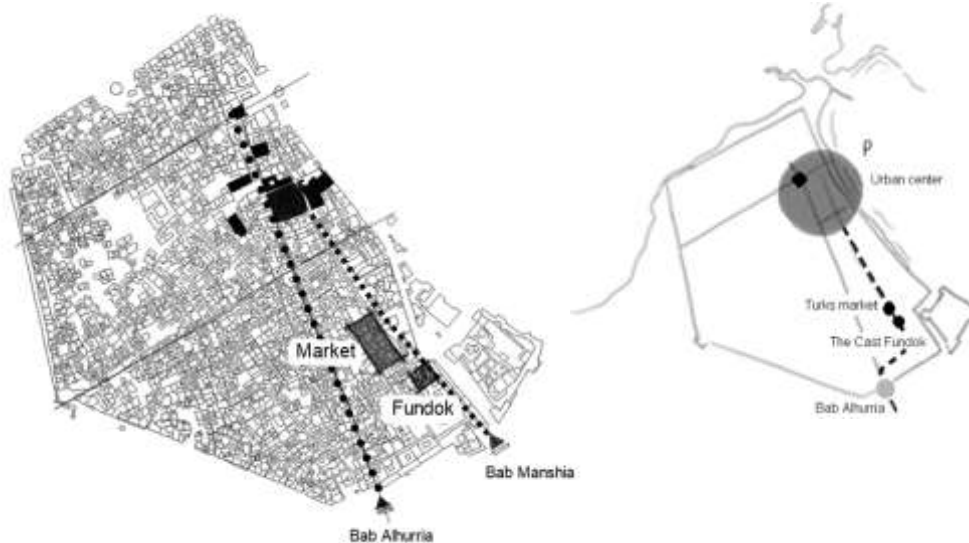
Figure 48 Location of the Market and Fundok in medina. Generated by the researcher based on digital map to Tripoli

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[122] Has been known for this the name for being the origin of trade and export of orange blossoms.

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The medina developed an urban centre, not an Islamic urban core. The absence of the central Friday Mosque and the market area, two of the key components of an Islamic urban core, prevented its evolution. The size of Dargut's mosque, its location away from the main trade access that connected the port space (the busiest area of the city) to the main gate, and the absence of a main central public space for trading activities: all of this limited the growth of this area to become an Islamic core.

The construction of the first formal trade centre was a turning point in the evolution of the medina's urban fabric and public spaces. Osman Pasha built the first formal trade building in the medina, named Al-Zahar Fundok[123][In Arabic], a public building that still stands in the medina today[124]. Fundok is an Arabic name for a place where traders store and sell goods on the ground floor, with a residence in the upper floors. This building is a primary urban element due to its unique function in the city; its location is also pertinent. Separating this market from the former urban centre, the port, and the medina main gates limited the potential of the centre to develop into the medina's Islamic urban core (fig.49). The city had two gates one to the sea and the other to the land, the place is connected to the city by land.
[125]

The division of the market and the Fundok from the Roman path and the medina main Roman gate.
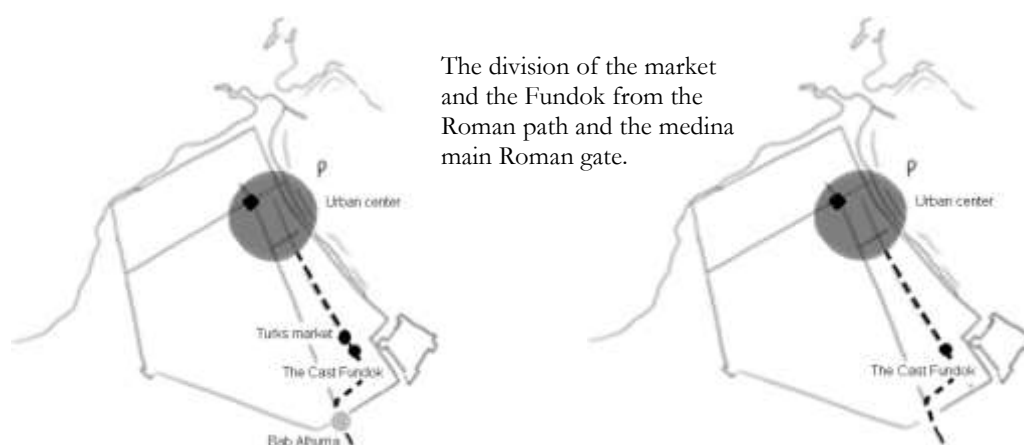
Figure 49 The location of the trade centre and its effects on the formal Roman access

During this time Tripoli was part of the advance caravans' trade routes connecting to the Sahara, namely the Tripoli-Fezzan-Bornu route: "Traffic along these routes reached its peak in the period 1490-1590"[126]. This heavy trade route leading to the medina could have provided the motivation to build Tripoli's first main trade centre close to the medina's gate.

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[123] Was known for this the name for being the source for trading and exporting orange blossoms to the North African region.
- Architecturally, the market has two floors surrounding the rectangular courtyard, all the rooms open on it has100 room, a well is located in the courtyard for water supply for the place.
[124] located at the end of the Musher market and close to the Clock Tower square
[125] Telesi, 1974. p.89.
[126] A. Adu Boahen, 'The Caravan Trade in the Nineteenth Century'. *The Journal of African History*, 3 (1961).

Locating the first trade building in the medina south-east of the city not only separated the market from the urban centre, it started a new centre (a commercial and trade centre) in the medina. These commercial activities developed and expanded as Osman Pasha built the medina's first Ottoman market. One building, still known today as the Turk's market, is still functioning in the medina today, though not much is mentioned by travellers about its size or architecture at the time relevant to the research.

The location chosen for the new commercial centre affected the former Roman spatial system and the Roman arch's status as a public space in the city. Both the market and fundok deviated from the main historical Roman path that connected the Roman gate to the Roman arch as shown in (fig.50). Any trade centre required direct supply and export access, so a new gate was constructed in the city walls named Bab Al- Manshiya[127]. The development of this gate rearranged the orientation of public spaces and opened the medina to what is today the oldest Ottoman central space in Tripoli (the Martyrs Square). Even though the former Roman gate was not closed, establishing this new access to the medina weakened it and, therefore, weakened the arch space that is connected to it.

Concentration of the trad activities along the new Ottoman path
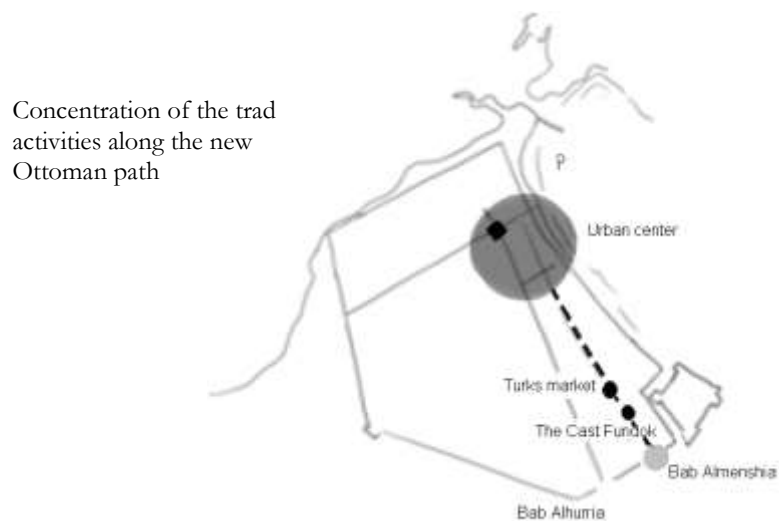
Figure 50 Location of the Turks market in the medina & its relation to the Roman path.

3.3.2. Tripoli from 1711 till 1835 - The Qarahmanli dynasty

In 1711 the Ottoman grip over Tripoli weakened, rebellions in and out of the country took place due to the rising corruption in the ruling party and their constant rise in taxation. A revolution led by Qarahmanli [128] supported by the locals ended the first Ottoman rule over Tripoli and Tripoli was announced as an independent state. This marked the starting point of a new era known as the Qarahmanli dynasty[129]. The researcher continued tracking the

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[127] The gate opens on the Menshiya area (Green forest).
[128] An Ottoman leader in the Ottoman army.
[129] Muhammed Amoura, *Tripoli: The Arabic City and Its Islamic Architecture* (Tripoli: Dar El-Ferjani, 1993) [In Arabic]

development of public spaces and the form of medina Tripoli through thorough interpretation of what was written about the city in the years between 1711 and 1853.

The Qarahmanli dynasty consisted of a number of rulers generally known as Pashas, who ruled Tripoli for over 140 years. The dynasty was founded by Ahmed Pasha Al- Qarahmanli, and ended with Ali II Pasha Al- Qarahmanli. The oldest and most thorough reference that covers this period of Tripoli's history - the late Qarahmanli dynasty - is the book named *Letters written during a ten years' residence at the court of Tripoli* authored by the sister-in-law of the British consular in Tripoli during 1783 Mr Richard Tully[130]. The text gives personal insights of an inside observer; these rich details helped to draw a picture of the urban city as well as the events that affected its growth 72 years into the Qarahmanli dynasty[131].

The drive for growth and change of the medina's urban form was no longer defensive. The city settled and the ongoing fights and pirate activities ended, giving the city a chance to rebuild and develop its social urban life. Ms Tully's letters describe the state of the city:

> The city of Tripoli is, or rather has been, surrounded by a prodigiously strong wall, and
> towers, which are now in bad order; but persons of judgment in these matters say, that with
> repairs only, it might soon be made one of the strongest fortifications[132].

However, personal aims of the ruling individuals continued to drive growth and change in the medina's urban form. Their main establishments affected the evolution of the medina's urban fabric and consequently the evolution of public spaces. The following sections will analyse the urban intervention of key ruling figures during the Qarahmanli dynasty.

3.3.2.1 Ahmed Pasha Qarahmanli

Ahmed pasha's first intervention emphasised the significance of the trade centre by transforming the castle from a military defence place to the governor's palace. During previous years the castle had been neglected and mainly used for defence purposes due to the unsettled state of affairs in Tripoli. Only when Ahmed pasha Qarahmanli decided to make it a place of residence, did the castle become relevant to Tripoli's urban life. The location of the castle next to the Turk market, the trade market and the Manshiya Gate, transformed the paths from one space for the public, to two separate paths, one for the locals and another for the ruling family, each path led to a separate public space

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[130] Tully, 1918. p.8
[131] Ali Hammad, 'Mutual economic ties between the authorities and society Alkermanli Trabelsi in the late Covenant Alkermanli'. *Journal of Science and Human Studies*. (Al-Marg, 2014). p.284. [In Arabic]
[132] Tully, 1918. p.7.

Two separate paths one for the local and another path for the ruling family. The two paths end with two separate spaces
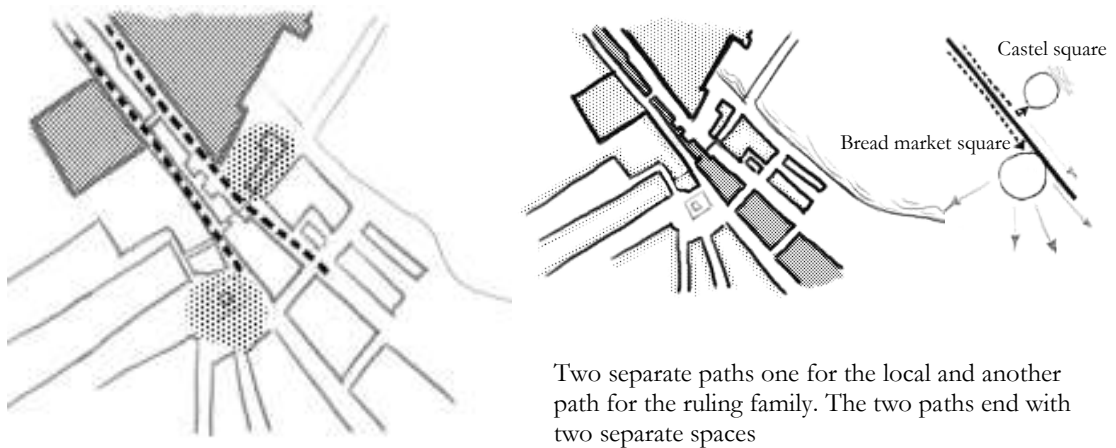
Figure 51 Evolution of the medina entrance during the Ottomans.
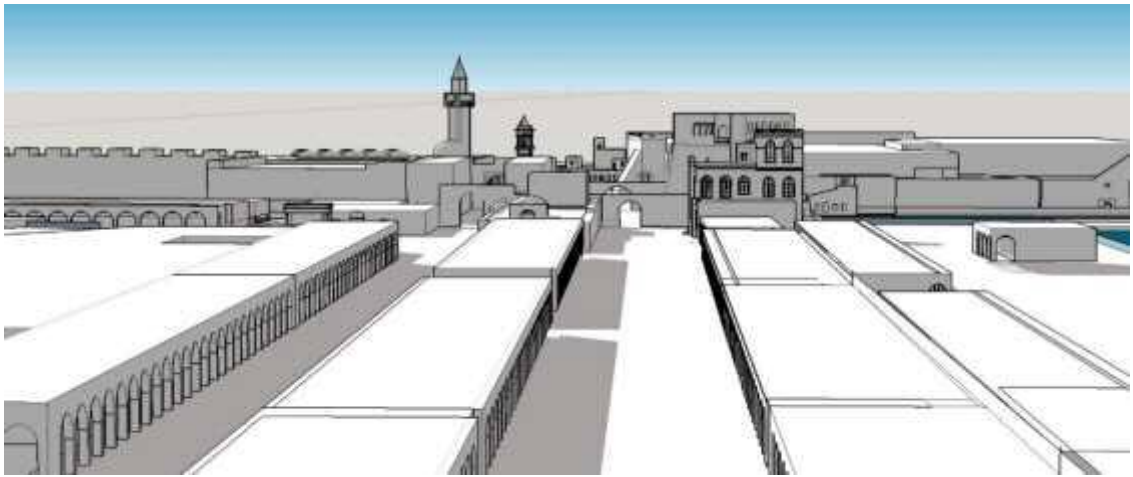
Figure 52 The two separate spaces developed in Tripoli during the Ottoman time.

Only by understanding the complexity of the castle, its location and approach, can its relation to the trade centre be revealed. During the early Islamic period, the castle was separated from the medina by a water canal[133]: the medina's only access to the castle was across a wooden bridge that was lowered during the day and raised at night.

Figure 53 The water canal separating

the medina from the landside.

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[133] Al-Tijani, 1997.

The main entrances to the castle faced the sea, with staircases that led to the docks. Once the water in the canal dried out it formed a road, still named today Canal Road. The Ottomans opened a side gate on Canal Road; this became the castle's main access toward the trade centre. The location of this access explains the chosen location of the later Qarahmanli Grand Mosque.
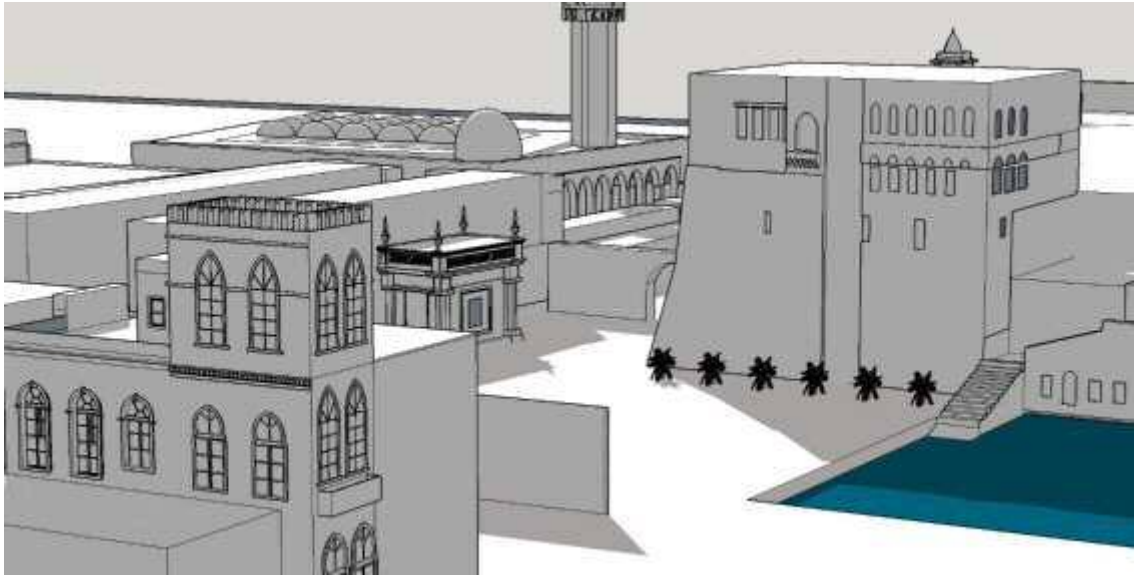
Figure 54 Castel water entrance and its relation to the later Qarahmanli mosque.

Ahmed pasha Qarahmanli's second intervention was building the medina's Grand Mosque, a complex of a mosque and a tomb, located in the south of the medina, not far from the castle and the trade area. Although the analysis of earlier sections proved that it was not the first Grand Mosque in Tripoli, as the first was a huge building in the north part of the city, closer to the port area. Even though it was not the only mosque in the medina, it was by far the largest inside the city walls. A full description of Qarahmanli mosque is found in Ms Tully letters:

> The exterior of the great mosque, where the deceased relations of the royal family are buried, is extremely handsome. It stands in the main street, near the gate of the city, which leads to the country, and almost opposite to the palace. Before the door of this mosque, there is a second entry of neat lattice woodwork, curiously carved, with two folding doors of the same work: a great number of beautifully coloured tiles, with which the bottom of the latticework is set, give it an appearance of delicate neatness very pleasing to the eye. Over the doors of all the mosques are long sentences from the Koran sculptured and painted; those over the door of this mosque being more richly gilt and painted, and the sculpture much handsomer than in any others in the town.[134]

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[134] Mrs Tully, 1819. p.7.

Figure 55 The mosque of Ahmad Pasha. 1912. Sources: LCAHS: photo 8, Album 2A-12.

Ms Tully's letters describe in detail the mosque and the medina markets separately. Nothing is said about the connection between the mosque and the markets. Bearing in mind that Ms Tully saw the mosque 46 years after it was built. The market is described in Ms Tully's words as follows:

> There are two covered bazars, or market places; one of which is very large, and built in four aisles, meeting in a cross. These aisles are, fitted up with shops, built on each side of them, containing every sort of merchandize, and having a way in the middle for purchasers to walk in. Several parts of this place are nearly dark, and the powerful smell makes it very unpleasant to pass through it. The other bazar is much smaller, and has no shops in it.[135]

Ms Tully refers to two markets in Tripoli. By the large market she is referring to the Turkish market, the other market mentioned could be a reference to the fundok, which held trading activities on the ground floor.

The third and final urban intervention by Ahmed pasha Qarahmanli was the establishment of the medina's main shipyard, an urban element that affected the growth of the medina's urban fabric. During the Qarahmanli dynasty, Tripoli was well-known for its ship manufacturing, a trade activity that requires a large open space and special location. Ahmed pasha ordered the building of a shipyard next to the castle, not far from the Turks market. The chosen location of the shipyard not only supported the trade activities in this area by

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[135] Tolly, 1819. p.12

developing new manufacturing markets, such as carpentry and a blacksmith market for example[136], but also created a new entry to the medina from the seaside, a new dock constructed next to the castle.

This concentration of water trade activities next to the city markets and the Grand Mosque formed the medina's Ottoman port. In later Ottoman years, Tripoli ended ship manufacturing activities, and the space now accommodates most of the medina's social activities, as will be seen in a later section.
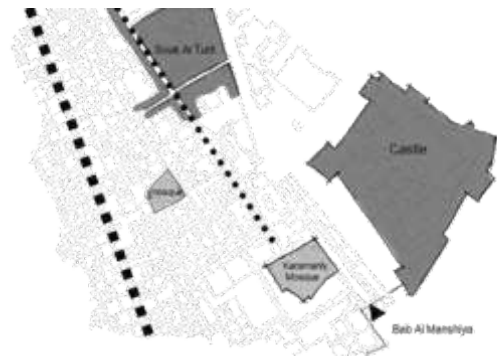
Figure 56 Diagram of median's urban centre and its elements, the castle, the souk, the grand mosque, and the new gate.

3.3.2.2 Tripoli natural disasters and the urban growth:

Several natural disasters during the Qarahmanli times reduced the number of people in the medina. First, two major famines, one in 1767 that lasted four years, which led more than forty thousand people to migrate to Tunisia and Egypt, and the other in 1776, that almost destroyed the entire population of the country.[137]. Secondly, the city faced a deadly plague in 1783, which spread throughout the city:

> The symptoms … the person being seized with a sort of stupor, which immediately increases
> to madness, and violent swellings and excruciating pains in a few hours terminate in death.[138]

The death rate was between 200 and 290 people a day; the coffins were carried out of the city walls where they were prayed for together at a mosque outside of the city. All property now left unclaimed was taken over by the pasha. Any houses or land related to the church were returned to the church. A full description of the disaster is witnessed and described by Ms Tully:

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[136] Still known in Tripoli for these names even though these shops no longer related to the original activities
[137] Ms Tully, p.187
[138] Ibid. p175

> The plague now depopulating this place is said to be more severe than has been known at Constantinople for centuries past, and is proved by calculation to destroy twice the number of people in proportion to those who died of the same disorder lately at Tunis, when five hundred a day were carried out of that city. Today upwards of two hundred have passed the town gate. The city of Tripoli contains 14,000 inhabitants, and the city of Tunis 30,000.[139]

In three months, a quarter of the population died, tombs grew bigger and were divided based on religion between Muslim, Cristian and Jewish. The Muslim population honoured the dead by building a small chapel and calling it Morabet; this became a place to pay respects for years to come (fig.57).

The number of deaths affected the population of Tripoli: in six months two-fifths of the Muslims, half the Jews, and nine-tenths of the Christians died[140]

> The city of Tripoli, after the plague …houses were found the last victims that had perished in them … while in others, children were wandering about deserted ...whole streets he passed without a living creature in them; for beside the desolation of the plague before it broke out in this city, many of the inhabitants, with the greatest inconvenience, left their houses and fled to Tunis[141]
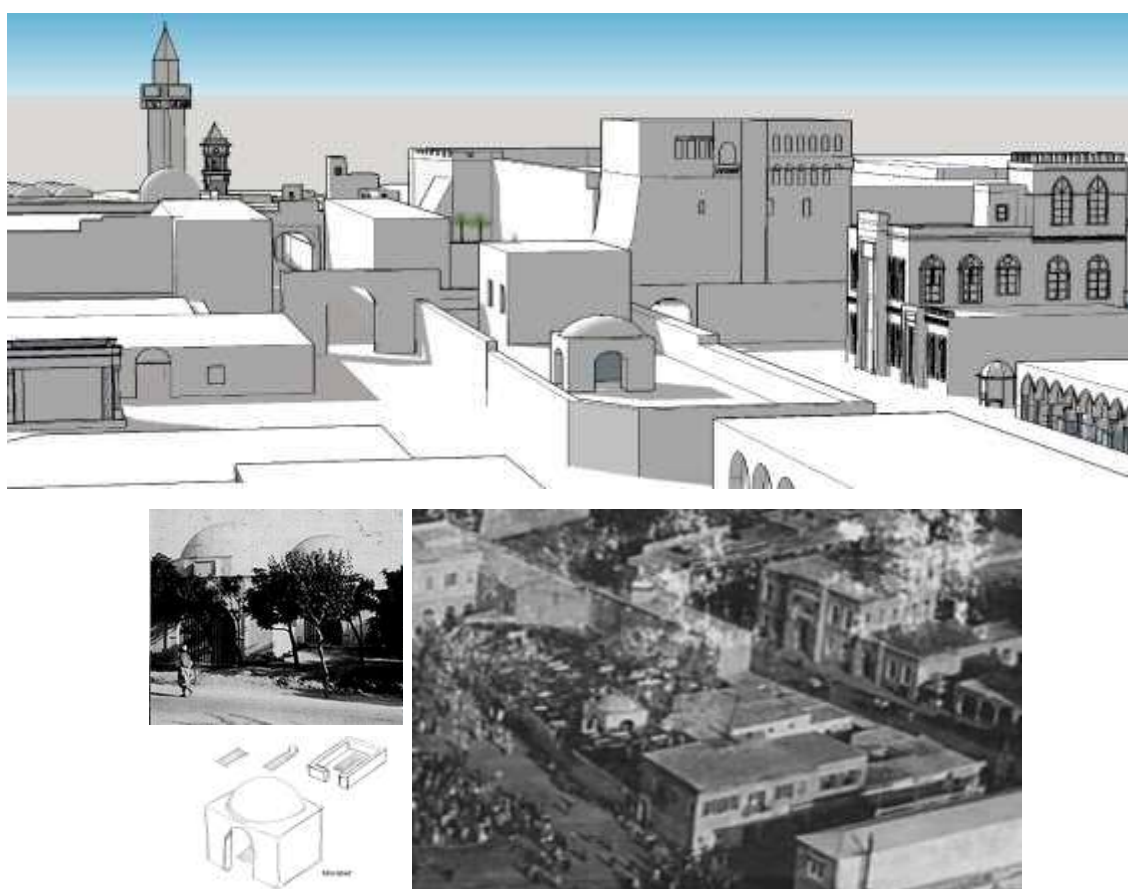
Figure 57 Some shapes local Muslim gave to their dead. Sketched by the researcher. Source: <http://maltahistory.eu5.net/hw/hw201102.html#_ftn4>

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[139] lbid. p.179
[140] lbid, p.197
[141] lbid. p.268

But the plague was not the last Tripoli have seen of natural tragedies as the country was hit almost 10 years later by drought in 1792 the country reached a state that it will despair. [142]. The fluctuation in the medina population could explain why the urban growth of the city did not need to expand outside the medina walls.
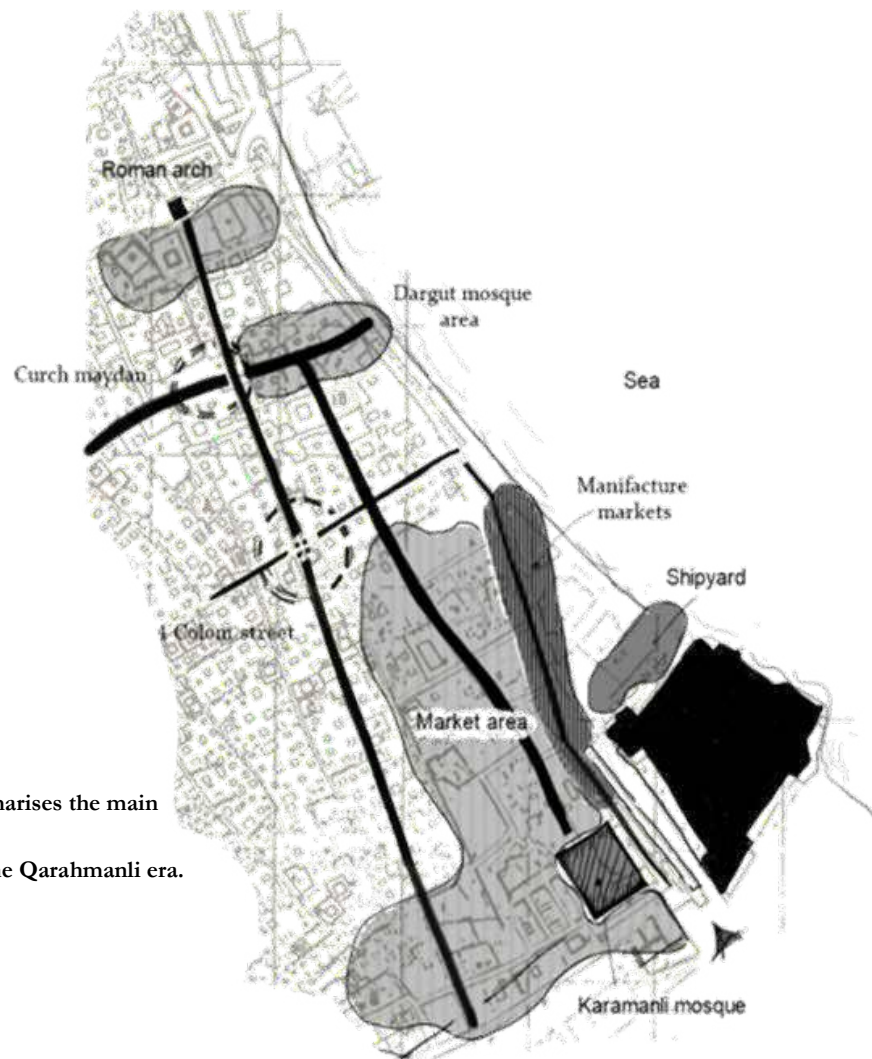
Figure 58 Diagram summarises the main establishments during the Qarahmanli era.

In conclusion, the key urban spaces in Tripoli at the end of this period were mainly indoor spaces. Spaces in the form of courts were located with public building i.e. in the trade centre, in the mosques, the narrow streets, the Roman arch, as well as the trade area and the port.

3.3.3. The urban reform-Ottomanization of Tripoli- (1835 till 1911)

In May 1835, the Ottomans ended the Qarahmanli dynasty by regaining control of the city; this period, lasting seventy-six years, is known as the Second Ottoman Rule over Tripoli. Tripoli was forced to adapt in response to European influence in the region. Tripoli, under

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[142] Yaron Ayalon, *Natural Disasters in the Ottoman Empire: Plague, Famine, and Other Misfortunes* (Cambridge University Press, 2014).

the direct administration of Istanbul, was the last Ottoman city in the North African region, where all the neighbouring countries had become European colonies. This put pressure on the Ottomans to adapt to European urban modernisation.

Similarly to other Ottoman cities, Tripoli adopted Istanbul's 1839 administrative and land reforms. A series of reforms started in Istanbul that brought administration, culture, education, religion and society more in line with a European model[143]. The reform was "designed to promote commerce and ease communications within the province"[144]. An administrative and land reform demanded both urban and social-political changes: this had an effect on the medina's urban form. A new gate was opened in the city walls of Tripoli in 1865 to encourage interaction between the city and the countryside, the postal system was reorganised, and a telegraph line was established between Malta and Tripoli.

Istanbul appointed Ali Rida Pasha to implement the administration reform in Tripoli[145]. His desire for modernisation drove numerous and varied projects in Tripoli. It is owing to him that Tripoli's urban form evolved and developed, and as a result expanded its public spaces. The research will continue to examine these changes and their physical, social and visual effect on the city's public spaces.

3.3.3.1 The Ottoman reform as a force for change in the medina.

The main changes in Tripoli's urban fabric during the reform era were: the expansion of the urban fabric outside the medina walls; the enhancement of the water supply through the addition of fountains in the public spaces; and, the redevelopment of the Ottoman urban centre. The following section will explain each in detail.

3.3.3.2 The expansion of Tripoli's urban fabric outside the medina's wall.

Throughout the extended unsettled history of Tripoli, which goes back to the Roman times, this was the first time that the medina's urban fabric exceeded the walls. Ali Rida Pasha constructed new trade areas alongside a variety of public buildings outside the medina walls, such as the Arts and Trades School (1895), Military Academy (1896), and the Ottoman hospital. Though the medina was capable of accommodating these buildings, the decision to establish them outside the medina walls was a turning point in the city's development, as will be explained in later sections.

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[143] Nora Lafi, 'The Ottoman Municipal Reforms between Old Regime and Modernity: Towards a New Interpretative Paradigm', in *First Eminˇonˇu International Symposium*, (Istanbul, 2007).
[144] Lisa Anderson, 'Nineteenth-Century Reform in Ottoman Libya', *International Journal of Middle East Studies*, 16 (1984). 325- 348
[145] Wright, 2012.

Ali Amoura (1993)[146] argues that attempts to develop Tripoli were restrained by its thick walls. The spread of construction and modern urban infrastructures (i.e. industry, manufacturing, telecommunication, and other urban facilities) had to take place outside the medina walls, as the thick walls surrounding the old city inhibited its growth otherwise.

The map shows the late stage of the Ottomans fabric: the radial streets and the urban fabric outside the walls.

Figure 59 Ottoman urban fabric after the reform (date not known). Source: Department of Historical Studies. Tripoli.

Expanding the urban form outside the medina walls created a strong connection between the inside and outside spaces of the medina, socially as well as physically. Until the end of the Qarahmanli dynasty, the places outside the medina main gate were open spaces with limited trade activities. However, the social link between the inner and outer spaces was weak; the outside spaces were often occupied by strangers, mainly travellers who settled outside the medina walls for months after fleeing natural disasters such as drought. During their stay, they tended to use the open space to trade their goods either to the people in the city or to European traders. The social separation was clear as all the medina residents were forced to return to the city before the gates closed at sunset, leaving the outside spaces for the travellers[147].
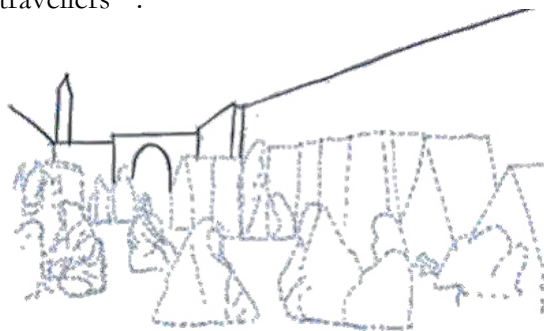
Figure 60 Travelers settling outside the medina' main gate to trade their goods. Source: Archive of the Centre of Islamic History. Tripoli and McClure. 1913

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[146] Amoura, 1993. p.50.
[147] Amoura, p.59.

The city retrieved this space by developing it to accommodate different trade and social activities: rows of small shops, coffee shops and other forms of trade activities owned and used by the locals. These changes improved the sense of belonging and drove the flow of movement outside the city walls. This development not only expanded the spatial territory of the medina to include the outer public spaces, but it also expanded and enforced the medina's urban centre as will be explained later in this chapter.
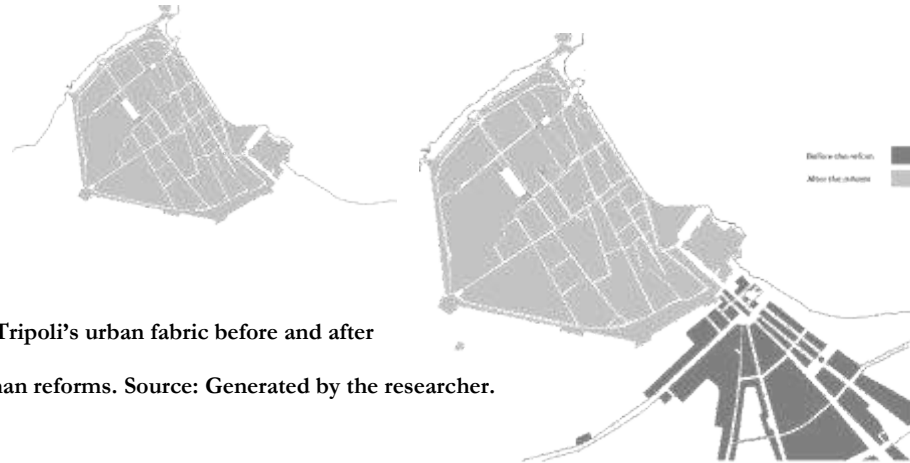
Figure 61 Tripoli's urban fabric before and after the Ottoman reforms. Source: Generated by the researcher.

3.3.3.3 Enhancing the medina's public spaces by providing fountains, a source for water supply in and outside the city walls.

Fountains were an important element of Ottoman architecture, though they vary in terms of their structure and function. The simplest and most common Turkish fountain is the ceşme [In Turkish], known as (the wall fountain), where storage tanks are located behind the wall with the water flowing from a tap into a basin[148]. There are also the Meydan fountains; located in public spaces, this type of fountain is freestanding in the open space. Despite their different types and functions, they are overall considered an important element of public spaces[149].

In general, though the fountain's basic form is similar, a four-side structure with taps in a single or two faces, the location and design of the fountain defines its usability. Some are for the travellers and commoners, others are for the royals and people that are close to the royal family (visitor or army), and some are for welcoming arrivals to the city.

In Tripoli, there is evidence of four different types of water fountain. They are all located to serve public spaces outside the city walls. Considering these spaces existed prior to the reform era, the water supply was meant to enhance and maintain these spaces; the water supply did not create these spaces. Based on their location and design, the usability for each

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[148] John Freely, *A History of Ottoman Architecture* (Southampton: WIT Press, 2011), p.28.
[149] Cerasi Maurice M, 'Open Space, Water and Trees in Ottoman Urban Culture in the XVIIIth - XIXth Centuries ', *Environmental Design: Journal of the Islamic Environmental Design Research Centre*, 2 (1985). 36-50.

type of fountain can be ascertained. Due to the shortage of water supply in the medina these water supplies were an important element in driving and maintaining the social life in public spaces outside the city walls in later years (fig.62).

- Wall fountain.
-Located next to the castle.
-High level of detail.
-Ottoman architecture related
-Water supply for the ruling family, visitors, and the Ottoman army.
 Used as a landmark welcoming arrivals to the city
Name: Abou Melyanna [In Arabic]
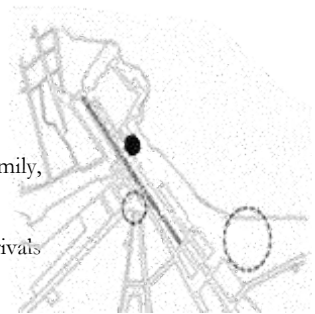
-Free standing fountain
-Located in a public spaces used as Tuesday market next to docks.
-Water supply for visitors, and the Ottoman army.
-High level of detail.
Ottoman architecture related.
- Used as a landmark welcoming arrivals to the city.
Name: Al Manshiya [In Arabic]
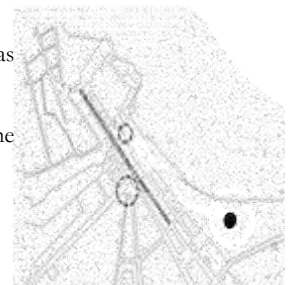
-Free standing fountain
-Located in a public space used as bread market next to the city gate.
-Water supply for locals, and the travelers.
-low level of detail & simple form'
Name: Souk Al Kobez [In Aarbic]
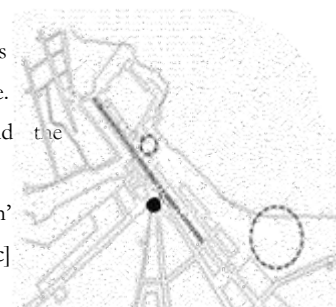
-Wall fountain.
-Located at the city gates.
-Water supply for local
Name: Bab Aljedid [In Arabic]

Figure 62 Fountains in Tripoli.
Source.LCAHS: Album 3A-7. Tripoli

3.3.3.4 Redeveloping the Ottoman urban centre inside the medina walls.

As demonstrated in earlier parts of this chapter, during the extended Ottoman rule (400 years) the medina consisted of two urban centres. One during early Ottoman rule over Tripoli which included the (Dargut complex, the Church, and the Ottoman prison, along with the foreign consuls and the Roman arch) in the middle of the medina, and the second at the end of their rule close to the castle, including the Qarahmanli Grand Mosque, the Turks bazar, the castle, the shipyard and its nearby manufacturing activities.

The reform influenced the later centre both physically and socially, by establishing important public buildings in the area. Constructing a new market next to the Grand Mosque, still known today as Suke Al-Mosher [In Arabic] (the Marshal market), stretched the trade area around the mosque to connect the old Turkish bazar with the activities outside the medina walls.
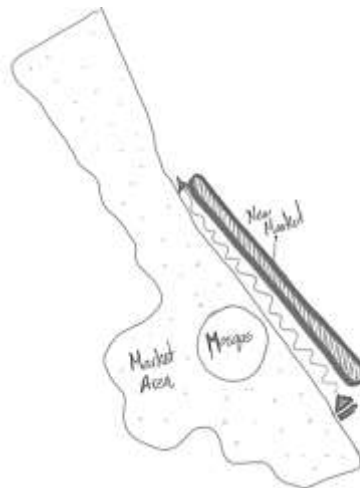
Figure 63 The old market area in relation to the new market.

Furthermore, in 1895 a new Ottoman urban element was induced to the medina of Tripoli: the Ottomans Clock Tower. The first original Ottoman element in the city, example of other clock towers are found in other Ottoman cities such as Istanbul, Tripoli (Lebanon).

> Clock towers were either instruments with which to advertise the central government's
> sovereignty in the provinces, thin guises for erecting church towers, tools with which to
> promote standard time, agents of modernization and secularization, or a contemporary version
> of the time-honoured institution of the timekeeper. [150]

Clock towers were usually built in the city's main public spaces, which is why they were often located close the medina's main mosque[151]. The towers were never taller that the than minarets of the mosque. With its level of detail, its shape and height, the clock tower

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[150] Mehmet Uluengin, ' Secularizing Anatolia tick by tick: clock towers in the ottoman empire and the Turkish republic ', *Int. J. Middle East Stud*, 42 (2010). 17–36.
[151] Ibid,. 2010. p.25.

contrasted with the surrounding urban fabric and stood out as an urban landmark. Its lively classical detail rises in three stages to a small dome outstanding its surrounding fabric

Figure 64 The clock towers: In Istanbul April.2014 (left). In Tripoli July 2014 (right). Both taken by the researcher.

Figure 65 Clock tower size compared to the surrounding built form.

The location chosen for the clock tower in Tripoli was a demonstration of government power; it was built close to the castle and the Grand Mosque, in the heart of Tripoli's urban centre. Even though it was not located in a public space at the time of its construction, the tower's existence forced spaces around it to merge and open up, to form what is known today as Midan Al sa'aa [In Arabic] (The clock square). Although the midan as a public space still exists in the city today, not much has been done to conserve the space and protect its historical qualities. The space now is dominated by cars as shown in (fig. 67).

Figure 66 Section in the clock midan. Source: section through the 3d model.

Figure 67 The clock midan use in recent years the space is dominated by cars. Source. By researcher July 2014

Furthermore, a new gate Bab Al-Bahar [In Arabic] (the sea gate) was constructed, and part of the western wall of the city was demolished in 1909 to promote urban development outside the walls. A wider picture of the reform's effect on the medina's public spaces could be drawn by analysing it in relation to the former urban forces (pre-Ottomans), the changes and developments in relation to both the Roman and Islamic forces.
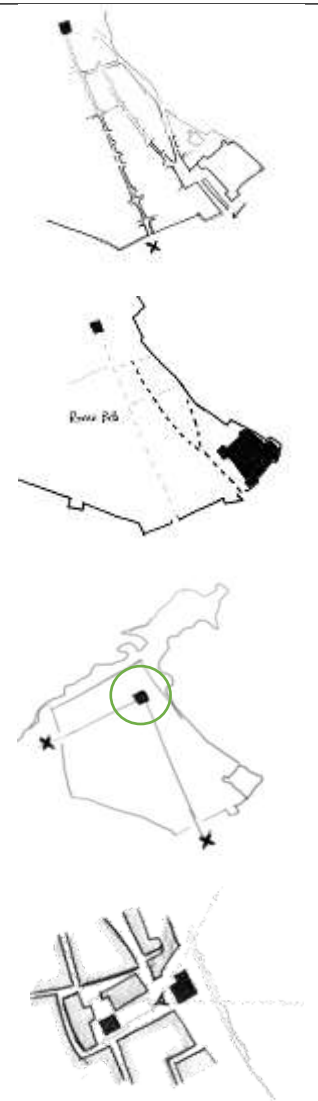
	Comparison of forces of urban change prior to Ottoman the reform	
Roman-Ottoman The Roman main gate	The reform has concentrated on developing the area around the new Ottoman gate El Menshiya gate [In Arabic], validating it as the main gate to the medina instead of the former Roman gate (The freedom gate).	
The Roman routes	As a result of the reform the last remaining Roman roads that leads directly to the arch space declined. There is no link between the Roman documents and the new main Ottoman paths.	
The Roman arch spaces	Due to this reform, the Roman arch space that was once the main public space in the city, not only lost its momentum but also became isolated. Both direct paths connecting the arch to the spaces outside of the medina are blocked.	
The Roman arch spaces	Furthermore, as part of the reform the Ottomans built a mosque in front of the arch which separates its strong visual connection with the port. Thus, the arch space became up till today fully isolated.	
Islamic-Ottoman The Grand mosque	The reform integrated the grand mosque with its surroundings, in a way that made Tripoli comply with the general model of an Islamic city. A central Grand mosque surrounded by trade areas and a central public space.	
The Tomb	The power of the tomb in forming the main public spaces in Tripoli. The reform's heavy changes and development of the spaces outside the walls could not demolish the tomb known as Hamoda's tomb [in Arabic]. It had to work around it. This tomb's existence is so important to the people that even the later Italian colony found it hard to demolish. As will be shown in the Italian chapter.	

Table 2 Comparison of forces of urban change prior to the reform

3.4 Public space characteristics in Ottoman Tripoli

3.4.1 The Streets in Al-medina Tripoli.

The streets in the medina of Tripoli are different from other traditional Islamic cites in North Africa. In general, old medinas are known for their narrow, twisted streets, with surprising changes and slight curves; however, Tripoli is different due to the earlier Roman influence. Until the early 1890s, Tripoli developed three different street patterns: two inside the city walls and one outside the walls (after the Ottoman reform). The streets were a combination of the original Roman grid, an organic pattern (developed during the Islamic conquest), and an Ottoman radial pattern outside the walls.

Mahmoud Daza [152] argues that the varied sizes and shapes of the buildings developed in the medina over time define whether the streets are straight, bent or curved. This research has demonstrated that there were different forces behind the shape and form of the medina streets. The main streets in the old medina were based on the historical Roman grid network. Even though the urban fabric was heavily damaged during the (pre-Ottoman wars) and there was an opportunity to redevelop organically during the early Ottoman period, the streets were rebuilt to be wide, straight, and continuous. The streets developed by the early Ottomans were mostly informed by the intentions and wishes of the individual rulers. Finally, the streets developed during the late Ottoman era were influenced by Europe: they were also wide, straight, and continuous.

Streets in the medina were not just channels for people to pass through; they encouraged the medina's social life and promoted daily social activities. In research by Ezel-Din El-shawesh (2000)[153], a number of elderly residents were interviewed about their experience as residents in old medina during early Italian colonisation. The interviewees recount the street life in al medina Tripoli as rich and interactive. Because these narrow streets provided protection from the sun during the summer and warmth in winter, they were preferable spaces for social interaction and trade activities.

> Weaving with the most primitive of looms on in one street, each occupation having its own quarter where all shops and houses were devoted to a particular industry. Red and yellow cotton plaids made dusky interiors almost gay as old women bent above their tasks, throwing shuttles and pulling threads in unconsciously picturesque attitudes, while barracans grew visibly under their swiftly flying fingers. But far more beautiful were the soft white fabrics of camel's hair, sometimes earners hair and silk together, more rarely silk alone, making a garment of most poetic quality[154].

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[152] Mahmod Daza, Understanding the traditional built environment: crisis, change, and the issue of human needs in the context of habitations and settlements in Libya (PhD Thesis, University of Pennsylvania, 1982).

[153] Eiz Alden El Shawesh, The Changing Identity of the Built Environment in Tripoli, (PhD Thesis, Newcastle, 2000).

[154] Todd Mabel Loomis, *Tripoli the mysterious* (Boston: Small, Maynard and Company, 1912), p.24

Streets were spaces where social problems were solved and social ties were maintained. In the old city streets, small trade activities taking place further encouraged social interaction. Buyer, sellers, and observers shared the streets. Todd's documented travel in 1900, during which she was resident in Tripoli for several months, draws a picture of the type of social activities taking part in the streets of Tripoli during the later years of the Ottoman era:

> "Balik! Balik[155]!" One jumps aside at the sudden, harsh cry; and a tiny, overloaded donkey trots by patiently, its little hoofs sound- less on the white and powdery street. Generally weighed down with grass panniers holding huge earthen ware water-jars, often the carcass of a sheep or lamb, and perhaps his owner in addition, countless numbers of the pathetic little beasts trot eagerly along, helpless ears wagging to and fro, always humble, always sad, with woes which never rise to the dignity of genuine sorrows[156].

> The chorus of street cries was singularly varied. Potatoes, oranges, fish, peculiarly white eggs sold by jet black men, each article was accompanied by its special tone and tune, language or dialect.[157]

Figure 68 Streets inside the medina walls during the Ottomans.

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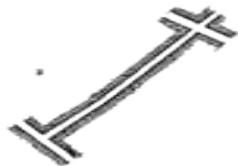
[155] (Give a way or Beware)
[156] Todd, 1912. p.18.
[157] Todd, 1912. p.21.

Table 3 Streets in medina Tripoli differ according to their historical origin, width, and function, streets of the late ottomans period are four types;

Type	historical origin	function	Location	
Main street	Ottoman public streets (after the reform)	the streets accommodated important Ottoman public buildings such as the Ottoman hospital, the Ottoman military school, trade activities, mosques of important people and small shops	wide, straight, Situated outside the walls	
Commercial streets	Ottoman public streets-Roman influenced (prior to the reform)	These contain most of the local social and commercial activities such as good displaying, trading. Furthermore, it is the place where some light handcraft industries are located which some still take place today.	situated inside the walls	
Neighbourhood street	Ottoman semi private streets Influenced by the Islamic intervention (early ottomans)	These contain most of the local neighbour social activities places where some human communications take place.	Streets inside the medina wall, serving the urban blocks.	
Inner neighbourhood's streets	Ottoman private streets influenced by the early Islamic intervention	Dead end streets in neighbourhoods, which serve a number of residences, normally these streets are for people who live in it. This type separates the private domestic flow from the former one, where street life is semi-public and interaction take place as some external goods come from other cities for display or sale.	Small narrow bended streets	

Despite the different character of each pattern they merge in a hierarchical design connecting the inner and outer spaces together. They developed a strong sense of continuity. The physical form and the line of vision-tends to continue over between streets, which generate and enforce the connection of the social life in and out of the medina walls. Analysis of the streets continuity will be presented in further sections.

3.4.2 The Markets in Al-medina Tripoli

Markets are an important public space in all traditional Islamic cities; influencing the dynamic of daily life, they always occupied a prominent position in the city. Markets generate social activities: "their informal pattern could extend into the urban realm"[158]. Markets in Islamic cities generally take two forms: covered markets (markets that are set within the urban fabric), and open markets (those that exist in public spaces i.e.: squares, midans). Despite differences in size, design and location, the activities that take place in these markets are similar i.e.: overseas trades, handmade crafts, and everyday goods. Markets are categorised also based on their duration: some markets are daily markets; others are seasonal and only take place once a year, such as at the end of a crop season, or Ramadan markets.

Usually markets in Islamic walled cities are built in correlation with the medina's Grand Mosque - a central location inside the medina walls - together forming the Islamic urban centre. As explained earlier, Tripoli is different to other North African cities. The medina's early Grand Mosque, which was centrally located, was demolished, and the Ottoman mosque that took its place is located in the south of the city, next to the main gate. Due to the location of the later grand Ottoman mosque, the urban centre separated outside the medina walls. The market area consists of covered traditional markets inside the medina walls, and open markets outside the walls.

The public central space acted as an open market for trade activities that were either made inside the medina i.e bread, fabric and other traditional trads. Or imported from other cities in the region.
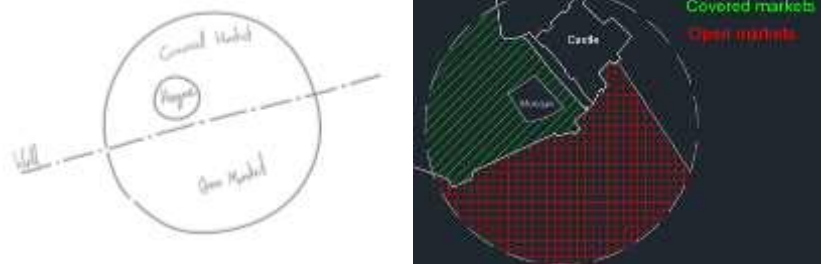
Figure 69 The grand mosque role in developing an urban centre.

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[158] Bianca, 2000. p.119.

The markets in Tripoli during the Ottoman time created continuity between the public spaces inside and outside of the medina walls, both physically and socially. Most research today refers to the markets inside the city walls as the traditional Ottoman markets (the covered market). This is true if Tripoli is considered in its present form. However, through investigating the historic layering of Tripoli's urban fabric, there is evidence that the market area used to expand outside the city walls, developing sequence of transitional spaces connected to one another.

In the Ottoman city, markets took different forms. First, the Turkish market is the oldest market developed inside the city walls (and still stands in the medina today). As explained in the earlier section of this chapter, the bazaar was the core driver behind the development of the subsequent surrounding markets. A second covered market named Souk Al-Mosher [In Arabic] was developed in the medina: a market designed and built as part of the mosque complex, where a number of shops were arranged in front or around the Grand Mosque. These shops are generally attached to its arcades; this creates more space for buyers and viewers, and also provides protection from the harsh weather.

