



School of Environmental Sciences
Department of Geography and Planning

**A conceptual framework for developing urban
image in the Middle East and Arab World**
Case study: The urban image of Jeddah city

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By

Abdulrahman Saadi Al-Matrafi

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ABSTRACT

The beginning of the 1960s saw the evolution of some of the pioneers of urban planning who sought to preserve the image of the city in a time of globalization and modernization, such as Kevin Lynch, Gordon Cullen and Jane Jacob. Lynch contributed through theory and ideas about the city's image and how to enhance the clarity of such an image, as well as to identify the obstacles or problems facing the image and identity of the city. Lynch applied his concept to various U.S. cities and its success contributed to the spread and validation of this work in other global cities.

Each region has a distinctive image and identity which distinguishes it from other cities. The form of any city includes the physical features that define the city's image and identity. However, there are several additional factors affecting the composition of the general appearance of the city, the formation of its character and urban fabric, such as environmental, social, cultural and economic factors. The rapid economic progress and development in the Middle East has led to changes in the image of most of their cities, as well as their spatial identity and general appearance. Therefore, the main aim of this thesis is ***“to develop the urban image in the