Thirdly, a row of shops side by side defined the street edges. During the Ottoman era, these shops were used for trades related to light industry, mainly related to shipbuilding. Even though the activities in these markets have changed, they still possess their original names: (the Carpenter Market), (the Smithy Market), and (The Copper Market)

Figure 70 Covered markets and their relation to the castle and grand mosque. Redrawn by the researcher based on an urban survey. Source: The archive of Jihaz Hamayih Almadinuh Alqadimuh. Tripoli

Open markets; Research into Tripoli's development tends to omit the open markets that took place in public spaces inside and outside the city walls. These open markets connected the inner and outer spaces of the medina. These markets are divided into three different types: daily markets, weekly markets, and seasonal markets.

The daily markets occur every day outside the city walls; goods for these daily markets are mostly handmade by people living in the medina. The best example is (The bread market).

Todd's experience in Tripoli in the late Ottoman era give insight to the market space. One of the picturesque quarters of the city is the square which on certain days is used as the bread market, where hundreds of Arabs crouch all day under their barchans[159].
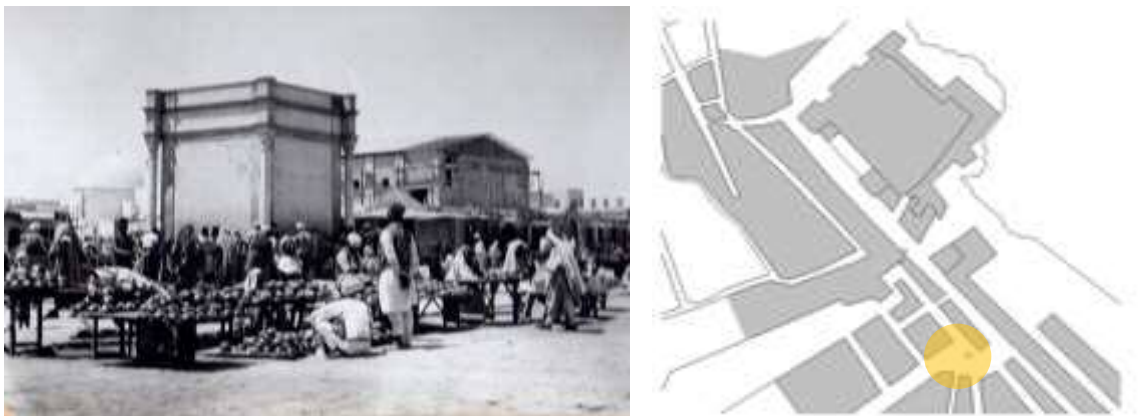
Figure 71 the bread market and its Map location outside the city walls. Source: archive of the Islamic History Museum. Tripoli

Figure 72 The market area outside the medina walls. Source: Itrablus Zaman

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[159] Todd, 1912. p.137.

To me this bread market will always be associated with one memorable morning. For the first time in many months a caravan had been sighted, and was even then beginning to arrive, after ten months' weary crossing of the well-nigh limitless desert. The camels stepped slowly, heavily laden with huge bales securely tied up ivory and gold dust, skins and feathers. On the saddles were gay rugs and blankets, a few good saddle-bags, but generally uninteresting in pattern and quality. Wrapped in dingy drapery and carrying guns ten feet long, swarthy Bedouins led the weary camels across the sun-baked square. In the singular and silent company marched a few genuine Tuaregs, black veils strapped tightly over two hundred and fifty camels composed the train, one or two carrying tightly closed palanquins in which favourite wives rode in safe retirement. Arabs, Bedouins, Tuaregs even, looked worn and tired; and far out into the desert stretched the incoming horde[160].

The weekly market location outside the city walls. Source: archive of the Islamic History Museum. Tripoli

The weekly markets took place in different areas in the region, on a specific day in each city. Tripoli's weekly is named Souk al Tholatha [in Arabic], meaning the Tuesday market. This is a market for goods that have been made/imported from other cities. As these markets consisted of traders who sell and export their products to other countries, they are located next to the docks for easier transfer.

The Tuesday market, Suk el-Thalath, is held in a huge open space beyond the city, along the wide beach. Almost an epitome of the city's varied life, products of native industry appear in primitive guise. On the outskirts are crowded animals for sale, regiments of camels, here and there a white one or a baby camel, goats in great flocks, kids, little cows, sheep, donkeys, ponies; and bales of esparto grass, through which comes a large part of the actual income of the city[161].

By noon the crowd disperses, and the open beach is left once more to its normal white smoothness; tents are gone, animals have trotted away, nationalities are scattered, and one of the most picturesque events in the life of Tripoli is over for a week[162].

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[160] Todd, 1912. p.138.
[161] Ibid,. p.129.
[162] Todd, 1912. p.133.

The water fountain.

عبدو فرحات الزراوي ☪

Figure 73 The weekly market (Tuesday market). Tripoli date 1910 Source: The archive of Jihaz Hamayih Almadinuh Alqadimuh. Tripoli

TRIPOLI D'AFRIQUE. — Grand Marché des Chameaux
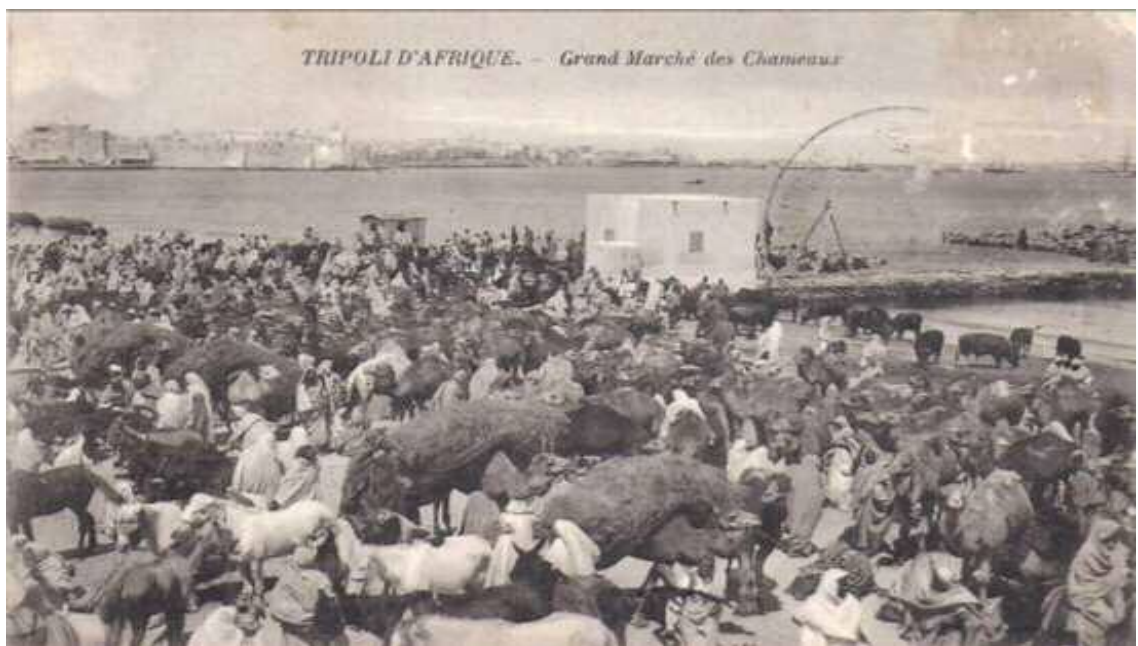
Figure 74 The location of the weekly market in Tripoli, the castle in the background. Source: LCAHS, photograph number 18 Album 3A.

Finally, the seasonal markets are those that take place on certain days of the month/year mainly to sell seasonal goods. Examples of seasonal markets include (the date market), (the sheep market) or (the camel market). During the Ottoman time, these markets often developed as a result of the influence of travellers from other villages, who would travel the desert, and settle outside the medina walls to trade their goods before moving on.

Figure 75 The seasonal market (the camel market). date 1910. Sourc: The archive of Jihaz Hamayih Almadinuh Alqadimuh. Tripoli

3.4.3 The medina open spaces.

The medina Tripoli developed interesting spaces during its history that vary in their functionality and importance. They are physical spaces, such as the one known as the camel market. This space was originally founded as a shipyard during the Qarahmanli dynasty. With the decline of the ship manufacturing industry, the space evolved to become an important open space inside the medina walls. The Italians later redeveloped this space into a hotel due to its central location.

Figure 76 The camel market as a public space in the medina. Source Management of the historical cities authority. Tripoli

The second public space in the medina was that surrounding the Turkish fountain Abou Melyana. The space was a public gathering point until Italian intervention in the medina.

A great rallying point in the city was the Turkish fountain, erected in honour of the present Sultan's predecessor, and always surrounded by a varied throng at all hours[163].
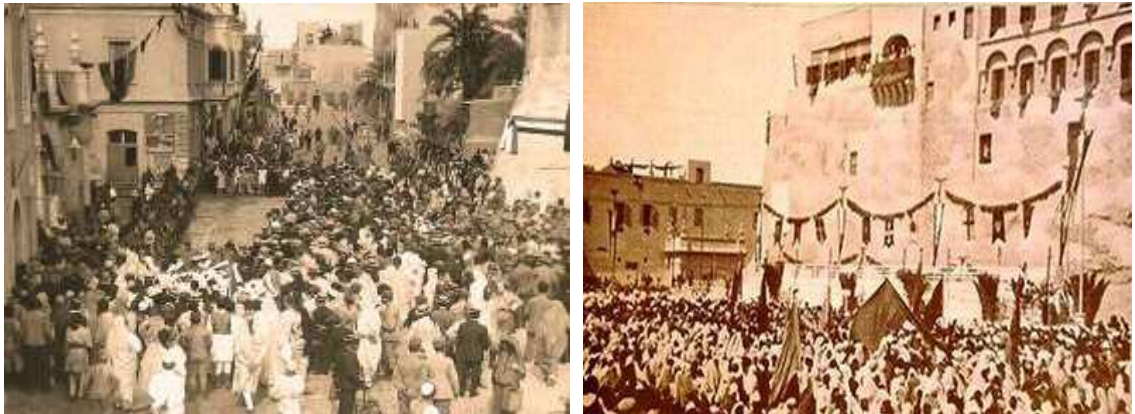
Figure 77 Midan Al khandak. Source Management of the historical cities authority. Tripoli

Roof terraces represent another form of public space in Tripoli. Used by men during the daytime and by women at night, Todd describes the use of the roof terraces as follows:

> After the sun slipped down from the blazing heavens and shadows grew long and cool, roof terraces became the city's promenades where veiled ladies emerged, white like the city itself, to gaze safely forth above curious eyes[164].

Figure 78 Roof terraces. Source: Todd. 1912

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163 Todd, 1912. p.26.
164 Todd, 1912. p.63.

3.5 Continuity of Public spaces in Ottoman medina Tripoli.

In order to investigate the continuity (integration) of public spaces during Ottoman times, the following section of this chapter outlines the results of investigating public spaces through map examination, photo reading, and regenerating a 3D model of a case study in the medina. This is an attempt to reveal the effects of the reform.

Public spaces in the medina (i.e.: streets, midans, port, and open markets) played an important role not just as paths for movement and spaces for gathering, but as urban links joining the old and new Ottoman city fabric. During Ottoman rule, as aforementioned, there were two main stages (before and after) the urban reform; the first, when the urban fabric developed inside the city walls and the second, when the urban fabric grew and expanded outside the city walls. The transition between inside and the outside the walls defines the degree of continuity of the public spaces. Continuity in public spaces can take different shapes; however, for the interest of this research the continuity in public spaces refers to continuity in three forms: continuity of the urban structure, the social activities, and visual continuity when moving from one space to another.

Tripoli being a walled city (only accessible through gates) meant that the transition between the inside /outside could only be studied at the medina's main gate where the reform took place, thus, the empirical analysis of public space continuity will focus on the main case study area in the medina where the transition between the Ottoman, Italian colonial, and post-colonial urban fabric overlapped, and how these changes affected the rest of the medina.
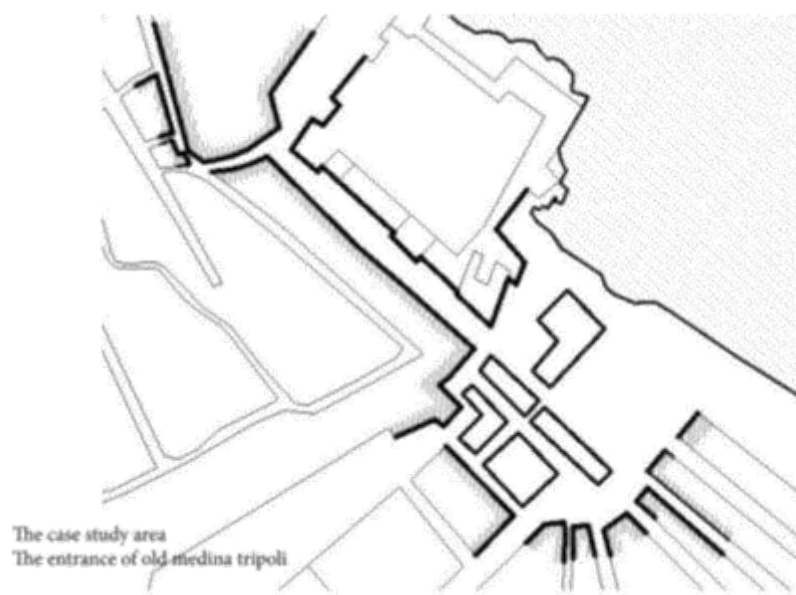
Figure 79 The medina core. The case study area.

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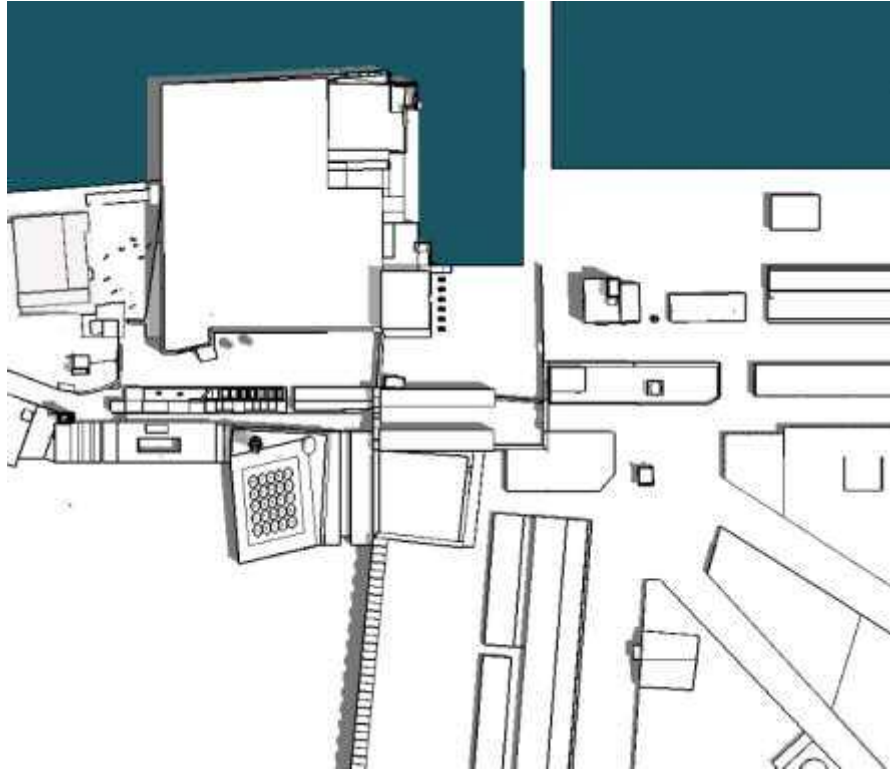
Figure 80 Tripoli core. 1551

3.5.1 Continuity of the urban structure

A strong sense of continuity developed as a result of the Ottoman reform, largely due to the medina extending outside the walls.

Linking the new urban form with the old fabric made the main gate and the dividing walls less significant: the inner and outer spaces had merged into one continuous space. Similarities between the old and new physical structure took many forms.

Figure 81 the main gate area after the reform (inside the medina). Source Management of the historical cities authority. Tripoli
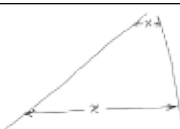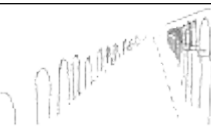
Continuity in height, width and shape	Continuity of the street's width	Continuity of the architectural design

Table 4 continuity of the streets outside the medina walls
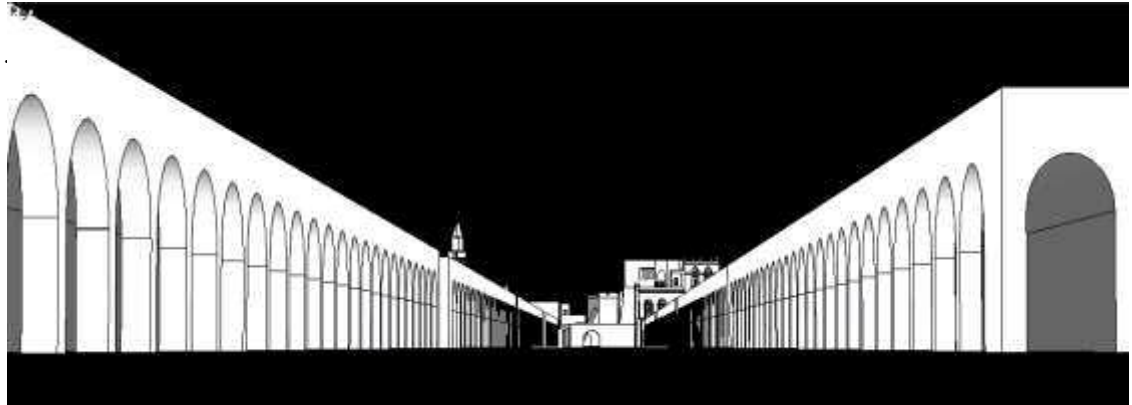
Figure 82 The continuity of the streets outside the medina walls.

As proven through the earlier analysis, the Ottomans deflected attention from the former Roman arch space by encouraging medina growth away from the former Roman centre. The Ottomans redirected the flow of movement away from the arch space by closing one of the main gates that led directly to it; they also avoided the existing Roman gate and constructed a new Ottoman one. The reform cemented these early steps: it did not just lead to the abandonment of the use of the former Roman gate, the reform blocked it from any future connection with main spaces outside the walls. In other words, even though the Ottomans did not close the gate, they significantly altered its function and relevance in the city.
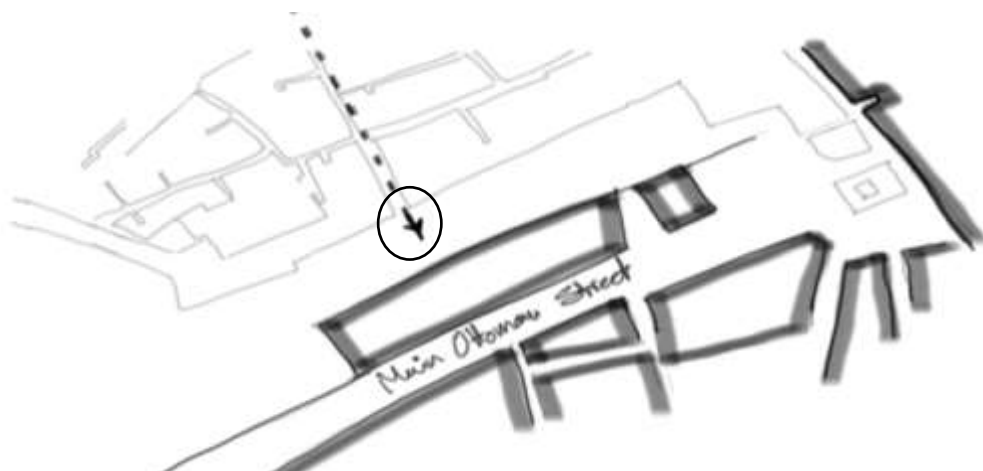
Figure 83 The Roman gate separated from the new urban spaces (became the hidden gate)

The physical structure was for both continuity and social segregation. Through the map analysis, it was found that during the Ottomans there was a physical segregation between the paths for the locals and those for the royal. Streets used by the Ottomans in power were enhanced and provided by a well-decorated building and a water supply structure that gave the space an Ottoman sense. Whereas, the ones used by locals, were neglected, narrow with no architectural significance.

Figure 84 Ottoman primary elements next to the Castle. Source: LCAHS

3.5.2 Continuity of the social activities

Public spaces outside the medina encouraged a daily flow of trade activities in and out of the medina walls. One of the main goods made in the medina and sold in the main square outside the city walls was bread. Libyan food still depends on the production of fresh bread daily. Even though other activities take place in the square, this particular trade in the main square gave it the name (The bread market).

> Bakers without warning pulled out from their ovens huge shovels full of yellow loaves, until the long iron handles, reaching nearly across the street, proved a sudden stumbling block to the unwary. It must be distinctly convenient to use the street as a sort of supplementary bake-shop, when one's own premises are too small for manipulating the long-handled implements of trade[165].

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[165] Todd, 1912. p.21.

Figure 85 The bread midan outside the walls and its daily activities. Source Management of the historical cities authority. Tripoli

Religious activities take place in public spaces in and outside the city walls: "In front of their open shops devout Arabs read the Koran in apparent absorption; never so far removed from this world's affairs"[166]. Other religious activities start outside the medina walls, but continue around the streets and the markets inside the city walls. An example of such religious activities marks the celebration of Prophet Mouhamed's day of birth, named Al Mouled [in Arabic]. The celebration begins outside the city walls, and worshippers travel by foot until they reach the camel market in the medina.
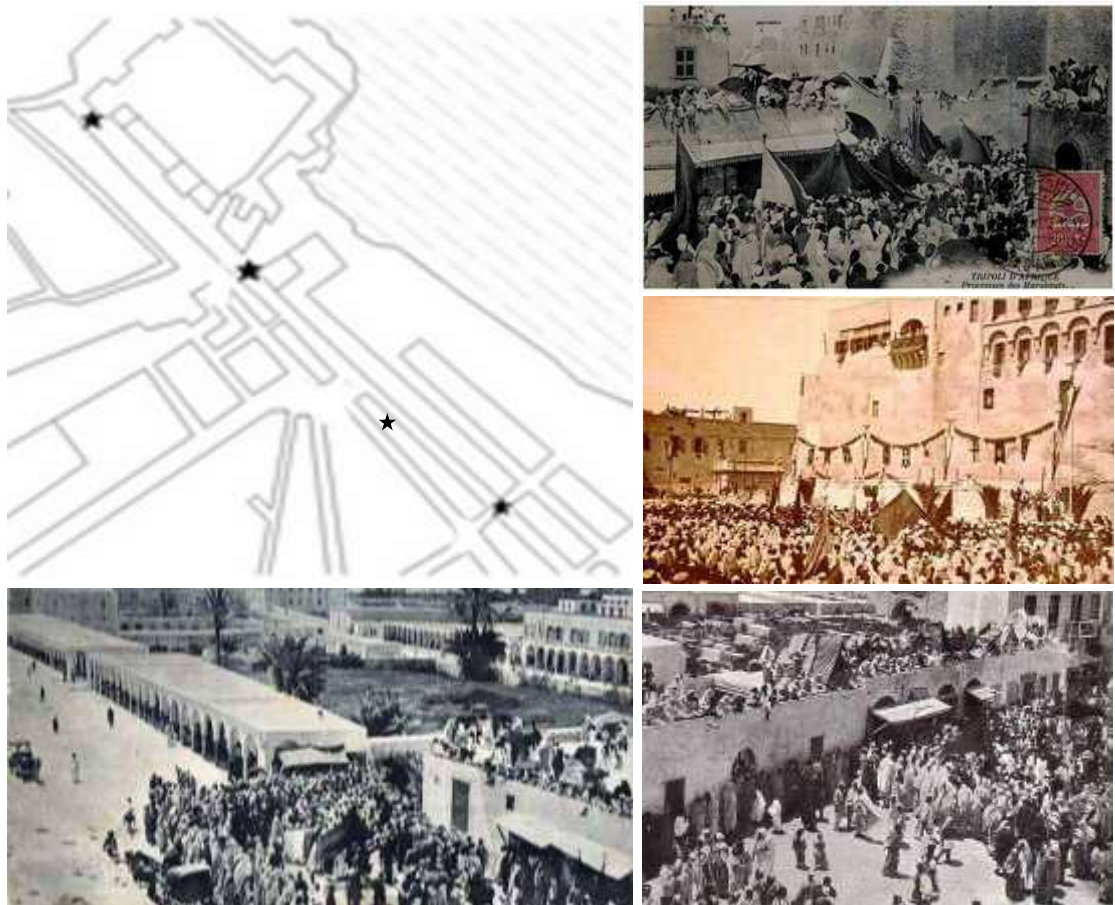
Figure 86 The movement of activities from outside the walls toward the medina. Source Management of the historical cities authority. Tripoli

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[166] Todd, 1912. p.21.

3.5.3 Visual continuity

Even though the Ottoman fabric no longer exists outside the city walls today - it is entirely replaced by the Italian colonial fabric - through photo analysis and the regenerated 3D model it is clear that the visual continuity of the Ottoman form was strong. The researcher believes that this continuity of visual affect inspired the later Italian colonial architecture.

The Ottomans developed a strong visual connectivity in their urban form by using the arch as architectural design unit.

> The distinctive architectural features are characterized by their simplicity of design and spirituality form and substance. The decorations carved on stones, marble and timber, in addition to the simplicity of domes and minarets has an important role in the reflection of architectural and urban features for this period[167].

In the old medina, the arch shape is door shaped opening; a set of arches can be arranged to cover arcades and terraces. Furthermore, most streets during the Ottoman period used the flying buttresses (arches) between sides of the street. These arches took irregular shapes and forms and supported the structure of the houses along the streets. Piccioli describes the arches in the documentation of his travels to medina Tripoli in 1935" The heavy arches, which run from house to house, have an appearance of unevenness combined with something fantastic and yet simple"[168].

Figure 87 Views of streets in the Ottoman fabric and arches. Source Management of the historical cities authority. Tripoli

Apart from their value in terms of street construction, the arches play a visual role in public spaces. Firstly, they direct the flow of movement from one space to another. They break the

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[167] Bashir Azlitni, 'The Libyan Architectural Features between Tradition and Modernization '. *Int. Journal for Housing Science*, 33 (2009), 137-148, (p.41).
[168] Angelo Piccioli, *The Magic Gate of the Sahara* (London: Methuen & Co, 1935), p.3.

long linear form of the medina's streets, making the walking journey more enjoyable. Furthermore, the distribution of these arches in different parts of the street expresses a sense of unity, continuity and harmony in the medina's public spaces.

The shadows created by the arches on the simple building forms add depth to the visual experience in the medina. They project a dynamic pattern that changes in shape and size throughout the day.

> Every aspect of the buildings seems to give a clear indication of the structure and rhythm of its life…stimulus to the imagination-great spaces of shadow which are coloured here and there with a thousand different tones[169].

The same architectural unit (the arch) was used by the Ottomans to enforce the visual continuity of public space outside the city walls. Using simple and natural building materials, simple shapes and structural techniques, they developed harmonious textures and colours to connect the old fabric with the new one, as seen in the next figure.

Figure 88 The use of the arch and the medina's visual connectivity. Source: The digital photographic collection of (Old City Tripoli Libya)

Another significant feature of the main streets in the Ottoman urban fabric is that each street either starts or ends with a physical element, such as a gate, mosque and tower, or a market; this creates a visual experience that is memorable and continuous. A 3D model replication of this experience demonstrates the smooth transition between public spaces during the Ottoman times.

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[169] Ibid,. p.3.
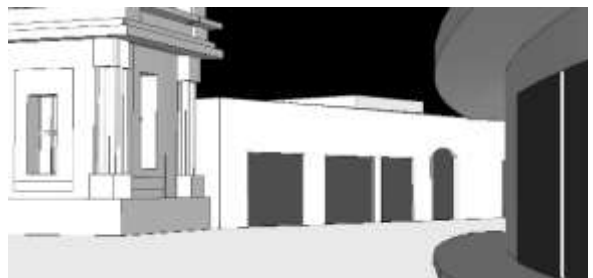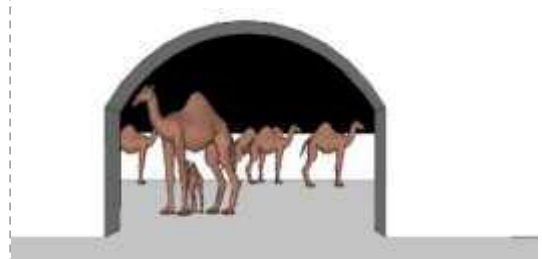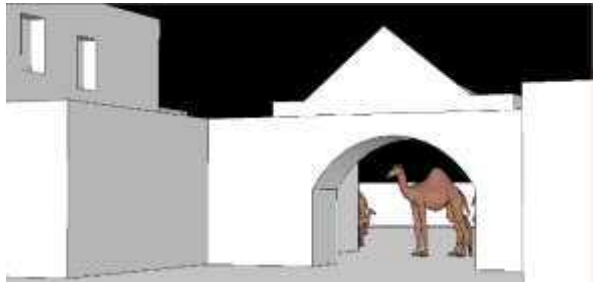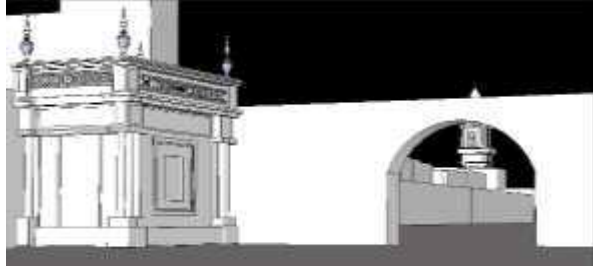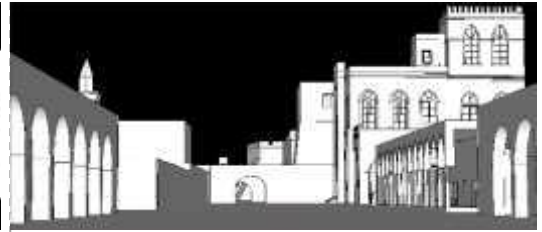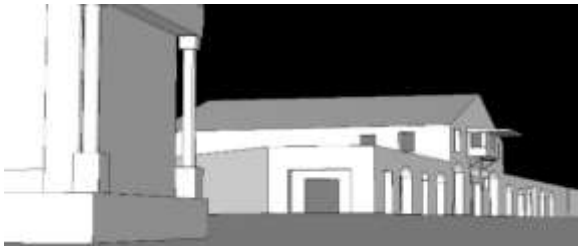
aken during the walk through during the Ottoman Tripoli.

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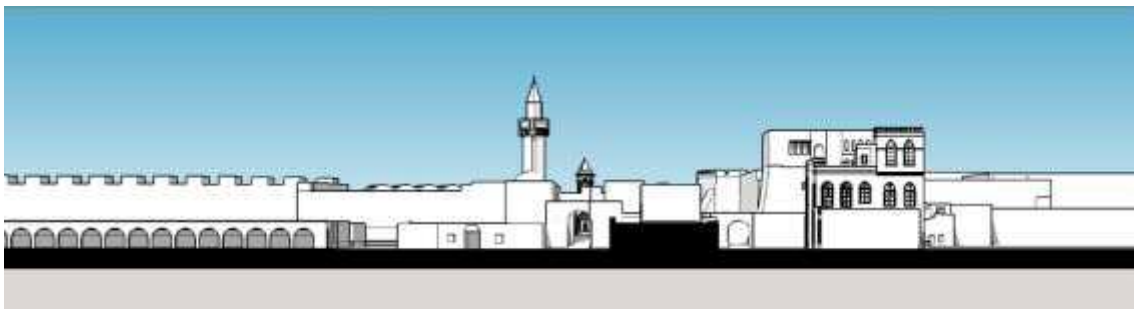
A1- A1
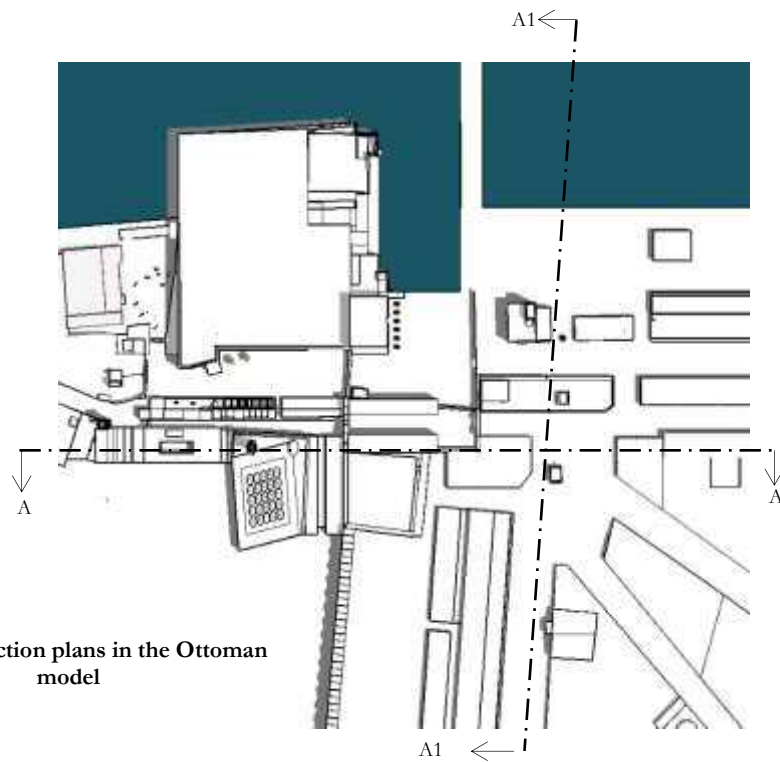
Figure 90 Section plans in the Ottoman model
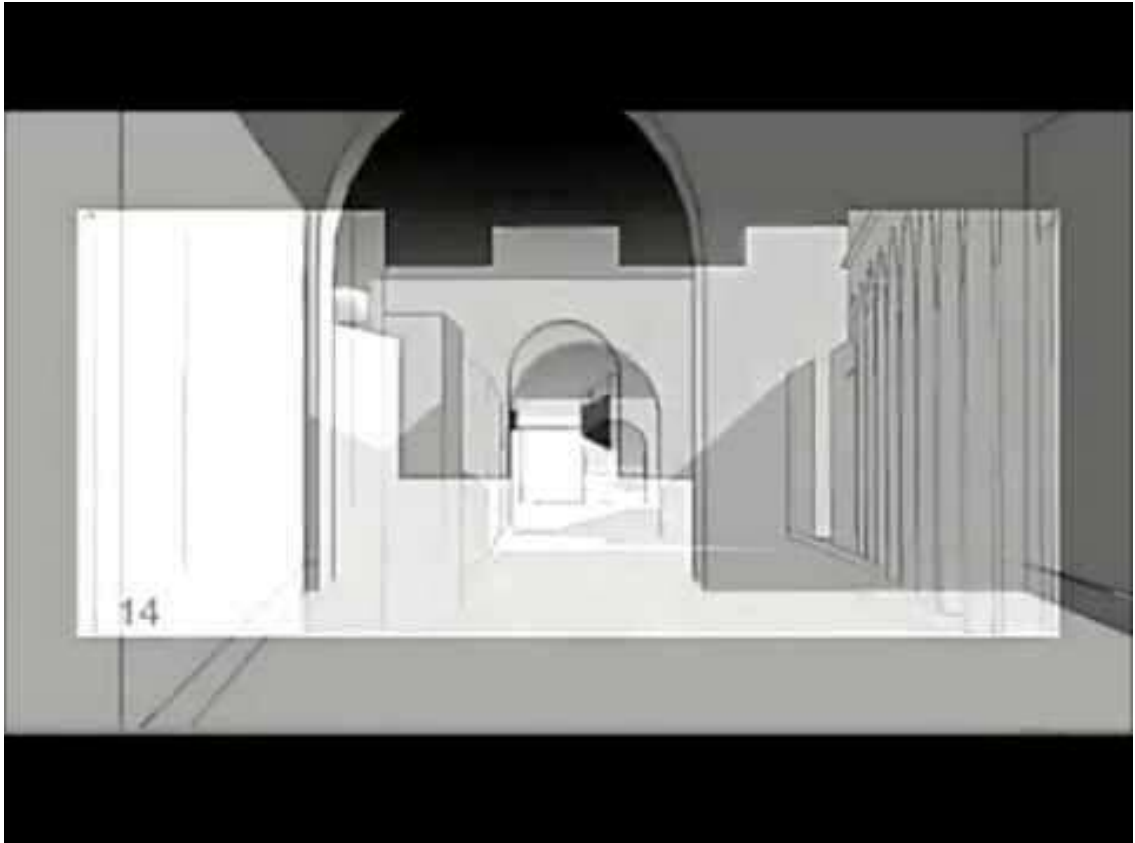
Figure 91 The embedded vied file of the walkthrough, for digital copy.

** Please if you are reading a printout of the thesis, watch the video of the walk through in the attached CD. File named (Public Spaces in Tripoli During the Ottomans Time).

3.6 Summary of Stimulation study part 1 Tripoli in the Ottoman time:
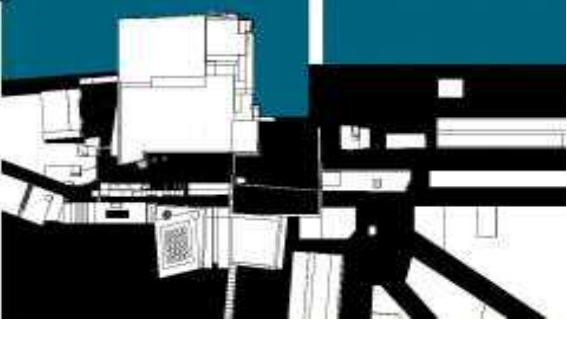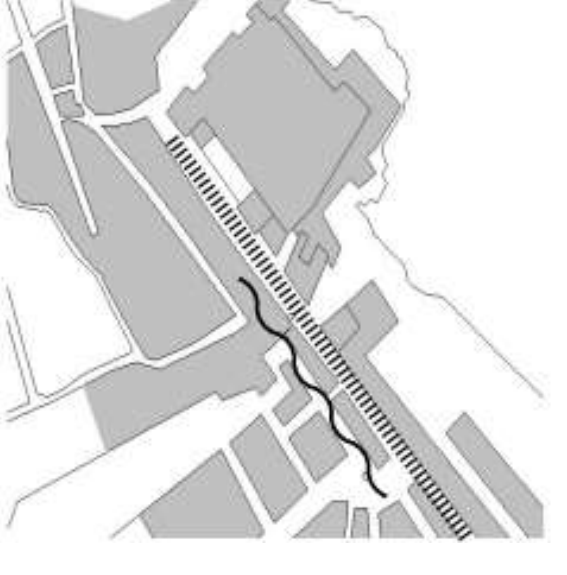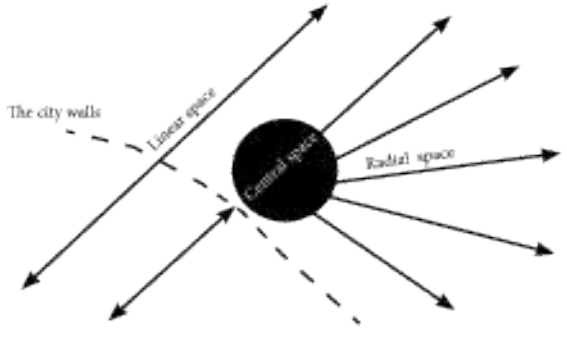
1- continuity	Passing through public spaces in medina Tripoli, out of the city gate and across the urban development outside of the city is a smooth journey. There is a continuity in the space in both its physical and spatial form; it does not change much inside and outside the walls	
2- Spatial division	From the 3D model it is evident that there was a clear division between the royal family and the rest of the people. The first spaces are for the royal members living in the castle; this space is well maintained and connected directly to the port, with a large well-designed water fountain. The second space is for regular people; these spaces are irregular in form, tight, and connected to the daily market, with a small water fountain. There is no evidence of the decorative aspects that are commonly associated with Ottoman architecture.	
3- Radial system	- The connection between public spaces inside the city walls and the outside area is called the bread market. This space acts as a central space where all the daily activities take place.	
4- Daily activities	-The bread market. -Mosques -Water supplies -Traditional markets -Coffee shops -Cemetery -Zawaya (Islamic teaching places) -Hotels for travellers	
5- Architecture of the space.	-Domes - Arches - Row of roman columns - Reused Roman remains - Low rise fabric	

Table 5 Stimulation study part 1 Tripoli in the Ottoman time

Chapter 4

Public spaces and the built environment of as an Italian colony

4.1 Introduction

The previous chapter has presented the findings concerning Tripoli's public spaces and the formation of Tripoli's urban core until the end of Ottoman occupation. This chapter, continues the presentation and analysis of the historical research findings, it covers the second-time layer of the research: Tripoli as an Italian colony (1911-1951). The chapter is divided into two sections: a historical research investigating the forces driving the evolution of Tripoli's public spaces during the Italian invasion; and secondly, a morphological analysis examining the changes of the urban fabric and its effect on the continuity of public spaces in Tripoli physically, socially and visually.

The present research examines the changes in Tripoli's urban form and public spaces starting in early 1911, when the Italians used military force to take Tripoli from the Ottomans, until Tripoli gained independence (1951). The underlying forces behind the growth and change of Tripoli's cityscape are military, economic and social. Examining maps, documents, and reports written by architects (or even military members responsible for Tripoli's development), it is possible, to an extent, to locate the important urban evidence (primary elements) of Tripoli's evolution as an Italian colony, and to compare and contrast these changes and their effect on the city's public spaces (i.e.: streets, squares, gates, markets).

Section two consists of a morphological analysis of public spaces at the late Italian stage (1942). The continuity of these spaces will be investigated in three different ways: physically, socially, and visually. This section uses 2D map photos and the earlier generated 3D model (Ottoman model) of the main public spaces during the Ottoman times to examine the urban changes.

The chapter ends with a summary of the main forces that shaped public spaces in Tripoli during the Italian colony, and their general characteristics, as a base for the analysis for the next chapter (Tripoli post colony).

4.2 Forces of evolution and change in Tripoli's public spaces during the Italian colony.

Urban research about Tripoli as an Italian colony was limited, according to the American academic scholar well-known for her Italian colonial architecture research, Mia Fuller (2000). Fuller points out that "only a handful of scholarly efforts have been devoted to Italian architectural and urban policies in Tripoli"[170]. The 35 years of Italian colonisation of Tripoli is short relative to the 360 years of the Ottoman Empire; nonetheless it was sufficient "to be both destructive and constructive in significant ways"[171].

In studying growth and change in Tripoli's urban form, two sets of time were clearly identified. The first falls between (1911-1930) when Tripoli was referred to in the literature as (the Italian colony) and second is between (1930-1951) when Tripoli was named (the Italian Tripoli)[172]. Even though the terms may not seem so different, each period had its unique urban forces, plans, visions, architects and public figures driving the growth and change of public spaces in the city. Forces of growth and change in both times will be identified and examined in the following sections.

The Italian colonisation of Libya was driven by its availability -at the time Libya was the only place in North Africa that was still under Ottoman rule, as other countries were taken by the French and the British, its geography -the geographical location of Libya opposite side to Italy, its economics; investments with the Ottomans in Tripoli[173] and most importantly its historical significance; its Roman origins[174]. The Italians made occupying Libya their primary objective; they considered it a given right due to its proximity and its classical Roman history. Premier Giovanni Giolitti, Minister of Interior and a representative of moderate conservative party in Italy[175], wrote in a letter to the « Daily Express » of London, September 1910, explaining the reasons why Italy was compelled to overtake Tripoli:

> The reasons of this conflict are many, the principal one being, that Turkey would not admit
> the necessity of our expansion in Tripolitania, and the earnestness of our intentions…One

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[170] Mia Fuller, 'Preservation and self-absorption: Italian colonisation and the walled city of Tripoli, Libya'. *The Journal of North African Studies*, 5 (2000), p.121-154

[171] Ibid,. p.121.

[172] François Dumasy, 'In the middle and apart, Prestige and centrality in Tripoli of Libya during the Italian colonization, 1911-1943', *Spatial Dimension of Inequalities*. (Rennes: Presses Universities de Rennes, 2011), 209-232.

[173] Al-Abiath, R. N. *Tripoli in the Writings of Travellers during the Nineteenth Century* (Tripoli: Aldar Alarabya Ll Ktab, 2009) [In Arabic]

[174] Ronald Bruce St John, *Historical Dictionary of Libya*. (Maryland: Roman & Littelfield, 2014), p.57.

[175] And later premaster of Italy between (1920-1921).

needs only to look at a Map, and will see at once the ethnic connection of Sicily with Tripoli…History tells us that Tripoli was Greek when Sicily was Greek also, and both became Roman under Roman domination. And in these last fifty years of our great evolution, with the growth of our population, and our prosperity and wealth, Tripoli could not but feel the effect of the old ethnic law, and be considered as an appendage of Italy[176].
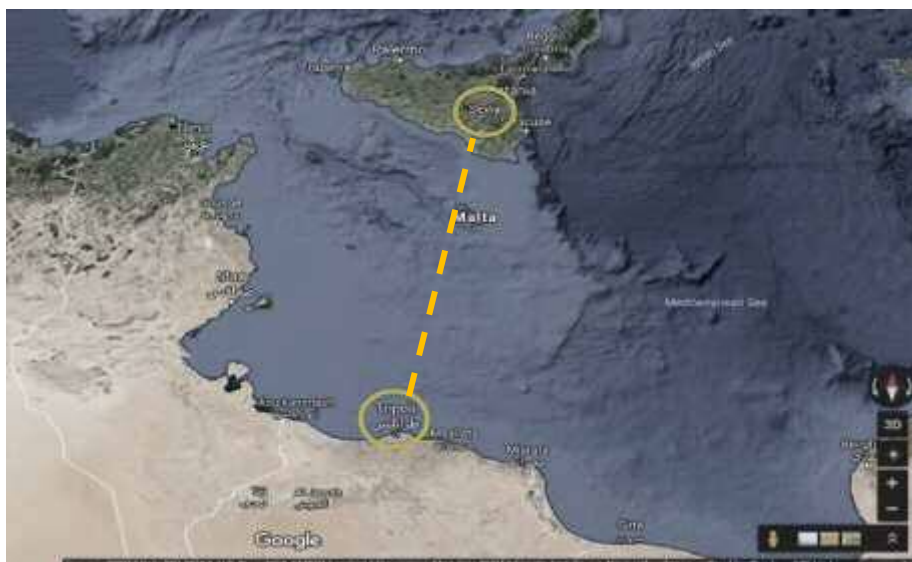
Figure 92 Map showing the location and proximity Sicilia & Tripoli. Source Googel earth

However, prior to the Italian military invasion in September 1911, apart from the Italian economic permeation through their establishment of Bank of Rome in Tripoli in 1907 (Banka Di Roma) and its investments[177], not much was known by the Italians about the colony. After the war began, Professor John Walter Gregory[178], a British geologist and explorer, wrote the first report examining the new colony's wealth in 1911. He emphasised the poverty of the country, its lack of water, and its widespread rocks and deserts, revealing that the main exports were limited to olive oil and barley[179]. A deficiency of knowledge about the land topology, agrarian productivity, social structure and resources made it hard for the Italian military to gain support and to justify the cost and their losses during the ongoing war[180]. Owing to the lack of good resources in a land mostly covered with sand*, it was

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[176] Paolo De Vecchi, *Italy's civilizing mission in Africa* (New York: Brentano, 1912), p.5.
[177] N Al-Abiath, Tripoli in the Writings of Travellers during the Nineteenth Century. (Tripoli: Libyan Historical Studies Centre, 2009)
[178] Fellow of the Royal Society London, and named professor of geology (1904-1929)
[179] Bernard E. Leake, The Life and Work of Professor J.W. Gregory FRS (1864-1932), Geologist, Writer and Explorer (London: Geological Society, 2011), p.127.
*The colony's oil or gas potential was not considered at that time.
[180] "Expert financiers estimate that the war has in the period ending February 29, 1912, cost a total of $57,900, - 000 or at a daily rate of $386,000" in William Henry Beehler, *The History of the Italian-Turkish War, September 29, 1911, to October 18,1912* (Annapolis: Advertiser republican, 1913), p.60.

considered that the appropriate use for the new colony Libya is as a (Peopling Colony)[181]: a land that would be advertised as the solution for the overpopulated and underemployed Italy.

Figure 93 Map of Libya and its desert. Source: Google earth.

Advertising the Italian vision of Tripoli as an expansion of Italy meant for the relocation of Italian families. To encourage Italian families to move to the new colony, once the war ended in 1920, public spaces were developed to accommodate diverse activities, such as the Tripoli Grand Prix racetrack (Automobile Club di Tripoli) in 1925, an International Fair (Fiera Internazionale di Tripoli) in 1927, and open cinemas and theatres (Teatro Miramare Tripoli) in 1928. They also developed a sense of similarity between Italy's public spaces, urban forms and spatial order and the ones they developed in Tripoli. These changes affected the physical form, the spatial structure and social use of public spaces of the previous Ottoman Tripoli, as will be examined in later sections of this chapter.

Since this research is focused on public spaces in Tripoli and the forces behind any changes in this respect, the analysis of this chapter is centred around the findings of the earlier time set (Ottoman chapter). It is necessary therefore at this point to summarise Tripoli's public spaces within the Ottoman urban form at the time the Italians entered Tripoli (in September 1911).

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[181] Fassil Demissie, *Colonial Architecture and Urbanism in Africa* (Routledge, 2012), p.34.

The total area inside the walled city was approximately 46 hectares[182] with a population of 20,000. Most of the open space inside the medina walls was built up and expanded outside the walls. The Ottoman's primary urban elements included the medina's walls, the castle, the clock tower, the city's main mosque, the bazars, the Roman arch, the port, and some varied religious buildings i.e.: St Mary's church. In addition to the city's public spaces, inner and outer spaces included the daily and weekly markets, streets, midans, and the port. These urban elements formed a significant factor in the urban evolution of the previous era, as summarised in (Tab.6).
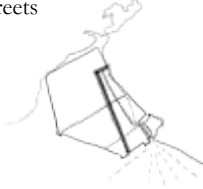
Primary elements	Public spaces	Spatial system
Medina's walls & castle	Inner and outer spaces	Traditional Islamic fabric
Roman arch & The port	Open market	Radial system
Clock tower, water fountains	Streets	
Main mosque & Bazars	Maidan	
Tomb & St Mary church		

Table 6 Summary of the primary urban evidence of Tripoli during the Ottomans time.

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[182] Rghei, A and Nelson, J, 'The Conservation and Use of the Walled City of Tripoli'. *The Geographical Journal*, 160 (1994), 143-158.

Figure 95 Aerial view 1: Tripoli's 1912 main open space named the Bread market, and the tomb.

Source: The National Archives of Libya. Red Castle, Tripoli. [In Arabic]

Figure 94 Aerial view 2: The medina in 1912 showing the walled city of Tripoli, the port and some of the fabric outside the medina walls. Source: Libya Design, Cultural Design Centre, Tripoli

Source: The National Archives of Libya. Red Castle, Tripoli. [In Arabic]

Figure 96 Aerial view 3: The bread market area, the main radial streets and the urban fabric outside the medina walls. Source: The National Archives of Libya. Red Castle, Tripoli

Figure 97 Aerial view 4: The water front prior to the Italian corniche. Source The National Archives of Libya. Red Castle, Tripoli

Figure 98 Map of Tripoli during the Ottomans at 1910. Source: Libya Survey Department. Tripoli

Figure 99 Sky line of the outer side of Tripoli's wall showing the height of the Ottoman fabric and its consistency with the heights inside the medina walls. In 1911. Source: The ancient city administration, Tripoli [In Arabi]

In terms of local architecture, the Italians described the old city as rich. Krystyna von Henneberg's research includes several scholarly articles, stressing the rich legacy of the Classical Roman Empire in Libya. The Roman remains, such as the arch and grid pattern, tell the historical story of the city. The Ottomans had a mixed architectural style which varied between simple/plain and decorative/representative. Religious interests guided the development of the Ottoman public spaces in the medina: the building heights, the non-direct openings onto the streets, the simple and plain facades[183]. The city gathered various different characteristics during different eras, as Tripoli evolved from the Phoenician era onwards.

4.2.1 Forces of growth and change during the early Italian colony (1911–1930)

4.2.1.1 Tripoli during the Italian invasion 1911-1912

Wanting Libya and claiming it were two entirely different issues. The invasion of Libya's coastal cities, namely Tripoli and Benghazi, was relatively easy; it was the securing, settling, and holding of the region that was challenging. Resistance to the Italians was constant and widespread from the invasion until the 1920s[184]. The Italians faced external and internal sources of opposition. The struggle with the resistance can be seen reflected in both the urban choices the Italians made in terms of developing Tripoli in the early years of its colony, and their ability to achieve them, as will be shown in the following sections.

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[183] Krystyna von Henneberg, 'Imperial Uncertainties: Architectural Syncretism and Improvisation in Fascist Colonial Libya '. *Journal of Contemporary History*, 31 (1996), 373-395.
[184] Saima RAZA, 'Italian Colonisation & Libyan Resistance the Al-Sanusi of Cyrenaica (1911-1922)', *Journal of Middle Eastern and Islamic Studies*, 6 (2012), 87-120.

It is necessary to clarify that during the long Turkish-Italian war, Tripoli's Ottoman urban fabric was not affected. Tripoli - in contrast to other Libyan coastal cities such as Benghazi - was fortunate that during the Italian invasion in September 1911, the urban fabric was not destroyed. Between the Italians avoiding bombing the inner city, and the Ottomans' willingness to surrender it, damage to the medina was limited. This is supported in the work of journalist Edward Morel:

> At the former place, practically no resistance was offered and little damage was done, the
> Turkish garrison retiring inland185
>
> Though the buildings in the city were avoided, fires were started in several, and the governor's
> palace was hit a number of times. The new lighthouse was completely destroyed. After dark,
> the ships got under way and cruised in the offing with screened lights 186.
>
> The Turks surrounded Tripoli exterior to the circumference of a circle with a radius of 15 to
> 20 kilometres extending from near the village of Gargaresch around near Ain Zara to Bir-el-
> Turki east of Ain Zara 187.

Tripoli preserved most of its Ottoman fabric, as well as what was left of the Roman remains. Any later changes were deliberate and did not result from the Italian-Turkish war.

4.2.1.2 Italian urban planning during the first year of the war 1911-1920s

Two forces drove the changes in Tripoli's urban fabric from the time of the invasion and during the transitional phase: security, and making the city attractive to future economic investments. Any changes in the city were designed to work toward the vision set for Tripoli, therefore, when Tripoli's port showed the first signs of becoming inefficient and voices called for its redevelopment, the Ministry of Public Works in Italy sent in Luigi Luiggi[188] (a well-known engineer, specialist in harbours and harbour neighbourhoods) to assess the situation and draw out plans for future developments in the city. The results of his assessment were published in Nuova Antologia[189] (1912), [in Italian]. Luiggi's report focused on five areas of development in the city: the port, the train station, sanitation, water supply, and improving road communication[190]. The following section will investigate these elements and their

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[185] E. D. Morel, *The Black Man's Burden* (London: The National Labour Press LTD, 1920), p.98.
[186] Beehler, William Henry, *The History of the Italian-Turkish War September 29, 1911 to October 18, 1912* (Annapolis: Annapolis Md The Advbrtisbr-Rrpublican, 1913), p.20.
[187] Morel, p.52.
[188] Luigi Luiggi. He used to live and work in Italy, but he was in charge of the first study and urban plan for the port and the old town of Tripoli in 1912 (he sketched the first urban plan, systemized by M. Albino Pasini on a Turkish map, plan approved during September 1912).
[189] A quarterly periodical of letters, sciences and arts founded in January 1866 in Florence. It became the official magazine of the Academy of Italy.
[190] Brian McLaren, Architecture and Tourism in Italian Colonial Libya: An Ambivalent Modernism (University of Washington Press, 2006), p.21.

relation to the Ottoman fabric, to understand the trajectory of change and growth of Tripoli's public spaces.

4.2.1.3 Tripoli's port and its connections as a public space in the city:

Tripoli's port did not meet the demands of the Italian war, nor the trade activities that developed in the city. Due to insufficient resources in the city the Italians depended heavily on imports from Italy, not just for weapons and armoury but also daily needs such as food and water to cater for the rising number of troops scattered in the surrounding desert.

> Meanwhile Tripoli had become a scene of bustling activity… a new life stirred and flowed.
> The tide of commerce that the war had brought rose higher, and there were added the
> beginnings of activities that would persist after peace came—the work for the port, long talked
> of by the Turks and always relegated to a more convenient season, and the roots of other
> enterprises that should flourish in the future.191

Tripoli's port was also going to be instrumental in the construction of a new railway, an element introduced to the city by the Italians. The construction of the railway needed to happen quickly in order to support the Italian troops positioned to take control of the surrounding areas around Tripoli.

The port was dangerous and unfit to cover the demands of war, which delayed the process of constructing the railway. As a result, the Italian troops lost the chance to fully control Tripoli and it surroundings as the Turks had time to rally and became harder to overthrow. This also delayed the development of the main five elements of the first Italian plan for Tripoli, as William Kidston McCure describes in his account of the war of written in 1913:

> News came that sixty kilometres of rails were on their way from Italy, and this figure seemed
> to promise an advanced base at Azizia. The line of route was marked out through the oasis as
> far as Sido Messri, and by the middle of January soldiers were busy making the road-bed for a
> metre-gauge line.192

> The port of Tripoli is practically an open roadstead, only slightly sheltered by the reef of rocks
> that runs far out on its western side. The water deepens very gradually, and landing railway
> material, with the inadequate facilities existing, was a matter of great difficulty. Wooden jetties
> were constructed, but the ordinary supplies for the army of occupation had first call on the
> resources of the port193.

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[191] W. K. McClure, *Italy in north Africa, An Account of the Tripoli Enterprise* (London: Constable and Company Ltd, 1913), p.122.
[192] Ibid,. p.123.
[193] McClure, p.125.

By analysing the layout plan for Tripoli as part of the port development three main findings can be identified. First, the division of the port activity;
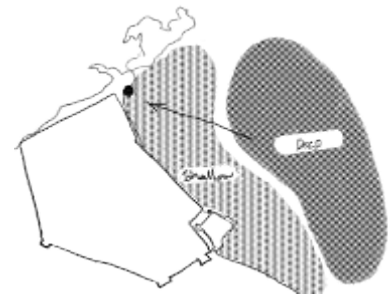
Figure 100 The port level and the current docks location.

Figure 101 Old port of Tripoli showing the deep and shallow side of the water. Source: The Red Saraya Museum. (Tripoli) (date not-known)
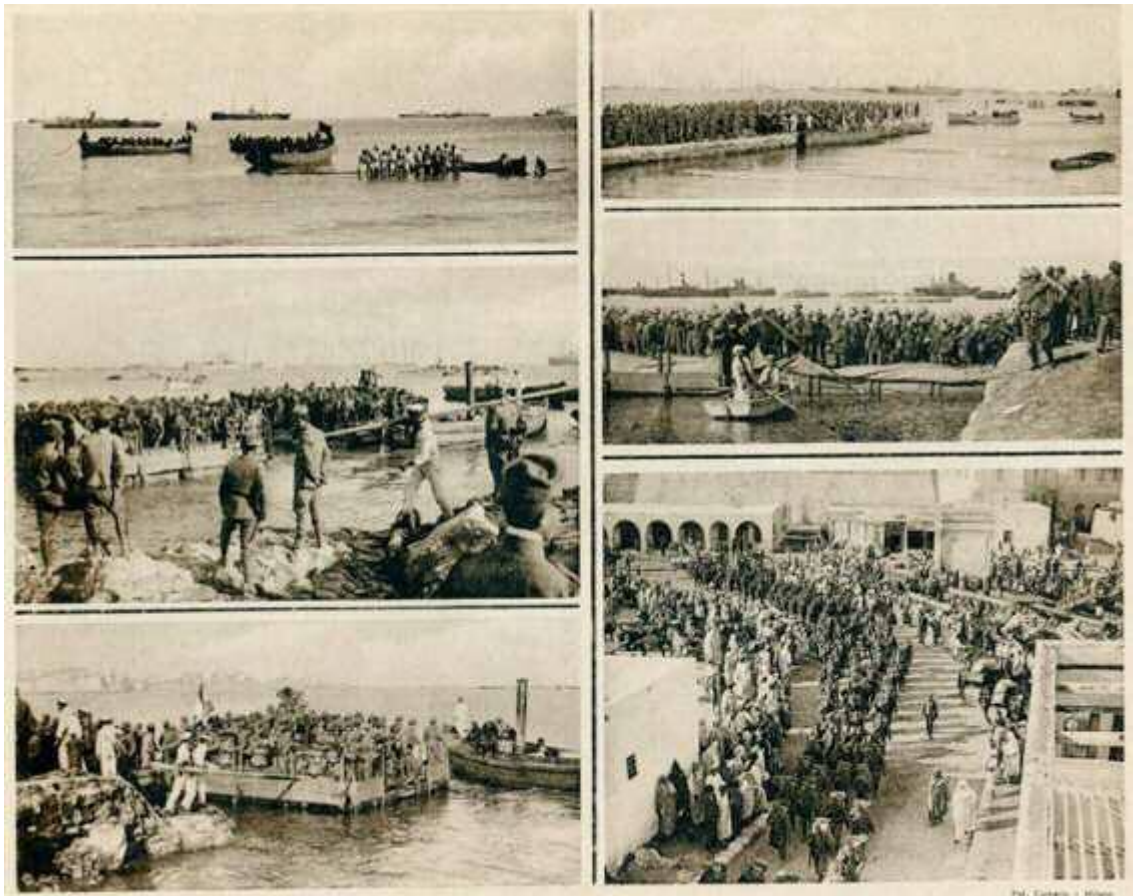
"In the course of the month the Italians landed some 25,000 troops in the town"[194].

Figure 102 The Italian invasion in 1911, the Italian troops landing on the coasts of Tripoli. Source: Libyan Jihad Centre for Historical Studies Tripoli.

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[194] McClure, p.127.

Plans for the port came as part of a wider development of the area, meant to transform it from a small harbour to a node connecting Tripoli to Italy.

As soon as Tripoli had been relieved of the immediate presence of the Turco- Arab forces [In Tripoli] the question of the port was tackled by the Italian authorities. Complete plans were drawn up with all speed, the scheme was passed, and the contract given a few weeks after the beginning of the year. The scheme is ambitious, and the estimated cost of the complete project approaches million sterling; but the work will be under-taken in sections, and spread out over a considerable time.

> The task is greatly facilitated by the existence of the reef which runs north-east from the Spanish Fort, or, as the Italians now call it, the Semaphore Battery.

> The dimensions of the harbour will be, roughly, seventeen hundred by fifteen hundred metres, and wharf age will be constructed as occasion demands, in accordance with the division of the general scheme into sections. A certain amount of dredging will have to be done, and it will be necessary to blast some rocks in the middle of the bay, but there will be no difficulty in making a wide area of water accessible to the largest ships.[195]

The plan for the port[196] was to divide it into two sections, the commercial section and the future naval section. This meant that the port, as a public space, would for the first time have more than one entry point to the city, one for the commercial services and another for the navy. This also meant the development of a new sequence of spaces connecting the port to the medina.

> The completed plan of the undertaking is elaborated, including a division of the harbour into naval and commercial ports; it may be presumed that the carrying out of all the details will largely depend upon the commercial development of Tripoli, but the naval part of the work will probably not be long delayed[197]
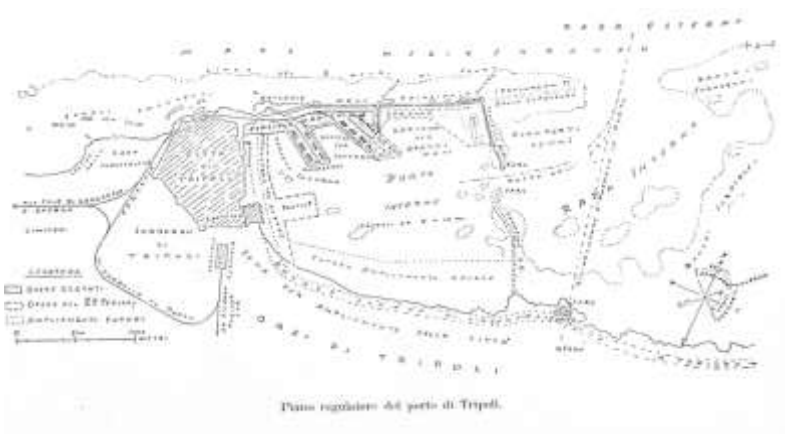
Figure 103 First plan for Tripoli in 1912. Source: Shawesh. 2000.

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[195] McClure, p.139.
[196] It will be referred to as the old port and the new port.
[197] McClure, p.140.
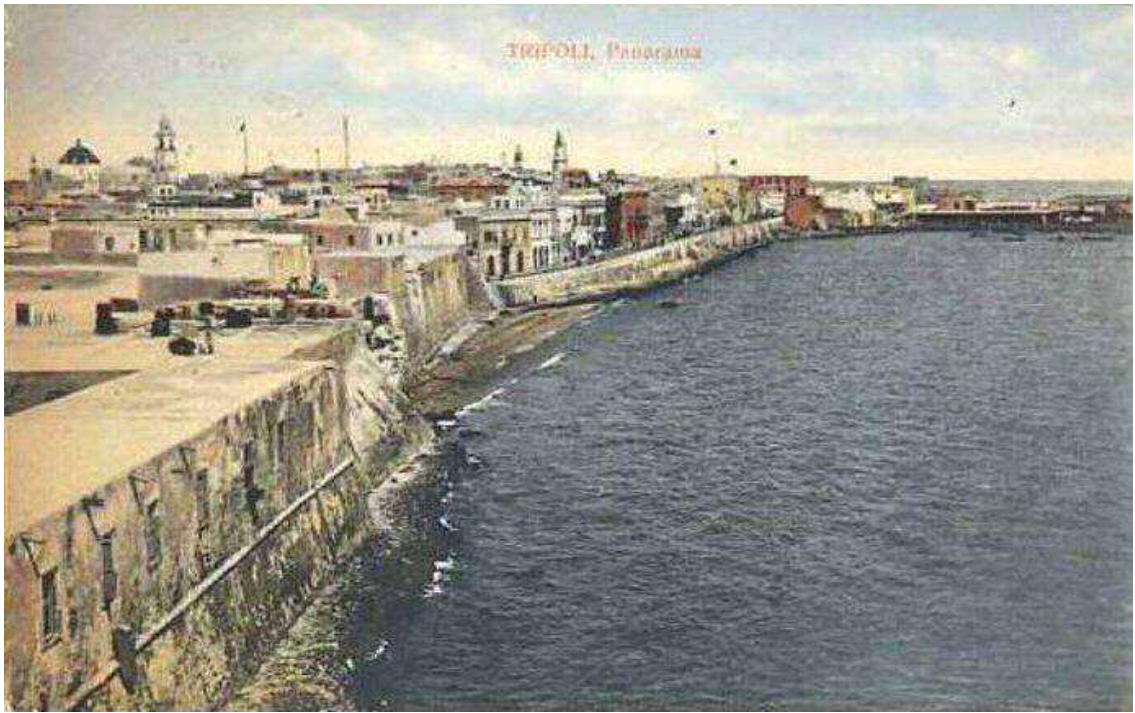
Figure 104 The old port of Tripoli prior to the Italian intervention. Source: The ancient city administration, translated [In Arabic]

The second important element of the first Italian plan that can be extracted from the map is the establishment of a new road to run alongside the walls and connect the port to the main spaces outside the medina (the bread market area). Even though it was planned as a future development at that time, the connection would have driven the main movement that takes place in the medina to outside of the walls.
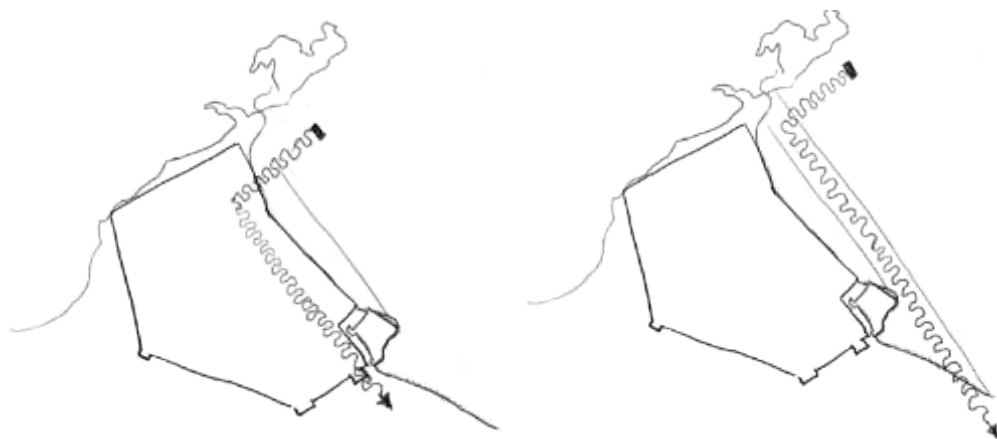
Figure 105 The Italian plan proposing a new connection that will drive the active trade path outside the medina. (Left old path) (Right the proposal).

The third significant part presented in the plan was the railway track. The tracks were designed to run from the docks, along the north west of the medina, terminating at the central station. Both the track and the station act as a barrier that isolates the medina's main public space.

A narrow-gauge railroad from Tripoli to Ain Zara was completed as far as Fornaci, which is 7 kilometres from Tripoli. The Italians built a field construction railroad to the stone quarries at Gargaresch for stone to build the breakwater at Tripoli [198]
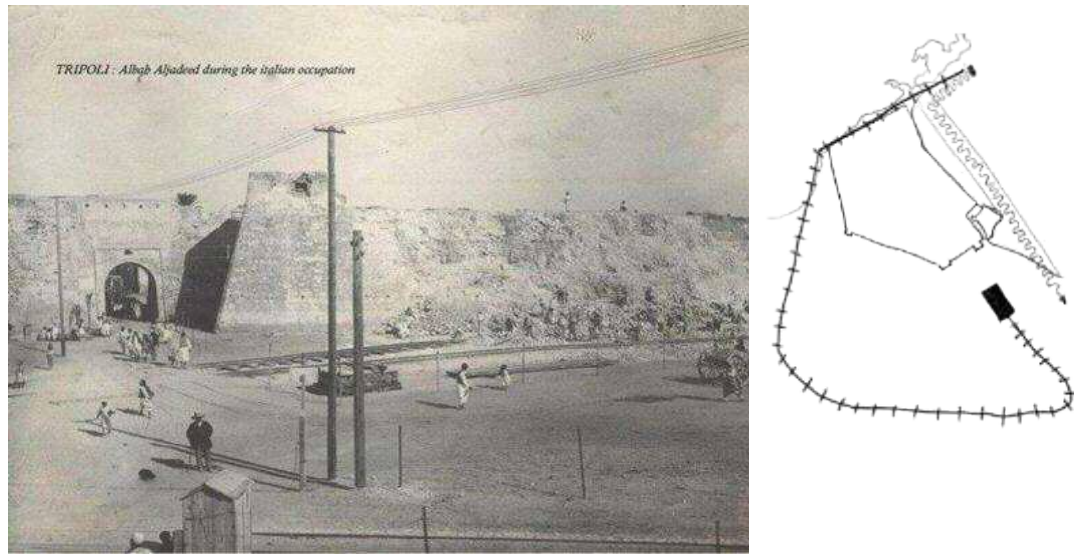
Figure 106 Photo of the rail tracks ruing along the medina west wall.

Source: Libyan Centre for archives and historical studies [In Arabic]

- **Tripoli after the military landing and during the Italian war 1911-1912:**

Along with planning both immediate, urgently needed extensions and future developments, the Italians were still fighting a war. Even though the Turkish had surrendered the old city, they did not leave Tripoli; they rallied in the surrounding areas to fight back against the Italians. Edward Morel, a French-born British journalist and socialist, explains the Ottoman's strategy in his documentation of the Italian Turkish war:

> The tactics of the Turks in leaving the capital as the invaders entered it, seemed to confirm the accuracy of these forecasts. But the Italians were quickly undeceived. They imagined they were only fighting a few Turkish soldiers. They found, in due course, that they were fighting the whole population, both in Tripoli proper and in Cyrenaica [Bengazi][199]

During the war, the Italians used Tripoli's public spaces to demonstrate their power. The medina's public spaces, for the second time in history, became places to fear, spaces that represent death to the locals, reminiscent of the time of the Plague, as aforementioned. This time, death demanded fear; the bodies of locals and Turks were scattered outside the medina walls, in houses and even mosques. Dead bodies were left in public spaces and resistance members were hanged in the main public spaces of Tripoli[200]. The bread market transformed

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[198] McClure, p.62.
[199] Edward D. Morel, The Black Man's Burden: The White Man in Africa from the Fifteenth Century to World War I (London: The National Labour Press, Ltd, 1920), p.99.
[200] Even if they are form an area out of Tripoli.

from a daily market, as described in the previous chapter, full of the smell of freshly made bread, to a place that people feared, heard screams and shed tears.
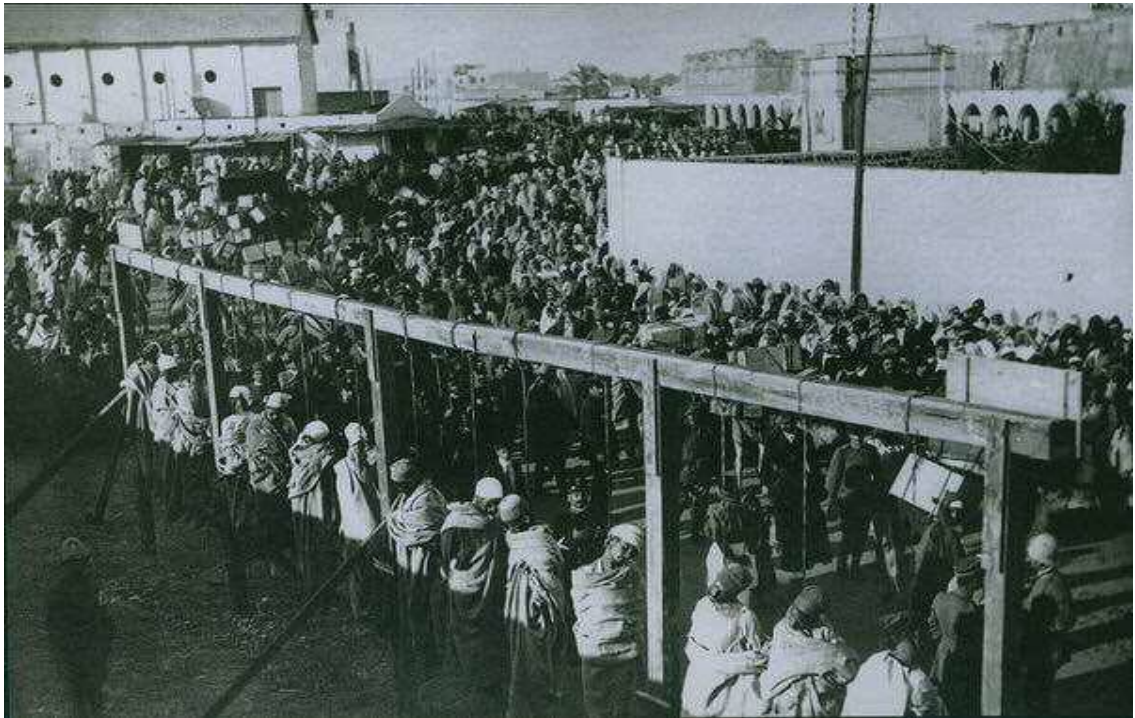
Figure 107 Public hanging of the Libyan resistance on December 1911 in the bread market Tripoli.

Source: Libyan Centre for archives and historical studies. Tripoli

Figure 108 Public hanging of the Libyan resistance on Oct 1911 in the bread market Tripoli. Source: Libyan Centre for archives and historical studies. Tripoli

Impiccagione di 14 Arabi nel Mercato del Pane a Tripoli, avvenuta il 6 d
Dal regolare processo risultarono essere essi stati i principali istigatori
della rivolta araba del 23 ottobre che costò tante vite ai nostri bravi bersaglieri

Figure 109 Public hanging of the Libyan resistance on October 1911 in the bread market Tripoli.

Source :Libyan Centre for archives and historical studies. Tripoli

Figure 110 The Italian troops ahead of the commandos' wing. Source Millecartoline Archive.

The Tablet, a weekly Catholic journal published in UK since 1840, documented on 11 November 1911 the events in Tripoli during the war. This included a description of Tripoli from Herbert Montagu, an English corresponded based in Tripoli during the war:

Imagine my feelings when, on entering and driving the Italians out of the Arab houses which they had fortified and were holding, we discovered the bodies of some hundred and twenty women and children, with their hands and feet bound, mutilated, pierced, and torn. Later on we found a mosque filled with the bodies of women and children, mutilated almost beyond recognition. I could not count them, but there must have been three or four hundred.[201]

Another massacre described on 27 October, he says:

On leaving the town the first object which met our eyes were the bodies of from fifty to seventy men and boys, who had been caught in the town on the previous day, or on October 25, and shot without trial of any sort. The majority of them were caught without arms, and were executed under a general order issued by the Governor, General Carlo Caneva, to exterminate all Arabs found in Tripoli or in the oasis. They had been led to this spot with their hands tied behind their backs and shot down indiscriminately. This mass of corpses, lying in all attitudes in a solid mass piled on one another, could not have covered a space greater than fifteen yards wide by five deeps.[202]

Figure 111 Dead bodies of the resistance outside the city. Source Libyan Jihad Centre for Historical Studies Tripoli

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[201] Charles Stephenson, *A Box of Sand: The Italo-Ottoman War 1911-1912* (Tattered Flag, 2014), p.89.
*Similar scenes were seen by other correspondents English, German, and American
[202] Anan, 'What has happened in Tripoli 1911', *The Tablet,* 11 November (1911), p.5.

Figure 112 Libyan bodies scattered in the open spaces outside the medina.

Source Historical Archive – Alamy. http://www.alamy.com/stock-photo/historical-archive.html

Further on:

> For three days, the oasis was given over to massacre in wholesale and detail. Some 4,000 men, women and children perished in the course of it – the vast bulk of whom were certainly innocent of any participation whatever in the Italian defeat. They were murdered in the streets, in their houses, farms, gardens, and according to a peculiarly horrible narrative by a British officer serving with the Turkish forces, in a mosque, where several hundred women and children had taken refuge. ... All the newspaper correspondents were in agreement as to the main facts[203].

The Italians also exiled thousands of Libyan men; they used public spaces such as streets and open spaces to enforce this. Libyan men were handcuffed and dragged along the streets to further demonstrate Italian power to the locals.

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[203] Morel, p.99.

Figure 113 The exile of Libyan men. Source: Libyan Jihad Centre for Historical Studies Tripoli.

Figure 114 The exile of Libyan men. Source: Historical Archive – Alamy archive. http://www. alamy.com/stock-photo/historical-archive.html

Figure 115 Military forces lined-up on both sides for the Italians. Source: Historical Archive – Alamy.
<http://www.alamy.com/stock-photo/historical-archive.html>

Even though the Turkish withdrew from the Italian fight in late 1912, the Italians still had to fight the resistance of the natives: a fight that lasted another twenty years. In November 1918, after the military operations in Europe had stopped, Italy landed another 80,000 troops

in Tripoli and initiated talks with the resistance leaders (West Libyan Bedouin), pressing for their surrender. This failed, and in February 1919 the fighting started again.[204]

The struggle to hold Tripoli's land disrupted the Italian's plan for the city. It drove the Italians to build a new wall around the city and its outer spaces to defend against attack. The location of the wall and the fixed entrances spatially reinforced the existence of the central Ottoman public spaces, as shown in the following figure.

Figure 116 The Italian boundary to mark the Italian territory around Tripoli. Source: Libyan Centre for archives and historical studies. Tripoli
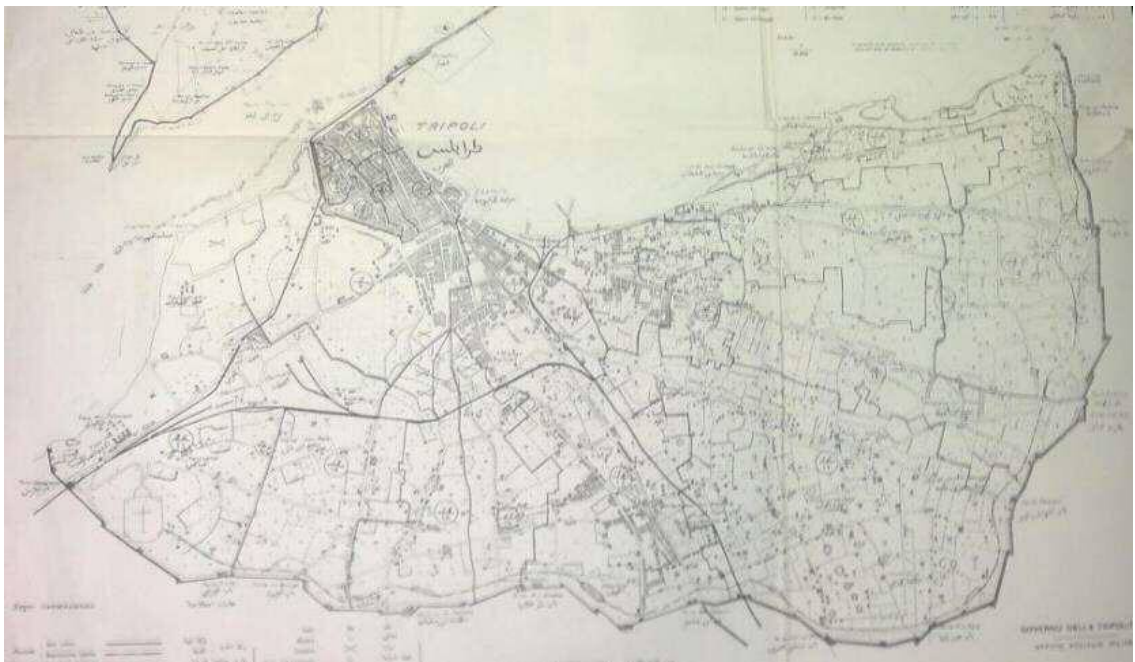
Figure 117 Italian wall around Tripoli. Source: Libyan Centre for archives and historical studies. Tripoli date

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[204] V. B. Lutsky, *Modern History of the Arab Countries* (Moscow: Progress Publishers, 1969)
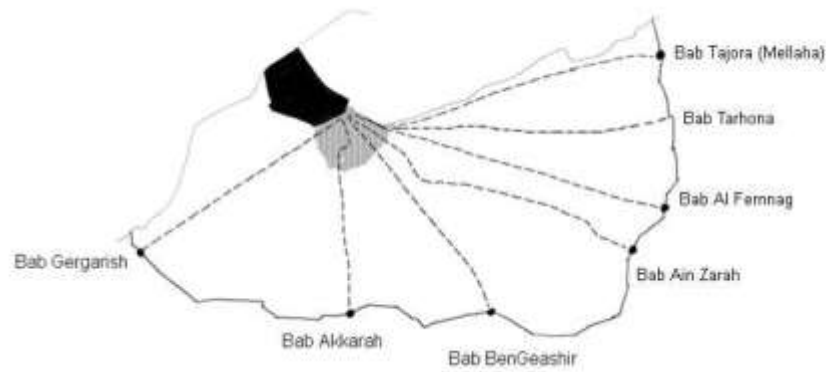
Figure 118 The new Italian wall, its openings, the radial street system and the medina entrance emphasised Tripoli's central space.

The map shows that the new wall, with its new entrance points (new gates), led directly to the main public spaces of the city. The bread market transformed from an open space outside the medina walls, to a central space in the city, connecting the walled medina to the new (outside city) and to Italy through the water entrance. The Italians knew the potential importance of these central spaces, so they started to relocate the locals to protect the land prices and to advertise it for future developments.

The old medina after the Italian wall
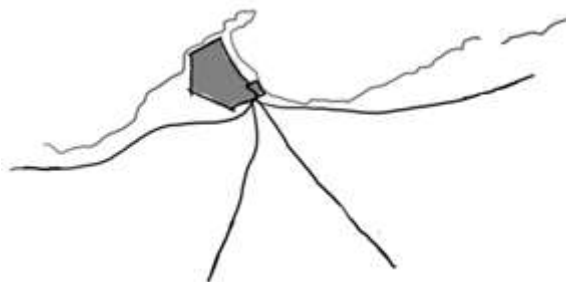
The old medina before the Italian wall
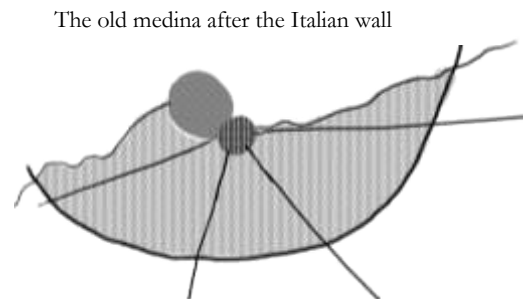
The central affect and the division of

spaces caused by the new Italian wall.

This new territory explains the evolution of the word Medina in Tripoli today. Even though the word medina in the literature mainly refers to the old Islamic urban form, in Tripoli the term medina includes the Italian colonial urban form, leaving the Islamic walled city to be named (the old medina). The new urban fabric inside the new Italian wall became (The medina) whereas the old Ottoman fabric inside the Roman walls became (the old medina).
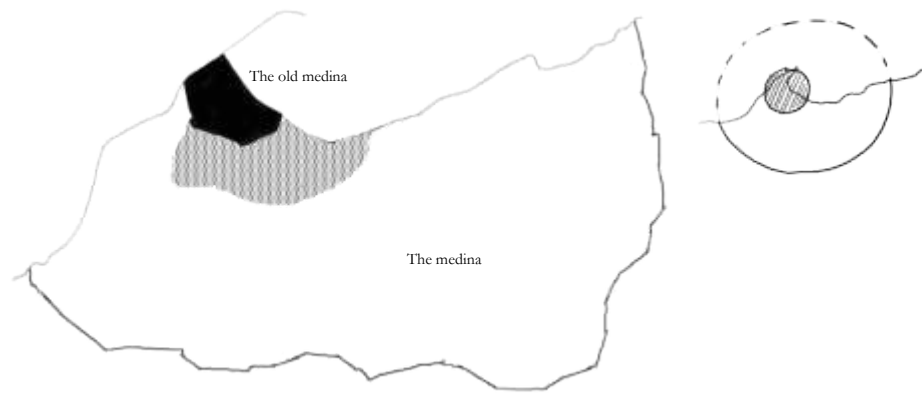
Figure 119 The difference in terms of the medina in Tripoli, a medina inside a medina.

4.2.2. Forces of growth and change during the late Italian colony (1920 till 1951)

At the end of the year 1920 the Italians announced the end of the war and Tripoli entered a new stage as a colony, a stage known for its urban modernisation and development. In the late 1920s planning was a significant issue in Italy done by municipality of town planning, the time "the shift to a discourse of planning began to occur"[205] . Urban planning was founded as a discipline at the school of engineering, as previously it was largely carried out by engineers in the municipality of technical office. Planning became a way to transform societies, develop new streets, plazas, and public buildings not only for urban development but also to rethink the way people move through public spaces and redistribute the hierarchy of city's urban core[206]. In 1936 architect Giovanni Pellegrini outlined how the Italian colonial cities should be planned: a clear defined grid like master plan, parallel streets, central public buildings, squares and public spaces[207]. Furthermore, Mosilini's Fascist urbanism focused on opening spaces and clearing buildings around urban monuments i.e. the Arch of Titus. As for architecture it Italy since fascists' rise to power it leant towards neo-classicism, enforcing the dilemma between the classical forms and the modern forms[208].

Developing Tripoli during the late Italian colony was a significant matter during the Fascist regime that required skilled architects and planners. The new vision for Tripoli was to preserve the old medina and start a new modern Tripoli outside the walls, to modernize the old city to reflect the image of Italy's power[209].

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[205] Fuller,1988. p.456.
[206] Lucy M. Maulsby, Fascism, Architecture, and the Claiming of Modern Milan, 1922 1943 (University of Toronto Press, 2014). p.11
[207] Krystyna von Henneberg, 'Imperial Uncertainties: Architectural Syncretism and Improvisation in Fascist Colonial Libya'. *Journal of Contemporary History*, 31 (1996), 373-395.
[208] Terry Kirk, The Architecture of Modern Italy: Visions of Utopia, 1900-present v. 2 (Princeton Architectural Press, 2004)
[209] Nora Lafi and Denis Bocquet, 'Local Elites' and Italian town planning procedures in early colonial Tripoli1911-1912', *The Journal of Libyan Studies*. 3 (2002), p.59-68.
Fuller, Daza along with work of other researchers including: Shawesh 2000; McLaren 2006; and Burdett 2010

The Italians generally considered themselves superior to the Libyans, and retained their separate linguistic, cultural, and religious identity. They prevented Libyans from entering their social and professional circles through various forms of discrimination, such as forbidding them entry to certain public places[210].

Tripoli's future as an Italian colony was discussed between three different parties: the army, the governor, and the *Genio Civile* engineer. Discussion between these parties ended with a conflict of interest. The motivations behind each of their plans were different. The engineer argued for the importance of respecting the old city and the local traditions in order to gain the support of the local elite; the governor argued for the importance of a new modern city that reflected the power and modern spirit of Italy, as the Romans once did before[211]. Architecture was treated as a political matter; "a master plan (*piano regolatore generale PRG*) is to be judged above all by the way in which it is managed"[212].

In Tripoli, architects were to express Italy's new identity as a colonizing nation, which was to go along with Italy's return to architectural glory [213]. Colonial planning in Tripoli was meant to "Facilitate the precise art of distinguishing and dividing within the living space"[214]. The augment in defining the Fascist architecture is seen reflected on Tripoli's fabric. The In early years of the colony the Italians borrowed architecture styles from other North African colonies known as (Moorash), or Mediterranean Architecture. Italy's colonial architects called for all construction of the colony "must speak a very clear language. There should be no doubt about the character and civilization of the nation that has erected those buildings". This conflict will be seen in the following sections of this chapter as the present research continue to examine the Italian interventions in Tripoli both inside and outside the walls. However, as described in the earlier chapters of this research, the Ottoman fabric was not limited to the space inside the walled medina, it extended to cover the area outside the city walls. Therefore, though some literature refers to the Italian new city, it is more accurate to say that the Italians redeveloped the city outside the walls rather than founded it, as it will be explained further in this chapter.

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[210] McLaren, 2006. p.65.
[211] Lafi and Bocquet, 2002. p.60.
[212] Percy Allum, 'The politics of town planning in post-war Naples'. *Journal of Modern Italian Studies*, 8 (2003), p.500-527.
[213] Mia Fuller, 'Building Power: Italy's Colonial Architecture and Urbanism, 1923-1940'. *Cultural Anthropology*. 3 (1988). p.455-487.
[214] Ibdl,. p.456.

4.3 Public space changes in Tripoli during the Italian colony

4.3.1 Inner city developments:

In order to advertise the new land, the Italians segregated the old city and developed a new (modern) one beside it. After studying the changes in the medina's urban form in this research, it is concluded that the Italians limited their work in the walled city to five main public areas: reinforcing the medina's main entrance [215], developing the clock midan, reforming the Roman arch area and St Mary cathedral, and demolishing the west side of the medina wall. These changes were attempts to forge a path to connect the Italians directly to their places of interest in the medina with as little interaction as possible with the locals. The following section will examine each of these urban interventions separately, and evaluate their effect on the continuity of public spaces in the medina.

4.3.1.1 Reinforcing the Italian entrance of the medina:

The Italians first started separating the old city by defining the medina's main entrance, constructing a new gate that was similar in shape to the old Ottoman gate, but much bigger in size. This physical separation of public spaces not only inhibited the movement of the locals, but also reinforced the idea of the inner/outer spaces. It was the first physical element that created a visual division of Tripoli's public spaces.

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[215] Which became the Italian entrance to the medina.

Before/After the Italian intervention

On the right side, the separation of the spaces to in and out of the medina.

The Italians construction of the new gate. Source :Libyan Centre for archives and historical
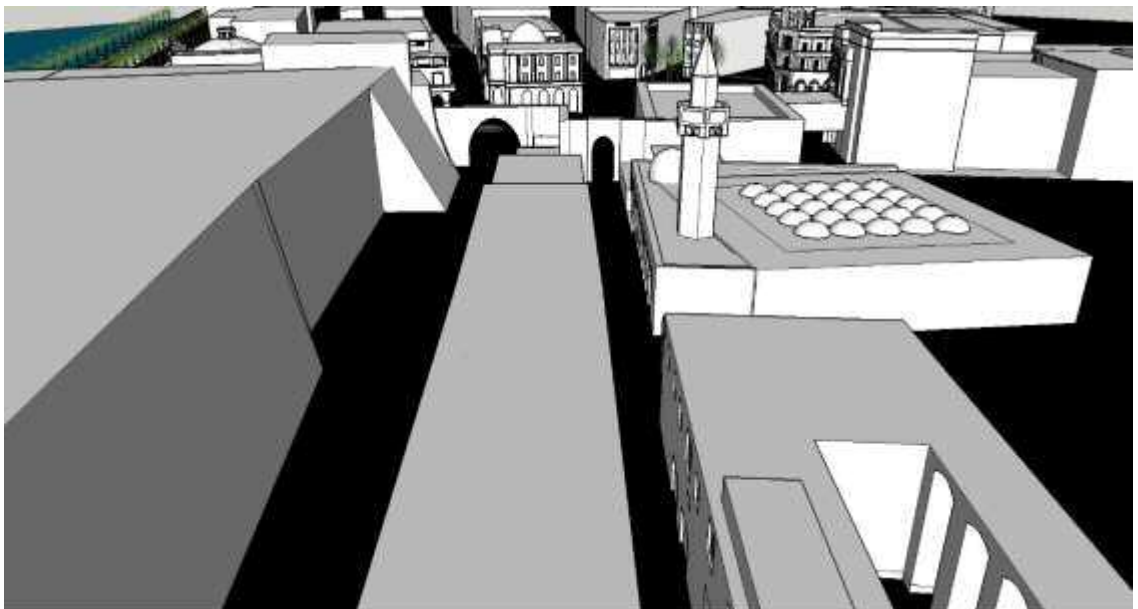
Figure 120 The Italians construction of the new gate. Source :Libyan Centre for archives and historical

These two separate paths were identified in the earlier chapter regarding Ottoman rule: one close to the castle for serving the ruling family and the other for the locals. These two paths are important as they connected the activities that take place outside the city walls, mainly in the bread market area, with those inside the walls. Due to the surrounding wall, these two paths provided the main access points (doors) to the old medina. When the Italians ceased the daily activities in the bread market, the locals stopped using these paths.

Figure 121 Photo of both gates in Tripoli the Ottoman on the left and the new Italian next to the castle on the right in early 1930.

Figure 122 The separation of the old medina by building the new gate.

4.3.1.2 Developing the clock midan:

The second Italian reform in the medina was the development of the clock maidan. The Italians reformed the public space previously known as the Camel Market by turning it to a hotel for Italian tourists and public figures. Along with the branch for Bank de Rome, and cafés to encourage social interactions between Italians in and around the new space.

Figure 124 The camel market turned to an Italian hotel

Figure 123 The Camel market during the Ottomans

Before the Italians interventions the old camel market was one of the important public spaces in the medina. It connected the trade area in the old city to the port. It was also a place for local celebrations and public gatherings.
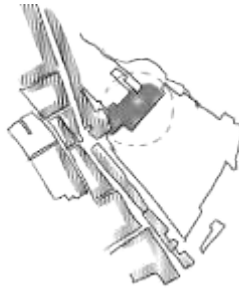
After the Italian interventions, the space developed into an Italian centre in the old city. The space was colonised and no longer served the locals. It became a node in the old city that accommodated a variety of activities and redirected traveling paths around the old city.
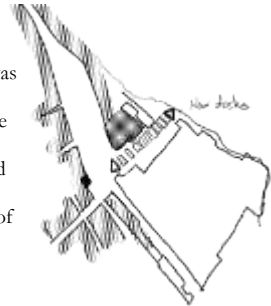
Figure 125 View for inside the spaces toward the new Italian gate.

The intention of visually reforming the space can be seen in the regenerated model and is reflected in the hotel design and location. The location of the hotel makes it visible from outside the medina's new gate, to catch the attention of the people outside the walls.

The shape of the hotel with its curved side and semicircle dome acts a focus point in the space, leading on one side to the Bank de Roma and the coastline, and on the other to the trade market and the cafés.

Figure 126 A new public spaces emerged between the new hotel and the castle named in later years the clock square.

Figure 127 Generated Model of the Italian intervention. The hotel that replaced the camel market, [the hotel no longer exists as it was demolished during the Gaddafi era].

Figure 128 Section in the clock midan in Tripoli.

4.3.1.3 The development of the Roman arch space:

The Italians showed an interest in the arch from the early years of colonisation when they started freeing the arch from the urban context 1911-1912, but the public space was only developed in the later years of the colony. The plan for reforming the area had three stages:

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first, separating the arch from its surroundings to make it a freestanding element again; second, developing a public space around the arch to make it visible from a distance[216] (this meant demolishing the surrounding urban fabric to open the space); and third, generating social activities in and around the space by adding cafés, hotels, and shops for Italians goods.

Figure 129 The Roman arch during the Ottomans. The Italians separating the Roman arch from its surroundings. The Roman arch during the Italian colony. Source: Libyan Centre for archives and historical studies. Tripoli

Before the Italian intervention the Roman arch was not just embedded in the urban fabric, but is all its openings were closed to form a room, used as a shop and a dumping ground for construction materials. Named (The Marble House).
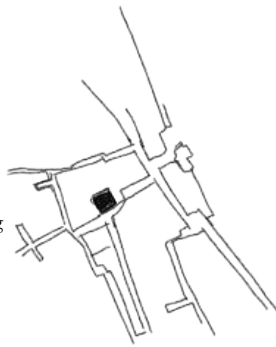
After the Italian intervention, a new public space emerged in the old city. The Roman arch became a freestanding landmark in the space. This is still the case in Tripoli today.
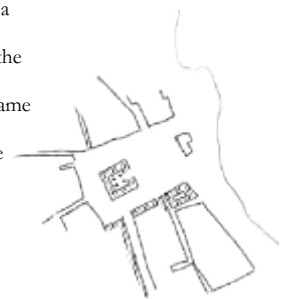
Figure 130 The Italians avoided demolishing the Ottoman mosque though thou it is blocking the view of the arch space. Source: Libyan Centre for archives and historical studies. Tripoli

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[216] For political reasons, the Italians could not demolish an Islamic building built during the Ottomans that obstructed the view of the arch from the seaside as shown in (fig.130).

As this research aims to examine the continuity of public spaces in Tripoli, the next question to be asked - considering the arch is located at the end of the medina: how did the Italians intend for this public space to be visited by the Italians?
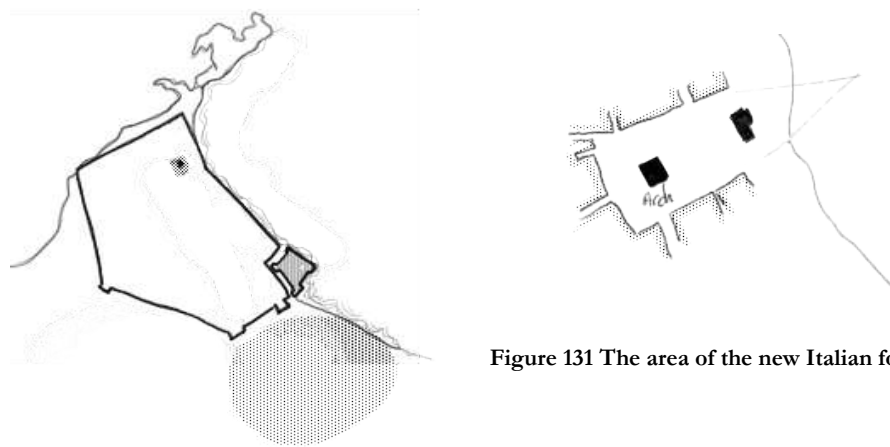
Figure 131 The area of the new Italian form

The space that the Italians developed to connect the new Italian city with places of interest complies with their general idea of segregating the old city. Even though there were two existing clear paths, one being part of the Roman grid system, leading straight to the Roman arch (fig 132), and the other developed during Ottoman rule close to the castle, the Italians chose to avoid them because they both crossed through the old city. They decided to develop a new path to move (around) instead of (across) the medina to reach the arch.
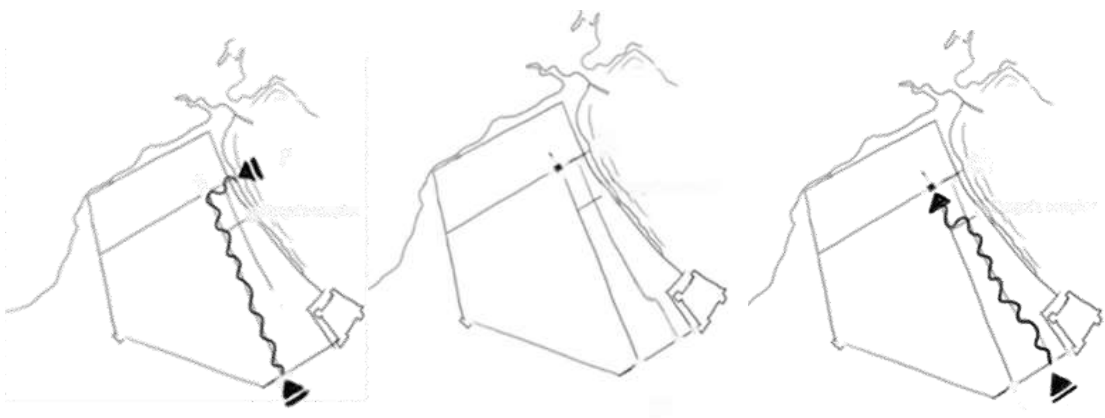
Figure 132 The existing two paths for the Roman area.

4.3.1.4 The foundation of St Mary cathedral space:

The next space the Italians developed in the old medina is called today (St Mary Cathedral Midan). As mentioned in the earlier chapter the cathedral was built during the Ottomans to serve the slaves held in the non-Turkish prison. Besides being the only cathedral in the old city, the size and design[217] of the cathedral made it a place of interest for the Italians, as even though they have built a huge cathedral in their new urban city outside the medina walls, they still developed the old one.

Before the Italian intervention the cathedral served the Christian community in the walled city. The spatial connection of the building was limited, and there was less demand for the places. The streets were narrow and there was no sense of direction towards to the cathedral

After the Italian intervention, the building developed a new spatial connection that extended outside the medina walls. It was redeveloped to serve the Italian community outside the walls. The path to the Cathedral was widened and the streets were redeveloped to Italian standards. The old gate was renovated and expanded to become more welcoming for the Italians users.

Figure 134 Photo of St Mary Cathedral.

Source: Libyan Jihad Centre for Historical Studies Tripoli.

Figure 133 The Italian interventions in the old city.

4.3.1.5 The demolishing of the west wall:

The final Italian intervention in the old medina was their decision to demolish the west side of the walls. This intervention was motivated by the belief that doing so would give the medina better growth potential by making the area outside the walls more accessible. However, by examining the maps it is evident that demolishing the walls was only successful in the physical sense, the sense of the walls as a barrier still exists.

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[217] The cathedral was one of the first cathedrals to be built in North Africa that has a ringing bell.

The Italians replaced the wall with large building blocks that acted as a physical barrier, preventing direct access to/from the medina, and a visual barrier, hiding the medina from sight. The new blocks were arranged in such a manner that a new street was created for the locals to use without leaving the medina.
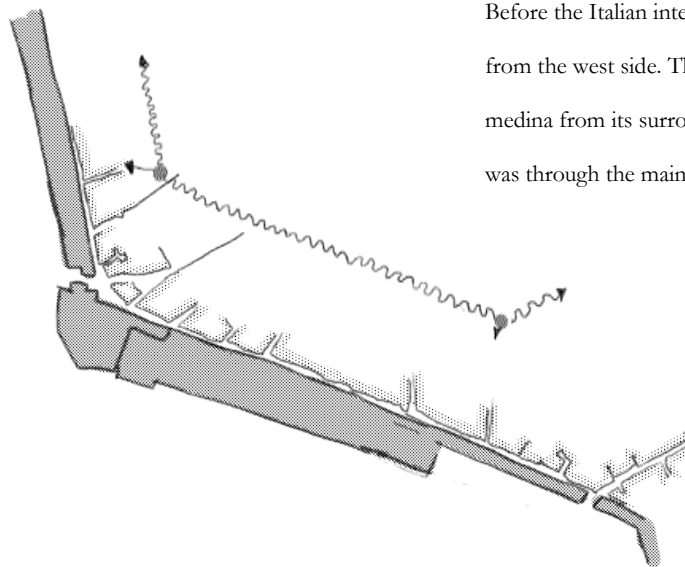
Before the Italian intervention the walls surrounded the medina from the west side. These were Roman walls that separated the medina from its surroundings; the only way to enter the medina was through the main gates.

After the Italians intervention, the Italians buildings acted as the old wall in restricted the movement in/out the medina to the main gates. The expansion of the gate to open the space to the Italians to walk to St Marry cathedral.
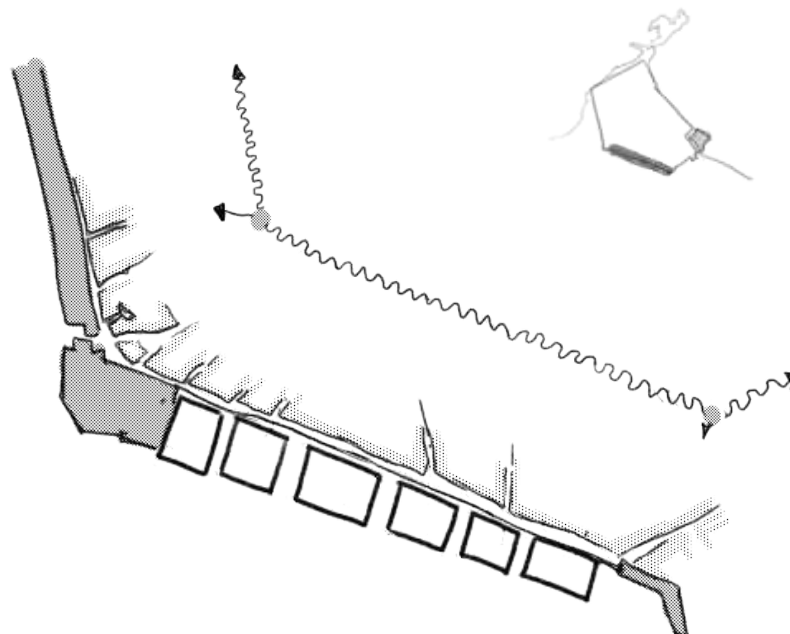
Figure 135 Mapping the Italian interventions in the old city before and after demolishing part of the medina's wall.

Source: Analysis based on data from The Survey Authority. Tripoli

To summarise, through a series of surgical interventions in the old medina, the Italians created their own spatial sequence to use when moving around the old city. By tracing these six interventions, the connection between them becomes evident. They all connect to make what the researcher calls the Circle of Interest, a path for the Italians that requires minimum interaction with the old form.

The old medina

The circle of interest path

The circle of interest idea

The circle of interest connecting the places of interest along the path
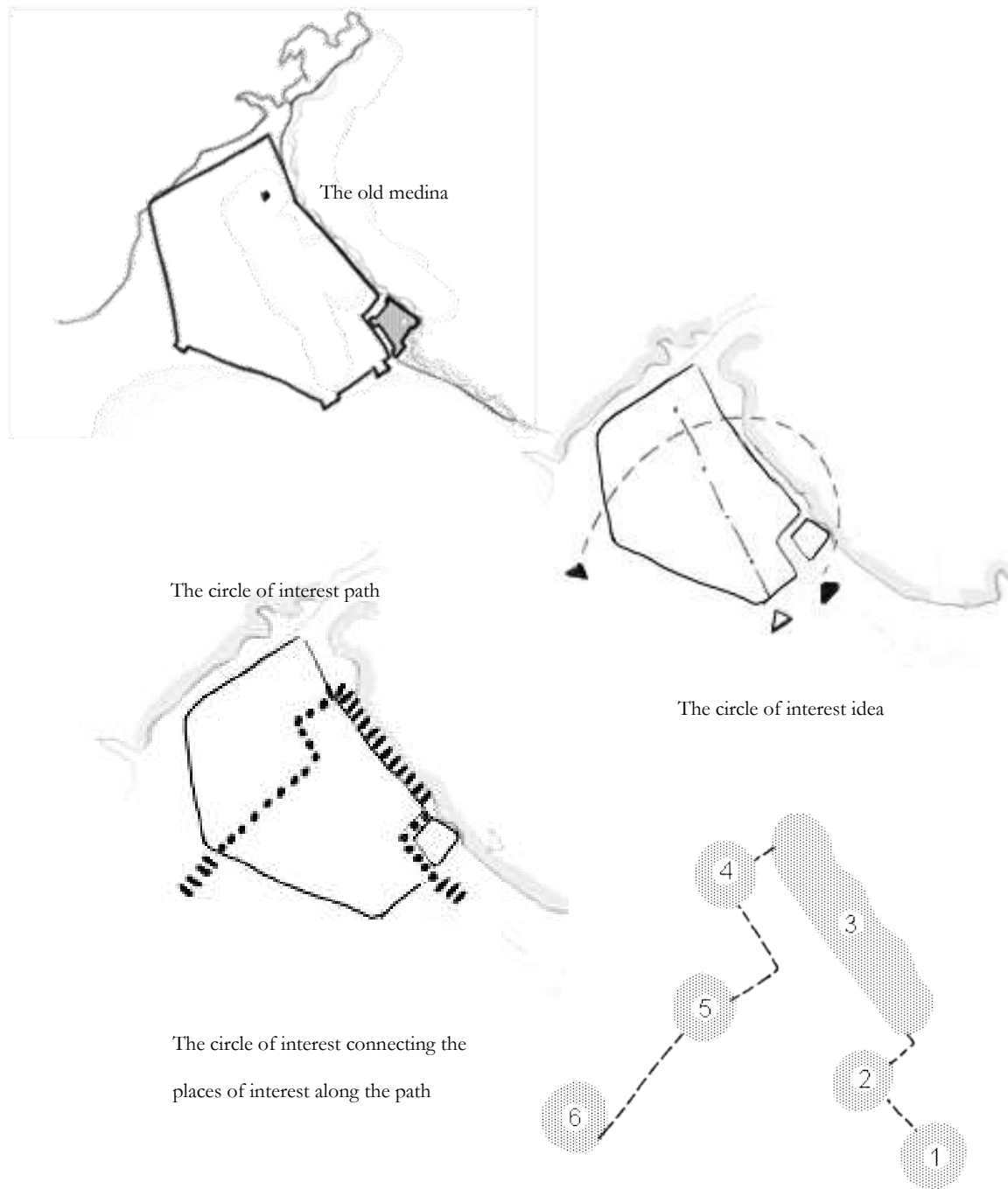
Figure 136 The circle of interest connecting idea path and the places of interest

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4.3.2. Outer city developments:

The early 1920s was a pivotal moment in Italy's history; the impact of the changes taking place echoed into Tripoli's urban form. Mussolini became the Prime Minster of Italy in October 1922 marking the beginning of the National Fascist Party's rule. Moreover, Italy declared the end of the war in the 1920s, and the process of encouraging the Italians to resettle in Tripoli began.

Italy's vision of Tripoli as a colony had changed: it became part of Mussolini's vision of Italy's fourth shore. Tripoli changed from being The Italian Colony to become The Italian Tripoli. This reflects a significant change in the Italian vision of the city, and the way architects approached public spaces.

Since the Italian Fascists began the architecture and planning of Tripoli's public spaces have constantly changed due the changes in governors and their interest in the city and their allocated architects. This chapter will focus on the key governors that affected the evolution of public spaces in Tripoli during their time in power: Giuseppe Volpi (1921-1924), Emilio De Bono (1925-1928), and Balbo (1934-1940).

4.3.2.1   Giuseppe Volpi (1920-1924)

Giuseppe Volpi (1920-1924)

Giuseppe Volpi was an Italian businessman; his politics and business interest were the foundation for his interventions in Tripoli's urban form and social-economic life. Volpi's first increased Italian land ownership by announcing the uncultivated land in the city as part of the Italian public land. This stabilised the land price for future Italian investors, and also enhanced the colony's infrastructure[218]. His efforts in gaining public land and constructing main roads made Italian Tripoli more appealing to future Italian investments.

On the urban side, part of Volpi's main intervention was his proposal of a seafront boulevard (1922-1924). The proposed boulevard was comparable to those in other Italian cities, such as the Vittorio Emanuele promenade in Taranto. Tripoli's boulevard was designed by Armando Brasini, a well-respected Roman architect known for his interest in Baroque architecture. The streets were designed to be wide, paved, and tree-lined. Even though the road was built in later years (in 1935), it was named after the it founder governor Volpi [219].

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[218] Brian L. McLaren, 'The Italian Colonial Appropriation of Indigenous North African Architecture in the 1930s', *Muqarnas: An Annual on the Visual Culture of the Islamic World.* 19 (2002), 164-192.

[219] Zeynep Çelik, Diane Favro and Richard Ingersoll, *Streets: Critical Perspectives on Public Space* (University of California Press.1996)
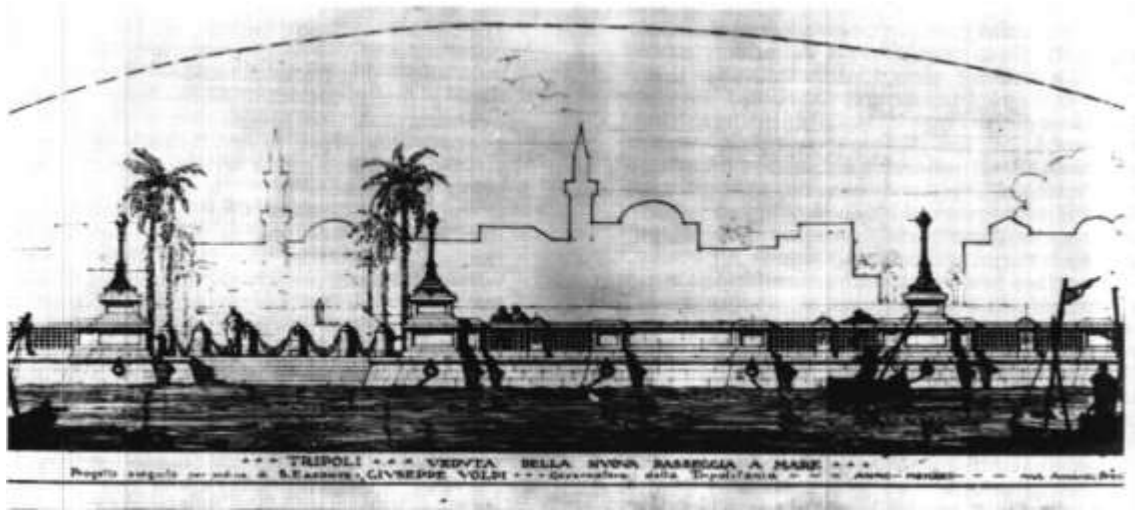
Figure 137 Drawing of Volpi's proposed seafront boulevard. Source: Conforti, C. 1990[220]

Figure 138 Volpi's seafront boulevard Source LCAHS. Tripoli

Volpi was also interested in the historical value of the colony; he called not just for the Roman sites to be protected and preserved but also the historic Islamic buildings, unlike any of his military predecessors. This decision meant that the protection given in 1912-1918 to preserve the Marcus Aurelius Roman arch in the medina expanded to cover the historic Islamic buildings that were built during Ottoman rule. The commission that he allocated to survey Tripoli and its wider context (Tripolitania) included "two Roman monuments, the ancient castle and walls of the old city, thirteen Muslim religious buildings, and twenty-four private residences"[221]. The data gathered from conducting this survey of the significant Islamic buildings provided the basis for future movements to incorporate indigenous architecture in the modern urban Italian fabric, as will be explained in later sections.

As a businessman Volpi was also interested in Tripoli's native artisanal industries. He encouraged and helped develop jewellery making, metalworking, and carpet weaving. He studied their present state and considered their potential expansion, and to further support

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[220] Claudia Conforti, 'Armando Brasini's Architecture at Tripoli'. *Environmental Design: Journal of the Islamic Environmental Design Research Centre*, (1990), p.48. <https://archnet.org/publications/3233>.
[221] McLaren, p.84.

these industries he also provided the financial help needed for raw materials, promoting and advertising their sale in Italy. These industries took place inside the medina walls and grew to occupy a wide area of the old market. Each industry expanded to form what today are known as the main three components of the trade centre in the medina walls: the gold market, the textile market, and the copper market. This is the main interactive, social and economic area in the medina today, connecting the medina to its wider urban context.
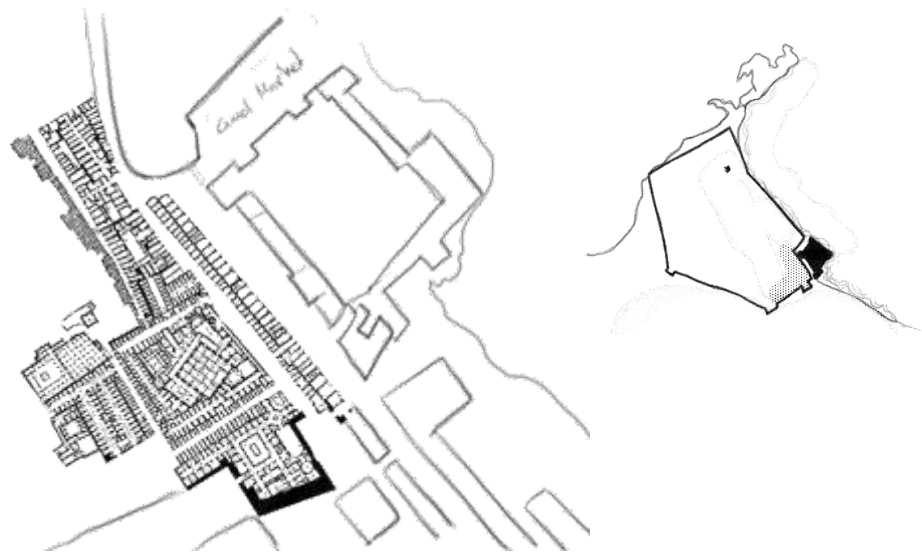
Figure 139 Tripoli's Local market. Redrawn by the author based on an urban survey.
Source: Management of the historical cities authority

The chief architect of Volpi's time, Armando Brasini, had no interest in implementing Tripoli's local architecture[222]. Instead, he followed French and British footsteps in other ports in North Africa and used Moorish architecture, an architecture of arches, heavy decorations and domes. His famous example of work in this style is the Cassa Di Risparmio Della Tripoli, built in 1925.

Even though this architecture is referred to as Mediterranean architecture, it was not known in Tripoli previously. Tripoli's architecture during the Ottomans was simple, plain and functional in its form, so these buildings unintentionally became iconic for the locals of the Italian colony.

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[222] Claudia Conforti, 'Armando Brasini's Architecture at Tripoli'. *Environmental Design: Journal of the Islamic Environmental Design Research Centre*, Carucci Editore(1990), 46-55.

Banca de Roma. The building still standing in the medina today known as Libya's central bank.
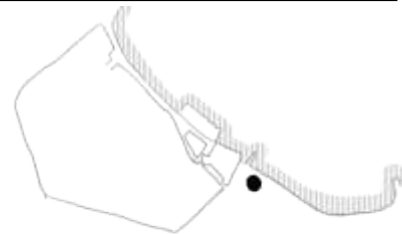
Italian theatre. An Italian building outside the city walls. Used as a theatre, demolished during the second world war.

An Italian Mosque. An Italian building outside the city walls. Used as a religious centre, it was demolished in the early 1980s by Gaddafi.
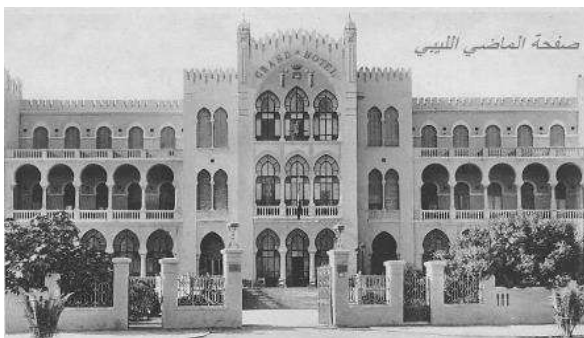
An Italian Hotel. An Italian building outside the city walls. Used as a residence for the colony's visitors, it was also demolished in the early 1980s by Gaddafi. But it was rebuilt in the same location but with different architecture. It is known today as the grand hotel.

Figure 140 Examples of the Moorash Architecture in Tripoli. Photo. Source: The Management of the Historical Cities Authority. Tripoli

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Armando Brasini claims that he redrew the master plan for Tripoli in 1921[223], but no evidence has been found of a replacement of the former 1912 master plan. However, the governor Volpi exhibited that he understood the economical downfall of the previous master plan:

> The essential principles of the master plan (piano regolatore) were hammered out during the winter of 1912. The most pressing problem faced by the planners was the need to halt speculation outside the city walls, not only because of the potential loss of economic control and the risk of ever-worsening housing shortage, but also because of public indignation. This first plan was completed in Rome, based on inadequate site data, and was sent to Tripoli. Its main purpose was to shape the ongoing growth of the new town, while leaving the original one nearly untouched.[224]

The invasion occurred 1911 and throughout the 1920s construction took place across the city; it was not until 1935, however, that residential buildings appeared[225]. Even though Armando Brasini did not physically draw a master plan for Tripoli his selective urban interventions did. The locations of his main projects in Tripoli paved the way for both architects and governors of subsequent years in terms of the evolving shape of the city. His projects interpreted the governor's ideas and gave Tripoli a strong urban form that both separated and connected the old fabric with the new.

Starting by examining the walk along the coastline: compared with that proposed in the former 1912 plan, it emphasised the public space outside the medina walls by pulling back the proposed path so that it partially intersected with the medina at the castle area, and passed through the medina along to the Ottoman clock tower and through the coast to the port as shown in the next figure.

The difference between the coastline plan in the first master plan (on the right). And the actual coastline movement path implemented by the Italians.
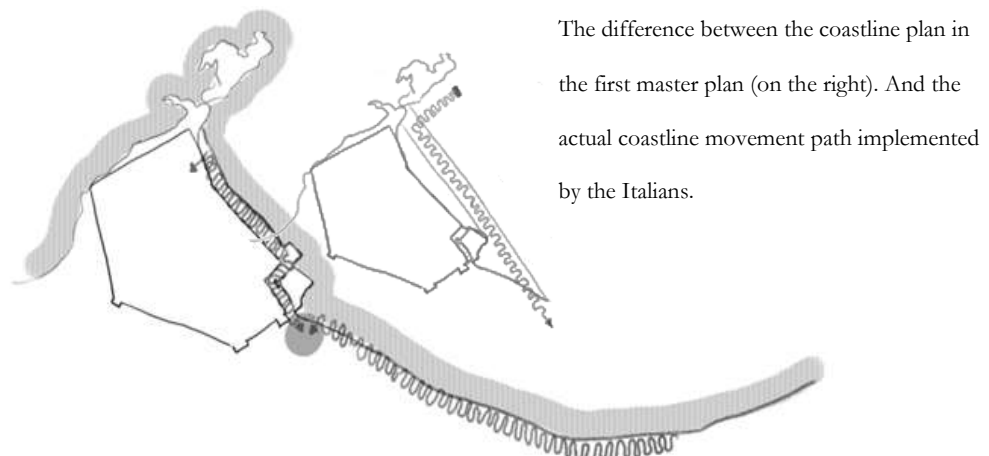
Figure 141 Diagram to compare the changes of flow of movement in the Italian plans.

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223 Conforti, 1990. p.46

224 Mia Fuller, 2000. 'Preservation and self-absorption: Italian colonisation and the walled city of Tripoli, *Libya*'
The Journal of North African Studies. 5 (2000), p.121-154

225 Fuller, 1988, p.487.

Alongside the waterside path, Brasini allocated a variety of public buildings that later became (a civic centre). Public buildings varied in their size and location, but all, importantly, reflected the Italians' power. Designing these unique buildings on the waterfront was a means of conveying the sense of a new modern city to Italian visitors. The building, set back from the coastline, leave space for lines of palm trees that contrast sharply with the solid walls of the medina on the other side. This contrast balanced the division of space on the coastline.
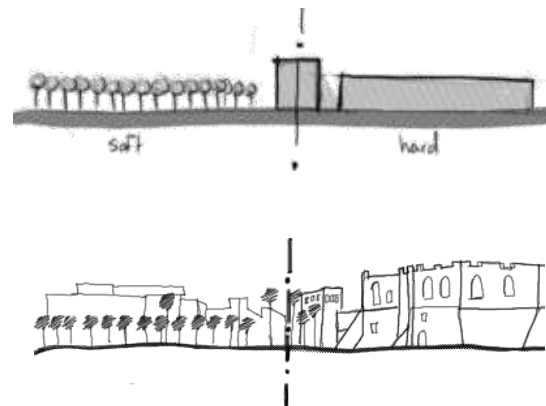
Figure 142 The location of the Castle on the coast line. Source the Management of the historical cities authority. Tripoli

Figure 143 Tripoli's cost line during the Italian colony, the soft and hard sides of the water edge

In addition, the imposing, solid form of the castle softens the visual contrast between the old Ottoman fabric and the new Italian form. When comparing the overall height of the existing buildings inside the medina walls with the new Italian fabric, the castle dominates both fabrics. Even though the castle is older than the Ottoman buildings inside the medina, it acts as a central element, balancing between the new and the old, the high and the low, the small and the large, visually connecting the two fabrics.

Figure 144 The size of the castle compared to the old medina and the Italians new city.

Volpi added another important building to the colony by designing Tripoli's Palazzo del Governatore (the Governor's Palace). The architecture for this building was different to previous ones; Volpi chose Saul Meraviglia Mantegazza[226] as the architect for this project. The project had been approved in 1924 and was finished in 1931. The interest of this building to this research, even though it was located at a distance from the former Ottoman fabric (the research focus area), is that in later years this building became an important element in developing and connecting Tripoli's wider spatial system, as will be explained further in this chapter.

Figure 145 The location of Tripoli's Governor Palace. Source the Management of the historical cities authority.

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[226] Crachi, P. The new museum of Libya in the People's Palace in Tripoli, A History of a project (Gangemi Editore spa, 2010)

145

The next project designed during Volpi's governance, was another public building; Tripoli's Cathedral of San Cuore Di Gesu (1923-1928). The cathedral was designed by Saffo Panteri,

> The cathedral of Tripoli was built for the Franciscan who was then the bishop of the Libyan capital city… the choices made in the design phase responded to the desire to underline the strength and ethnic autonomy of the Italian communities, which were large and socially and economically well integrated in to the local life in the city… the design choices for the cathedral church of Tripoli was made to emphasize the Italian style of monuments[227]

By mapping the location of the cathedral in regard to the old city and the other Italian buildings at that time, the cathedral was located far away on the path that links directly to the castle's main gate, leaving open space for future urban expansion. With no urban buildings surrounding the cathedral, it stood in isolation until the Italians developed the square and the other buildings next to it in later years, as will be seen further in this section.

Figure 146 Tripoli's Cathedral of San Cuore Di Gesu (1923-1928). Location, construction and final building. Source: the Management of the historical cities authority. Tripoli

The nature of the public space and its location made it a space explicitly for the Italians; a place located far from the reach of the locals, mainly used for social gatherings and public civil events.
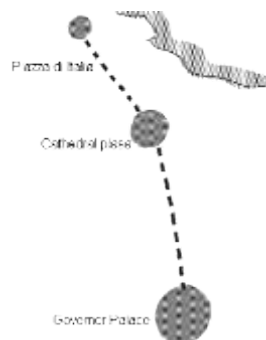
Figure 147 The relation between the Italian plaza

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[227] Ciranna Simonetta, Italian Architects: The Builders of Churches in the Capitals of the Mediterranean. *Environmental Design: Journal of the Islamic Environmental Design Research Centre.* 1.2 (1997) 96-103.
<https://archnet.org/publications/3302>

the Cathedral plaza and the Governor palace.

To summarise, the urban changes that took place in Tripoli under Volpi's governance were largely economically and politically motivated. Various individual public buildings were developed, with varying functions. The arrangement of these new buildings formed the outline of the city, still intact today. Even though the buildings were separately built in different years, they connect physically and visually.

Main public spaces under Volpi's governance:

- The Corniche along the coast

- The foundation for the cathedral square.

- Reinforcing the main water entrance

- Reforming the Roman arch
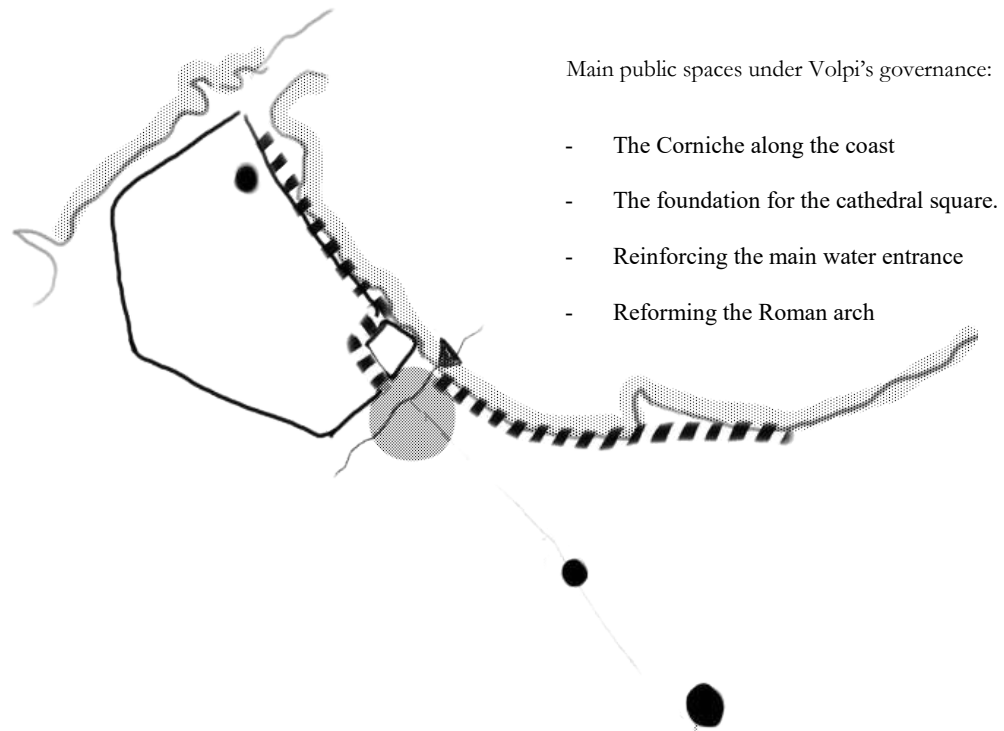
Figure 148 Diagram of the important changes under Volpi's governance.

4.3.2.2 Emilio De Bono (1925-1928)

Emilio De Bono, a marshal and politician, was appointed by Mussolini to be the governor of Tripoli and its wider context (Tripolitania) in 1925. He used to serve as chief of police and commander of the Fascist militia.

> De Bono's policy sought to re-establish Italy's superiority and right to rule while respecting local customs and religion… As a counterpart to the programme of civil action, military action broadly conceived was designed to make the local inhabitants feel secure under Italian protection[228].

De Bono's main political interest as a governor of the colony was to encourage the resettlement of Italian families. He used different methods to increase the number of migrants to the colony. He issued subsidies and added an additional credit[229] to help attract

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[228] Jon Gooch, 'Re-conquest and Suppression: Fascist Italy's Pacification of Libya and Ethiopia, 1922–39'. *Journal of Strategic Studies*, 28 (2005), 1005-1032.
[229] Ruth Ben-Ghiat and Mia Fuller, *Italian Colonialism* (Palgrave Macmillan, 2005)

more colonists to visit and settle in Tripoli, but the numbers were still small. In 1926, he began advertising the colony for tourism. His first intervention to serve this purpose was to build Tripoli's international fair[230].

The international fair was meant to serve the Italians in two ways: firstly, it would advertise the city to the Italians and attract visitors; secondly, it would remind the locals of the superiority of the Italians.

> The lack of ornament, and the total textural sterility, along with the monotonous rhythm of the
> solid-void relationship, are the distinctive dehumanizing external elements of otherwise shallow
> and unimpressive interiors[231]

The fair was designed to reflect Fascist architecture, and the resulting building stood out not only against the former Ottoman fabric but also against all the previous Italian buildings in the city.

Figure 149 Entrance of Tripoli's International fair designed by Limongelli, and a diagram of its location. Source: Fuller, 1988

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[230] Ben-Ghiat and Fuller, p.157.

[231] A.C Antoniades, Italian architecture in Dodecanese: a preliminary assessment, Journal of Architectural Education, 38(1984), p.18.

Due to the size of the fair site and the type of activities that will take place in it, the chosen location for the fair was far away from the centre as shown in the figure above. Even though the project was meant to be an attraction for tourist, the site had a weak link to the central public space of the city both physically and visually, as will be seen in the later analysis in this chapter, the site did not develop a new public space of its own, considering it the first public building in that area.

During this time, new constructions were not limited to the central area next to the castle; more construction occurred outside the central zone. Tripoli's Grand Prix, car formula race named as (Automobile Club di Tripoli) in 1925 and opening theatres (Teatro Miramare Tripoli) in 1928, are part of the colony's attempts to advertise Tripoli.
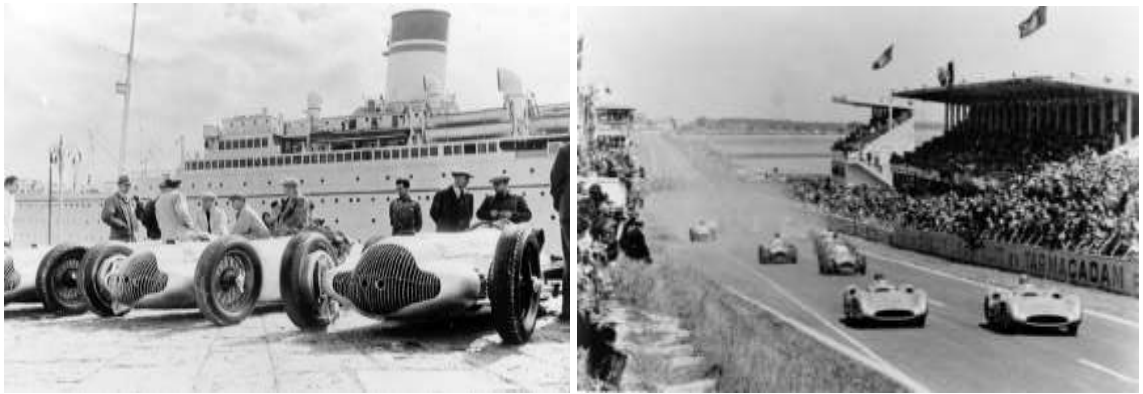
Figure 150 Tripoli Grand Prix a car formula race. Source the Management of the historical cities authority. Tripoli

Calls for Architectural and urban change:

Not long after fascist architecture began to be created in Tripoli did architects announce their objections and demand change. Carlo Enrico Rava, a young Rationalist Italian architect, and member of the Group 7[232], confronted the users of fascist architecture[233]:

> … from our Libyan coasts to Capri, from the Amalfi coast to the Ligurian Riviera, all shows a minor architecture, ours and typically Latin, ageless yet very rational, made of white, flat cubes and large terraces, Mediterranean and solar, and this seems to show us the path where we might again find our most intimate essence of being "Italians. ' Our race, our lineage, our ancient and new civilization is Mediterranean: it is in this "Mediterranean spirit" that we should then look for the characteristic Italianate that is still lacking in our new rational architecture, as certainly this spirit guarantees the re-conquest of a primacy[234].

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[232] A group of young Milanese architects called the Gruppo 7 in 1926 with the publication of a series of manifestoes in the journal Rassegna Italiana.

[233] Ruth Ben-Ghiat, *Fascist Modernities: Italy, 1922-1945* (University of California Press, 2001)

[234] Brian McLaren, 'Carlo Enrico Rava, Mediterraneità and the Architecture of the Colonies in Africa '. *Environmental Design: Journal of the Islamic Environmental Design Research Centre,* 15 (1998), 73-160

In 1929, he stated in his article "We Must Respect the Character of Tripoli's Architecture" he named it "the Libyan Arab style" that is "naturally in tune with the climate and the country's characteristics". He maintains that they shouldn't ignore the existing architecture, which he refers to as Roman. Here, rational in terms of form meant "the clear expression of structure, strip and corner windows, continuous horizontal balconies or protruding slabs, the use of exposed concrete and extensive glazing"[235], and in terms of function a "building's appropriateness for its purpose and its setting"[236].

By the end of the 1930s, additional calls came from different planners in the colony requesting a clear system of planning. Architect Giovanni Pellegrini asked for the city to be organised and well planned, in order to avoid irrational development. He considered that the colony city should be regulated, with clearly defined, grid-like master plans with broad, parallel arteries, centrally situated public buildings, zoned residential areas, and strategically placed parks, squares and fountains [237]. It was the first time since the invasion that the Italians started considering public spaces as being able to enhance the Italian new city instead of considering them as secondary to the construction of individual buildings.

The calls from both the architects and planners got the attention of the governor, and the forces of urban development changed. Even though the focus continued to be to represent the power of the Italian colony and to advertise the city to tourists, more attention was given to planning and organising public spaces around them. In contrast to all former Italian buildings that had been built in the city by allocated architects, the public spaces were opened to design competitions. The first was held in late 1929 and the second in 1930.

In September 1930, a competition was announced between Italian architects and planners for arrangement of (Piazza de Cathedral) in Tripoli[238]. The call involves preparation of drawings:

a) Construction of three buildings for civic use, with clear entrance to the existing streets, and a land to be used by the cathedral.

b) A space reserved for Cathedral Square and the construction of a monumental fountain to be executed in the centre of the same square.

Four projects were awarded, and by examining the comments on the projects it is evident how the Italians were looking at the public space, and what kind of image they wanted to

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[235] McLaren, p.45.
[236] Krystyna von Henneberg, Imperial uncertainties: architectural syncretism and improvisation in fascist colonial Libya. *Journal of Contemporary History*, 31 (1996), 373-397, (p.379).
[237] Ibid,. p.382.
[238] The building mentioned in previous section.

represent: "the theme proposed for the Piazza . . . [was] an appearance fit for a large modern city", "an excessive stylistic adherence to the types of minor Mediterranean housing", "too great an emphasis on classical monumental styles." And the winning project was "pure in its Italic derivation"[239].
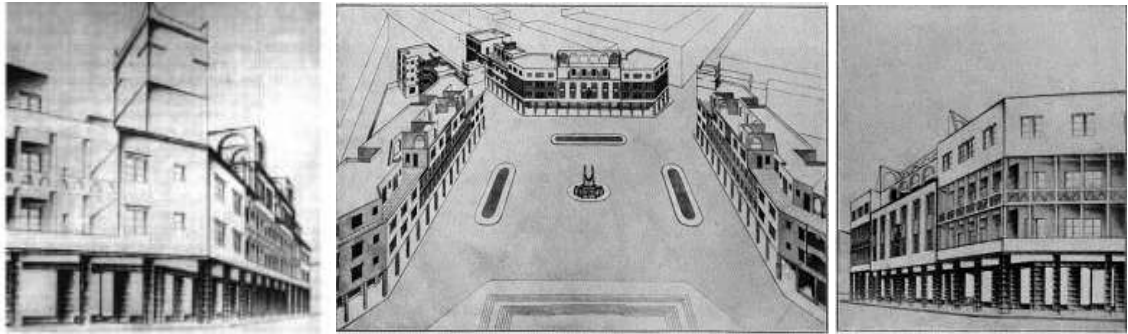
Figure 151 Competition for the accommodation Cathedral Square of Tripoli: a side building central perspective and Central building (left to right). Source: Fuller 1988.
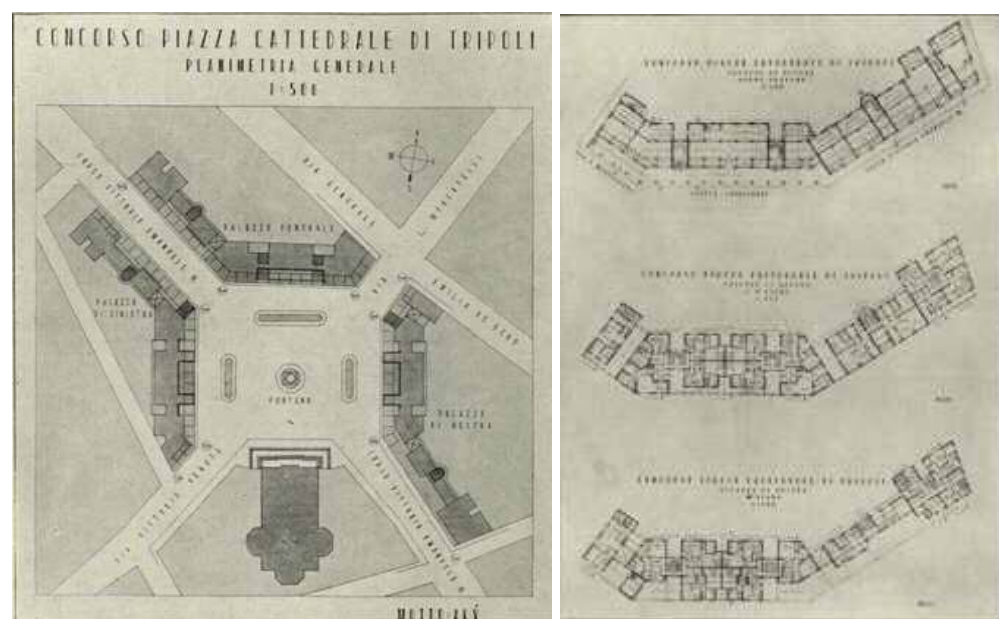
Figure 152 Competition for the accommodation Cathedral Square of Tripoli: general plan. Detailed plans, and a diagram of its location in relation to the old medina

[239] Fuller, p.579.

The Cathedral plaza was significant as it was the first step in building a spatial system connecting the former Italian buildings. The plaza was the first Italian public space founded by and for the Italians, a place that had no origin in Tripoli's previous history.

> The square in the Mediterranean tradition is a complex space, generally formed over time through changes and progressive adjustments. The construction of a new square represents the culmination of the city's project action, because it is at the same time a symbol of a community, a physical place of meeting and rest, space that must be central and accessible, but protected and concluded[240].[In Italian]

As a public space, it is anchored to the cathedral, but nonetheless plays a central role in connecting the governance palace to the old city, as can be seen in the next diagram.
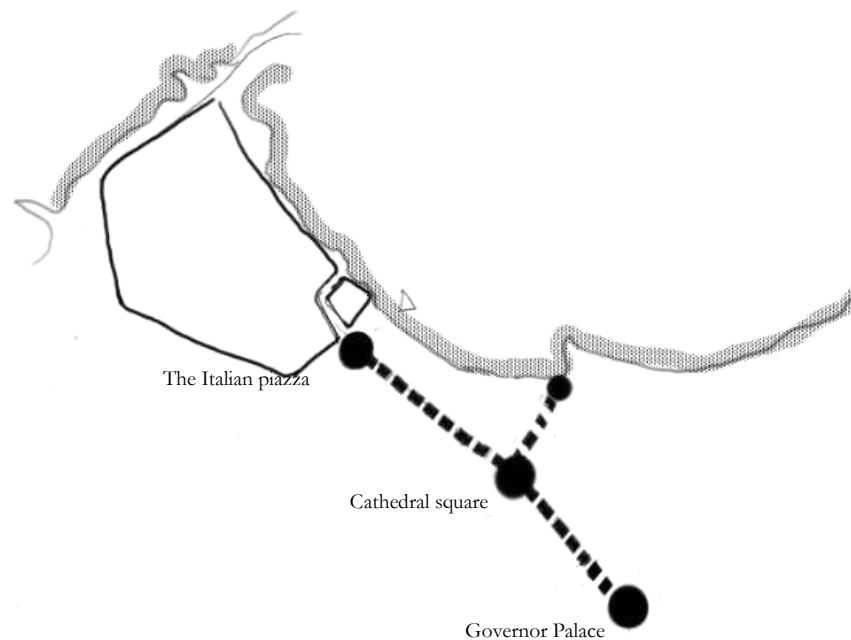
Figure 153 The connection of the Cathedral plaza with the other space in the colony.

Even though the cathedral was transformed to a mosque in 2007 to become the biggest mosque in Tripoli today, it did not fulfil the role of a grand mosque or a Friday mosque in Tripoli.

A. Tripoli's second master plan 1933:

Tripoli developed its second Italian master plan 1931-1933, which included changes to both the old walled medina and the new Italian city. As Libya was a colony fully under the control of the military, in this plan the Italians intended to only develop non-military buildings i.e.: civic buildings, resident buildings, landscape projects. With legislation given directly from

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[240] Marco Stigliano, Modernità d'esportazione Florestano Di Fausto e lo stile del costruire nei territori italiani d'oltremare (Polibapress, Arti Grafiche Favia, 2001) p114. [In Italian]

152

Rome, the order was to purchase the necessary plots for these buildings and sell the extra land that they gained during the former governances.

The focus of the urban development in the early 1930s was to look at the city as a whole, not as isolated buildings anymore, with a clear acknowledgement of the importance of developing the spatial system for the city, including streets with different design and size, a clear building form, as well as the public space.

> In the master plan of the city drawn by Alpago-Novello, Cabiati and Ferrazza, a network of broad streets linking the business district with major monuments, parks and government buildings, and circumscribing native residential areas to the medina and the city's southern, industrial out-skirts formed Pellegrini's vision of social order and unity, represented in the idealized language of the drafting table, nothing could be more rational than the hundreds of drawings prepared by the regime's modernist architects, with their eerily unpopulated, radial streets and gleaming, geometrically proportioned facades [241].

4.3.2.3 Balbo (1934-1940)

Balbo (1934-1940), the third influential Italian governor of Tripoli, was famously known in Italy as well as in Tripoli today. He is identified as the governor that fulfilled the Italian colonial vision. In the four years in his governance he managed to transfer 22,000 Italian settlers to colony. Balbo's choice of architect and his heavy involvement in urban development affected Tripoli's urban form dramatically. The unique designs of his allocated architect Florestano Di Fausto played an important role in bridging the gap between the old and new urban form.

> Libya under the governorship of Italo Balbo ranks as one of the fascist regime's most memorable feats of 'demographic colonization'... Libya under Balbo provided a splendid confirmation of the regime's claim that the Italian empire in Africa was not conquered 'for the privileged few' but to give 'proletarian Italy' at last 'an outlet for its exuberant life[242]

> Balbo's real fortune was that by the time of his governorship, the regime was less interested in the costs of colonization than in the prestige which the projects might reflect…The regime was finally realizing an old dream - cherished for years especially by Italy's minority of colonial enthusiasts - of creating population outlets under the Italian flag.[243]

Balbo's main strength was his ability to understand and build upon his predecessors by further developing the colony and starting the tourist system. Balbo used all the former achievements that had taken place in Tripoli not only to encourage Italian migration but also

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[241] Henneberg, p.391.
[242] Claudio G. Segré, 'Italo Balbo and the Colonization of Libya'. *Journal of Contemporary History*, 7 (1972), 141-155
[243] Segré, p.149.

to advertise Tripoli as a tourist destination. He continued developing the city's infrastructure, roads and public services, and encouraged cruise operators to visit Libya. This effort led 30,000 tourists to visit the colony in the first six months of Balbo's governance.

Balbo created and coordinated tourism by means of a wide spread of propaganda advertising tourist-related attractions. He developed and expanded Tripoli's international fair, along with other activities such as the annual Grand Prix; he also introduced the annual air rally in 1935. In order to maintain and strengthen the effective role of tourism in Tripoli he founded the first central authority to control all tourist-related activities. This authority was responsible for advertising the city to Italian tourists. This included the publication of La Libia, the first publication of Tripoli Trade fair, in March 1936.

Tripoli's urban form and public spaces became the centre of media attention when advertising the colony. The first description of the colony in the publication was written alongside Tripoli's walled medina photo and the former Bread Market space.

> If at one time this immense territory may have merited being pejoratively called a, large sand box, today thanks to the provision of the fascist regime and the assiduous work of the colonizers, it has been amply reclaimed and cultivated [244]

Figure 154 Publication of La Libia 1936.

The role of public spaces and elements of Tripoli's urban fabric in advertising the city, through the Italian propaganda, grew more and more as the Tourist authority started to produce the journal *Libia* in March 1937.

Figure 155 Advertising posters of Tripoli's events. Source: pinterest.co.uk/pin/278730664421219781/

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[244] McLaren, 2006. p.66.

Balbo incorporated previous Italian work in Tripoli into his contributions and reinstated the Italian's first vision, Tripoli as a people colony (demographic colony). Given the fact that the Italians up until this time did not build enough accommodation in Tripoli to fit thousands of new settlers, his plans to transfer Italian settlers to Tripoli were formed entirely on agriculture bases. He advanced his success by maximising former establishments: he expanded the port to fit large boats, the rail system to transfer settlers to their remote locations, the industrial sector in the medina, and enhanced facilities in and out of the city (i.e.: water supply and sanitation).

The first Italians migrated to Tripoli in 1939. Balbo led the 20,000 settlers from the Italian coast to the port of Tripoli via Italian steamers. All 20,000 were gathered in Tripoli's castle square where Balbo greeted them, the families destined for the villages of Tripoli. Each settled family was given land and other state support, i.e.: a house and water from deep wells dug with modern techniques[245].

Figure 156 The arrival of the first group of Italian settlers to the port of Tripoli.

Figure 157 The new settlers gathered in the plaza del Castelo.

Source: Archival collection of the Library of Al-Saraia al-Hamra Museum, Tripoli, LUCE

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[245] Segré. p51

- **Main urban interventions under Balbo governance:** As this was the time that the main focus was to advertise Tripoli to the Italians, it was also the time that Tripoli developed its civic centre and residential sector. Until now, the Italian influence had affected Tripoli's outer circle. The development of the centre didn't take place until later years of the colony. The diverse colonial buildings with their unique architecture style still stand as landmarks in the city today. The following section will examine these buildings and their role in shaping public spaces in Tripoli.

First, Palazzo del Banco di Roma, or what was known as Piazza de Italia 1932-1934. This was initially designed by Limongelli with some changes made by Alpago Novello and Cabiati, following the death of the Roman architect[246].
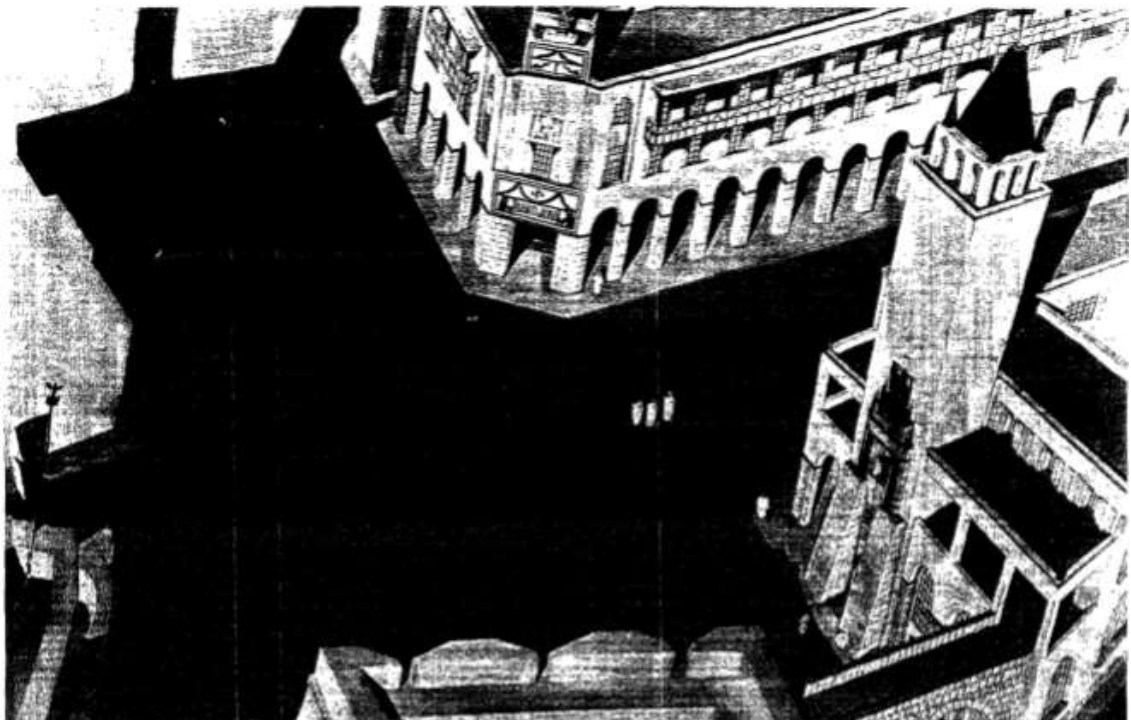
Figure 158 The proposal of the Piazza Italia 1931. Source: McLaren.

The Limongelli project planned to enclose the Italian square by building a intervention of two buildings. The intended use of these buildings as public institutions or semi-public institutions such as banks, insurance companies. The vision for the place was to become the administrative heart of the city; the offices on the ground and first floors of institutions, while residences were located on the upper floors management positions; while for other employees, they were dedicated residential complexes.

Bank di Rome, the specialization of the urban corner was a design expedient that allowed to represent life at the palace and at the same time hierarchized one of the sides of the square.

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246 Mia Fuller, Moderns Abroad: Architecture, Cities and Italian Imperialism (Routledge, 2009)

The corner, completely covered with stone (a rarity in Italian architecture in Libya) was cut to 45 degrees and was surmounted by a white element decorated with local motifs[247] [In Italian]

The second important building was Palazzo dell INA[248]

INA building in Piazza Castello in Tripoli. Designed by Tullio Rossi, a unique and compact block characterized as absolute modern in the form and in the functionality, but anchored to the tradition style.

Figure 160 Italian Public buildings in Tripoli.
Figure 159 The generated 3d model of the Italian buildings in the core Tripoli.

1 Building block

2 Walking paths

3 Order of the space

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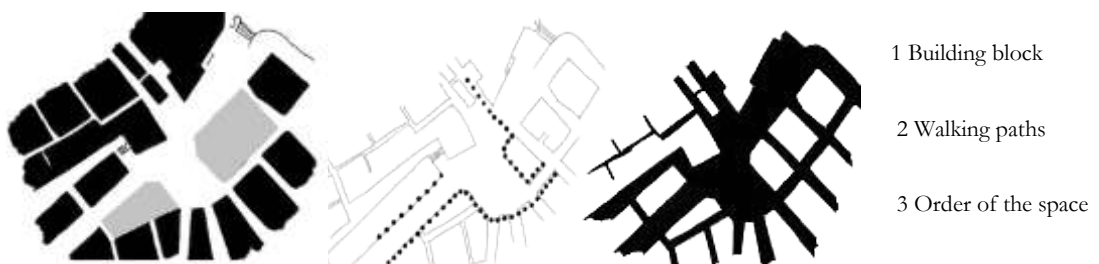
[247] Stigliano, p.142.
[248] Ibid,. p.154.

157

Both these buildings with their unique design were an important element in supporting the physiacl continuity of Tripoli's public spaces. The location and size and use of their arches developed a sense of sequence and draws a path to guide the users of the spaces both physically and visually. Even though at the time social interactions between people inside the walls (Arabs) and outside the walls (Italians) was limited, that changed in post colony years when the country gained its independency and both places were used by the Libyans.

4.4 Public spaces continuity in Tripoli during the Italian colony

4.4.1 The open spaces in Al-medina Tripoli

Since the early days of Italian intervention in Tripoli, voices called for the new city to take a modern form: a form that would represent power and modernity. Through the investigation at the beginning of this chapter, it is clear that the Italian's intervention in the old walled city was limited, and meant as an enhancement to the existing form. However, the open spaces outside the walls were their main interest. From early 1911 the Italians relocated the locals in order to keep control of the land price, and after the war ended they began developing these spaces. The public space became better-organised and defined with clear entry and exit points. Changes in the centre varied, from replacing existing Ottoman elements, to demolishing others. They also restricted movement in the new public spaces to the Italians and permitted local elites.

• Removing the water fountains

During the Ottoman era Tripoli had four different water fountains. The Italians demolished two and replaced the other two with water fountains as urban ornaments. Even though they are both water elements for the urban space their purposes were different.

In order to both promote the city to the people back in Italy, and demonstrate a sense of modernity in the colony, the Italians decided the new water fountain would be identical to Fontana d'Cavalli Marini, Fountain of the Sea Horses, in Rome.

Figure 161 Left; The Ottoman Fountain in the bread market turned into Horses fountain in Piazza de Italia. Tripoli. Right: Fontana d'Cavalli Marini Italy.

Figure 162 Left; Fountain in the weekly market turned into Right; fountain in Piazza in Tripoli. Source: Central Museum of al-Saraia al-Hamra.

159
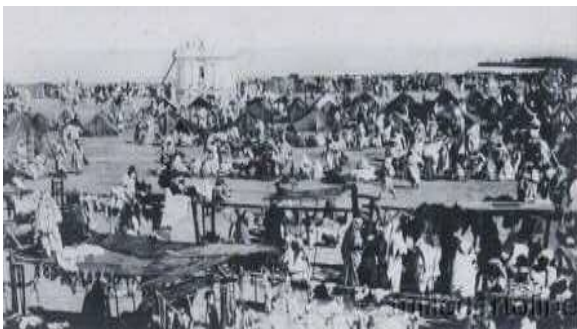
- **Removing the tomb**

During the Italian period, the Italians avoided demolishing any mosque or iconic tomb in or around the medina. In order for them to convince the local elites to remove the tomb located outside the walls next to the main gate without incurring outrage from the Muslims, they offered to replace it with an Islamic complex that also contained both an Islamic school and a mosque.

Removing the tomb opened the bread market visually to the waterfront, directly connecting it with the city water entrance

Figure 163 Hammoda tomb in the Ottoman time became mosque during the Italian colony in Tripoli

- **Dividing the centre**

The centre had been divided since Ottoman times - one side for the locals and the other for the Ottoman royal family. The Italian division was different. It used the division for segregation purposes, but also as a way for zoning the public space in the centre area. The Italians used the arrangement of building blocks to divide the space in the new city. Three main zones could be clearly identified: the Italian square, the Castelo square, and the old city entrance area.
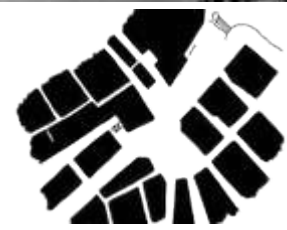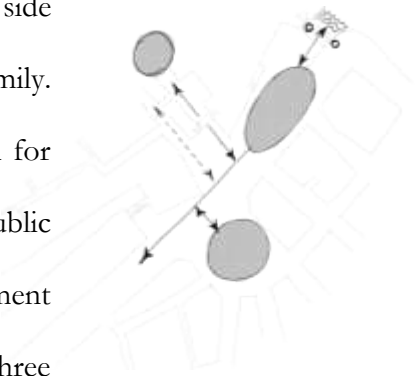
Figure 164 Analysis of the continuity of the spaces from out of the old medina.

161

- **Dividing the centre**

The arrangement of the new Italian block created spaces intentionally designed to be off the main access path.

Pockets of public spaces in the city, in the form of squares and plazas, were well designed and planned to serve the new colony. These spaces applied the colonial rule of segregation as they were set at a distance from the old city main gate, and were visually separated from the locals.
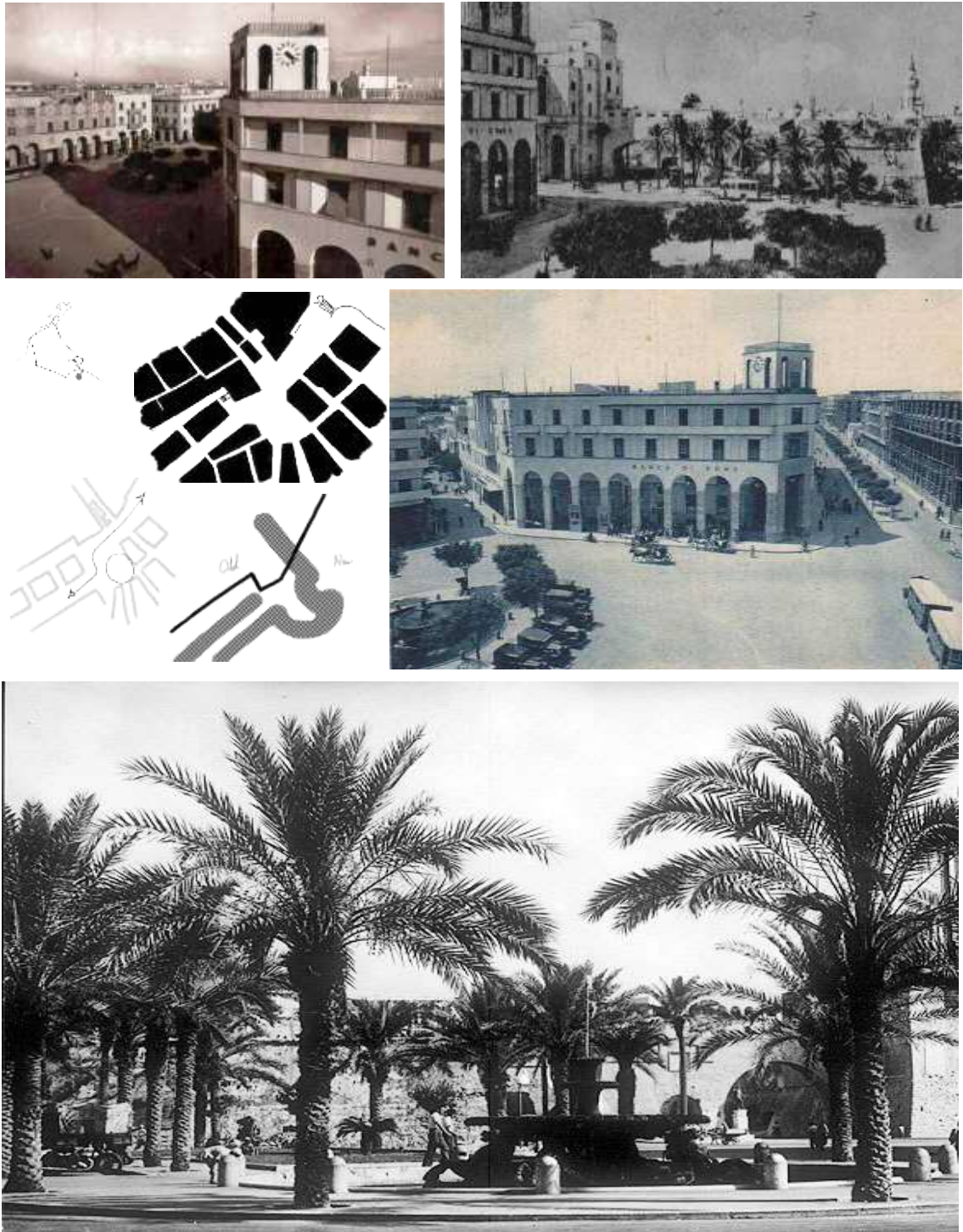
Figure 165 The Italian plaza in Tripoli

Figure 166 Left Tripoli's water entrance. Right the water entrance in Venice

Figure 167 Tripoli's water entrance and the Castle plaza.

Dividing the centre

The main connection between the water entrance and the new urban city relied heavily on the main street that crossed along the city next to the medina walls. It starts with the water gate, followed by Castelo square, up to the Italian square and along to Tripoli's trade fair.
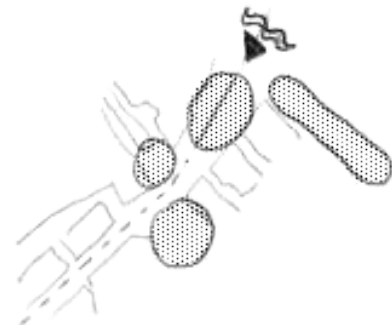
Cathedral di Tripoli 1935, used as a mosque since 1980 and transformed to a mosque in 2007.
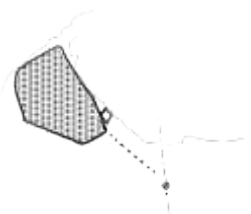
Figure 168 Piazza Del Cathedral Tripoli; To emphasize the Italian the monument

4.4.2 The Markets in Al-medina Tripoli

The medina market:

After the Italians removed the market from the main central spaces and restrained the locals' movements to inside the walls, all the trade activities moved to the streets inside the walls.

The trade activities inside the medina walls

The Italians built a market for the Italians on the west side of the medina walls, to provide the Italians with daily fresh goods without the need to enter the medina.

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The Italian market in Tripoli
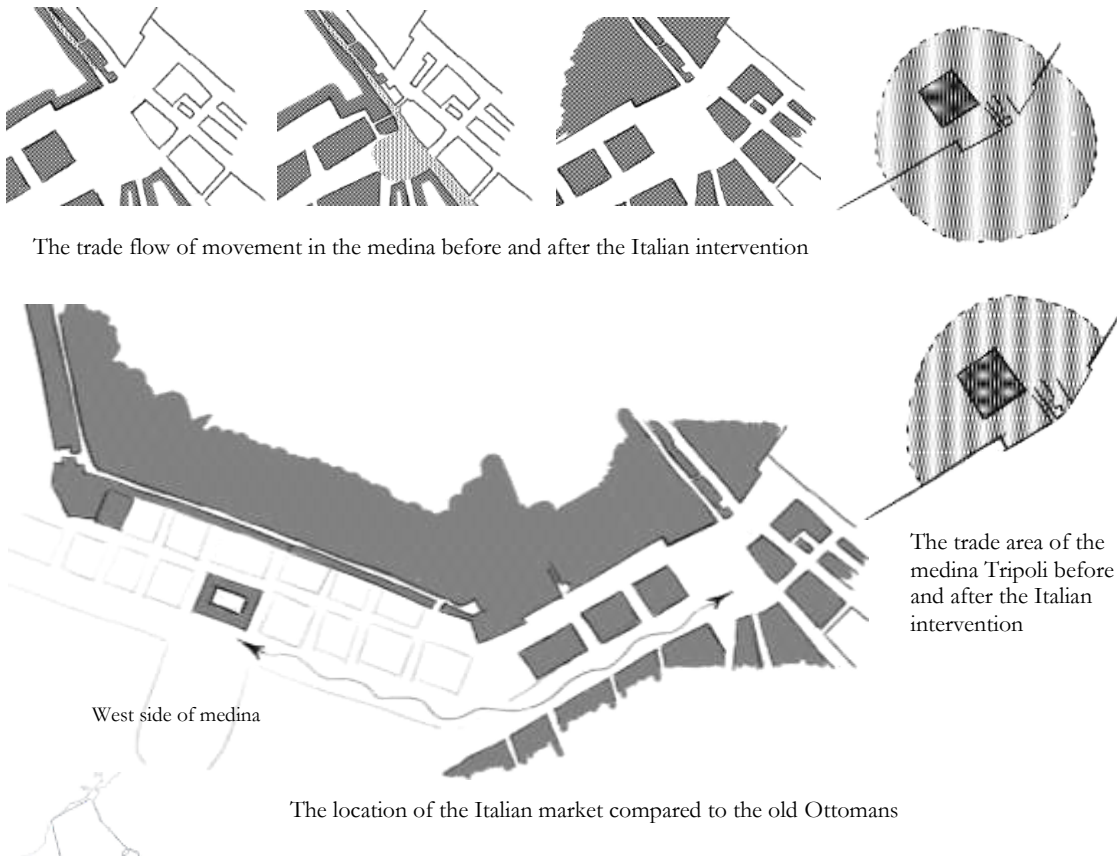
The trade flow of movement in the medina before and after the Italian intervention

The trade area of the medina Tripoli before and after the Italian intervention

West side of medina

The location of the Italian market compared to the old Ottomans

Figure 169 Removing the social activities from the bread market and its effect on the old medina.

4.4.3 The medina castline and port.

Developing the water front

The port lost its position within the medina as an entrance to the city. Even though the port was still the main means for the Italians to enter the city, it became less interesting space compared to its role during the Roman times, it became a transition space.

The water front was divided into three sections, with three points of entry: The old port, the entry point next to the bank, the castle entrance.
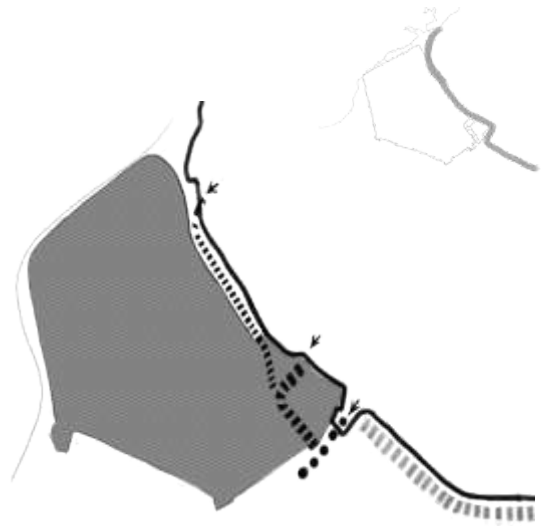
Medina water side before the

Medina water side After the Italian

Entry point next to the bank before the Italian

Entry point next to the bank after the Italian

Figure 170 Tripoli's cost line. Left: during the Ottomans. Right during the Italians
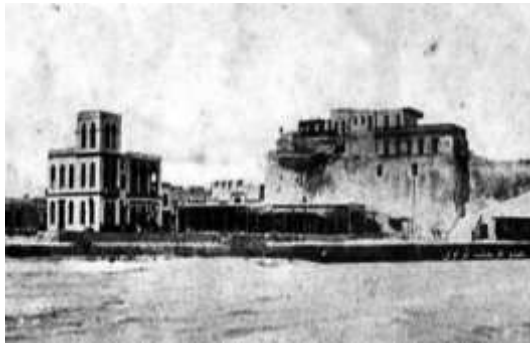
Tripoli's water entrance during the Ottoman (Left) and the Italians (Right).

Tripoli's coastline during the Italian colony.
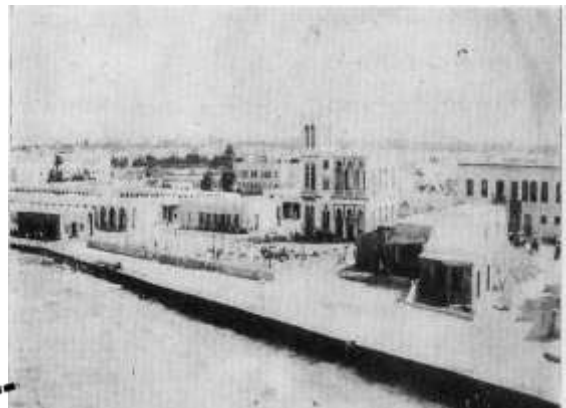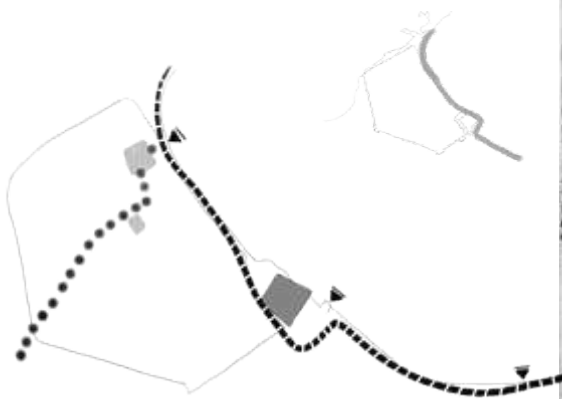
The continuity of the coastline: along both the old medina and the new Italian colony.

The transformation of the space and the urban surroundings reflected the Italian vision of a modern city.

Figure 171 Tripoli's water entrance and its continuity with the coastline.

167

The medina lost another big open space, known as the Tuesday Market, a place of social gathering for people not just in Tripoli, but for travellers and traders from all over Libya, as goods for this market varied and came across the desert.

The Ottoman fountain in the middle of the open market has been replaced with a Fountain of a naked lady caressing a gazelle. Surrounded with ring of palm trees

In recent years, the statue became a controversial matter, voices argue that the icon is offensive and against the Islamic rules, while others thought of it as part of the medina history, that needs to be preserved.

After the revolution matter taken in people's hand, the city woke up to the loss of this historical artefact.

Figure 172 Changes to the Ottoman fountain during the Italians and later years.

Arial view of the medina during 1930s, the formation of Tripoli's urban core. The view shows the corniche, the replacement of the tomb, but the water fountain still not replaced as well as the path connecting the Castelo space with the Italian plaza still not opened yet.
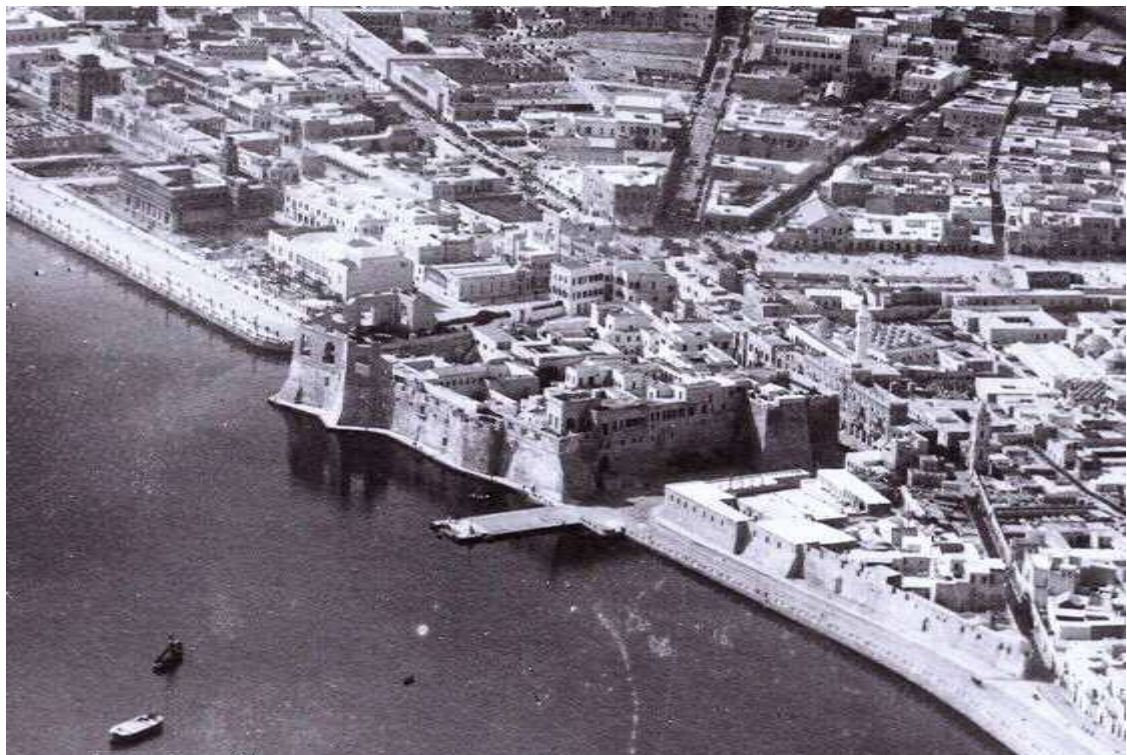
Arial view of the medina during 1930s, the formation of Tripoli's urban core. The view shows the corniche and its lines of trees (soft edge), the castle with its huge form (centre) the side water entrance and the Medina coastline (hard edge). It also shows the Ottoman radial system, the Ottoman clock tower. The view is prior to the building of the Bank di Roma next to the castle.

Figure 173 Arial views of Tripoli at the late Italian colony.

Figure 174 Sequential photos taken during the walk through during the Italian colony Tripoli.

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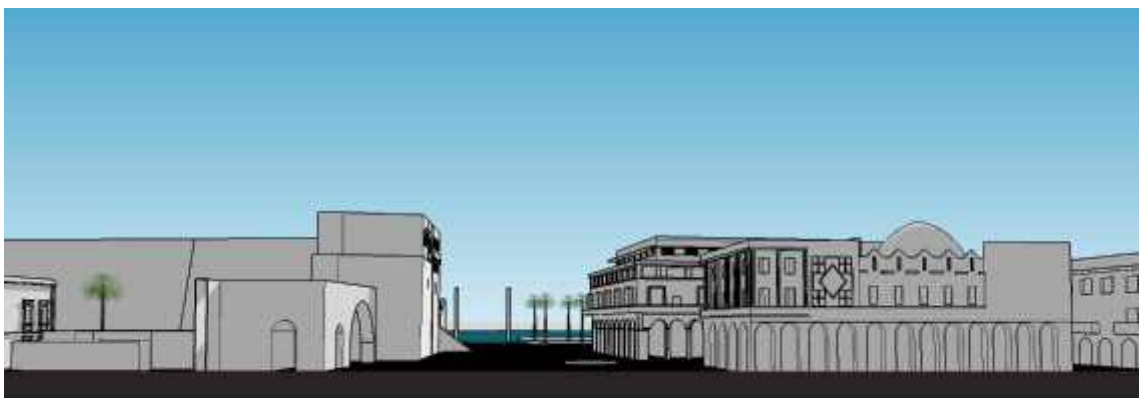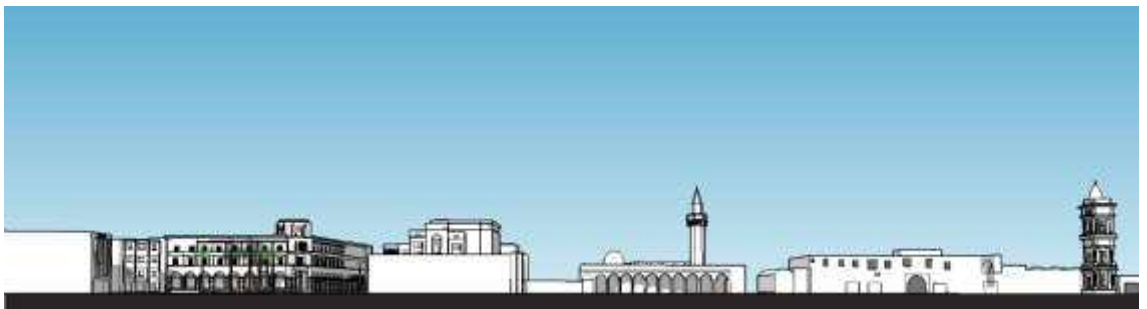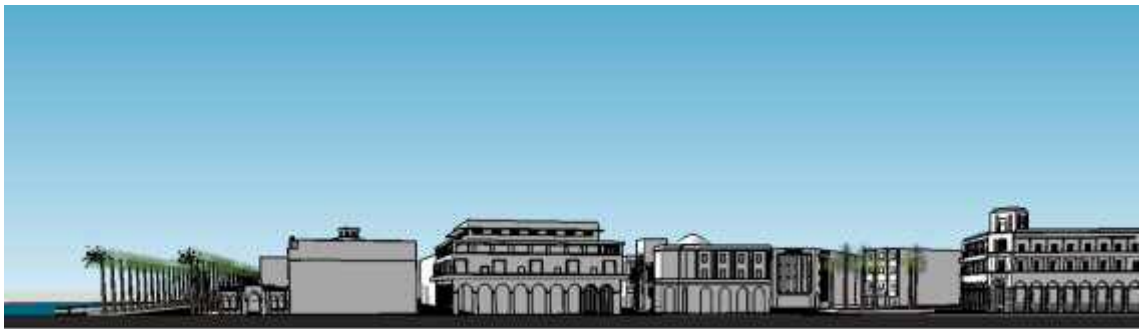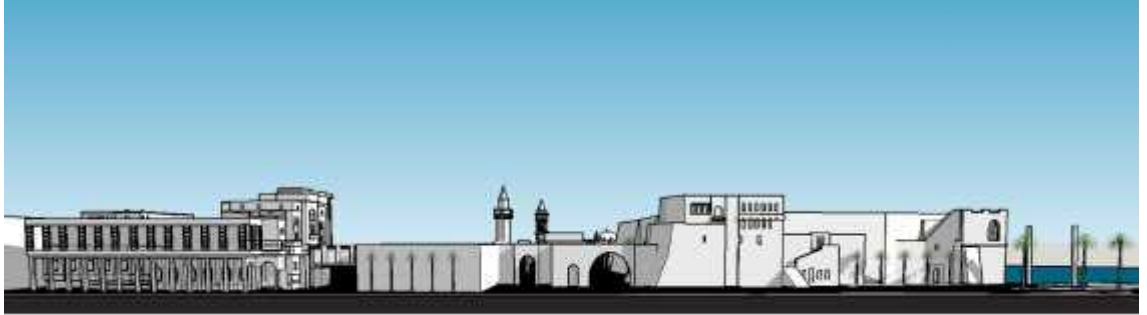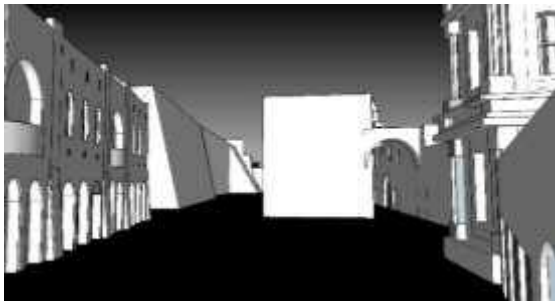
Figure 175 Sections in Tripoli's core area and the Italian urban fabric
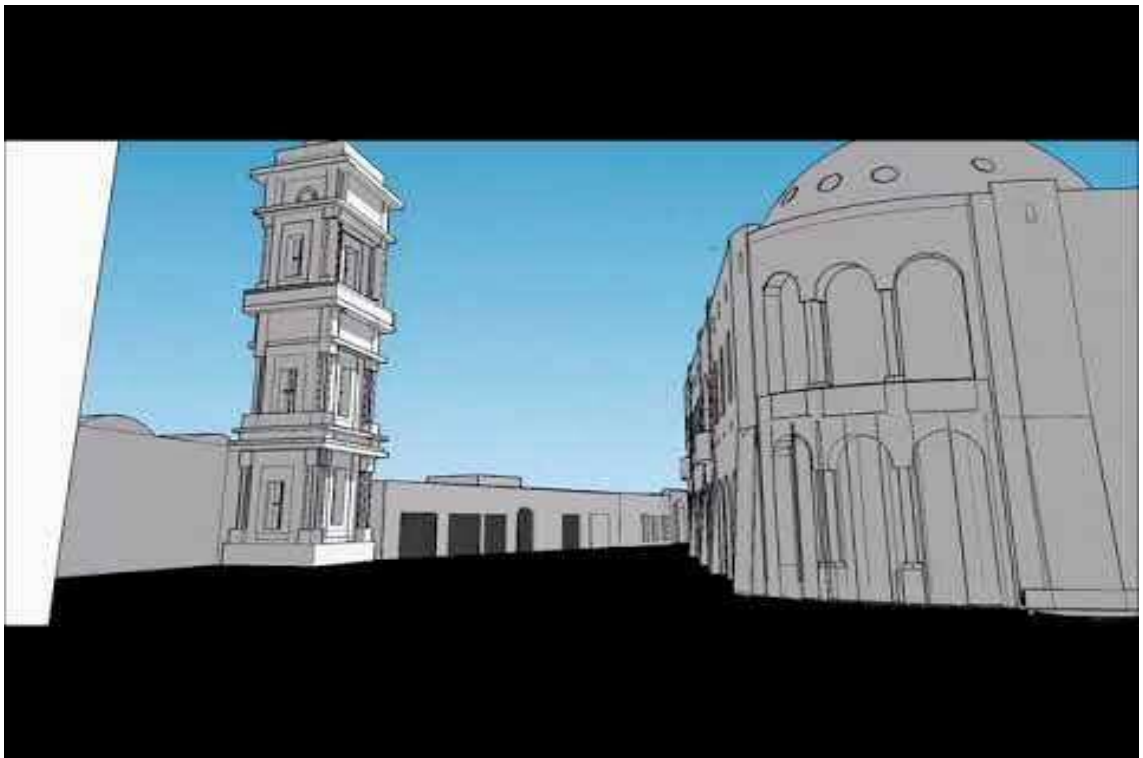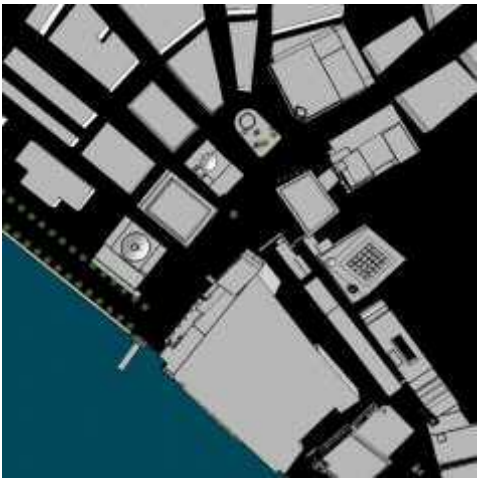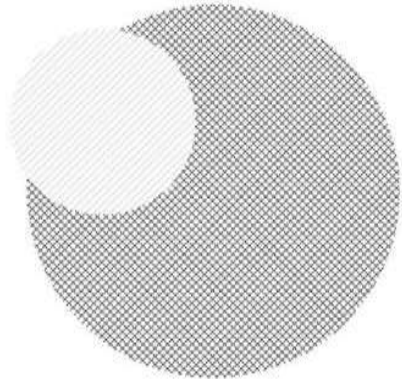
Figure 176 The Video of the generated 3d visual walk

** Please if you are reading a printout of the thesis, watch the video of the walk through in the attached CD. File named (Public spaces in Tripoli during the Italian colony).

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4.5 Summary of Stimulation study part 2 Tripoli in the colonial time:

1- continuity	It is still a smooth journey when passing through public spaces in medina Tripoli, out of the city gate and across the urban development outside of the city. The building location, style and size compared to the castle are visually connected to the spaces inside the medina. The arcade that faces the old city is a main element of the physical and visual continuity between public spaces. Despite the Italian intention of segregating the old medina, both the physical and spatial form still provide a sense of continuity inside and outside the walls.	
2- Spatial social division	From the Italian interventions and plans for the new colony, we can see that there was a clear division between the new Italian community and the rest of the locals. The Italians dominated spaces outside and around the medina walls. Separating spaces: first, a space for Italian use, paths to move around when using facilities located inside or close to the medina, the space is well maintained, connected directly to the port. The second, space meant for local people to move in and out of the walls. Spaces were tight, and no longer connected to the main daily market. A clear social disconnect between public spaces in / out of the medina walls.	
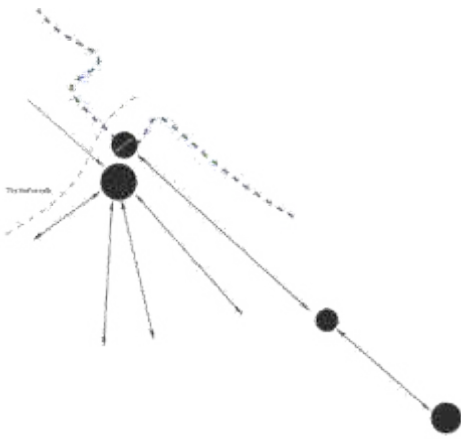
3- Radial system	The connection between public spaces inside the city walls and the outside area was divided into two spaces, one called the Piazza Italia. This space acts as a central node connecting the main streets of the new colony, however no daily activities take place in it. The second space is the Castelo piazza, the space developed close to the Castle that acts as an entrance to the new city. It is connected to the water entrance and the port.	
4 Space activities	-The Italia Piazza -Theatre -Hotels -Cafés and Bars -Trade and retailers -School -Mosque -Banks -Tourist	
5 Architecture of the space.	- Columns - Arches - Individual spaces with visual connections - High rise fabric	

Table 7 Summary of Stimulation study part 2 Tripoli in the colonial time.

Chapter 5

Public spaces and built environment of Tripoli post colony (1951-2011)

5.1. Introduction

This chapter is designed to cover the third and final time layer of this research, Tripoli as a post-colonial city (1951-2011). The research on this stage continues interpreting the underlying dynamics behind the growth and change of Tripoli's urban form. Forces during this time varied significantly, including: The Second World War and its role in Libya's independency, the discovery of oil, and the country's economic and social changes. Furthermore, Muammar Gaddafi was a key figure in Tripoli's post-colonial urban changes; he held certain ideologies: "at root, he never favoured, perhaps even feared, urbanism" [249]. He had a powerful impact on the form of public spaces in Tripoli by overruling Tripoli's planning agencies decisions, as will be fully explained later in this chapter.

The chapter will be divided into three sections. Firstly, a historical research investigating the forces driving the evolution of Tripoli's public spaces, from Tripoli's independence up to the revolution (Arab Spring 2011). Maps, reports and documents published during the Gaddafi regime are important evidence in this research but need to be read critically; on the one hand, they show the intentions of the Gaddafi regime, on the other they are clearly informed by the messages of the regime. Examining the maps, formal documentations and reports written during this time enables, to an extent, the identification of important urban evidence (primary elements) in Tripoli's post-colonial evolution, but also enables the comparison of these changes and their effect on the city's public spaces (i.e.: streets, squares, gates, markets).

Section two is a morphological analysis examining the changes in the urban fabric and their effect on public space continuity in post-colonial Tripoli. The public spaces in the late post-colonial stage (in 2011) and the continuity of public spaces of the old medina and its immediate context will be investigated, morphologically and visually. However, the results of the morphological analysis will focus on the Gaddafi era (1969-2011), as most of the physical urban changes in the city took place under his rule.

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[249] Dennis Hardy, 'The Spring of Hope, The Winter of Despair: an unfinished narrative of Mediterranean cities', *Planning perspectives*, 27 (2012), 417-437

Section three offers a comparison between the continuity of public spaces in the medina and its immediate context in Tripoli, both during and after the Italian colony. The chapter concludes by summarising the main forces that shaped public spaces in post-colonial Tripoli, and their general characteristics.

5.2 Forces of evolution and change in Tripoli's public spaces during the post colony.

By studying the growth and change in the urban form of Tripoli during this era, three sets of time were clearly identified. The first falls between (1951-1969), when Tripoli gained independence from the Italian colony (referred to in this research as (Tripoli's independence)); the second falls between (1969-2011), when Tripoli was under the Gaddafi regime, referred to as the Gaddafi era. Even though in both sets of time Tripoli is part of a self-governed country, the time periods have been separated for this research due to the differences in the scale of the urban changes, the types of change, and most importantly the forces behind the urban changes.

5.2.1. Forces of growth and change during the Libya's independence (1951–1968)

5.2.1.1 The struggle of Libya's independence:

There were three main events that drove Tripoli's urban growth and change during this period: the Second World War, Tripoli's independence, and the discovery of oil in the country. Each of these events heralded changes in the political and economic landscape that either encouraged or prevented urban change in Tripoli. Each of these events and their role in shaping Tripoli will be explored in the following sections

5.2.1.2 Second world war and the Late Italian Colony 1939 – 1945

The Second World War forced the end of 30 years of Italian colonisation in Libya. Italy entered this war hoping to expand its colony to include all of North Africa and the Mediterranean region[250]. During WW2, the North African colonies, for both sides of the war, were to "supply manpower and war materials to the war effort, as well as battlefields for a colonial war"[251]. Italian participation in the Second World War, fighting against the

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[250] By formed an agreement with the three Axis countries that promised Italy the Mediterranean region; while the German will dominate over Europe, and Japanese will dominate over East Asia and the Pacific

[251] Idres S. El-Hare, ' North Africa and the second world war ', in *Africa and the second world war*, (Bengazi: UN, 1985). p.27.

Allies[252], put Libya in a difficult and weak position: it was surrounded from both sides by the Allies' colonies, located between the French colonies of Tunisia, Algeria and Morocco, and the British colony of Egypt. Battles took place all along the colony's coastline. However, as it is not the purpose of this research to describe and analyse the complicated and dispersed military battles that took place, the research will be limited to analysing the effects of war as a force of growth and change on Tripoli's urban form, specifically its public spaces.

The Italian declaration of war against Britain in 1941 put Tripoli under war conditions. Italy started "a military build-up on the Libyan-Egyptian frontier, to launch an offensive against the British in Egypt" [253], and in order to back up Mussolini's defence of the African colonies, Adolf Hitler, the leader of the German Nazi party, formed a special troop to fight in North Africa named the Afrika Korps, sent it to Tripoli to join the Italian forces in North Africa. Even though the Italian-British fight did not take place in Tripoli, Tripoli's public spaces during World War Two were militarised, mainly in order to demonstrate German power, and to transfer the troops to their battlefield. After the Afrika Korps arrived in Tripoli's port they were transported to the East border.

> The German African legion (Afrika Korps) began arriving in Tripoli from Palermo, Sicily, on 10 February 1941. On 20 March Rommel[254] met Hitler in Berlin and both agreed to the launching of an offensive against the British [East of Libya] as soon as the German troops had all arrived in Tripoli.[255]

Photographic evidence of the Afrika Korps landing in Tripoli's port and marching across Tripoli's Italian plaza, alongside the water entrance, displays how Tripoli's spaces were militarised. Soldiers marched across the main roads; tanks landed in the port and drove out of the city. However, there is no indication in the research that the troops used spaces inside the old medina where the locals lived: they used the new Italian spaces outside the walls.

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[252] Which included Britain, France, Australia, Canada, New Zealand, India, the Soviet Union, China and the United States of America.
[253] El-Hare, p.29.
[254] A German field marshal known by his enemy as The Desert's Fox
Daniel Allen Butler, Field Marshal: The Life and Death of Erwin Rommel (Casemate, 2015)
[255] William L. Shirer, *The Rise and Fall of the Third Reich* (Simon and Schuster, 1962), p.29

Figure 177 Militarising public spaces in Tripoli during the WW2. Source: The Libyan Centre of Archives and Historical Studies

Tripoli did not suffer urban damage during the war, the damage happened during the German's retreat in 1943. After three years of fighting, the German and Italian troops lost the war in Cyrenaica and withdrew to Tripoli. They were then pushed out of Tripoli by the British. They left Tripoli after demolishing its harbour and some of the main facilities, such as the Telegraph system. In 1943 Tripoli fell under British administration.

> There the Eighth Army scored another victory over the Axis forces, which withdrew to Tripoli. Unable to hold on to Tripoli, Rommel evacuated it after demolishing its harbour and vital facilities. By 4 February 1943, the Axis forces were driven out of Libya. Thus, Mussolini's vaunted African Empire was no more. [256]

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[256] Paolo Battistelli Pier, *Afrikakorps Soldier 1941-43* (Bloomsbury Publishing, 2013), p.29

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Figure 178 The WW2 map showing the British advance to Tripoli.

5.2.1.3 Tripoli Independence:

> With all the horror and devastation, the Second World War brought to the world, however, it paved the way for independence in many countries. Firstly, it put an end to the Fascist regime in Italy, which led to the independence of Ethiopia, Libya, and Somaliland. Secondly, it weakened economically and militarily two major colonial countries, Britain and France. Thirdly, the war encouraged national movements in North Africa to renew their struggle against France and Britain, which culminated in the independence of the whole region from colonial rule[257].

British control over Tripoli lasted for eight years; Libya was granted its independence in 1951. Libya's independence resulted from the formation of the United Nations and its declaration of the purposes of the WW2 war and addressing the countries independency after it ends. They specifically addressed "freedom of speech and religion…freedom from fear and want…[and] pledged that the Allies sought no lands or other gains from the war"[258]. Additionally, it "contained an affirmation of the right to popular self-determination which could be applied to the world outside of Europe"[259].

WW2 ended with a clear division in Libya: the south of the country (Fezzan) was under the administration of the French, and the east (Cyrenaica) and west (Tripolitania) was under the

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[257] Battistelli, p.35.
[258] Paul Collier, The Second World War (4): The Mediterranean 1940–1945 (Osprey Publishing, 2003), p.207.
[259] Ibid,. p.208.

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administration of the British. This division made independence a much harder process. The UN commissioner in Libya in 1950, Adrian Pelt, described Libya's independence process:

> If there was a discord in Libya, there was more of it in the world outside And, paradoxically, Libya was put on the road of independence because international disagreement was greater than her own national disunity[260].
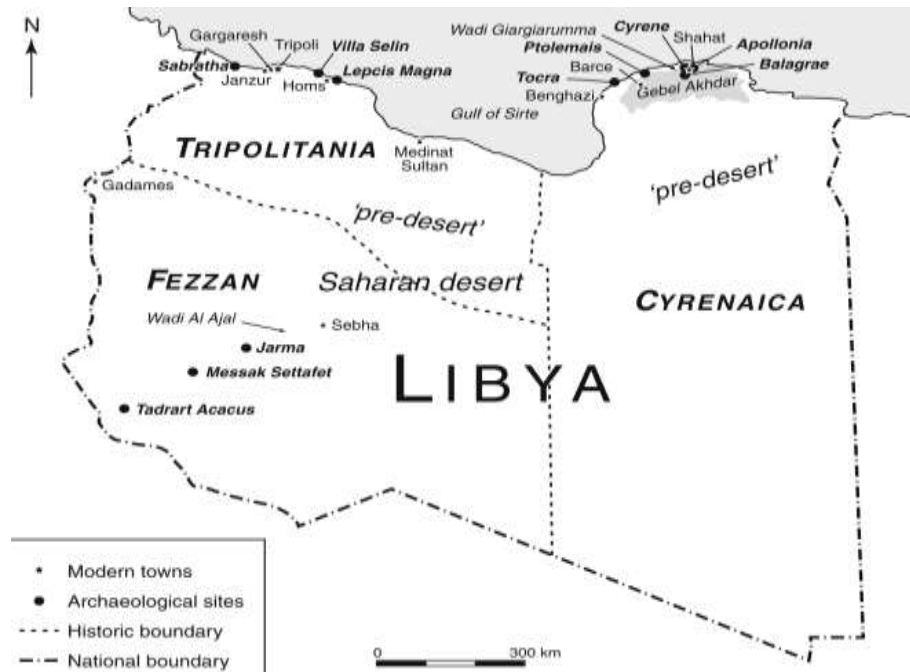
Figure 179 The three main regions in Libya. Source: St. John, R. 2011

The discussion about Libya's future was first raised by the Atlantic Charter in 1941, a declaration by the President of the United States Franklin D. Roosevelt and the British Prime Minister Winston Churchill. They made their positions on Libya clear: the US had interest in Tripoli; Britain was interested in Cyrenaica[261]. Different options about Libya's independence were discussed between the United States, France and Britain. The first option was to place Libya under the administration of an international trusteeship governed by Britain, France and Egypt. The second option, suggested in 1943, proposed that Cyrenaica was added to Egypt and Tripolitania to Tunisia. This option was dismissed due to fear that joining the Italians already in Tripoli with those in Tunisia would result in them being stronger than the French. The idea of Egypt's administration expanding to Cyrenaica was also dismissed. The final alternative was the establishment of a Jewish refuge in Libya; this was dismissed, as the Arab Libyans could not be convinced. Tripolitania worked its way, building and advancing it political national party[262].

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[260] Ronald Bruce St John, *Libya: from colony to revolution* (Oneworld Publications, 2011)
[261] It was more interested in Cyrenaica.
[262] Ibid,. p.35.

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A more serious agreement, the Bevin Swords Project, was arranged between the Italian Foreign Minister Carlo Sforza and the British Foreign Minister Ernest Bevin. This agreement suggested that Italy ran the administration of Tripoli, France administrated Fezzan, and Britain continued to administrate Cyrenaica. It was secretly agreed on and submitted to the UN for a vote on May 17, 1949. It required the approval of two-thirds of the 58 members present. A member of the Libyan delegation *Dr. Ali Noureddine Al-Enizi* succeeded in winning the support of the representative of the Haiti state, *San Leu*, and it was his voice that led to the collapse of this project[263].

International disagreement about the future of Libya forced the three Libyan regions into negotiation. The negotiation was organised and led by the United Nations Commissioner in Libya, Adrian Pelt[264], and resulted in an agreement to apply a Federal government, under the crown of Sayyid Idres in 1950. In October 1951, the UN approved the constitution and declared the United Kingdom of Libya. Thus, Libya was the first African state to achieve independence, and it was also the first and only state created by the United Nations[265]. In recognition of the efforts of the UN Commissioner Adrian Pelt, Tripoli renamed its main boulevard, which had been formerly named after its founder Valpo (Valpo boulevard).

Figure 180 Adrian Pelt avenue in Tripoli 1953

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[263] To document this significant event Tripoli named a street after Haiti. The street's name still exists today even though the meaning is no longer known by the Libyans.

[264] UNESCO, *Report of the mission to Libya* (United Nation in Germany, 1952).
<http://unesdoc.unesco.org/images/0005/000590/059048EB.pdf>

[265] Abdelatif Allous, The Historical Transformation of Civic Architecture: City Council Buildings and Urban Change in Tripoli, Libya (PhD Thesis in Architecture and Urban Design, Newcastle University, 2016)

Post-independence Libya suffered an economic downfall, due to different constrains on its growth. Revenue constraints, the absence of rain and the poor soil meant not much revenue was generated. Industry lacked raw materials, manpower, and capital. The country's (Tripoli) main revenue came from the trade of caster seeds, esparto grass for making paper, the trading of scrap metal remaining from WW2, and finally aid from other countries. Furthermore, the closure of most of the banks in Libya during the British administration, except for one (Barclays), made it difficult to manage trade.

Another constraint limiting economic growth during the independence years was the wide spread of mines in Libya. Huge land and sea areas were planted with mines; 12 million mines planted across the country made expanding trade routes impossible through both the land and sea.

> Farmers and peasants fled to safe places and, consequently, a food crisis developed, resulting in mass starvation. Above all, the Italian government drafted able young Libyans to fight for its colonial adventure, and many were killed[266]

Lack of human resources, the high death rate due to poor healthcare, and limited overall growth continued until the discovery of oil. This led to a rapid change in the country's capital and revenue, which caused a dramatic change in the social and economical life of the Libyans, as will be explained further in this research.

The discovery of oil in Libya became the main driving force behind economic growth changes in Tripoli. On 20th January 1958, a company named Esso discovered the first oil well in Libya; the size of the well was (500 barrel/day) and was considered by the company as insufficient for commercial production[267]. In June the following year, six large fields were discovered by US oil companies. One of the big wells discovered provided 17,500 barrels a day, the others around 15,000 barrels a day. Drilling and oil discoveries continued between 1960-1969 and oil production reached three billion barrels in 1963, with an average of 1.3 million barrels a day[268].

The following sections will analyse how these main events (the Second World War, independence, economical constraints, and the discovery of oil in the country) affected growth and change in Tripoli's urban form and its public spaces.

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[266] El-Hareir,. p.34.
[267] Alshadli Edwik, *Oil Dependency, Economic Diversification and Development a Case Study of Libya.* (PhD thesis, University of Salford, School of the Built Environment. 2007)
[268] Ibid,. p.74.

5.2.1.4 Urban forces driving the city's the growth and change during the independence (1941–1968)

Tripoli's transition from a colonial city to part of the Libyan kingdom was a process that took three stages: Tripoli as a supply point for the Italian/German war on the British 1941-1943; the capture of the city, and the British administration 1943-1951; and, Tripoli as part of the Libyan kingdom 1951-1968. The intense military circumstances, and all the transitions post-war, are reflected in Tripoli's public spaces.

First, the researcher examined Tripoli's physical urban fabric after the end of the war, to ascertain the damage of the war on Tripoli's urban form. The scale of the physical damage in Tripoli's urban form was minor compared to the scale and intensity of WW2. As mentioned previously, the Italian-German forces took revenge during their retreat: they damaged the port and vital communication and supply services, as described by Idris El-Hare:

> … Tripoli experienced the same fate. Its harbour and its facilities were demolished, as well as other military installations, by the retreating Germans. Roads, bridges, power stations, water-supply facilities and even hospitals and schools were damaged or destroyed by the warring parties…The loss of human life and property during the Second World War is inestimable [269]

The limited destruction of Tripoli's colonial urban form is explained by the fact that fighting did not take place in Tripolitania. Through the (maps/photographic) analysis comparing Tripoli before and after the war, damage is mainly seen in three areas: the port, residential areas in the old medina, and Miramar Theatre

> The morning of the 10th arrives we are still here in Tripoli … we manged to get to the lively part of Tripoli and found that this was not as badly …damaged as the outskirts of the dock area which is shambles, although there wasn't much trading going on.[270]

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[269] El-Hareir, p.34
[270] R.H. Nicklin, *From Civilian to Sailor WW2 1940 to 1946* (Author House UK, 2014) p.251

Figure 181 Photos of the damage of the residential area in the old medina. On the right, a captured frame from a video recording of plans booming Tripoli

Figure 182 A frame of a recording video of booms landing on the port.

Another main public building in Tripoli was lost due to the war, the Miramar Theatre; it was demolished during the bombing of the port on 12th April 1943.

Figure 183 Exterior and interior photos of the demolished building The Miramar theatre.

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Figure 184 The Location of the theatre in relation to the castle and the waterfront.

Figure 185 Before and after the Miramar building was boomed. the relation of the new space

Beside the physical changes, militarising public spaces in Tripoli during the war led to social-morphological changes. Through the research, some public spaces were identified as more militarised than others, by both the former Italian colony and the British administration. Spaces such as the Italian piazza, Castelo piazza and the corniche were heavily used for power demonstrations, proven by photo archives of the war, in contrast to other spaces such as the cathedral square and old medina spaces, where no evidence of their role in WW2 can be found.

Spaces such as Castelo piazza were used for rallies during the war. Many commanders appeared in this space: Mussolini, Hitler, Churchill and other general commanders embraced this space as a political stage. The following diagram reveals the different levels of militarisation of Tripoli's public spaces.
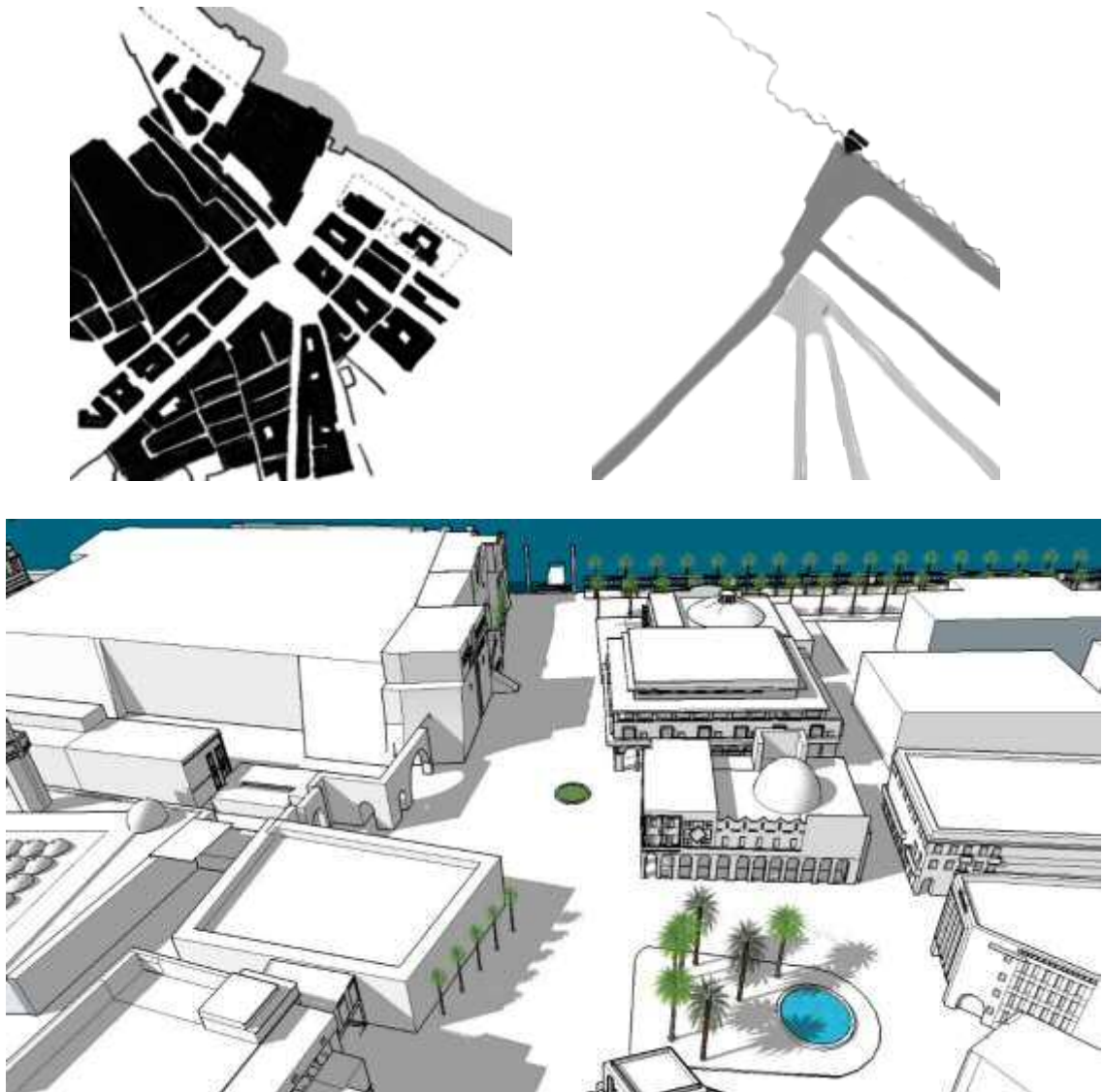
Figure 186 The relation of the new space

Figure 187 Seance from the walk through the Castello plaza

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Table 8 Tripoli's public spaces during the WW2.

	Changes	The Port	Streets	Squares
WW2	During the early stage of the war Tripoli became a supply point for the Italian war on the British (1941-1943). Tripoli's public spaces were militarised and access to these spaces was restricted to military operations. The public spaces were divided into three main areas.	The port area, limited to landing operations, as it was the only access to the city from sea, formed a direct line of supply connecting Tripoli to Italy.	Roads for escorting the landed Afrika Korps[271], directing them to the only road connecting Tripoli to the east of the country through the desert.	Public squares and Maidens for military speeches and power display.
British administration	From 1943 and during British administration of Tripoli, public spaces were used to demonstrate military power. Winston Churchill visited Tripoli and appeared in front of the castle.			

[271] Deutsche Afrika Korps arrive in Tripoli, <https://www.youtube.com/watch?v=XckkfSz81XI>

5.2.1.5 Tripoli during the Independence time 1951.

The UN's approval of the suggested Libyan constitution and announcement of the country's independency led to a series of celebrations across the city. The formal announcement by the new Libyan king Idris as-Senussi, took place first in Bengasi and later in Tripoli. The announcement was made from the town hall balcony to the Libyan people gathered in the Cathedral Square. Celebrations spread along Tripoli's public spaces, main streets and squares. However, during the research the appearance/absence of some public spaces was notable. The celebrations across the city were not influenced by only those spaces that were militarised during the war, which could be interpreted as a step to empower the civil role of the new kingdom.

Figure 188 Celebrations on Independence Day in Tripoli. 1951

Libya's independence promoted a sense of nationalism and identity, in part through developing a sense of belonging to Tripoli's public spaces. After independence, the Libyan people were no longer restricted to using the spaces in the old medina; the Italian spaces in Tripoli were now accessible to all Libyans. Streets and squares were renamed after the country's major events, connecting the country and people to these spaces and buildings and giving a sense of ownership and belonging. The spaces built by Italians, for Italians, and used exclusively by Italians during 35 years of Tripoli's colonisation, were now for the Libyans.

Renaming the streets emphasised their importance as part of the country's evolution. The significance of this action was recognised by Gaddafi; he renamed all of Tripoli's public spaces again to support his revolution, as will be explained later in this chapter. The following table summarises changes in the street names in Tripoli before and after independence.

Corso Vittorio Emanuele	Independence Road
Via Lombardia	24th December Road
General Di Bono	Al-balladya Road
Biamonte	Amr Bin al A'ss Road
Italy Piazza	Independency Square
Cathedral square	Algeria Square

Table 9 Renaming the streets during independence from, A form of owning the space.

Tripoli's urban growth and development in the years after independence were restricted by the country's post-war economic constraints. The need for immediate aid to support the new independent government forced it to enter into agreements with the United States, who provided financial aid in return for protecting/expanding military bases and interest in Libya. This limited aid was not sufficient to cover the development of Libya's three states (Tripolitania, Cyrenaica, Fezzan)[272]. Due to damages from WW2 in Cyrenaica its reconstruction was prioritised over Tripoli's development. Thus, not much changed regarding Tripoli's urban form and public spaces during 1951-1960 [273]. This changed with the discovery of oil in the 1960s.

With this new revenue, Libya worked to maximise economic growth, develop the country's key sectors, diversify production, distribute opportunities, reduce dependence on oil and encourage local industry. As a result of these policies the country recovered and no longer needed to depend on foreign aid. Economic growth continued[274], the population increased due to better health care and the country became more stable[275]. The discovery of oil not only provided major new revenue for Libya, it also changed the social-cultural relations between the Libyans and the old medina Tripoli, as will be explained further in this chapter.

Libyan's new government regulated Tripoli's urban growth as part of the country's wider social political process. The Ministry of Municipal Affairs, later named the Ministry of Interior Affairs, took over the responsibility of developing the region, including all its cities. The ministry started a two-stage process to develop Tripoli. Through a contract with (Whiting Associates International & Henningson, Durham & Richardson) in 1966, development was planned to take place on both national and regional levels, drawing an outline of the country's current condition (1964) and future opportunities (1988).

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[272] St John, p.19.
[273] Villard, Henry Serrano, *Libya, the new Arab kingdom of North Africa* (Cornell University Press, 1956)
[274] Whiting Associates International, *Tripoli Master Plan: Final Report* (Rome: Henningson, Durham & Richardson, 1969)
[275] Ibid,.

The summary of their research and proposed plans for Tripoli were published as: Tripoli Master Plan: Final Report in November 1969, after the Gaddafi revolution.

The proposal summarised Tripoli's struggle to cope with the demands of economic growth between 1956 and 1964, due to lack of workers and the need for immigration:

1- In the oil industry alone, the employability jumped from 300 in 1954 to 5400 in 1964. It raised the number of employees in other sections also such as constructions and transportation.
2- The rising demand for skilled workers, a gap that could not be filled by training programmes.
3- The social-cultural constraints, young people were eager to attend school, the women were limited to household duties, and old men could no longer carry out long work. Tripoli faced a shortage in the work force.

Tripoli faced a dramatic rise in rural-urban migration. The number of people living in Tripoli rose from 240,147 in 1954 to 379,925 in 1964, a growth rate of 58%. The continuing population increase in Tripoli led to the phenomenon of excessive urbanization[276]. Consequently, there was a decline in agricultural production due to both better payment opportunities in other working sectors and the risks presented by the widespread undiscovered mines planted during the Second World War.

Furthermore, the plan argued for the special treatment of the old medina, seeking to conserve its urban fabric and renovate the west side of the city to enhance the medina, not to serve as a tourist destination but rather to preserve the social cultural diversity in Tripoli[277]. However, the plan identified the old medina as a place that offers cheap accommodation for people who cannot afford to live in the modern houses. In later years this proved problematic, it caused changes to the demography of the medina post-war. The medina in later years was abandoned by the Libyans and occupied by illegal immigrants seeking cheap housing, as will be explained further in this chapter [278].

The master plan also highlighted the importance of the city's coastline and the role of the sea in Tripoli's future development. It highlighted the importance of preserving the open spaces and the corniche and restricted the construction of any high-rise buildings along the

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[276] A problem that the country still suffers its consequences up till this day. Today 3 million people live in capital Tripoli alone (half of the country's population.
[277] Whiting Associates International, p.166.
[278] Henry Serrano Villard, *Libya: The New Arab Kingdom of North Africa* (New York: Cornell University Press Ithaca, 1956)

coastline. It also acknowledged that the busy activities of the port would add a uniqueness to the space. It also urged the protection of areas in the old city for future leisure activities.

The plan also explained the importance of integrating the old medina with the Italian fabric. It suggested adding two roads to cross the old medina and connect it to its wider urban context. The two suggested paths inside the medina complied with the intersecting Roman street. It also proposed a new road to be added along the coast to support future demand on the inner streets.
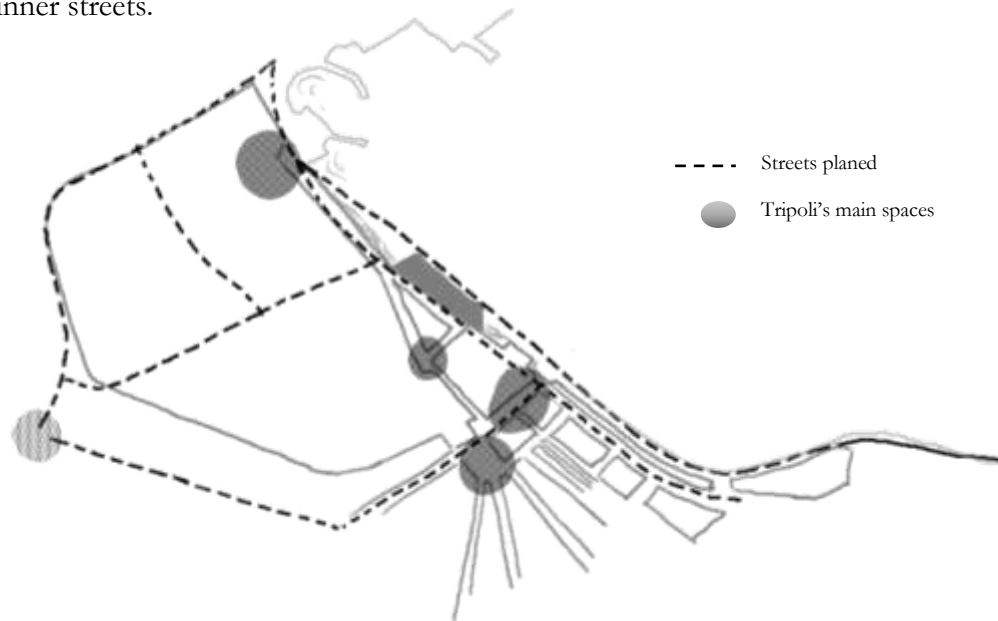
Figure 189 Plan integrating the old madina with the Italian fabric. Source Tripoli Comprehensive Plan 1969

To summarise, the main forces behind Tripoli's growth and change included: military forces during WW2, damages in the old medina and the port, social-economical forces during the country's independence process, and the new oil revenue which led to demographic changes in Tripoli. Furthermore, the country developed its first master plan to summarise the condition of Tripoli in 1964, and suggest future changes to shape the growth of Tripoli for the next 24 years (1964-1988).

5.2.3. Forces of growth and change during the Gaddafi era (1969 till 2011)

The major force which drove Tripoli's urban growth and change during this time period was the revolution leader Muammar Gaddafi. Urban changes were either directed by him, or were the result of his intervention in urban policies. The changes in Tripoli's urban form consisted of: the demolition of urban blocks (opening new spaces / expanding existing spaces), and the creation of new spaces in the city in the form of new urban developments. In the following sections, the research examines the urban changes that took place in Tripoli during the Gaddafi era (1969 - 2011) and seeks to understand how they affected the continuity of

public spaces in Tripoli. However, no definite answer can explain why these changes took place, the changes emerge randomly with no clear logical explanation.

Regarding this time period, the researcher will first attempt to understand Muammar Gaddafi's ideology by studying his opinions on cities and urban spaces and also will explain the type of regime the city was under. This could, to an extent, provide some clarification of the urban changes in Tripoli. This is followed by an analysis of these changes, and how they affected public spaces in the city. The section ends with a summary of the main characteristics of public spaces in Tripoli during the Gaddafi era.

Between 1960-1968, the Libyan Kingdom struggled to maintain stability; there were increasing signs of corruption and widespread disapproval of government performance, especially with foreign policy. Nationalism grew in the North African region (Arab region) and was echoed in Libya. Calls for Arab nationalism came from border countries, namely Egypt. Gamal Abdel Nasser succeeded in overthrowing the former king of Egypt (King Faruq) and established the RCC (Revolutionary Command Council), later becoming Egypt's formal president 1967. He supported anti-imperialism, Arab nationalism, and socialist domestic reforms; he gained solid supporters in most Arab countries, including Libya[279]. In addition, the Arab-Israel fight in 1967 raised questions around the existence of the British and American military bases in Libya, and the fear of them being used against Arab countries during this war. The unclear answers from the Libyan government at this time caused a divide between the government policies and the Libyan people's demands, paving the road for a military coup under Muammar Al Gaddafi in September 1969 to end King Idris's monarchy and begin a new political era in Libya, a new rule that lasted for 42 years[280] (1969 - 2011). Gaddafi personal life and believes:

> He was born in the Libyan central desert some fifty miles away from Sitr … he was born in 1943
> of an illiterate Bedouin parents… a son of the desert, his childhood deeply affected his habits
> and personal life as an adult as well as his policies of his administration[281].

 Gaddafi's dislike for urban cities was commonly explained by his Bedouin upbringing and the "tribal social values" which "strongly influenced him throughout his life"[282]. He was raised and studied in Sabha. Because of his political views he was exiled with his family; he resettled in Misurata, a coastal city in Libya, before travelling to Benghazi to join the military academy. Though he was born and spent his childhood in the desert, his views towards

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[279] St John, pp.113-114.
[280] Allous, p.241.
[281] St John, p. 110
[282] St John, p.114.

Tripoli's urban form seem unjustified. Other contemporary leaders who were also raised in a tribal Bedouin context had different views on cities and modern urban form, i.e.: Zayed bin Sultan Al Nahyan, founder of United Arab Emirates, who in a visit to Tripoli in early 1974to attend the opening of Tripoli's 16th trade fair said that he wishes to live to see a day that United Arab Emirates would be modern like Tripoli [283]. Besides, his Bedouin social views did not stop him from firmly encouraging Libyans to the exile Libya and find a better life in Africa, he went to the extent of setting a fund to however marry an African nationality and leave Libya to start a new life in any African city.

During an interview with the (Al Umran) journal in the early years of the revolution he said: "I hate the sea and the cities"[284]; he also believed that "the tent won over the Castle"[285]. This feeling is clearly reflected in his decisions regarding changing Tripoli's urban form, as will be seen later in this chapter. In Gaddafi's own words, published in his translated book *Escape to Hell and Other Stories* 1998, he explains part of his ideology when it comes to cities:

> City life means panting as you chase after certain desires and unnecessary, yet necessary, luxuries. When we see these social sicknesses spread throughout the city, and laws passed to combat them, we are not surprised. We do not believe that they will end, and that we will gain victory over them, for the nature of city life is thus, and these sicknesses are inevitable. The city is dizziness and nausea, madness and loss, fear of insanity, fear of confronting urban life and its urban problems. Leave this hell on earth, run quickly away. In complete happiness, go to the village and the countryside, where physical labour has meaning, necessity, usefulness, and is a pleasure besides. There, life is social, and human; families and tribes are close. There is stability and belief.[286]

This extract summarises Gaddafi's views towards Tripoli (city) as a place rife with madness, dizziness and nausea. Gaddafi treated Tripoli as an outsider, he did not relate to its coastal location or to any of its long-standing historical buildings. The changes that took place in the city did not just affect the urban form of the colonial era, as a form of anti-colonialism or anti-imperialism, they went so far as demolishing Tripoli's entire old city (old medina Tripoli). The following section of this chapter will examine in detail the urban changes that happened in Tripoli during Gaddafi's regime. But in order to first understand how and in what conditions these changes took place, we need to shed light on the revolution as a political process and the way the country was running, and Gaddafi's Third Universal Theory[287].

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[283] Word spread during his visit.

[284] Bnat-Aleamarat Walbina, 'Articles in Urbanization: Muammar Gaddafi, I hate cities'. *Architecture and construction,* (2011). <http://www.bonah.org/ معمر القذافي انا اكره المدن >

[285] Ibid,.

[286] Muammar Gadaffi, *Escape to Hell and Other Stories* (Blake Publishing 1999), p.50

[287] After; Capitalism, Communism. a system that he invented in his opinion to best suit the Libyan culture.

5.2.3.1 Al Fatah Revolution 1969:

For the interest of this research the analysis of the revolution will be limited to the policies and decision-making during the Gaddafi regime and their effect on Tripoli's urban form.

Young Gaddafi was a fervent admirer of Abd Al Nasir's revolutionary policies; he grew determined to copy the Egyptian revolution in Libya. In November 1969, he and 11 young generals led the revolution in Libya. Despite his nationalist ideology, in order to gain international support, the first revolutionary decree announced the protection of all foreign properties and interest in the country:

> We are pleased to assure our foreign brothers that their properties and lives are under the protection of the military force, and that this revolution is an internal matter not against any former international agreements. [288]

After one month of revolution, the previous constitution and the ruling system (Kingdom) were dismissed and in December 1969 Gaddafi founded (The Revolutionary Command Council). The council protected the revolution and consisted of 12 of Gaddafi's close generals who had helped lead the coup. The country was run by the RCC (The Revolutionary Command Council), as the supreme executive and legislative authority in Libya. The RCC (1969-1977) oversaw the planning and development of Libya, along with the waqif ministry, the ministry that managed the old medina and old Ottoman properties in Tripoli. Former contracts signed during the time of the Libyan Kingdom were respected and ongoing even after revolution, however as these deals and contracts took place in areas outside the limits of this research, they will not be discussed in this section.

Due to rapid urban growth, the RCC issued building regulations similar to most Islamic countries on the height of the walls between houses, the placement of windows, the right of public spaces, and the rights of residential areas. The regulations also controlled the width of the streets, the size of the lots, and the usability of the land; such jurisdiction under Sharia was typical of early Islamic cities like Mecca, Medina[289].

In 1973 Libya underwent a dramatic change in its political status: Gaddafi announced what he called the 'Zuwarah Historic Speech', a Cultural Revolution. This was to be a war against the elements of the classical state, which he described as retroactively. All laws were disrupted and the pursuit of whom Gaddafi called politically sick "enemies of the revolution" began. The five main points of this Cultural Revolution were: disabling all applicable laws, eliminating enemies of the revolution, declaring the cultural revolution, declaring the

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[288] Revolutionary decree .1969
[289] 1969. Revolutionary decree named (The first statement of the revolution of September).

administrative revolution and the elimination of bureaucracy, and declaring the Popular Revolution "All the laws that stand before us are dismissed" [290]. Years later he formally abolished political and administrative functions while keeping the titles of the Head of State and Chief in Command for himself. The country's name changed from Libya to Al-Jamahiriya, a country ran by al-Lijan al-Shabiya (People's Committees). A witness to this event gave an indication of how rapid and unpredictable Gaddafi's policies and actions were:

> I was watching the celebrations of Prophet Mohammed's birthday on state TV, suddenly the signal was interrupted by live broadcast of Gaddafi in Zuwarah, announcing his Cultural Revolution, I was shocked, I lost faith in his revolution at that same moment.[291]

Urban changes, just as the political changes, in the city were sudden and with no former notice.

The announcement of these changes caused uncertainty levels to rise. The Americans and most foreigners decided to leave the country, they sold their properties to the Libyans, to investors or to the people who were working with them at that time. Libyans owned properties in the Italian urban forms since the Italians left Libya during the WW2 (1942), residential buildings, shops, cafes, and other buildings in Tripoli.

When Libya achieved independence after the Second World War, UN General Assembly Resolution 388 awarded Libya all property owned "directly or indirectly by the Italian state" but secured the property rights of individual Italian citizens. Italian farmers were allowed to purchase land that they had previously leased or farmed without title. Nevertheless, by 1964 Italian owners had sold about 40 percent of the land that they had owned in Tripolitania in 1942.

However, Gaddafi founded a committee to regain the Italian properties and lands and redistribute them to supporters of his revolution. "It also quickly became clear that Qaddafi saw land, and indeed all private property, as a tool to build support for himself and to weaken his rivals"[292]. Demolishing all laws, political and administration functions, made him the person in charge of all development and change: his words came to be the country's new law and policy.

This was the first step in replacing nationalism with his revolution: people were categorised as either revolutionary or patriotic (i.e.: a revolution enemy). The national identity of Libya

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[290] Fawzi Abdelhamid, *How Gaddafi rules Libya*, (Alealam Aljadid Lilnashr Waltawzie,1988) [In Arabic]
(Unknown), *The Road to People's Authority a Collection of Historical Speeches and Documents*, (The Information Section The Peoples Committee for the Studies of the Socialits Peoples Libyan Arab Aljamahiriya,1978)
[291] Dr. El laffi. Libyan observer during the Gaddafi revolution 1969 and the Libyan revolution 2011.
[292] Mary Fitzgerald and Tarek Megerisi, *Libya: Whose Land, Is It? Property Rights and Transition* (London: Mayfair, 2015). p.5

was replaced with the revolution. The changes did not stop at the country's name. The country's flag was also changed, and changes were made to city names, so that they related to revolution events, i.e.: Zuwarah became The City of The Five Points, and Sbha became The City of The First Declaration. The Independent Square became the Green Square (the colour attached to the revolution); Independent Avenue became Amhamed Al-Maqrif Street, named after one of the revolution generals[293]. The 24th December Street, named after the day the UN approved Libya's constitution and granted its independence, became Al Fateh Street, after the name of his revolution, Adrian Pelt Avenue, in celebration of the UN commissioner who supported Libya's independence, was renamed the Municipality Street.

In 1978 Gaddafi presented his plans for the Libyan state, in what he calls "The Green Book", declaring the abolition of personal property ownership in Libya, In his philosophy he argues that regardless of its owner, "the house is owned by its user"[294]. This striped many people of their rented properties in Tripoli, and eliminated the concept of house renting. The researcher has personal experience of this process, and witnessed two houses being taken from a neighbour and given to two generals. Gaddafi also said in his book that "the land is no one's ownership"[295]; members of the researcher's family were stripped of their land. These are just some of the controversial statements that found support in the revolutionary people.

There was no place for opposition in Gaddafi's regime. Voices of opposition rose in different parts of the country; many young people who did not manage to flee the country were either imprisoned or executed. One of Gaddafi's executions of his oppositions took place on 7th April in 1976 Tripoli's University, school of engineering court, where many students of the university were publicly hanged. That date became a national day that was celebrated every year. As another example, in Benghazi stadium, students were gathered to witness the public hanging of Mhammed Al Shweahdi. Moreover, in the entrance of the Benghazi hospital[296], staff arriving to the hospital found bodies hanged at the entrance; they were identified as enemies of the revolution.

The executions were publicly aired on state TV: a direct message to everyone that there was no place for opposition. Public execution was not the only sentence: people's houses were demolished, all their property taken; families were forced to publicly announce on TV that their son was a traitor who should be killed[297]. The word 'traitor' had a broad definition that included a person who expressed an opinion or concern, publicly disagreed with any of the

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[293] Which he then assassinated in a car accident.
[294] Gaddafi, p.5.
[295] Ibid,. p.21.
[296] Public hangings on the 7th of April. <https://www.youtube.com/watch?v=eeeJFy0052Y>
[297] https://www.youtube.com/watch?v=7IzP2yXzZ1c

revolution policies, delayed applying any of the revolution decisions, or offered any form of critique. This explains why there was no opposition to the urban changes that took place in Tripoli. No matter who they were or what their level of expertise, individuals were afraid to argue or even question what was going on.

Figure 190 Footage captured from state tv live broadcast of the incidents. Source https://www.youtube.com/watch?v=eeeJFy0052Y

Figure 191 Footage captured from state tv live broadcast of the incidents. Source https://www.youtube.com/watch?v=7IzP2yXzZ1c

5.3 Public spaces changes in Tripoli during the post colony era.

5.3.1 Tripoli's physical urban changes:

Changes in Tripoli's public spaces during the Gaddafi regime were a result of "Chaos and improvisation"[298] of his rule, they were not based on a clear vision. Even though a proposal of Tripoli's future urban plan was ready in November 1969 and presented to him by A.F, he dismissed it by saying Tripoli does not need a plan. Changes in Tripoli were the result of Gaddafi's direct intervention. The urban changes during this time took two forms: changes to Tripoli's existing urban form (demolishing urban blocks, demolishing buildings and rebuilding them with the same name and for the same purpose but in a different architectural form), and new urban developments. In the following sections, the research will state the change and analyse the effect on the continuity of public spaces. This section will conclude with a summary of the evolution of public spaces in Tripoli.

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[298] Ibrahim Gnouwa, *Removal for the purpose of development or removal for the purpose of destruction*, (2007) < http://www.libya-watanona.com/letters/v2007a/v03sep7q.htm>

5.3.1.1 Changes to the existing Tripoli urban form

Gaddafi attempted to separate Tripoli from the sea, by suggesting the reform of its corniche. Knowing that Gaddafi does not like the sea, it could be argued that the main reason for his reform was to avoid the sight of the sea when passing through Tripoli. His first suggestion was to build a wall along the sea, a wall that was planned to start from the military airport base and continue along the cost until it reached the castle[299].
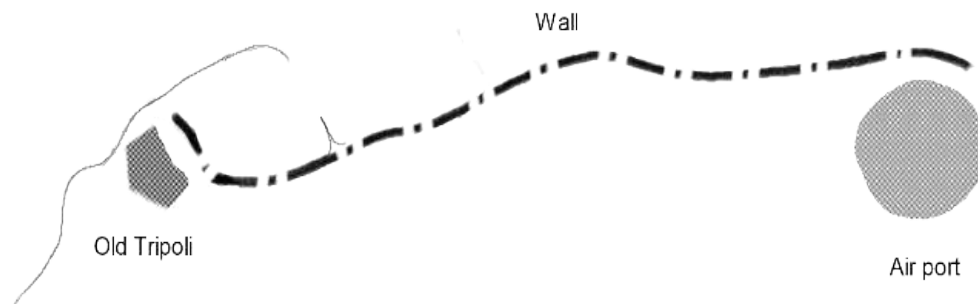
Figure 192 The proposed wall. Source google earth.

In order to make it more applicable, he proposed the wall would be part of a Grand Mosque. He ultimately dismissed this proposal, not the idea, because his plans were not feasible, and he was discouraged by sound voices from his closest people[300].

He then replaced the initial proposal with another that was designed to relocate Tripoli's coastline, justifying the change as part of expanding port activities. From an urban planning perspective, this justification is not convincing. The Libyan coast spreads across thousands of kilometres; with the country's strong economic position, a new port could have been easily built instead. Knowing that the city of Tripoli during the 1980s was burdened by traffic

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[299] Bnat-Aleamarat Walbina. <http://www.bonah.org/المدن-أكره-أنا-القذافي-معمر/>
[300] Ibid,.

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congestion, the noise of the streets, and predicted future urban growth, another port was needed.

The decision to reform the coast was not publicly announced or debated in advance. No questions were asked. The project was later explained as part of a process to upgrade the port, but it undermined Tripoli's evolved urban form, as will be explained in the following sections. An observer of the event, Dr. Ahmed Ibrahim Faqih, describes it in Articles in Urbanization in 2011:

> The people of Tripoli woke up one morning to find that barriers had gone up, blocking the sea site. The machinery, equipment and construction materials covered the land of the corniche. It took several years before the project ended. They then discovered that the coast of Tripoli had disappeared and the sea itself removed from its place, because he spent billions of dollars from the country's income in paving this sea and its distance from Tripoli in a desperate attempt to disengage Tripoli and its sea, the sea that was associated with it ever since the dawn of human history.[301]

1-As a consequence of this urban change, Tripoli's historical connection to the sea was lost. Relocating the coastline affected elements of Tripoli's urban form, including the water entrance, the street view, and most importantly the old medina entrances, and the castle.

By relocating the coastline Tripoli lost what was named in this research as the water entrance of the city, founded by the Ottomans[302]. Its importance was reinforced during Italian colonisation with the addition of the two columns and its protection was strongly advised at the time of independence. Furthermore, due to its location the water gate had a strong visual connection to the city main square, the castle and the old medina gate. It was a visual guide and an indication to the central public spaces of the city. Today the two columns have lost their meaning; they stand unnoticed and unrecognisable.

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[302] Explained in chapter 4 during the Ottoman times
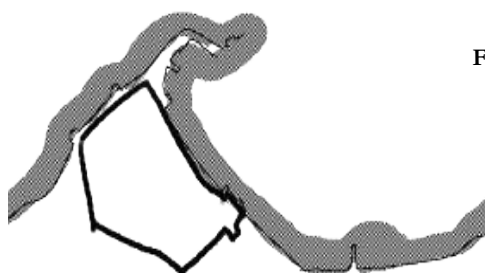
Figure 193 Tripoli changes to the water connection.

2- Tripoli, as explained in chapter 5, developed a strong visual sense. The coastline was divided: a soft edge (the lines of palm trees), and a hard edge (the old medina fabric), where the castle stands in the middle along with the water entrance. That sense is now gone; the trees still stand in the city but their impact is lost.
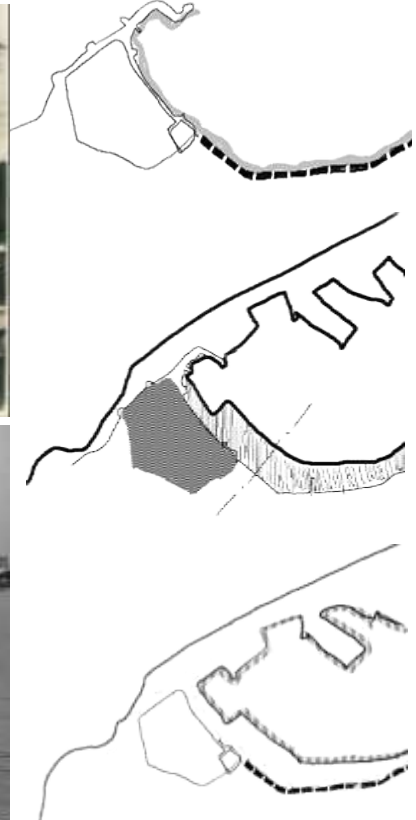
Figure 194 Relocating the coastline in Tripoli

Figure 195 Relocating the coastline and the change to the city water front. Tripoli.

3-The third effect of this intervention in Tripoli was the resulting isolation of the old city from its urban context, by disconnecting the old medina main entrances from the main paths. The plan developed for Tripoli during independence highlighted the importance of developing a path to encourage the flow of movement across the old medina. Gaddafi changed the coastline and developed a new road that passed around the old city without taking into an account the old medina entrances. Throughout his time the castle and its surrounding context were restricted to people with permission to enter, thus they were separated from the public.

Figure 196 Before and after the cost relocation in Tripoli.

4-The developed road along the coastline affected the Roman arch square, separating the arch space and the old medina from the corniche.

5-A road was built that crossed behind the old city, where the Italian rail track used to be. The suggested project created new accessibility for vehicles that didn't need to pass through the Green Square anymore; they could now travel along the coastline. In part of its design it matches the Italian's first plan, separating the old medina from the main city access. The developed road was designed with no attention to the medina main gates; it blocked the medina side entrances and separated it from activities outside the walls.

Figure 197 The effects of the urban growth on the old medina entrances

6-Separating the castle from the water damaged its structure. Recent studies concluded that the Roman cement is made in a way that the salt water is a key component for stability

> The Romans made concrete by mixing lime and volcanic rock to form a mortar. To build underwater structures, this mortar and volcanic tuff were packed into wooden forms. The seawater then triggered a chemical reaction, through which water molecules hydrated the lime and reacted with the ash to cement everything together[303].

The castle foundations had to be in direct contact with salt water in order to be strong. Separating the castle from the sea resulted in the weakening of the castle foundations. In later years, the seawater was returned to the castle foundations in the form of a pond. Visually the pond connects Tripoli to its history.

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[303] Sarah Pruitt, The Secrets of Ancient Roman Concrete. *History Stories*, (2013) < http://www.history.com/news/the-secrets-of-ancient-roman-concrete>

رتم البحر امام السرايا قبل انشاء البحيرة الحالية

Figure 198 The before and after the lake was built in Tripoli. Source: Mudunuh 'Amwaj Albahr

7- The acquired land was recently developed into a huge open park in the city. The size and location of the park affected the historical spaces in Tripoli, namely Green Square and the old medina. The park is weakly connected to the historical urban context; its location and design doesn't link to the main access and paths of movement. The park is surrounded by road: it became another roundabout that inhibits pedestrian movement into other spaces, i.e.: crossing to the corniche.

5.3.1.2 Changes due to demolishing Tripoli's urban buildings and blocks:

The demolishing of Tripoli's building blocks occurred in the 1980s with no explanation given. Starting inside the medina walls with the Italian hotel. Publicly it was announced that the demolishing of this building was the result of safety concerns, due to its location next to the central bank. However, this explanation does not justify demolishing a historical and unique building in the old medina. The space created by demolishing this building became a court to the mosque.

Figure 199 Before and after the hotel was demolished in old medina Tripoli.

Demolition continued outside the medina walls, in the Italian urban fabric. The next to be demolished was Hammoda Mosque, the mosque mentioned in chapter 5, which had been built by the Italians as a compromise to replace Hammoda Tomb. A witness to the event remembers; we woke up on the loud sound of buildings falling, later we discovered that the mosque, the tomb and the Islamic library were gone. Again, no clear justification was given to explain why this building and its component were demolished.

The fact that the building demolished was a mosque opposes the idea that this action was driven by Gaddafi' Bedouin ideology, as in Islam, as well as in Libyan culture, demolishing mosques was prohibited.

Figure 200 Demolishing Hammoda mosque in Tripoli. Source: Millecartolin

The Council of Ministers Office, or what was known as the General People's Committee, was also demolished. The building was built during the Italian colony. The building was considered "the nicest building of Tripoli". The building underwent expansive renovations that cost millions of dollars. It was then equipped with the latest air conditioning and introduced to modern technology, water and electricity services. Then the building was demolished, with everything inside: furniture, computers, the stores, binders and files, shelves of books, references and documents. Dr.Ahmed Al Fakeeh describes the brutality of this unexplained action:

The governor gave order for the machines to creep and demolish it, and carry out its mission without warnings to anyone, and early in the morning when there was no one is in this place, the guardians who left the building to these mechanisms, the building was destroyed, including the devices and what is in it from the computer system the air conditioning and the various offices, documents and stores, and the walls of thousands of years old and paintings of precious mosaic is priceless, all turned into ruins in a limited number of hours, amid the expressions of a number of people, including secretaries of the people. The place stood helpless to do anything other than cry over this cultural landmark of the capital, which turned into pile of dust.

I repeat, he did not even cost himself to give orders before the demolition, the building that it should be vacated... He demolished this great building …His orders were that the demolition of the building with all its contents and without saving not one of its recent placed document.[304]

This building had been the headquarters of the Italian Real Estate Bank, the bank responsible for funding reconstruction projects in Libya during the Italian occupation. The building was decorated with mosaic paintings and murals from the museums of Libya; this was maintained and protected after Italian colonisation as it was considered artistic heritage. The building contained libraries and archives with state documents and files of its employees. The fact that the building was renovated before it was demolished eliminates the idea that the demolition was due to the poor conditions of the building.
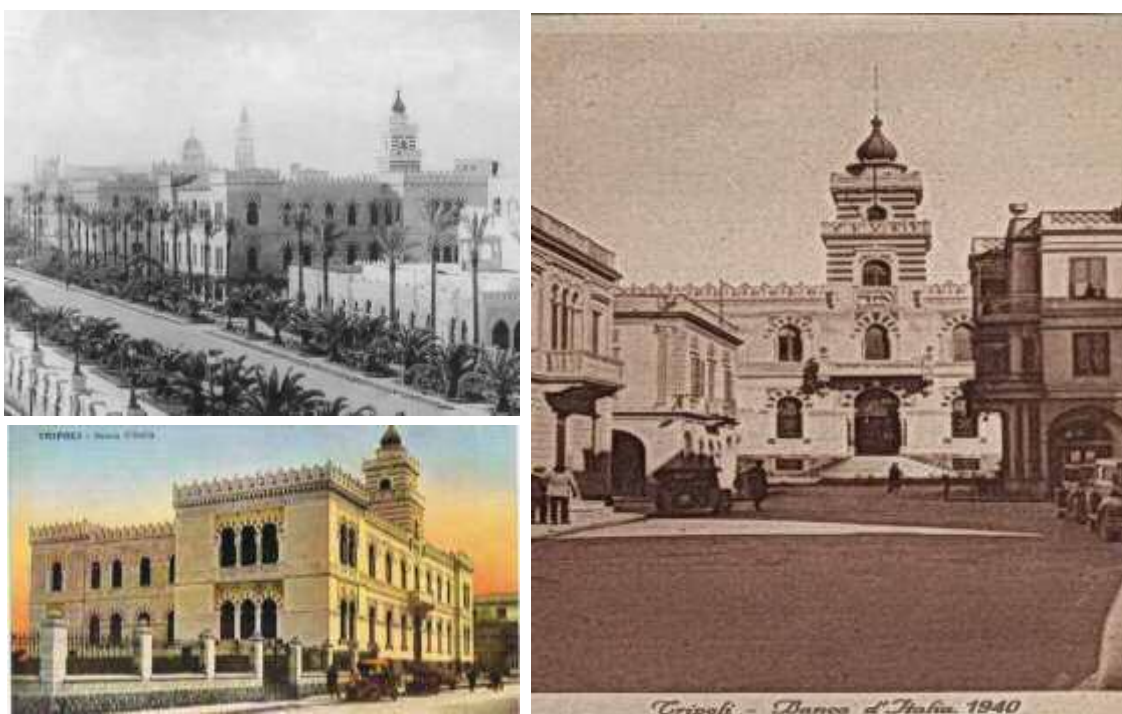
Figure 201 The Italian bank in Tripoli.

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[304] Al Fakeeh., A. 2011. Mummer Al Gaddafi: I hate cities. Cairo. *Cairo Newspaper.* [in Arabic]

A further building blocks were removed from the Italian urban fabric. The demolition of these urban blocks had a significant effect on Tripoli's central spaces. First, the former Italian square was expanded to include Castelo Square, forming one huge space. Second, these two buildings had been initially designed and located in a way that guided and directed the flow of movement to and from the old city. Third, by demolishing these buildings, a visual gap between the old medina and its urban context was created. The square became a roundabout, separating the urban fabric of the old medina from its urban surroundings.

Figure 202 Changes in the core space in Tripoli. Before and after the demolishing of urban blocks

5.3.1.3 The changes due demolishing and rebuilding buildings

At this time in Tripoli, many buildings were demolished and rebuilt in the same place for the same use with the same name. With no clear explanation, hotel buildings were demolished and rebuilt in the same place. The following table contains the most important demolished buildings and their replacements in Tripoli. The idea that the demolition of these building took place in order to replace them with larger buildings due to high demands is questionable, considering that the city lost other hotels and residential buildings in the old medina and the Italian urban centre.

"The Albergo Del Mahari…The flat roof of the white stucco hotel was highlighted in front with a dome situated upon two pentagon-shaped, windowed bays. Just under the dome was a high bay accented with a multi-paned, oval window on each of its five sides; under it was a flatter and wider bay with opaque, rectangular glass-block windows on each section. … we were led under a portico and through the hotel's glass double doors into a spacious marble-tiled lobby. Each side of the five-sided lobby faced a different courtyard; the center of each courtyard contained either a fountain or a small, rectangular pool. Vines covered the courtyard walls; small trees, many of them poinsettias, dotted the space and surrounded several benches… our suite faced the courtyard garden. It was like an enchanting scene from Arabian Nights"

Figure 203 Building that were demolished and rebuild in Tripoli.

The demolitions did not stop with the colonial Italian urban fabric, the demolition of the entire old medina was proposed. Even though the plan was introduced as a type of enhancement of the old city, due its narrow streets, previous interventions of the regime did not give confidence in the given reason behind the interventions. Moreover, the old medina was in a state that needed restoration, and could not survive such an intervention[305].

The ancient city of Tripoli is a cultural vessel for all mankind and has archaeological features and areas protected by UNESCO itself. The reason given for demolition was that the narrow

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[305] Bnat-Aleamarat. 2011.

alleys made it impossible to deliver services such as ambulances and therefore the narrow streets needed to be expanded. The argument was proven to be an excuse. Due to negligence the city had emptied of its population, the alleys did not need expanding, and rather the restoration of houses and monuments was required. Despite the weakness of his argument, the demolition began.

However, the intellectuals of Libya fought the plan by spreading their worries and concerns through a local newspaper called Al-Isboa Al-Thaqafy [in Arabic]. The demolition stopped after demonstrations gained local and international attention. Gaddafi then claimed that the goal was not the demolition but the development of the old city, the specialists told him that what is needed is not development, but maintenance and restoration[306].

A division was created in 1984, called the Old City Management, with the aim of reviving the city's historical and cultural heritage. They extrapolated and corrected the history of the city through what could be obtained from documents and historical and technical information. They maintained and restored the city so that it was functionally valid as a cultural, scientific, economic and residential centre and in keeping with the contemporary demands of society.

Fowziya Shalabi, a close supporter of the regime, headed the division. She remained in this role until the Libyan revolution that overthrew Gaddafi in 2011. Critiques were recently raised on the way the division handled the medina, as it enhanced the state of erosion and disintegration of its features without a real effort to restore and reform.

5.3.2 Urban changes and Tripoli's social life:

The discovery of oil in Libya raised the problem of illegal immigration in Tripoli. The country depended heavily on foreign workers and their experience in many of its development projects, but it also was in need of low-skilled workers[307]. With weak borders and non-sufficient documentation, illegal immigrants arrived in Tripoli from border countries, and rapidly boosted Libya's population from 100,000 in 1959 to one million in the 1980s. This problem continued throughout the Gaddafi regime. Ramadan Belagsem (2005), a Libyan urban researcher, investigated the effects of illegal migrants on the social-economical side of the old media Tripoli.

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[306] Rammadan Belgasem, ' Illegal Immigrants and Housing: The Case of the Old City of Tripoli ', in *Transforming Housing Environments through Design September 27-30*. (Pretoria: South Africa, 2005). p.5
<https://repository.up.ac.za/bitstream/handle/2263/10360/Illegal%20Immigrants%20and%20Housing.pdf;sequence=1
>

Belagsem's research explained the continuing damaging effect of illegal immigration on the old medina. At the time of the country's highest economic growth, the old medina was abandoned by the residents. In later years it suffered "overcrowding, absence of maintenance work, and changes in its architectural characteristics" [308] due to the number of illegal immigrants living in it.

> The old city's residents who sought "better" living in suburbia and other areas outside the old city abandoned their houses to "illegal" immigrants who came to the country looking for work and better earnings. These immigrants found in the houses of the old city a cheap, if not free, accommodation. Few of them were paying rents or utilities. Moreover, they inhabited the old city houses in large households. Many dwellings housed more than one family. The old city is facing great challenges; overcrowding, deteriorating buildings, and lack of adequate infrastructures are some examples.[309]

He states the areas where illegal immigrants are mostly concentrated as 5, 7, 8, 10, 11.
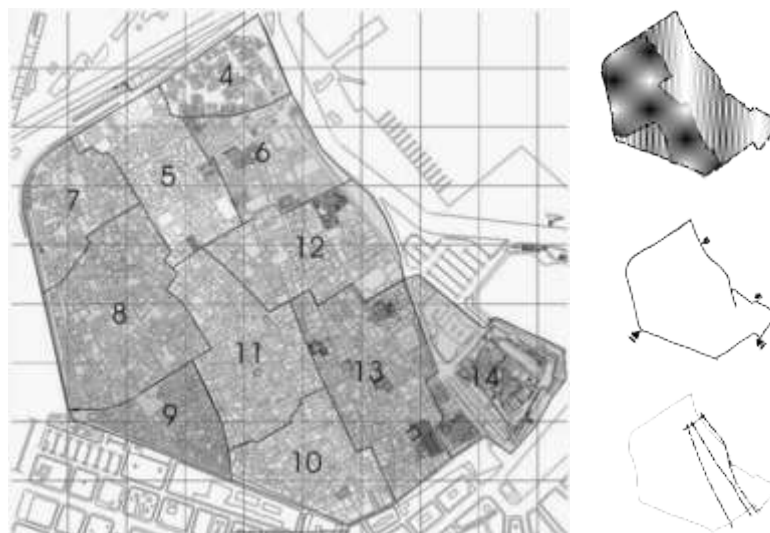
Figure 204 The division of the medina based on immigration. Source: Belgasim, 2005.

Another reason for the abandonment of the old city was Gaddafi's decision to exile the Jewish from Libya. During which were living or owned a house in the Jewish community in the old medina, the west side area of in the medina (further detail mentioned in chapter 4). For the interest of this research, the problem of illegal immigration resulted in the formation of social segregation and discontinuity in the old medina, separating it from its wider urban context.

With a reputation for overcrowding and low-paid illegal migrants, the medina came to be thought of as a slum, which furthered social segregation. Interactions between the inner/outer spaces of the medina were mainly limited to the trade area. The situation in

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[308] Belgasem, p.5
[309] Ibid,. p.7.

Tripoli at this time was reminiscent of the Italian colony, the same role with different actors: the Libyans preferred to live in the modern part of the city, the Italians buildings, while the illegal immigrants occupied the old medina. The Libyans, however, had no interest in the Roman arch area, or the St Mary Church, so they didn't need to travel through the old medina any more. Their circle of interest was limited to the west parts of the old city, including the Grand Mosque and the trade area and gold market close to the medina gate.

The urban interventions affected the usability of public spaces in Tripoli. The square became one huge open central space, a revolutionary space to accommodate Gaddafi's public speeches and celebrations. It was also the place designated to celebrate the 7th April (the public hanging of the university students). It was a space used to demonstrate the regime's power.

Photos of the revolution leader were posted around public spaces as a political declaration of his seeming omnipotence. The spaces were heavily monitored by CCTV, and occupied with Gaddafi's undercover agents. The researcher has personal experience of interacting with such an agent. In 2001, when carrying out university research and taking photos of the square, the researcher was approached by an agent and had to ask for permission to take photos of the space.

Figure 205 Tripoli's public spaces and the demonstration of political power.

In summary, public spaces in Tripoli expanded rapidly between 1970s and the 1980s, with no particular vision or an explained design. The changes resulted in expansive spaces: three huge roundabouts; the Green Square; the park and the space for the pond; and, the linear space of the corniche. These spaces lacked a sense of guidance, orientation, and connectivity with the old medina. Evaluating the level of comfort, safety, and belonging within these spaces could be a possible direction of future research.

A google map and an Arial of Tripoli historical core centre in 2011
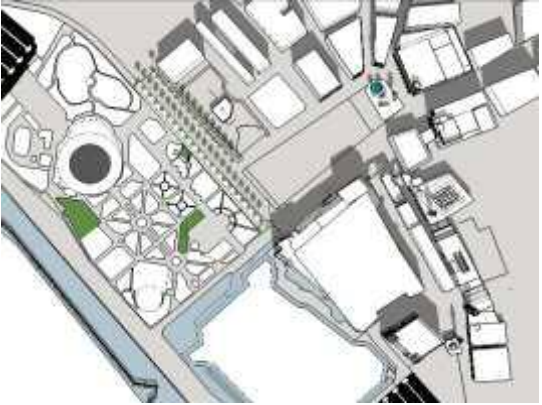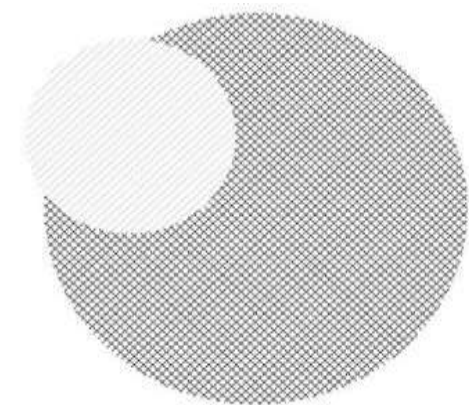
Figure 206 A google map and an Arial of Tripoli historical core centre in 2011. Source Najaa photography collection.

The new developments further isolated the old medina from its surrounding urban context. Blocking the medina entrances, separating it from the Italian urban context, redirecting the flow of movement away from the old city: the medina shrunk, leaving only really the trade area still active. A survey of people either living in or working close to the old medina revealed they had never even heard of the Roman arch. In the researcher's personal experience, it would be possible to visit Tripoli and pass by the medina, remaining unaware that such a medina even existed.

5.4 Summary of Stimulation study part 2 Tripoli in the post-colonial time:

1- continuity	After conducting the walk, we can notice that when passing through public spaces in medina Tripoli, out of the city gate and across the urban development outside of the city it is a continuance process. The space separating the medina gate from the urban fabric is huge, and there is no longer a sense guidance to where to go. Despite the independence the old medina is more isolated both physical and spatial form the urban fabric. The visual continuity inside and outside the walls no longer exists.	
2- Spatial social division	Now that the Italians left the colony, the Italians dominated spaces outside and around the medina walls became for the Libyans. Both the old medina and the Italian fabric are owned used by the Libyans. Separating spaces; the separation of the spaces due to Gaddafi intervention in Tripoli's urban from. Isolated the old medina and by time it turned into a slum. The space did not regain its social economical, activities, as part of the od medina market, it became a space for political statements. A clear social disconnect between public spaces in / out of the medina walls.	
3- Radial system	The connection between public spaces inside the city walls and the outside area is no longer divided, the Piazza Italia; and the Castelo piazza, have been combined in one spaces.	

	The water entrance has been eliminated. The radial system is still the dominant form in the city, however the center of the radial lost its shape, scale, architecture features, and guidance. The streets are joined together with a roundabout.	
4Space activities	-Hotels -Cafés -Trade and retailers -School -Banks -Tourist	
5Architecture of the space.	- Columns -One central spaces with limited visual connections. - High rise fabric	

Table 10 Summary of Stimulation study part 2 Tripoli in the post-colonial time.

Chapter 6

The Generated 3d models

6.1 Introduction

One of the aims of this research is to test an original methodology. By combining the knowledge obtained through historical research with the knowledge generated by simulation research, the aim was to expand the understanding of the evolution of urban space in a city. The 3D model enables the researcher to virtually walk in and around the space in different sets of time, thus offering a more sensory experience through which to examine changes that occurred across history. This chapter will explain the experiment: the origin of the idea, its strengths and weaknesses, and the uniqueness of this modelling technique.

The researcher's interest in photography and experience in photo editing and 3D modelling benefitted the research project. Tripoli was a perfect case to test modelling; the urban changes are well-documented photographically for the earliest set of time covered in this research. In fact, the photo archive of Tripoli is much larger and better preserved than other data relating to the city's evolution. This is mainly due to the Italian colonial interest in advertising the colony: photos of their urban developments were taken on a regular basis, before, during and after buildings were erected. Even though photo-based modelling is able to extract most buildings using just one photo, information such as height, width, depth, and other architectural details, require more than one photo.

The technique used in the research is not new; it is a specific tool known as photomapping. Photomapping allows the reconfiguration of the model axis (x, y, z) to match those in the photo, and then traces the photo in 3D. The researcher used free modelling software, Sketchup. This software configures more than one photo for the model. Sketchup offers a variety of advance modelling capabilities that were employed in this research, including: sketching in 3D, navigation (walking through, camera views at any desired level), camera position and lens options, recording scenes, and rendering. The software's ability to read Cad files made the process of combining the remodelled buildings and placing them on the map to form the site more simple and accurate. The software can cast realistic shadows based on the site's geo-reference, day of the year and time of the day, making the model rich, accurate and more realistic.

6.2 Photomapping

Photomapping draws a model using its perspective projection. The vanishing point (VP), where parallel lines in real life appear to meet, helped in terms of reversing the photo and finding the cameras position when the photo was taken, then setting the (x, y, z) based on the vanishing points in the photo.

The full modelling process is conducted in two stages: preparing the photos, and the modelling itself. Stage one, preparing the photos to be used (fig.207), starts with selecting the photos, geo-referencing their location, rescaling and fixing any perspective-related camera errors, editing the photos. The photos are prepared using photoshop CS6 and lightroom CS6. Stage two, the modeling process, starts with setting the coordinates and positioning the model on the map to form the site.

Choosing Photos	Geo Referencing	Scale & Perspective	Edited
Photos have been chosen based on: - accredited source. - accuracy of the date and details - photos that are not damaged and with a wide view angle to get more details.	Some of the photos geo referenced with help of professionals Tripoli's history.	All photos have been scaled relatively to the model	Photos were edited; – Cleaned – Brightened and contrasted – Converted to B&W – Saved in different (smaller) format

Set coordination	Re modelled	Add details	Position on the map
This type of modelling is generated by extracting the vanishing points from the photos in order to located the position of the camera, each photos have been set to its own coordinate.	All building within the photo have been re modelled separately.	most of the buildings needed more than one photo to make a full 3d model. All photos have been geo references and pined to places in Tripoli.	All regenerated models have been added once made to a bigger model for them to be compared with other photos, to make sure their dimensions. The photos used were wither either: One point or Two point perspective.

Final check with other photos from different angles

Figure 207 Preparing the photos and the remodelling process

The researcher changed the coordinates for each photo separately, and different types of perspectives were traced depending on the photo: one, two, and three-point perspective photos. A full list of the structures remodelled will be included in the appendix.
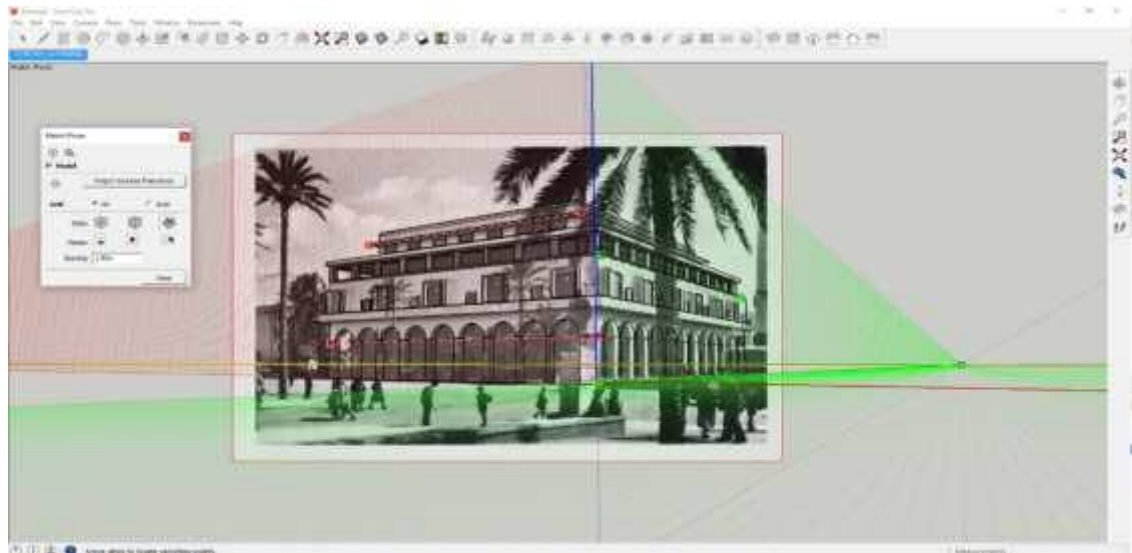
Figure 208 Setting the axis, and locating the camera position
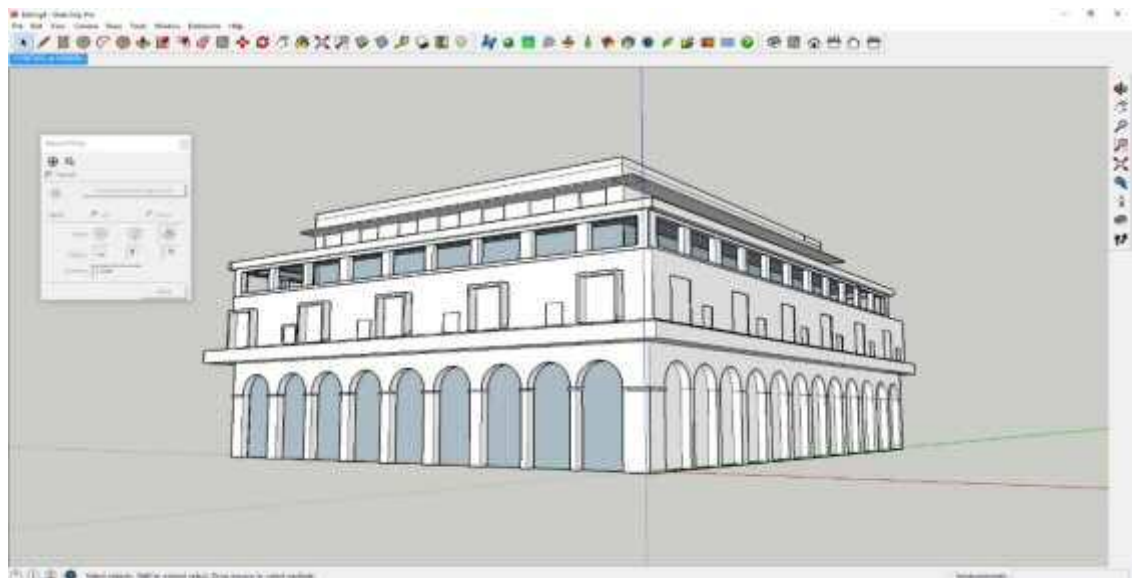
Figure 210 Creating the 3D model from the photo.
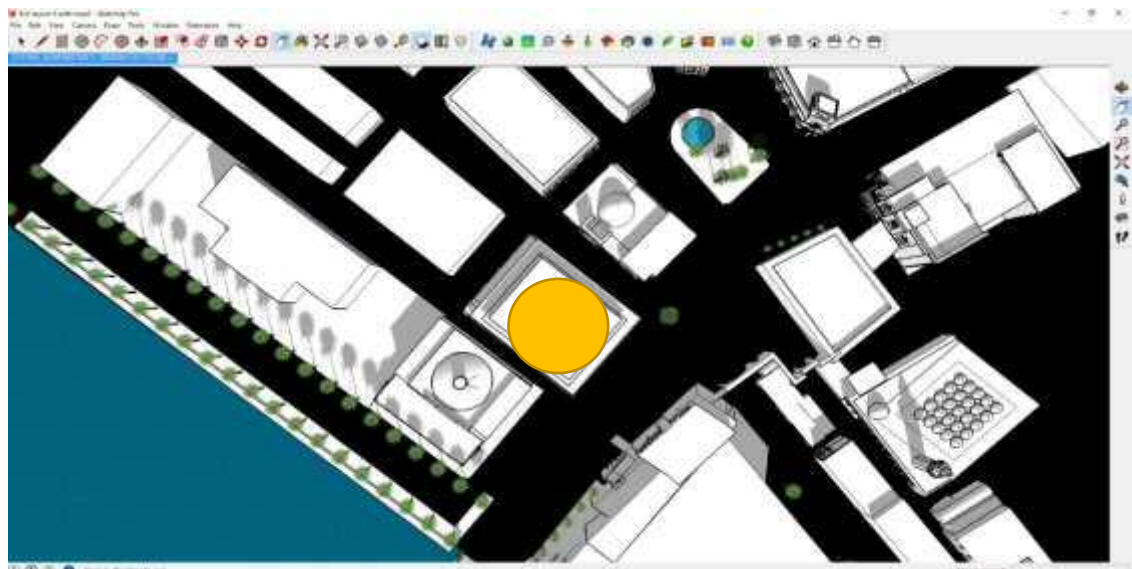
Figure 209 Scaling the 3d model and locating it on the CAD map

221
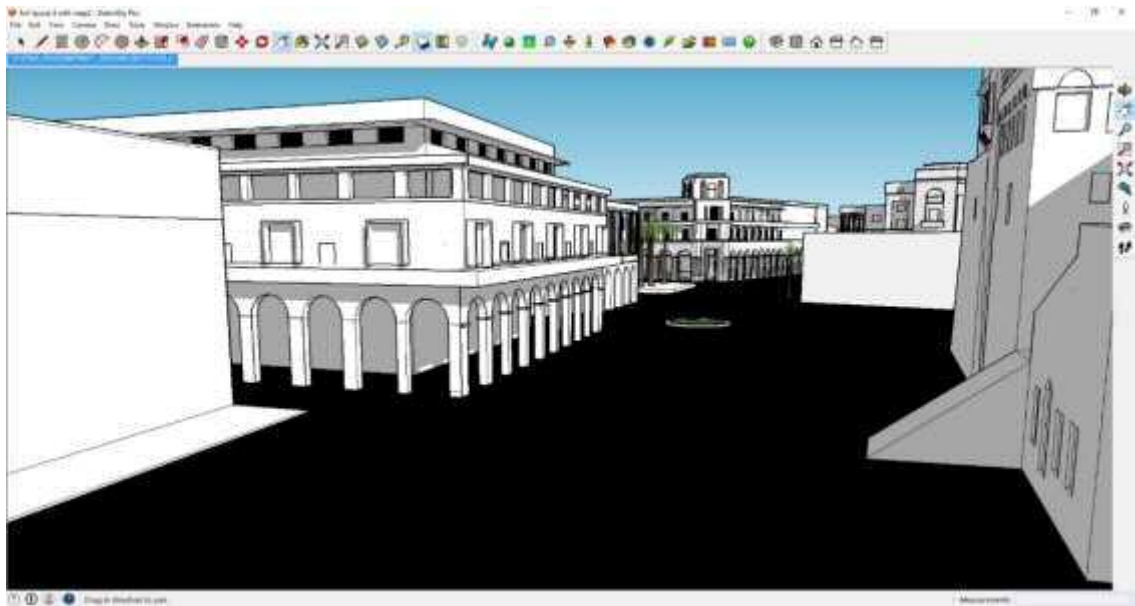
Figure 211 Viewing the structure and its relation to the public spaces, view 1
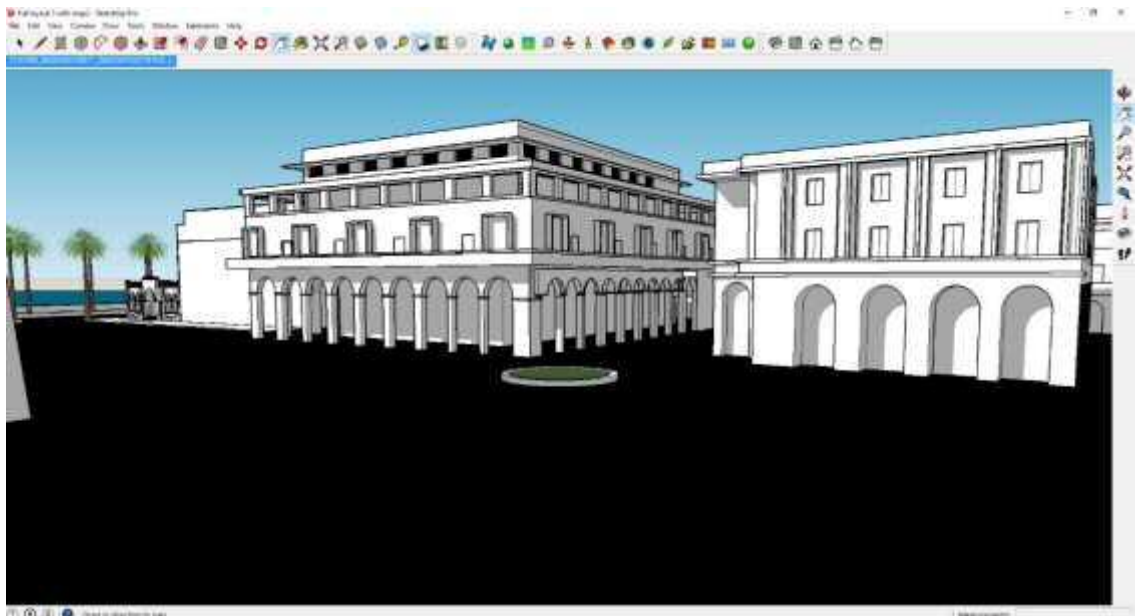
Figure 212 Viewing the structure and its relation to the public spaces, view 2
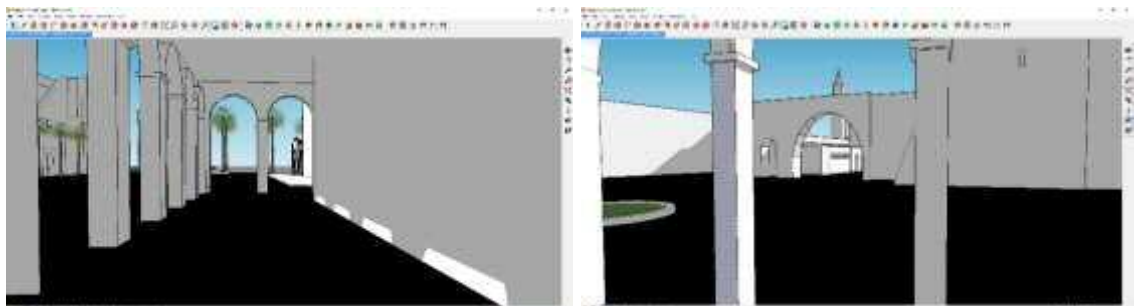
Figure 213 Walking through the arcade and observing the public spaces; the medina gate, the castle, the water entrance.

222
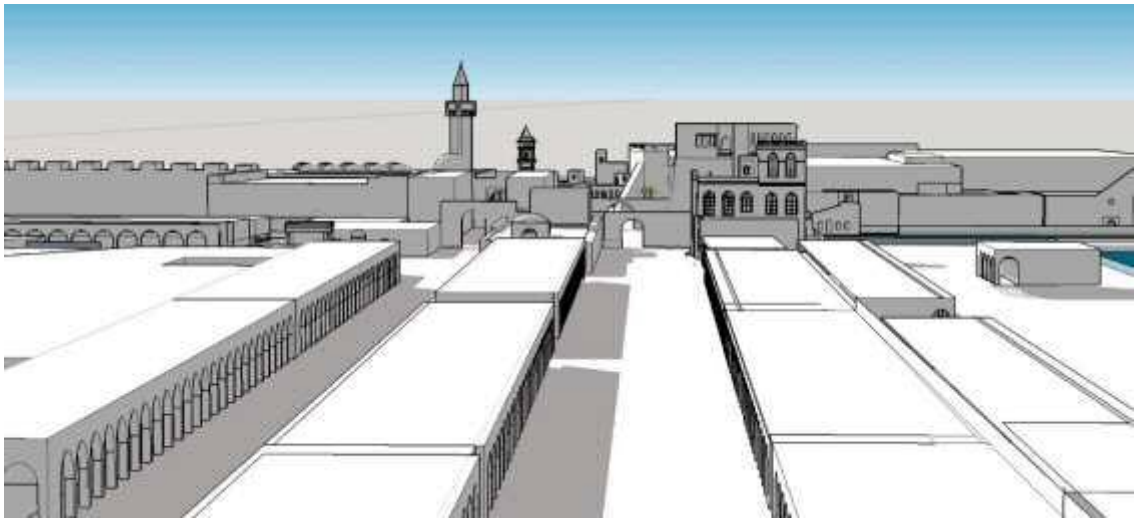
Figure 214 The Ottoman model of the space; two separated paths that connect the fabric outside the medina with the medina main gates

Figure 215 The Italian model; the connection between the water entrance, the castle and the Italian square, and the medina main gates

Figure 216 The post Italian model; the separation of the medina from the Italian fabric, the expansion of the Italian square, the relocation of the coast line, and eliminating the water entrance.

6.3 Three-layer analysis

Figure 217 Comparison of the physical and visual change of the public spaces; The Independence avenue in the Ottoman, the Italian, and the post-colony

Figure 218 Comparison of the physical and visual change of the public spaces; The water entrance in the Ottoman, the Italian, and the post-colony

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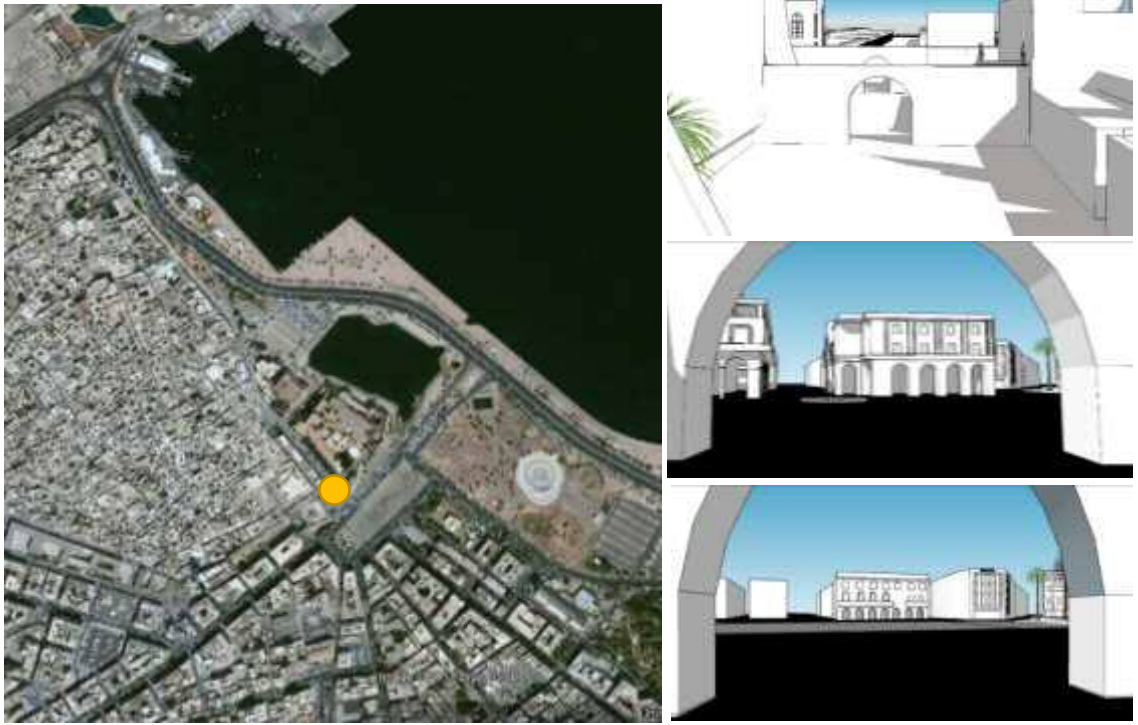
Figure 219 Comparison of the physical and visual change of the public spaces; The medina entrance in the Ottoman, the Italian, and the post colony

Figure 220 Comparison of the physical and visual change of the public spaces; The castle square in the Italian, and the post colony

225
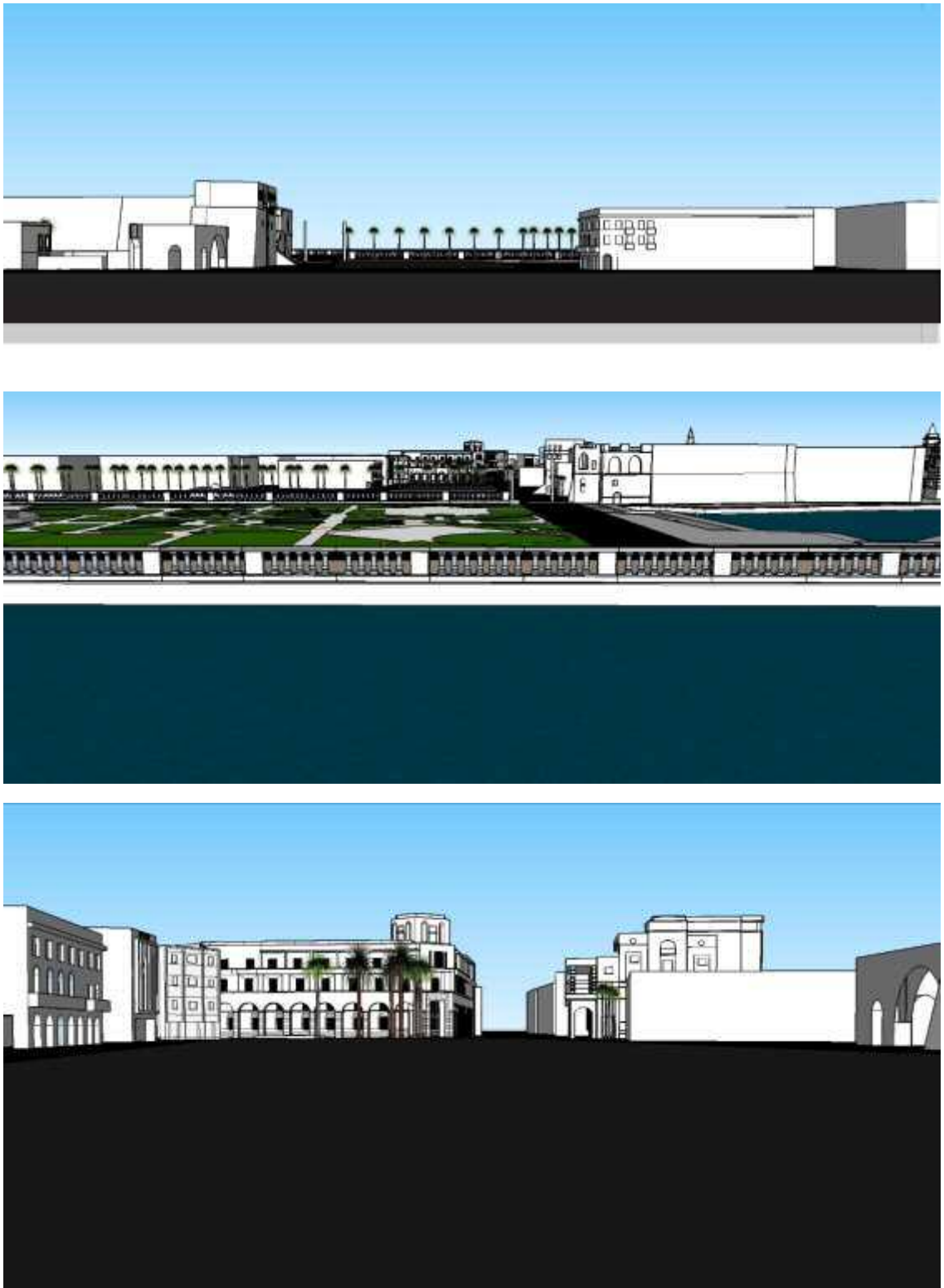
Figure 221 Section in the Green Square during the post colony model.

Chapter 7

Conclusion

7.1 Introduction

Previous chapters have provided an in-depth explanation of the forces behind the growth of Tripoli's public spaces: defining the social, political and economic dynamics within the urban context between 1551 and 2011; identifying key figures and their role in shaping the city's public spaces; studying the evolution of these spaces as a continual process. This chapter presents the research findings at the end of the post-colonial era (2011) and the effect on the continuity of three areas that intersect across the time periods of this research: The Roman Arch space, the corniche, and the Green Square. As explained earlier in this research, continuity refers to: sequences, entry/exit points, the flow of movement and openness. This chapter will be divided into two sections: first it presents the findings for the analysis and second forms the research's conclusion. *Sources of the photos used in this s chapter are from private collections accessed through Google earth pro software.*

7.2 Significance of public spaces in Tripoli and their continuity

The main public spaces in Tripoli have transformed from those of a small Roman settlement to those that make up the metropolis today. The form, usability, and configuration of Tripoli's spaces, as showed in the earlier chapters, have also evolved and changed. During Tripoli's evolution, public spaces either gained or lost their significance. The following section of this chapter focuses on presenting the results of the analysis of the Roman Arch, the coastline and the Green Square (now known as the Martyrs' Square).

Figure 222 The analysis of public spaces in the late post colony era 2011. Source: Google earth

7.2.1 The Roman Arch area

Figure 223 Location of the Roman arch and its relation to the port area.

Significance	Qualities of the spaces	Visual Qualities
Contain the city's oldest landmark, the Roman Arch	The space has a clear and defined presence, it is;	The surrounding of the space is a reminder of Tripoli's Roman origin; -Simple facades
It is the oldest open space in Tripoli's history.	-An elevated space -With a clear rectangular shape -Created around a central element	-Plain surfaces, -The use of arches an architectural element
The only open space in this side of the medina. As most of the medina is built up.	(the arch). -A separated space that complies with the human scale. - Defined with a linear path that leads to the arch and goes under it.	-The space is located between two mosques.

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Disconnection from other urban spaces: Even with its significance as the oldest area in Tripoli's history, the Roman Arch became isolated from the urban flow. Conflict of interest during Ottoman rule and Italian colonisation, as well as post-colonial neglect, meant the arch space lost its connection to the wider urban context. The space is difficult to reach and hard to approach, there are limited spaces for parking in the area[310] and no safe or easy means for pedestrian movement that leads to the space.

Lack of public knowledge of the space: The Roman Arch was insignificant during the Gaddafi revolution; he had no interest in the space[311], and it was excluded from any publicity about the city under his rule. Compared to the Green Square, the Roman Arch was not mentioned as part of the country's history in schoolbooks, or featured in TV documentaries, or even included in any of the national events. This could explain why people living and working near to the arch had never heard of it. The researcher's first personal experience of the arch occurred during the first university trip to the library close to the area, even though the researcher had lived beside it and passed by it for years. As this research is concentrated on the evolution of public spaces, the people's awareness is mentioned but not examined.

The visible disconnection of the Roman Arch space: The arch is not visible from the streets, due to the small Ottoman mosque located in front of it.

Figure 224 The visibility of the Roman space from the street, and the Ottoman mosque

the new road developed post-colony with no consideration to the arch space as a social space that could generate public traffic and connect spaces in the medina with the port area. Instead, the arch was separated from the port and all its activities, and any means of direct

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[310] The main mean of transportation in Tripoli is private cars or taxies, there is no train or bus service in the city.
[311] As is the case for all Tripoli.

access were prevented by the development of a six-lane motorway around the old medina. The discontinuity is also evident in the fact that the new road was built on a lower level than the old medina, creating a physical divide between the old medina and its urban context.

Figure 225 The motorway separating the arch space from the port area.

Figure 226 The elevated boundary of the old medina.

The Roman paths leading to the arch space could still be seen on Tripoli's plan, however, as the medina is a walled city, the importance (usability) of these paths is reflected by the importance of the gates. As shown in the following figure, the end of the two Roman paths leading to the arch space is either hidden (fig. 277) or leads to an empty space in the city.
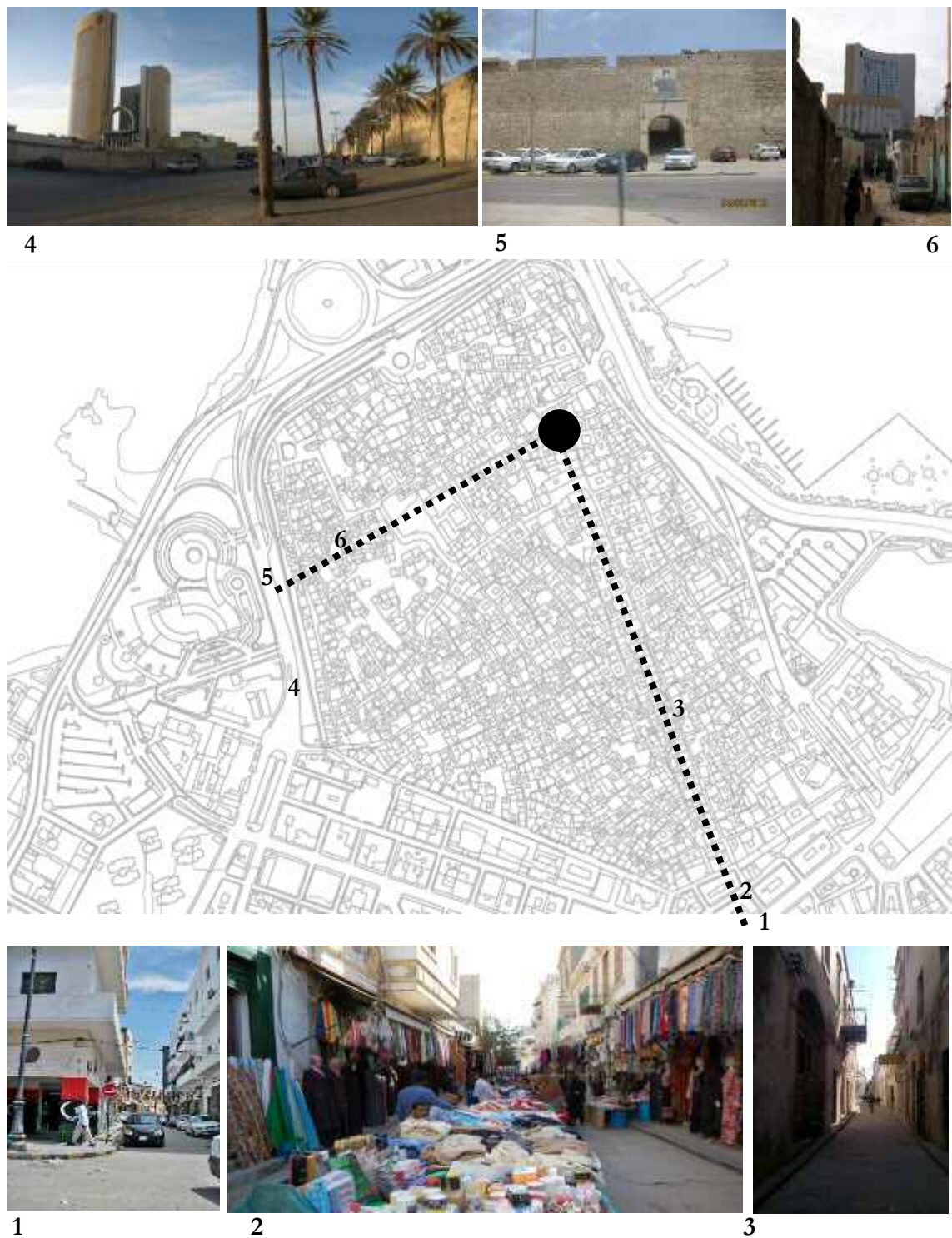
Figure 227 The analysis of the Roman paths in the old medina and their relation to the medina gates.

Socially, in spite of its isolated and inaccessible location, the space in recent years played an important role in pulling the flow of movement inside the medina walls. It continued to attract small social-economical activities: restaurants and cafes, the old town club, hotels, and mosques surround the space. Along the Roman Arch there are also related activities such as the old library and more hotels (fig. 228).
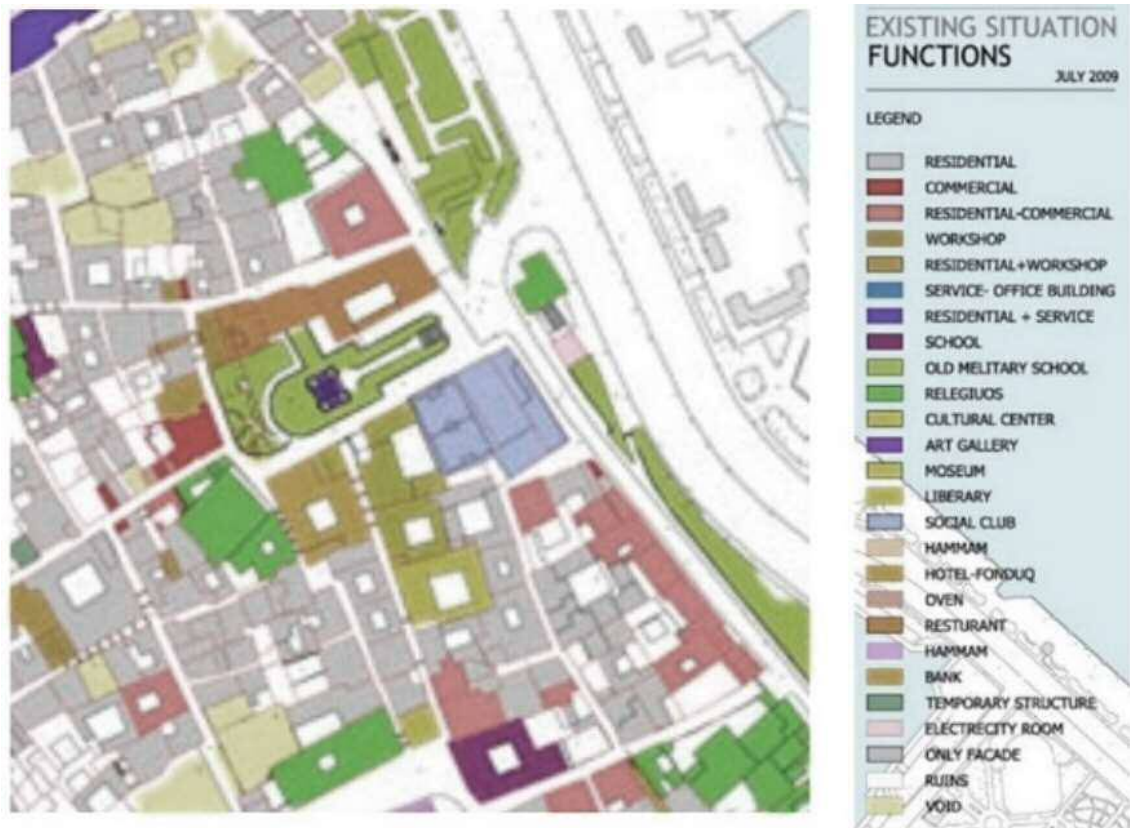
Figure 228 Land use of the area. Source: National Advisory Office. Tripoli

There is a need to reconnect the arch space to its urban surroundings physically, socially and visually. Thinking of the urban context as the human body and the arch space as an origin, in order for it to live and grow it has to develop good blood circulation system. Re-establishing the connection of the arch space with its wider urban context could benefit the old medina by increasing the flow of movement inside the medina walls. Possible policies might include developing a direct access path for pedestrians, and restricting the movement of cars between the arch and the port.

Restoring the historical connection between the arch space and the port area would also reinforce the Roman paths. These paths connect on one side the port, corniche, waterside and fish market to Tripoli's biggest hotel (Corinthia hotel). Improving this connection will encourage future economic developments inside the medina and outside the city walls (fig. 229, 230).

Figure 229 The relation between the 1 the port, 2 the arch space, 3 the medina gate, the hotel.

Figure 230 Aerial view of the gate the arch space and the port. Taken from the hotel.

7.2.2 The coastline area
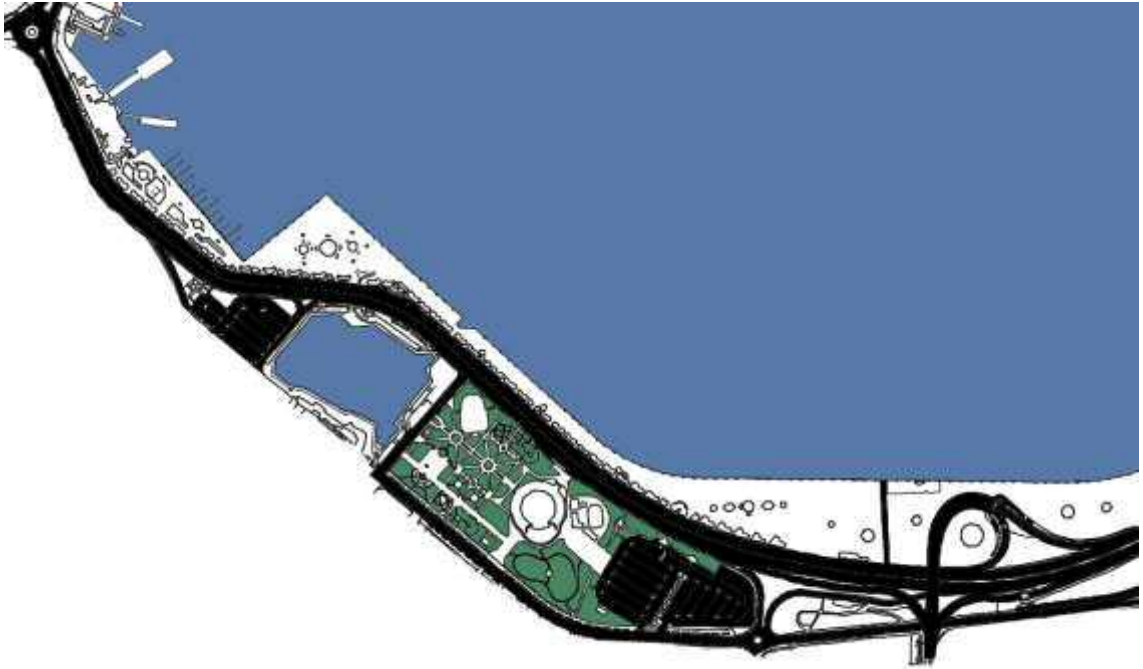
Figure 231 Tripoli's coastline space.

The coastline was added to Tripoli's urban context during its evolution, as described in Chapter (5), when it was set back from its original place. The added land was not part of a clear urban expansion, it was later designed to include the new corniche, the green area known by some as The Grand Hotel's Garden, and the lake. The physical appearance of the previous coastline edge can still be identified: the lines of palm trees, the road, and parts of the corniche stones still exist in Tripoli today.

Figure 232 The remains of the former coastline still appears in Tripoli.

The following section examines the continuity of three places within this public space.

7.2.2.1 The corniche (Tripoli's water edge).

Changes to Tripoli's coastline dramatically changed the city's layout. Tripoli lost its uniqueness in the form of its historical connection between the water and the city. It also lost its two water entrances, which were the main entry points to the city from the sea. The urban changes also weakened the contrast (soft edge of the palm tree and the hard edge of the old medina) that the Italians developed along Tripoli's coastline. The following section examines the continuity of the new corniche with its urban surroundings and other public spaces.

The corniche, as a developed urban space, is difficult to access. The corniche is separated from Tripoli's urban fabric by heavy traffic, making it difficult and unsafe for pedestrians to cross. There are no adequate means of connection between the urban fabric and the coastline for pedestrians, which could be explained as the changes that took place with the planning vision were mainly car driven. One example of the space separation mentioned earlier is the divide between the port and fish market, and the Roman Arch space and the old medina. Other examples, such as the separation from the garden and the lake, will be discussed further in this chapter.

Figure 233 The road separating the corniche from city. The photo presents the heavy traffic on one side of the road. 2010

The spaces suffered the consequences of its irrational evolution. The corniche as a public space developed a range of social economical activities: Tripoli's fun fair, local trade, artistic and sport (football, basketball fields). However, as the location of these activities was not pre-planned or designed, they created problems in the space. Their location raises concerns regarding safety and accessibility. A football pitch or basketball court on the side of the main motorway, with no protection or barriers, is a huge risk for both players and motor users. Furthermore, dense activities such as a fun fair require spaces that are well-designed, with clear entrances, exits and enough space for car parking[312].

Figure 234 Activities developed along the corniche.2010

The disconnection is also between the space and the wider urban surroundings. On the other side of the road is the site for the construction of Alghazala Intercontinental Hotel, a 351

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[312] Photos of the activities taken before the revolution.

room Intercontinental hotel, the biggest hotel in the city[313]. The establishment of such a hotel opposite to the public space reasonably raises the need for better, easier connection to the corniche.

Figure 235 The road separating the corniche from its surrounding.2010

Figure 236 Alghazala Intercontinental Hotel, left the project design, right the project under construction.2009

Compared to the former coastline, the new corniche's design indicates that it was intended to be used separately from other spaces in Tripoli. There is an absence of clear crossings, entry and exit points to the space. The research aim of examining the effect of such separation and restraints on the flow of movement is incomplete. Due to the instability of the country during the time of the research, interviewing people about how they use the corniche was not possible and any means of observation would not give true results. Such social analysis about the corniche's connection with Tripoli's fabric could be the subject for further research.

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[313] The hotel designed is similar to the Italian Grand Hotel that was demolished during Gaddafi time.

7.2.2.2 The Grand Hotel's garden

The second place created within the added land space was turned into the biggest park in the city today. Design of the park began in 2000. It was hard to find a name for the space that is commonly known by the locals. When asked, residents of Tripoli referred to the space as: having no name; the big garden; the garden between the corniche and the square; the garden next to the Grand Hotel; or, the Grand Hotel's Garden. The lack of a common name for this huge space in Tripoli could be explained by it being a space with no historic background, or by a lack of general interest in and attachment to the space. This space was developed during the Gaddafi regime, a time when he renamed most of Tripoli's streets and spaces with revolutionary names: it is curious that he did not name this space similarly during his rule.

The space has been regenerated to encourage social interaction, including playgrounds for children, sitting areas, a wide screen to broadcast events such as national celebration, and a water fountain. Due to the research's focus on the continuity of movement between public spaces in Tripoli, analysis of the efficacy (scale, land cover, division) of the park's design is not included in this research. The following sections examine the park paths, and links with the surrounding spaces.

Figure 237 Elements in the Grand Hotel garden.

The garden is physically isolated from other spaces in the city. As mentioned, the garden is located between the old and new corniche. The space is separated from the waterside, from the lake area and from Tripoli's urban fabric by heavy traffic and parking lots. The main paths inside the park are disconnected from other spaces; they intersect with roads. These paths, that normally should guide the flow of movement in/out of the park to other places in this space, are disconnected. Beside the faded zebra crossing marks on the road there are no easy links between the different sections of the space.
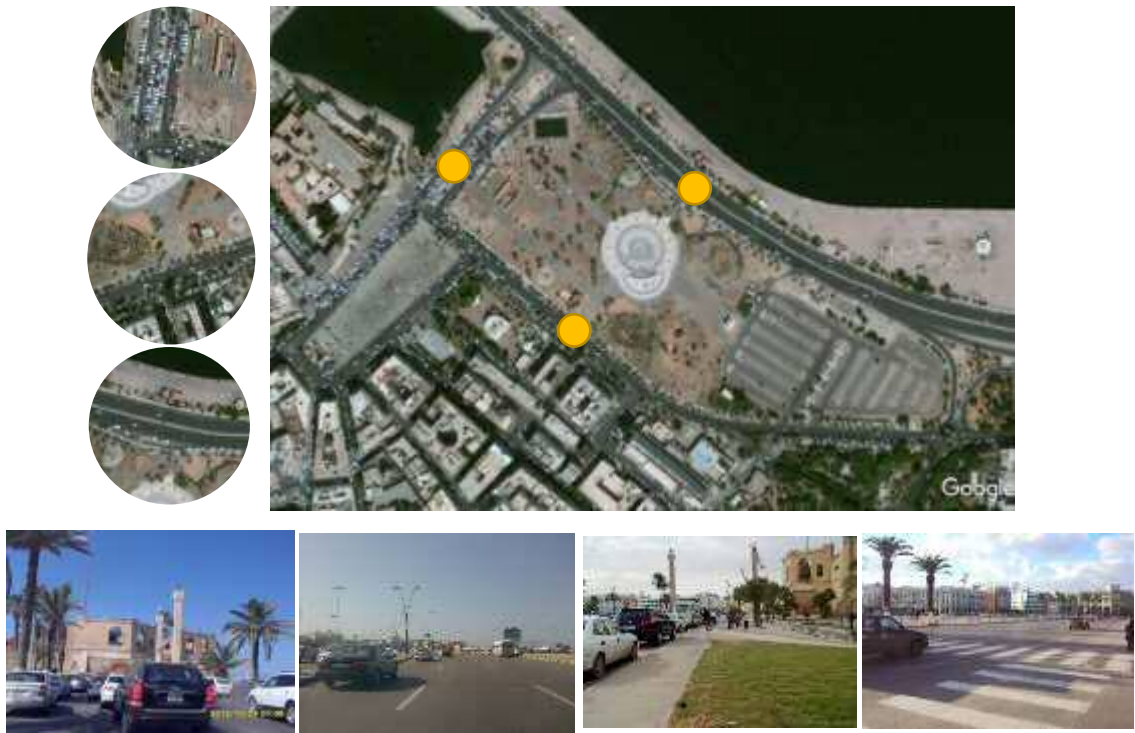
Figure 238 The intersection of the garden's main paths with its surroundings.

The intersection between the garden area and the corniche was dangerous, so a concrete barrier was constructed in the middle of the road, which further disconnected the space (fig. 239).

Figure 239 Concrete barrier implemented in the middle to the road to prevent people crossing to the corniche.2009

Socially, the usability of the space was investigated using photos of the garden taken in 2010. Even though the space has not changed physically since 2011, the instability of the country

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affected the usability of the space; thus, any observation of social interaction with the spaces will not be accurate. The space being used during peacetime is shown in (fig.240).

Figure 240 The usability of the space in 2010.

7.2.2.3 Tripoli's lake space

Tripoli's lake is another added element to the city. The following section focuses on the lake as a social space in the city and how it connects with other spaces in Tripoli.

Figure 241 Arial views of Tripoli's core area. 2010

The lake, similarly to the corniche and the garden, suffers from heavy motor presence, and weak entry and exit points. It is also separated from the corniche by traffic lanes. The lake as a public space included some elements such as pedestrian paths around it and seating areas.

The lake space developed some social economical activities such as cafés and restaurants, and some seasonal water activities as seen in (fig.242)

Figure 242 The activities generated around the lake, 2010.

These three elements, the new corniche, the Garden and the lake, are not just detached from each other but also separated from the old medina. As explained in the previous chapter, the new space has pulled the flow of movement out of the medina walls, leaving the medina for those who are visiting the traditional market area.

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7.2.3 The Green Square (the Martyrs Square)
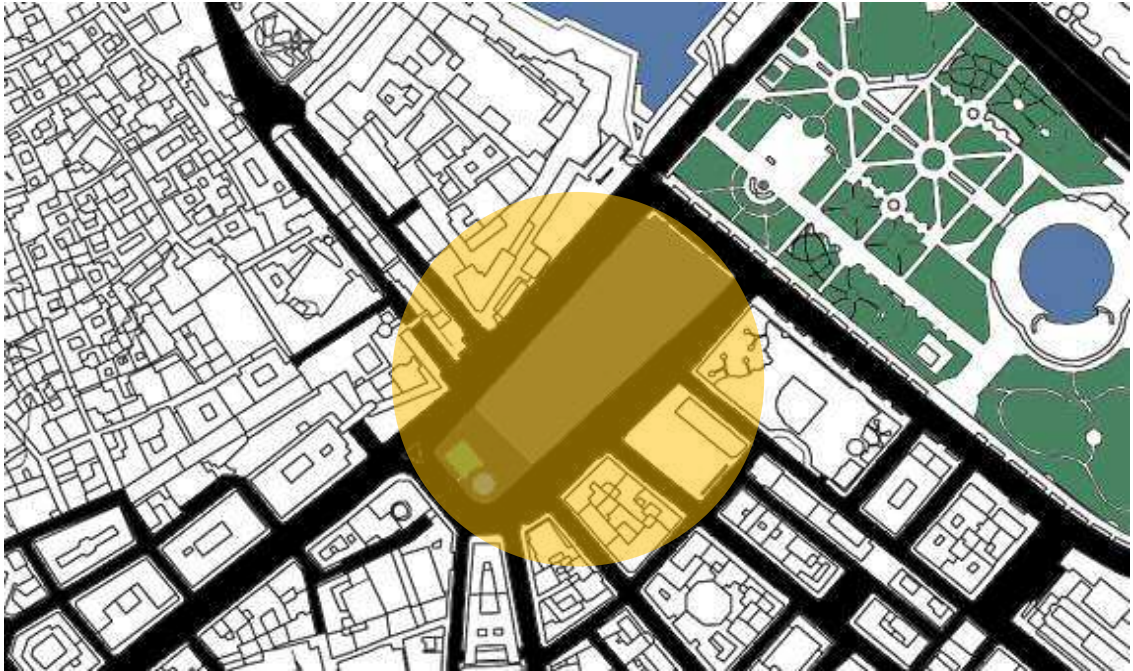
Figure 243 The Green Square in relation to the medina.

The following section discusses the continuity of the Green Square with other public spaces in Tripoli.

The square is today Tripoli's main public space: the combination of what was the Italian plaza, the Castle Square, and the water entrance. By demolishing the building blocks that separated the Italian square from the Castle Square and relocating the coastline, the historical space transformed into a huge roundabout.

This heavy traffic became a barrier to the development of social activities in the square. The researcher personally experienced the danger of crossing though the square and into the old medina during her time living in Tripoli.

The space was first developed as part of the Islamic core: it formed the open market for the walled city, an extension of the trade area in the medina walls to areas outside the walls. During Italian colonisation, the space lost its social-economical connection with the medina, and became an empty square that socially divided the locals from the modern Italian colony.

During the Gaddafi regime this division was strengthened, as the space evolved to separate the medina further, with heavy traffic separating the space from the old medina.

Figure 244 The view of the Green Square in Tripoli. the space transformed to a roundabout.

Figure 245 The intersections between the green square and its urban surrounding.

The space did not develop sustained social activities; until 2011 it was used as a car park.

Figure 246 The square transformed to a car park. Tripoli. 2010

The aim of this study is to understand the evolution of public spaces in the historical core of Tripoli, by revealing the dynamics behind their growth and change. The research investigated growth and change in the spaces' physical form, the activities within, and accessibility.

The findings of this research illustrated that public spaces in Tripoli are more than just nodes in the urban fabric. They provide a strong sense of connection with the city's history.

Public spaces in the core of Tripoli have changed physically, socially and visually, and each period of change has presented new opportunities and challenges. Spaces transformed from being objective to become subjective spaces; some spaces began more functionally and acquired symbolic meaning, whereas other spaces were intended as symbolic from the beginning (i.e.: the Roman Arch). The historical evolution of these public spaces played an important role both physically and socially in forming the city until 17th February 2011.

The structure of the concluding chapter is as follows: first it considers the methodological challenges faced in this research; second, it returns to each of the research chapters and summarises the main force in each chapter. This is followed by an explanation of the development of a new research method, and ends by looking at the research hypothesis, limitations and future recommendations of the research.

7.3 The Study's Challenges, Purpose and Achievements

This research registered to start in January 2012, a year after the Libyan revolution that ended the Gaddafi regime. It was designed to investigate the evolution of public spaces in Tripoli, as part of the social research in these spaces. It was planned to include semi-closed questionnaires to gather information regarding the post-colonial changes that took place; documents published during the Gaddafi regime may be unreliable. However, Tripoli experienced a wave of political unrest in 2013. This unrest had a major effect on the research in terms of the methodology adopted and data gathering process, and created various limitations. As a researcher in the field of public space, the researcher had to adjust to the events taking place in Tripoli, which were directly related to the study area. Beside the direct effects of the unrest (i.e.: no fly zone and concerns of kidnapping and being caught in the middle of a military conflict), people also aggressively defended Gaddafi's regime at this time. They were not willing to offer information that referred negatively to the regime.

This research adopted a fairly conventional urban design and social science method, investigating and building knowledge using primary sources, morphological research and simulation research - a valuable research method of interpretation/enquiry. The research investigated a new methodology by using 3D photo-based modelling from historical photos. A combination strategy of interpretative history, modelling, and case studies was employed to answer the research question. This study was undertaken to fill the gaps in knowledge related the evolution of public spaces in the historical core of Tripoli. The main research questions were: What are the distinctive characteristics of public spaces in Tripoli and what role did the building of - and response to - key urban artefacts/monuments play in the

dynamics of these spaces over time? What are the key connections between: the urban fabric and the waterfront/port; between the old medina and the Italian colonial quarter; between the evolving urban spaces themselves? And how can 3D models of urban spaces allow us to visually investigate and experience the evolution of the public spaces in the defined research periods?

Due to the city's extended history, the research was divided into three different time periods:
- The Ottoman era 1551 -1911 (Chapter 3);
- The Italian colonisation of Tripoli 1911-1943 (Chapter 4);
- Post-colonial independence and the Gaddafi era 1951 - 2011 (Chapter 5)

Each chapter included an in-depth summary of both the historical interpretive and the simulation (visual) analysis. The following section summarises the main forces of growth and change of public spaces, and their effect on the continuity of each layer.

7.3.1 The Ottoman era 1551 -1911

The existence/absence of artefacts developed prior to the Ottomans played an important role in forming/disrupting public spaces of Tripoli. The fact that the urban form was mostly demolished prior to the Ottomans entering Tripoli confirms that the urban fabric inside the medina was mostly built during Ottoman rule. Yet, when examining the medina's urban form, the influence of the former Roman settlement can be seen reflected in the street grid pattern, the location of the Roman Arch, and the Roman gates and walls. Even though the Roman site was built over, the wide straight streets overpowered the later Islamic urban form. This lasting Roman influence can be explained first by the Islamic conservation of the Roman Arch and Roman spatial form and second, by Tripoli having lost two of its important Islamic urban elements, the Grand Mosque and the Islamic school. The absence of both these elements disrupted the Islamic model of the city; these two elements were not replaced until the late Qarmanli time.

The Ottoman individuals who ruled Tripoli played a significant role in forming the city. Their interventions in the medina directed and disturbed urban growth. Through their urban interventions, the Ottomans weakened the Roman influence on the city, blocking the sight of Roman Arch from the sea by building a mosque in front of it, avoiding using the existing Roman paths that existed in the medina, abandoning the medina's main Roman gates and

developing a new one. The Roman Arch and related space had no particular significance to the Ottomans, who simply appropriated the structure as storage space. During Ottoman rule Tripoli developed slowly and gradually over an extended period of 640 years; the main changes occurred due to a sequence of significant urban interventions by successive rulers. Even though Tripoli was an Islamic city prior to the Ottomans, the Islamic religion was not the main drive behind the city's growth. As explained (in chapter 3), from the early stages of the Ottoman period, the medina developed its main public buildings chronologically: the Grand Mosque was the last public building to be built in the medina, (the Qarmanli mosque). The mosque was developed after the market was built. The location of the mosque close to the walls inside the medina predicted the development of public spaces outside the medina walls.

The division of public spaces based on political forces was first seen during the Ottoman era: the public spaces were divided into spaces for the locals and spaces for the ruling family. This division reinforced a sense of segregation as the paths used by the ruling family and the military were organised, formed and designed better than locals' paths. The royal space is well-maintained, connected directly to the port, with a large well-designed water fountain; the locals' spaces are irregular, tight, and connected to the daily market, with only a small water fountain.

7.3.2 The Italian colonization of Tripoli 1911-1943 (Chapter 4);

The significant force that drove urban growth and change in Tripoli was the vision the Italians had for the colony. Tripoli was seen as a given right due to the city's Roman history. It was promoted as the salvation of Rome's overpopulation, an expansion of the Italian territory. Three main elements of this vision affected the evolution of public spaces. First, segregation in the form of restricting the locals from using spaces outside the medina walls. This segregation ripped the Islamic city from its main public spaces (the bread market), an important social space for daily local trade. The space since has lost its former role as an expansion of the trade area inside the medina walls. The space transformed into a symbolic space: a space for resistance, and for demonstrations of political power.

Modernisation was at the heart of the Italian vision of the colony. The Roman-inspired, 'stripped classicism' of some of the new buildings, as used in the Fascist architecture in Italy (parallels to other Italian African colonies. Segregating the old medina and building a new urban form in the area outside the medina walls. However, the urban fabric, style and size compared to the castle are still connected to the spaces inside the medina. Elements as huge

as the arcade that faces the old city, that physically and visually connects public spaces inside and outside the medina walls, or as small as the roundabout in front of the medina gates. Despite the Italian intention of segregating the old medina, a sense of continuity still existed in terms of both the physical and spatial form inside and outside the walls.

The Italians developed what this research names 'a circle of interest', to guide the Italians to certain places inside the medina walls, such as the Roman Arch, the church, and the west side of the medina.

The political power of the governors was also a significant force that shaped public spaces in Tripoli. The evolution of the spaces (as shown) is the result of different governors, their background and interest in Tripoli. Each governor allocated a chief architect to translate his vision of the city into reality.

The port continued to play an important role in forming the city during the Italian rule. The port represented the main connection to Italy. Three water entrances to the medina were developed, one that led directly to Tripoli's main public spaces. The water edge was developed and enforced with the lines of palm trees.

7.3.3 Post-colonial independence and the Gaddafi era 1951 - 2011 (Chapters 5)

The locals accepted the colonial urban form and all its public spaces. They worked on owning these spaces by renaming and using them. Desire for change and modernisation resulted in the abandonment of the old medina, as people sought a better life in the modern colonial fabric. Economic and social constraints of the early independent country opened the door for immigrants that found the old medina a perfect place to live, a place with low rent and good location in the city.

This social change in the old medina is seen in this research as a social segregation; the old medina became, and still is since except for its trade area, a slum, a neglected place in Tripoli. The downgrading of the medina in the Gaddafi era excluded it from the future planning of Tripoli.

Since the Gaddafi revolution, any urban growth and change in Tripoli aligned with his personal ideology, and irrational character. Even though there is no written documentation of his development orders, his strong grip on the city can be clearly seen. He demolished urban blocks of the Italian fabric, separated the city from the waterfront, demolished buildings with unique architectural character only to rebuild them in a plain form; all these

changes reshaped the public spaces of Tripoli. He also reinforced the social separation of the old medina from the city by physically redefining the historical spaces: by demolishing the urban block he also demolished the arcade that guided people to interact with the old medina. Furthermore, the relocation of the water edge resulted in the loss of the water entrance that been previously important in terms of the spatial division of public spaces in Tripoli.

7.4 Developing an original method

The 3D model proved to be a powerful tool that allowed the visual regeneration and investigation of the public spaces and their evolution over the three key historical phases. Along with morphological evidence, this method was also positive in that it enabled the researcher to relive these changes experientially. The photomapping regenerated a 3D model of urban spaces that no longer exist, spaces that are only known through a limited number of photographs. The software detailed further physical information, including the height, width, and the qualities of enclosure of these spaces. The model is useful for future studies specifically those concerning environmental changes: using SketchUp, the shadows change throughout the day and year, this could also be examined as part of urban change in public spaces. Even though the model takes time to build as it is regenerated manually, it produces better results than the automated method. The regenerated model is of very good quality and is highly detailed.

7.5 Study Limitations and Recommendations for Further Research

This research time span is until the revolution on the Gaddafi regime in 2011, however since the revolution Tripoli's public spaces have not changed, observations investigating the social connection of the spaces and how people are using them might have provided additional information regarding the role of the activities that take place in these spaces, but likely would not have affected the results of this research, as the methods that have been used cover the evolution of the spaces across the city's extended history, by using primary sources and a morphological analysis, documented with real photos of these spaces.

Digital maps produced in 2010 were used to source technical information about Tripoli. The researcher digitized some earlier maps manually. As with any digitising process, there is a risk of error tracing pixels on the Raster maps; this margin of error could also apply to the modelling process, which was also done by hand, but as the research results do not

depend on this accuracy this was a fairly inconsequential risk. The analysis of the visual experience gave a detailed view of the changes in public spaces through time.

Recommendations of this research: as the objective of this research was not to produce a definite policy for the area, but rather to recommend some general principles to improve the public spaces in the historical core. Some of the key lessons that emerged from this research is that it is necessary that the policy should reflect the urban spaces that have a historic relation with the city - public spaces that have a wider contribution to our city's social life - as these public spaces continue to play a role in giving the city its unique beauty and function.

A further lesson is that much damage can arise through neglect – neglect in terms of failure to recognise the value of the physical boundaries and features in the public space. There is a need adopt a policy that restricts any further demolition of buildings surrounding Tripoli's public spaces. This policy should also address the social neglect arising from the failure to tackle the connectivity of the space, so that these spaces can be more easily accessed; and, lastly, this a policy should recognise the importance of social activities in public spaces as an added quality of a city.

Another key lesson is that the old medina's relationship to the wider urban context needs to be re-established, as much as its buildings need to be restored. The medina lost its connection to the wider city, and people lost their interest in it. Integrating the medina and strengthening its bonds with the city will raise its economic value and in turn this will lead to better care being taken of the medina.

More empirical research is required into the challenges of public spaces in the city today: their role, significance, people's knowledge of the meanings of these spaces, knowledge of the origins, and how they have changed throughout time. Research to help guide future changes in the city should address questions like:
- Should we reconnect the old medina to its water edge?
- What is the effect of making Tripoli's historical core a car free zone?
- What are the economic benefits of returning the Green Square to a trade space to encourage and support trade activities inside the medina?
- What are the ecological effects of the urban change and the effect on the usability of the space?

It is hoped that this research will become a source of useful information and provide a platform for future researchers, planners, architects, social researchers and designers in all relevant disciplines of research into the role of the urban space in Tripoli. This research has examined the historical past of public spaces and shed light on the impact of recent events and developments in the city. However, the role of public spaces once the country has settled politically will be an opportunity for further study, as it is expected to that further changes - especially in terms of social activity – will arise in various spaces.

7.5 References:

(Unknown), *The Road to People's Authority A Collection of Historical Speeches and Documents*, (The Information Section The Peoples Committee for the Studies of the Socialits Peoples Libyan Arab Aljamahiriya,1978)

Abdelhamid, Fawzi, *How Gaddafi rules Libya*, (Alealam Aljadid Lilnashr Waltawzie,1988) [In Arabic]

Abu Madina, Hassun, *The Geography of Tarabulus Al Gharb Port* (Misrata: Dar Mkatabat Alshab, 2005) [In Arabic]

Acun, Fatma, 'A Portrait of the Ottoman Cities', *The Muslim world*, 92 (2007). 255-285. p.206

Adu Boahen, A, 'The Caravan Trade in the Nineteenth Century'. *The Journal of African History*, 3 (1961)

Al Bakri, Abu- Obeida, *Al-Masālik wa'l-Mamālik* (Dar Al Arabiya lelKitab, 1992)

Al-Abdarī, Mohammed, *Al Rihla Al Magharibia* (Algeria: Al Ma'arif Press, 1999) [In Arabic]

Al-Abiath, N, Tripoli in the Writings of Travellers during the Nineteenth Century (Tripoli: Historical Studies Centre,2009)

Al-Abiath, R. N, *Tripoli in the Writings of Travellers during the Nineteenth Century* (Tripoli: Aldar Alarabya Ll Ktab, 2009) [In Arabic]

Al-Baronie, Omar, *Spaniards and the Knights of St. John in Tripoli* (Tripoli: Maggie printing press, 1952) [In Arabic]

Al-Hemaidi, Waleed, 'The metamorphosis of the urban fabric in Arab-Muslim City: Riyadh, Saudi Arabia'. *Journal of Housing and the Built Environment*, 16 (2001), 179-201

Al-Keep, Najib, *The City of Tripoli through the History* (Libya: Al- Dar Al-Arabia Lil-Kitab, 1978) [In Arabic]

Allous, Abdelatif, The Historical Transformation of Civic Architecture: City Council Buildings and Urban Change in Tripoli, Libya (PhD Thesis in Architecture and Urban Design, Newcastle University, 2016)

Allum, Percy, 'The politics of town planning in post-war Naples'. *Journal of Modern Italian Studies*, 8 (2003), 500-527

AlSayyad, Nezar, 'Cities and Caliphs: On the Genesis of Arab Muslim Urbanism', *Journal of Near Eastern Studies*, 54 (1991), 224-226

Al-Tijani, Abu Mohammed, *Rehlat Al-Tijani* (Al-Dar Al-Arabiya Ll-ketab, 1981) [In Arabic]

Altlesi, Khalifa, The story of the city of Tripoli with Arab and foreign travellers (Tripoli: Arab book house, 1974) [In Arabic]

 Amoura, Mohamed, *Tripoli: The Arabic City and Its Islamic Architecture* (Tripoli: Dar El-Ferjani, 1993) [In Arabic]

Amoura, Muhammed, *Tripoli: The Arabic City and Its Islamic Architecture* (Tripoli: Dar El-Ferjani, 1993) [In Arabic]

Anan, 'What has happened in Tripoli 1911', *The Tablet,* 11 November (1911)

Andishe, Ali, The political and economic history of the three cities (Tripoli: Dar Al Jamahiriya, 1993)

Ayalon, Yaron, Natural Disasters in the Ottoman Empire: Plague, Famine, and Other Misfortunes (Cambridge University Press, 2014)

Azlitni, Bashir, 'The Libyan Architectural Features between Tradition and Modernization '. *Int. Journal for Housing Science*, 33 (2009), 137-148

Beehler, William Henry, *The History of the Italian-Turkish War September 29, 1911 to October 18, 1912* (Annapolis: Annapolis Md The Advbrtisbr-Rrpublican, 1913)

Beehler, William Henry, The History of the Italian-Turkish War, September 29, 1911, to October 18,1912 (Annapolis: Advertiser republican, 1913)

Belgasem, Rammadan, ' Illegal Immigrants and Housing: The Case of the Old City of Tripoli ', in *Transforming Housing Environments through Design September 27-30*. (Pretoria: South Africa, 2005) <https://repository.up.ac.za/bitstream/handle/2263/10360/Illegal%20Immigrants%20and%20Housing.pdf;sequence=1>

Bernard, Huet, 'The Modernity in a Tradition, the Arab-Muslim Culture of North Africa'. *Mimar.* 10 (1983)

Bianca, Stefano, *Urban Form in the Arab World: Past and Present* (London,Thames and Hudson, 2000)

Birley, Anthony, *Septimius Severus: The African Emperor* (London: Routledge, 2002)

Bnat-Aleamarat Walbina, 'Articles in Urbanization: Muammar Gaddafi, I hate cities'. *Architecture and construction,* (2011) <http://www.bonah.org/ معمر القذافي انا اكره المدن>

Brogan, Olwen, 'The Camel in Roman Tripolitania'. *Papers of the British School at Rome.* 22 (1954). 126-13

Brunn, Stanley D., and others., *Cities of the World: Regional Patterns and Urban Environments* (Rowman & Littlefield, 2003)

Buhlfaia, Saeid, Historical Background of Libyan Mosque Architecture: Assessment and Criticism of Mosques in Ajdabiya City (MSc Dissertation, Middle East Technical University, 2006)

Butler, Daniel Allen, Field Marshal: The Life and Death of Erwin Rommel (Casemate, 2015)

Cambridge dictionary online http://dictionary.cambridge.org/dictionary/british/

Carmona, Matthew., and others., Public Places - Urban Spaces is a Holistic Guide to the Many Complex and Interacting Dimensions of Urban Design (Routledge, 2012)

Çelik, Zeynep, Favro Diane and Ingersoll Richard, *Streets: Critical Perspectives on Public Space* (University of California Press.1996)

Ching, Frank, *Architecture Form and Space* (John Wiley & Sons Inc, 1943)

Collier, Paul, The Second World War (4): The Mediterranean 1940–1945 (Osprey Publishing, 2003)

Conforti, Claudia, 'Armando Brasini's Architecture at Tripoli'. *Environmental Design: Journal of the Islamic Environmental Design Research Centre*, (1990) <https://archnet.org/publications/3233>.

Crachi, P, The new museum of Libya in the People's Palace in Tripoli, A History of a project (Gangemi Editore spa, 2010)

Criminisi, A and Zisserman, Reid, 'Single View Metrology'. *International Journal of Computer*, 40 (2000), 123–148

Dale, Stephen, 'Empires and Emporia: Palace, Mosque, Market, and Tomb in Istanbul, Isfahan, Agra, and Delhi'. *Journal of the Economic and Social History,* 53 (2010)

Daza, Mahmod, Understanding the traditional built environment: crisis, change, and the issue of human needs in the context of habitations and settlements in Libya (PhD Thesis, University of Pennsylvania, 1982)

De Rosa, Fortuna and Di Palma Maria, 'Historic Urban Landscape Approach and Port Cities Identity and Outlook'. *Sustainability*, 5 (2013), 4268-4287

Demissie, Fassil, Colonial Architecture and Urbanism in Africa (Routledge, 2012)

Deutsche Afrika Korps arrive in Tripoli, <https://www.youtube.com/watch?v=XckkfSz81XI>

Ducruet, César and Lee Sung-Woo, 'Frontline soldiers of globalisation: Port–city evolution and regional competition'. *GeoJournal*, 67 (2007), 107–122

Dumasy, François, 'In the middle and apart, Prestige and centrality in Tripoli of Libya during the Italian colonization, 1911-1943', *Spatial Dimension of Inequalities*. (Rennes: Presses Universities de Rennes, 2011), 209-232

Edwik, Alshadli, *Oil Dependency, Economic Diversification and Development a Case Study of Libya*. (PhD thesis, University of Salford, School of the Built Environment. 2007)

El laffi, O, Libyan observer during the Gaddafi revolution 1969 and the Libyan revolution 2011.

El Shawesh, Eiz Alden, The Changing Identity of the Built Environment in Tripoli, (PhD Thesis, Newcastle, 2000)

El-Hare, Idres S, ' North Africa and the second world war ', in *Africa and the second world war*, (Bengazi: UN, 1985)

Fakeeh, A, Mummer Al Gaddafi: I hate cities (Cairo: Cairo Newspaper, 2011) [in Arabic]

Falahat, Somaiyeh, Re-imaging the city: a new conceptualisation of the urban logic of the Islamic city. (Wiesbaden: Springer Vieweg, 2014)

Fitzgerald, Mary and Megerisi, Tarek, *Libya: Whose Land, Is It? Property Rights and Transition* (London: Mayfair, 2015)

Freely, John, *A History of Ottoman Architecture* (Southampton: WIT Press, 2011)

Fuller, Mia, 2000. 'Preservation and self-absorption: Italian colonisation and the walled city of Tripoli, Libya'.

Fuller, Mia, 'Building Power: Italy's Colonial Architecture and Urbanism, 1923-1940', *Cultural Anthropology*, 3 (1988), 455-487

Fuller, Mia, 'Building Power: Italy's Colonial Architecture and Urbanism, 1923-1940'. *Cultural Anthropology*. 3 (1988). p.455-487

Fuller, Mia, Moderns Abroad: Architecture, Cities and Italian Imperialism (Routledge, 2009)

Fuller, Mia, 'Preservation and self-absorption: Italian colonisation and the walled city of Tripoli, Libya'. *The Journal of North African Studies*, 5 (2000), 121-154

Gadaffi, Muammar, *Escape to Hell and Other Stories* (Blake Publishing 1999)

Galaty, Michael and Charles, Watkinson, *Archaeology under Dictatorship* (New York: Springer, 2004)

Gehl, Jan, *Cities for People* (Island Press, 2010)

Ghiat, Ruth Ben and Fuller Mia, *Italian Colonialism* (Palgrave Macmillan, 2005)

Ghiat, Ruth Ben, *Fascist Modernities: Italy, 1922-1945* (University of California Press, 2001)

Gnouwa, Ibrahim, *Removal for the purpose of development or removal for the purpose of destruction*, (2007) < http://www.libya-watanona.com/letters/v2007a/v03sep7q.htm>

Goesele, Michael., and others., ' Multi-view stereo for community photo collections ', in: *The international conference on computer vision*. (Rio de Janeiro, 2007)

Gooch, Jon, 'Re-conquest and Suppression: Fascist Italy's Pacification of Libya and Ethiopia, 1922–39'. *Journal of Strategic Studies*, 28 (2005), 1005-1032

Goodchild, R. G, 'Roman Tripolitania: Reconnaissance in the desert frontier zone', *Geographical Journal*, 115 (1950)

Hakim, Basim, 'Arab-Islamic Urban Structure', *The Arabian Journal for Science and Engineering*, 7 (1982), 69-79

Hakim, Basim, 'Reviving the Rule System An approach for revitalizing traditional towns in Maghreb', *Cities*, 18 (2001), 87–92

Hakim, Basim, 'Urban form in traditional Islamic cultures: further studies needed for formulating theory'. *Cities*, 16 (1999), 51–55

Hakim, Besim, 'Learning from Traditional Mediterranean Codes. The essence of the traditional system prevalent in the Mediterranean region is found in the ethics and values related to habitat'. *The town paper Council report,* iii/iv. 2003

Hamid, Ahmed, 'Some missing Islamic landmarks from Tripoli city', *Athar Al-Arab*, 6 (1993)

Hammad, Ali, 'Mutual economic ties between the authorities and society Alkermanli Trabelsi in the late Covenant Alkermanli'. *Journal of Science and Human Studies*. (Al-Marg, 2014) [In Arabic]

Hardy, Dennis, 'The Spring of Hope, The Winter of Despair: an unfinished narrative of Mediterranean cities', *Planning perspectives*, 27 (2012), 417-437

Havik, Klaske, Urban Literacy. A Scripture Approach to the Experience, Use, and Imagination of Place (PhD Thesis, TU Delft University, 2012)

Haynes, D.E.L, *Ancient Tripolitania* (Nabu Press, 1953)

Henneberg, Krystyna von, 'Imperial Uncertainties: Architectural Syncretism and Improvisation in Fascist Colonial Libya '. *Journal of Contemporary History*, 31 (1996), 373-395

Henneberg, Krystyna von, 'Imperial Uncertainties: Architectural Syncretism and Improvisation in Fascist Colonial Libya'. *Journal of Contemporary History*, 31 (1996), 373-395

Henneberg, Krystyna von, Imperial uncertainties: architectural syncretism and improvisation in fascist colonial Libya. *Journal of Contemporary History*, 31 (1996), 373-397

Hoyle, B. S., and others., Revitalising the Waterfront: International Dimensions of Dockland (Wiley-Blackwell, 1988)

Ibn Hawqal, Muhammed, *The face of the world* (Beirut:Dar Sader, 1928) [In Arabic]

Jacobs, Jane, The Death and Life of great American Cities (Vintage Books, 1961)

Jayyusi, Salma., and others., *The City in the Islamic World, Vol 94/1* (Leiden : BRILL, 2008)

Kirk, Terry, The Architecture of Modern Italy: Visions of Utopia, 1900-present v. 2 (Princeton Architectural Press, 2004)

Krier, Robert, *Urban Space* (Rizzoli International Publications, 1979)

Lafi, Nora and Bocquet, Denis, 'Local Elites' and Italian town planning procedures in early colonial Tripoli1911-1912', *The Journal of Libyan Studies*. 3 (2002), p.59-68

Lafi, Nora, ' Mediterranean Connections: The Circulation of Municipal Knowledge and Practices at the Time of the Ottoman Reforms, c. 1830-1910 ', in Another Global City: Historical Explorations into the Transnational Municipal Moment, 1850-2000, by Pierre-Yves Saunier and Shane Ewen (London: Palgrave Macmillan, 2008)

Lafi, Nora, ' The Ottoman Municipal Reforms between Old Regime and Modernity: Towards a New Interpretative Paradigm ', in The First Emin¨on¨u International Symposium (Istanbul, 2007)

Lafi, Nora, 'The Ottoman Municipal Reforms between Old Regime and Modernity: Towards a New Interpretative Paradigm', in *First Emin¨on¨u International Symposium*, (Istanbul, 2007)

Leake, Bernard E, The Life and Work of Professor J.W. Gregory FRS (1864-1932), Geologist, Writer and Explorer (London: Geological Society, 2011), p.127

Lefebvre, Henri, *The Production of Space* (Wiley, 1991)

Lester, Anne, Cities, Texts, and Social Networks, 400-1500: Experiences and Perceptions of Medieval Urban Space (Routledge, 2010), 45-65

Lisa Anderson, 'Nineteenth-Century Reform in Ottoman Libya', *International Journal of Middle East Studies*, 16 (1984). 325-348

Lutsky, V. B, *Modern History of the Arab Countries* (Moscow: Progress Publishers, 1969)

Lynch, Kevin, *The Image of the City* (MIT Press, 1960)

Madanipour, Ali, Design of Urban Space: An Inquiry into a Socio-Spatial Process (John Wiley & Sons, 1996)

Madanipour, Ali, 'Urban design and dilemmas of space', *Environment and Planning D: Society and Spaces*, 14 (1999), 331-355

Madnipour, Ali, *Public and Private Spaces of the City* (Psychology Press, 2003)

Madnipour, Ali, Public Space and the Challenges of Urban Transformation in Europe (Routledge, 2014)

Mallia, David, ' The survival of the Knights' Church in Tripoli ', *Malta Historical Society, Proceeding history week* (2011), 28-46

Mattingly, D J, *Tripolitania* (London: Routledge, 2003)

Maulsby, Lucy M, Fascism, Architecture, and the Claiming of Modern Milan, 1922 1943 (University of Toronto Press, 2014)

Maurice, Cerasi, 'Open Space, Water and Trees in Ottoman Urban Culture in the XVIIIth - XIXth Centuries ', *Environmental Design: Journal of the Islamic Environmental Design Research Centre*, 2 (1985). 36-50

McClure, W. K, Italy in north Africa, An Account of the Tripoli Enterprise (London: Constable and Company Ltd, 1913)

McLaren, Brian L, 'The Italian Colonial Appropriation of Indigenous North African Architecture in the 1930s', *Muqarnas: An Annual on the Visual Culture of the Islamic World.* 19 (2002), 164-192

McLaren, Brian, Architecture and Tourism in Italian Colonial Libya: An Ambivalent Modernism (University of Washington Press, 2006)

McLaren, Brian, Architecture and Tourism in Italian Colonial Libya: An Ambivalent Modernism (University of Washington Press, 2006)

McLaren, Brian, 'Carlo Enrico Rava, Mediterraneità and the Architecture of the Colonies in Africa '. *Environmental Design: Journal of the Islamic Environmental Design Research Centre,* 15 (1998), 73-160

Miss Tully, Letters Written During a Ten Years' Residence at the Court of Tripoli (London: Cox and Baylis, 1819)

Mohan, S and Murali, S, 'Multi-View Stereo Reconstruction Technique', in: *Image Based 3D Modelling and Rendering from Single View Perspective Images*, by S Mohan and S Murali (IGI Global, 2013). 604-619

Morel, E. D, *The Black Man's Burden* (London: The National Labour Press LTD, 1920), p.98.

Morel, Edward D, The Black Man's Burden: The White Man in Africa from the Fifteenth Century to World War I (London: The National Labour Press, Ltd, 1920)

Mortada, Hisham, Traditional Islamic Principles of Built Environment (London: Routledge, 2003)

Murat, Cetin, 'Transformation and perception of urban form in Arab city', *International Journal of Civil & Environmental Engineering,* 10 (2010), 30-34

Nicklin, R.H, From Civilian to Sailor WW2 1940 to 1946 (Author House UK, 2014)

Pal Singh, Surendra., and others., 'Virtual 3d City Modelling: Techniques and Applications', in International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences. 8th 3DGeoInfo Conference & WG II/2 Workshop, 27 – 29 November, (Istanbul, 2013)

Piccioli, Angelo, *The Magic Gate of the Sahara* (London: Methuen & Co, 1935)

Pier, Paolo Battistelli, *Afrikakorps Soldier 1941-43* (Bloomsbury Publishing, 2013)

Pruitt, Sarah, *The Secrets of Ancient Roman Concrete. History Stories*, (2013) < http://www.history.com/news/the-secrets-of-ancient-roman-concrete>

Public hangings on the 7th of April. <https://www.youtube.com/watch?v=eeeJFy0052Y>

RAZA, Saima, 'Italian Colonisation & Libyan Resistance the Al-Sanusi of Cyrenaica (1911-1922)', *Journal of Middle Eastern and Islamic Studies*, 6 (2012), 87-120

Rghei, A and Nelson. J, 'The Conservation and Use of the Walled City of Tripoli'. *The Geographical Journal*, 160 (1994), 143-158

Saoud, Rabah, The Impact of Islam on Urban Development in North Africa (FSTC Limited, 2004)

Scamporrino, M, 'Mega ships and micro heritage. The tutela and valorization of the historical elements in the functional transformation of the Levorin harbour', in *Architecture, Archaeology and Contemporary City Planning.* by Giorgio Verdiani and Per Cornell (Spain: Valencia, 2015), pp.122-131

Schoder, Sabratha Plan Map, *Loyola University Chicago Digital Special Collections* <http://www.lib.luc.edu/specialcollections/items/show/768> [accessed January 21, 2015]

Segré, Claudio G, 'Italo Balbo and the Colonization of Libya'. *Journal of Contemporary History*, 7 (1972), 141-155

Serrano, Villard, Henry, *Libya, the new Arab kingdom of North Africa* (Cornell University Press, 1956)

Shirer, William L, *The Rise and Fall of the Third Reich* (Simon and Schuster, 1962)

Sibley, Magda and Jackson, Iain, 'The architecture of Islamic public baths of North Africa and the Middle East: an analysis of their internal spatial configurations'. *ARQ: Architectural Research Quarterly*, 16 (2012). 155-170.

Simonetta, Ciranna, 'Italian Architects: The Builders of Churches in the Capitals of the Mediterranean'. *Environmental Design: Journal of the Islamic Environmental Design Research Centre.* 1.2 (1997) 96-103 <https://archnet.org/publications/3302>

Sinha, Sudipta N., and others., 'Interactive 3D Architectural Modelling from Unordered Photo Collections'. *ACM Transactions on Graphics*, 27 (2008)

Slyomovics, Susan, The Walled Arab City in Literature, Architecture and History: The Living Medina in the Maghreb (London: Routledge, 2001)

St John, Ronald Bruce, *Historical Dictionary of Libya.* (Maryland: Roman & Littelfield, 2014)

St John, Ronald Bruce, *Libya: from colony to revolution* (Oneworld Publications, 2011)

Stephenson, Charles, A Box of Sand: The Italo-Ottoman War 1911-1912 (Tattered Flag, 2014)

Steyn, Gerald, 'Le Corbusier's town-planning ideas and the ideas of history', *SAJAH*, 27 (2012)

Stigliano, Marco, Modernità d'esportazione Florestano Di Fausto e lo stile del costruire nei territori italiani d'oltremare (Polibapress, Arti Grafiche Favia, 2001) [In Italian]

The Journal of North African Studies. 5 (2000), 121-154

Todd, Mabel Loomis, *Tripoli the mysterious* (Boston: Maynard and company, 1912).

Todd, Mabel, Loomis, *Tripoli the mysterious* (Boston: Small, Maynard and Company, 1912)

Tokay, Z. Hale, *The Effects of the Ottoman "Kulliyes" on the Formation and Development of the City in the Historical Context.* (Mimar Sinan University, 1997) <http://www.transanatolie.com/English/Turkey/Architecture/ottoman_kulliyes.htm> [accessed 13 November 2014]

Uluengin, Mehmet, ' Secularizing Anatolia tick by tick: clock towers in the ottoman empire and the Turkish republic ', *Int. J. Middle East Stud*, 42 (2010). 17–36.

UNESCO, *Press Service.* <https://en.unesco.org/news/unesco-director-general-condemns-destruction-libya%E2%80%99s-murad-agha-mausoleum-and-offers-heritage?language=en> [accessed 27 August 2016]

UNESCO, Recommendation on the Historic Urban Landscape (2011)

UNESCO, *Report of the mission to Libya* (United Nation in Germany, 1952) <http://unesdoc.unesco.org/images/0005/000590/059048EB.pdf>

Vecchi, Paolo De, *Italy's civilizing mission in Africa* (New York: Brentano, 1912)

Watenpaugh, Heghnar, The Image of an Ottoman City: Imperial Architecture and Urban Experience in Aleppo in the 16th And 17th Centuries (BRILL, 2004)

Whiting Associates International, *Tripoli Master Plan: Final Report* (Rome: Henningson, Durham & Richardson, 1969)

Whyte, William, *The Social Life of Small Urban Spaces* (Conservation Foundatio, 1980)

Wright, Jon, *History of Libya since ancient time* (C Hurst & Co Publishers Ltd, 2012)

Appendixes

Photos of public figures in Tripoli

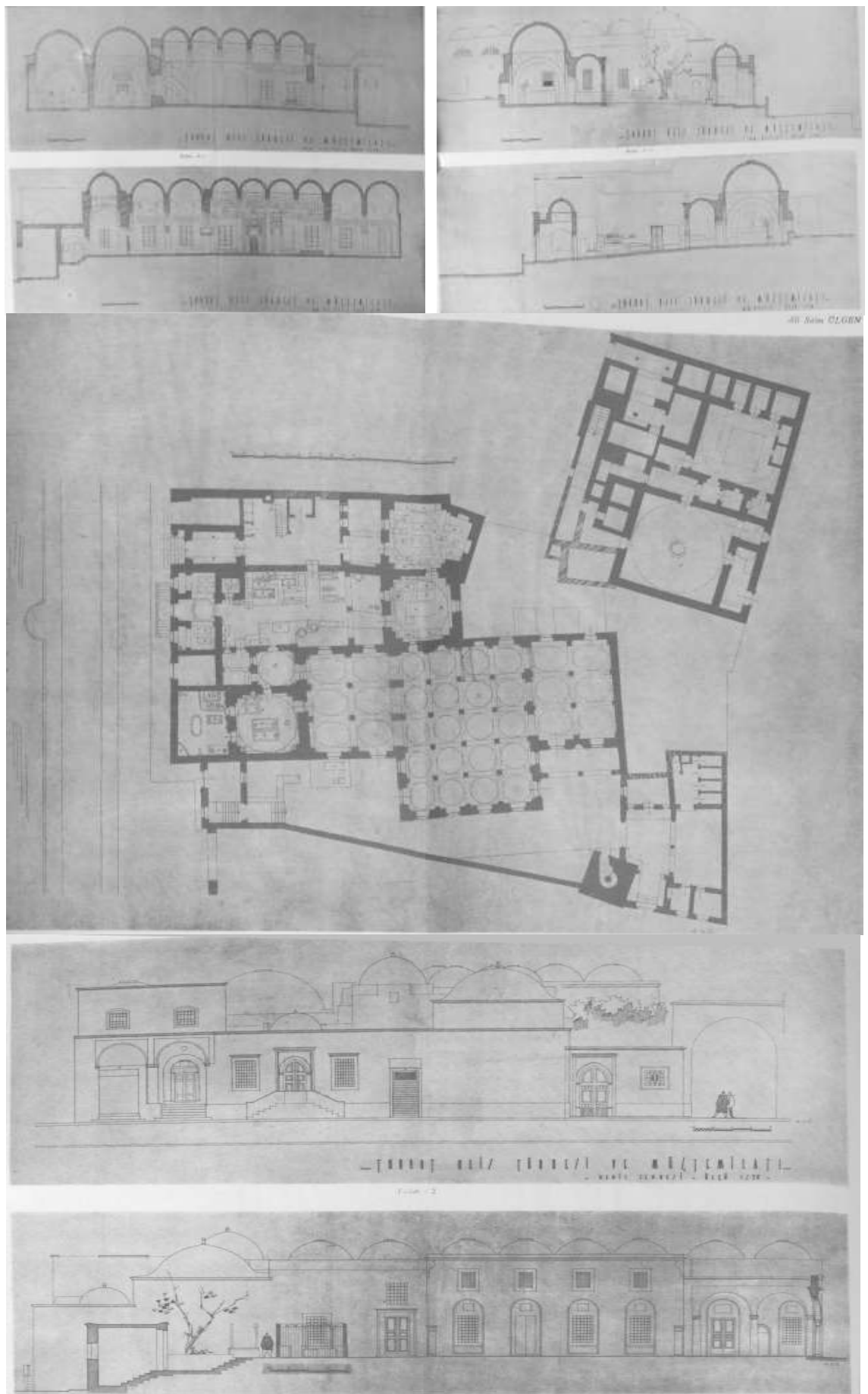
Winston Churchill in front of the old medina gate.

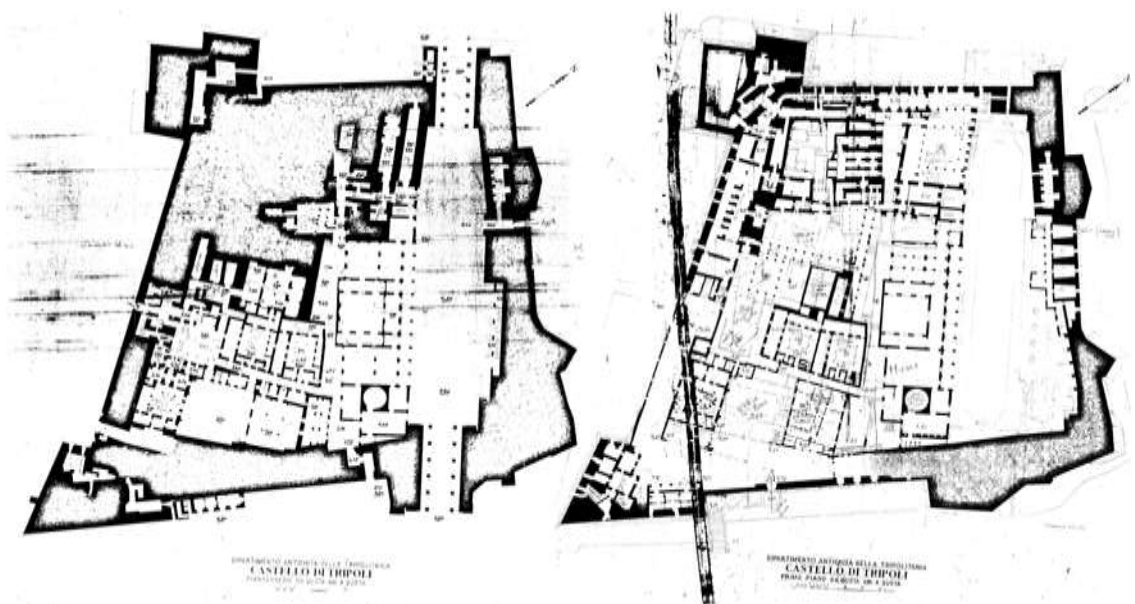Benito Mussolini in the Turk's market
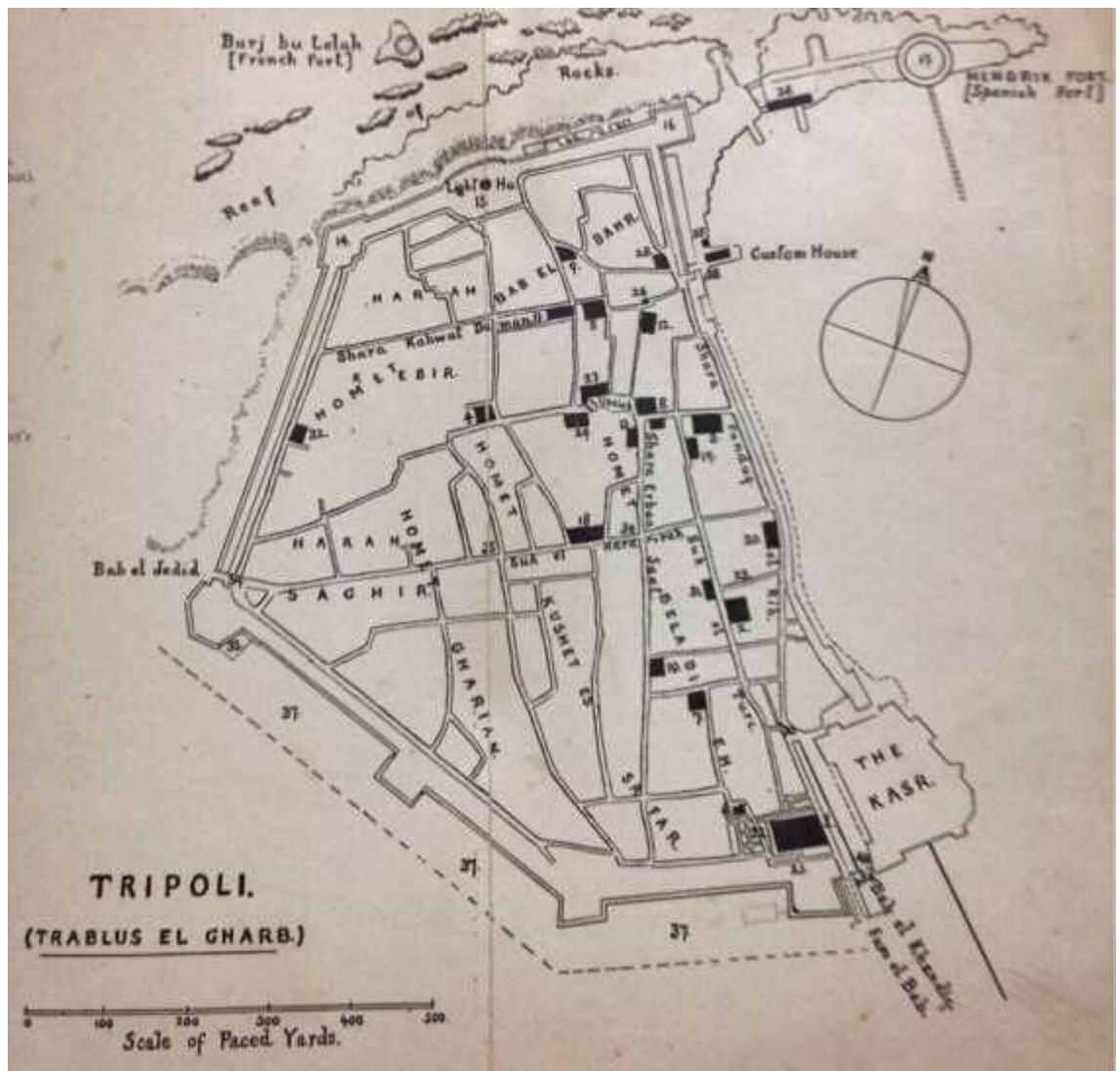
Benito Mussolini in the site of the Roman arch

Darguot complex details

The ground plan of the Castel

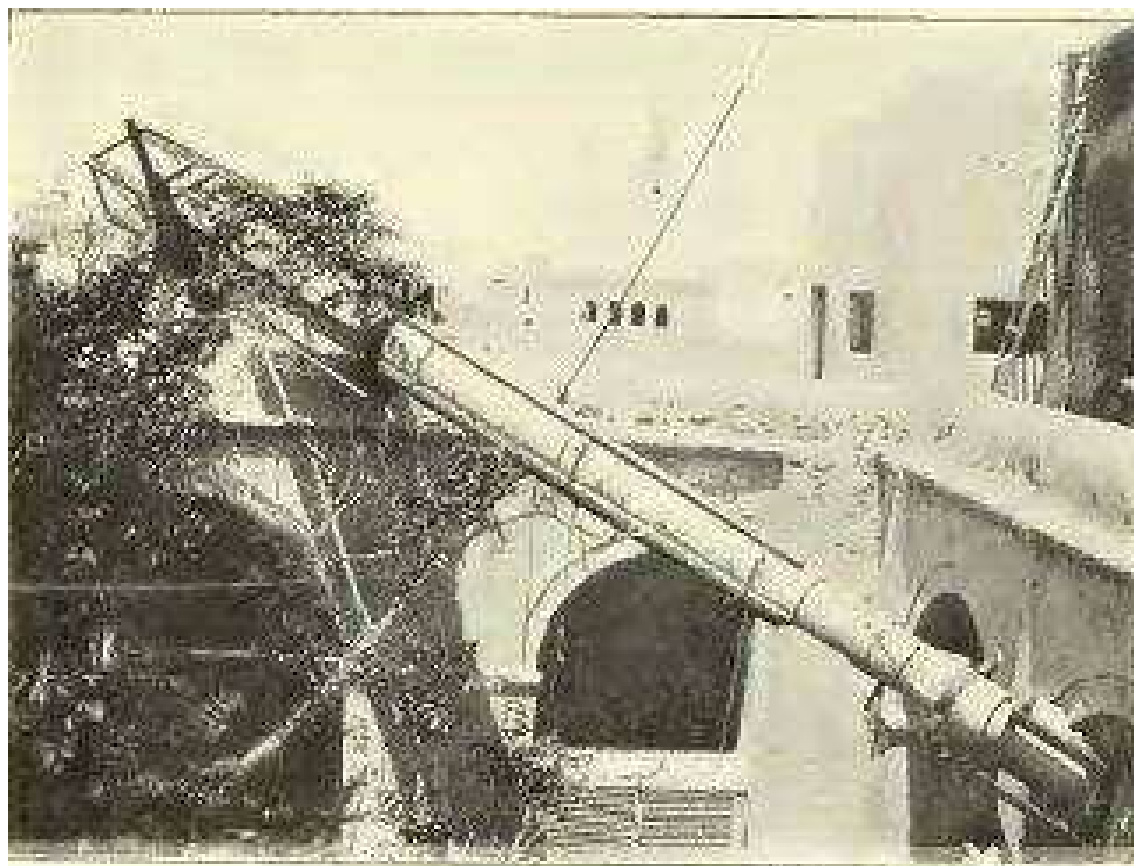The Jewish temple in Tripoli

OUR GENTLE VISITORS
AFTER GREETINGS

THE PRICE OF ENTRANCE (2 L.D)
THE PRICE OF USING PHOTO CAMERA (2L.D)

THE PRICE OF USING DIGITAL CAMERA(5L.D)

THE PRICE OF USING VEDIO CAMERA(5L.D)

THKS

حوش القره مانلي

التلسكوب لمراقبة كسوف الشمس سنة 1905
القنصلية البريطانية - طرابلس - 1905

Tripoli the mysterious -
Mabel Todd - 1912

Recent flooding problem in the core area of Tripoli, 2017

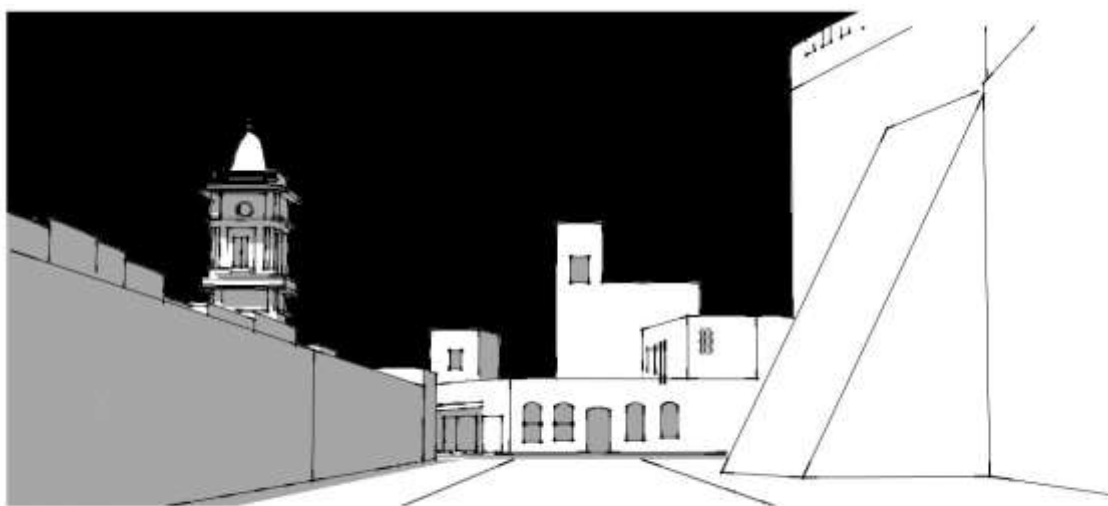Representation of the political power in the open space

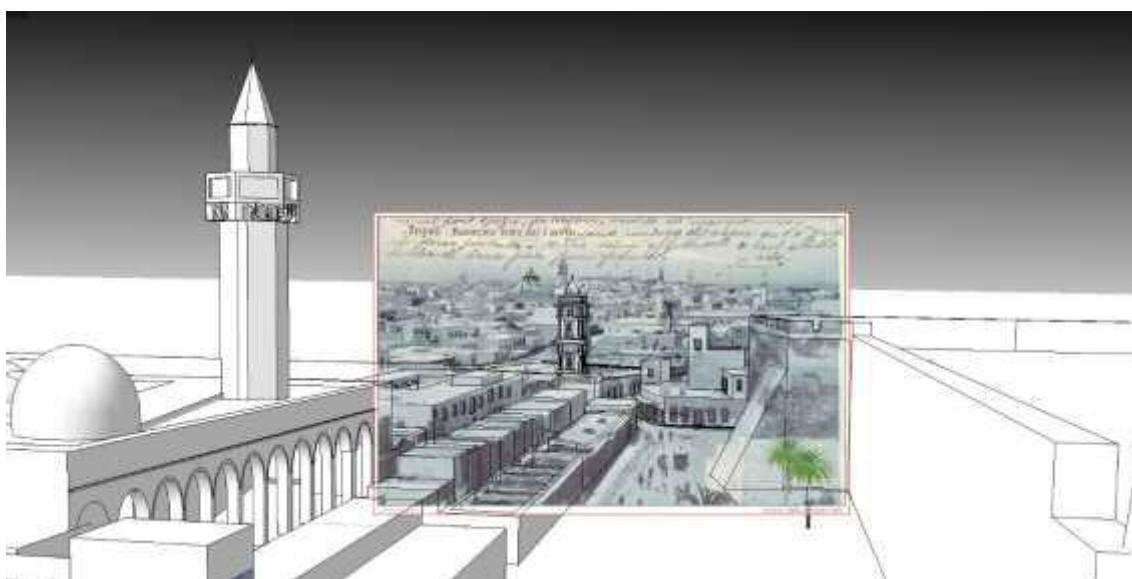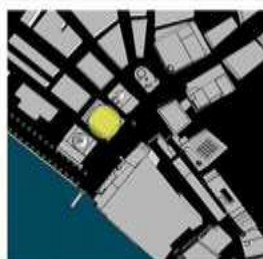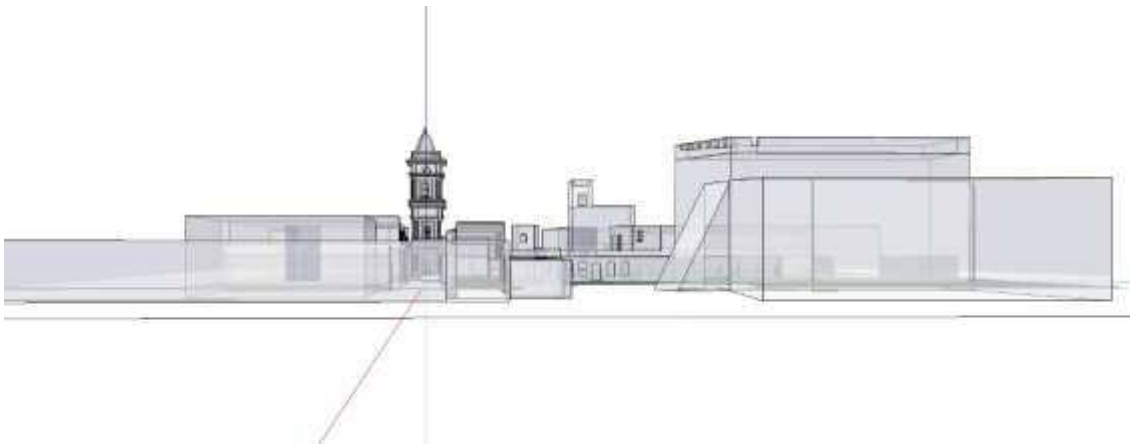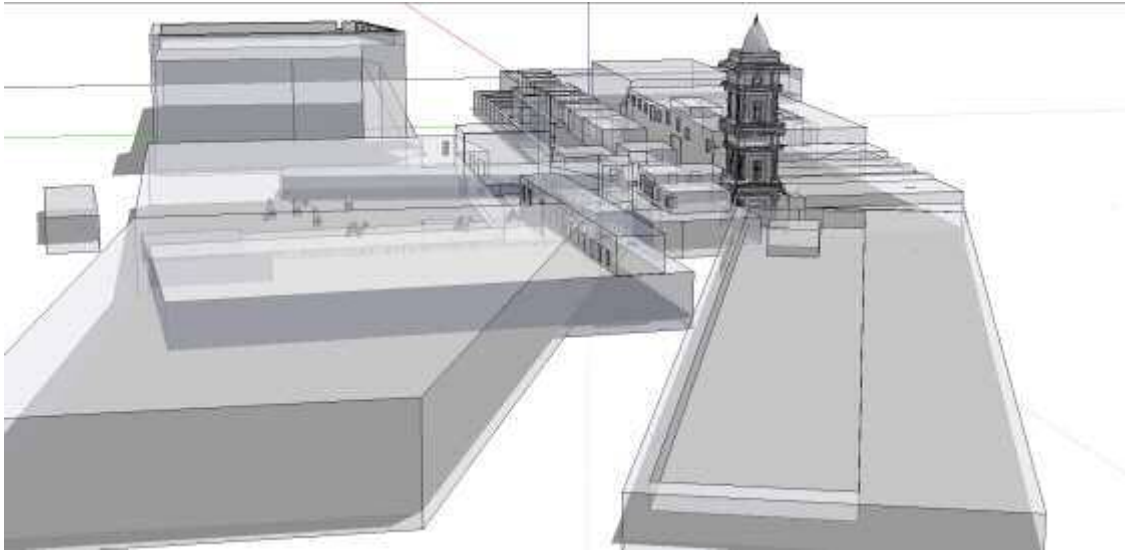Former Prime Minister of Italy Benito Mussolini   Roman emperor Septimius Severus

Land marks related to the Castel

Other samples of the modelling

Street view -
Old Medina Tripoli early Italian colony

Other samples of the modelling

اصلی طرابلس غرب والی وقوماندان ساعقی شیرابراهیم پاشا حضرتری طرفندن بالذات ترسیم وجمیعتمره اهدا

تسمية بعض شوارع مدينة طرابلس الغرب

الأسماء القديمة ــ الأسماء الجديدة	الأسماء القديمة ـــ الأسماء الجديدة
فيا جنرال قارا ـ شارع تونس	كورسو فيتوريو عمانويل ـ جادة الاستقلال
فيا برقامسو ـ شارع طهران	كورسو ايطالو بالبو ـ جادة عمر المختار
فيا بياتسا ديال بوستى ـ ميدان البريد	بياتسا ايطاليا ـ ميدان الشهداء
فيا ميكيلاتجلو ـ شارع ميكلانجلو	فيالى رجينا مارجريتا ـ شارع الملكة
فيا دا فينشى ـ شارع سيدى البهلول	فيا تشيبرزى ـ شارع السيد أحمد الشريف
فيا رافائلسو ـ شارع رفائلو	فيا ل. ماركانتيل ـ شارع ٢١ نوفمبر
فيا بوتشينى ـ شارع بوتشينى	فيا ك. آثانو ـ شارع ٢٤ ديسمبر
فيا فيسردى ـ شارع فيردى	فيا لازيو ـ شارع ميزران
فيا روسينى ـ شارع روسينى	فيا فيتوريو فينتو ـ شارع هايتى
فيا جوطو ـ شارع الرصافى	فيا تسورينو ـ شارع الساعدية
فيا ج. دينى ـ شارع شوقى	فيا بونتيكلل ـ شارع سيدى منيذر
فيا برماتنى ـ شارع بن الأجدابى	فيا روما ـ شارع جامع الفاروبه
فيا ف. ليسى ـ شارع زعير	فيا سينا ـ شارع أبى الخير
فيا س. سوفينو ـ شارع الثالب	فيا بيسامولتى ـ شارع عمرو بن العاص
فيا تيوالو ـ شارع أبو فراس	فيا كساليتس ـ شارع كالكوتا
فيا سان غبالو ـ شارع الفرزدق	فيا أوغسولينس ـ شارع كراتشى
فيا كسازاتشو ـ شارع جرير	فيا م. سولنزينى ـ شارع بغداد
فيا دوليسرتينى ـ شارع القارابى	فيا سيمولا ـ شارع اسطنبول
فيا ديلا كويرشا ـ شارع ابو نواس	فيا جوردانى ـ شارع دمشق
فيا برتينى ـ شارع بن خلدون	فيا بالديسيرا ـ شارع عمدن
فيا تزيالنو ـ شارع الجريرى	فيا بيريشا ـ شارع صنعاء
فيا بجروجينو ـ شارع بن سيناء	فيا كربمونتا ـ شارع بيروت
فيا كالوفا ـ شارع بن رشد	فيا كومسو ـ شارع حلب
فيا فيلبسولى ـ شارع المتنبى	فيا أميليسو ـ شارع جده
فيا بلليسى ـ شارع الغزالى	فيا بيبافى ـ شارع سيدى حوده
فيا سانتيتيا ـ شارع الزهاوى	فيا ميلانسو ـ شارع القاهرة
فيا تشيمسابوى ـ شارع الاخطل	فيا دى بونو ـ شارع البلدينة
فيا سولفيقسا ـ شارع بنغازى	فيا سودى ـ شارع الخرطوم
فيا بوتيفزا ـ شارع درنه	فيا كاردونسى ـ شارع ألقصره
فيا تيسرالوفا ـ شارع طبرق	فيا ريتشى ـ شارع جساوه
فيا لوكيلسا ـ شارع البيضاء	فيا ب فيكسى ـ شارع الرياض
فيا بارى ـ زنقة أجدابينة	فيا يسراكسو ـ شارع كابسول

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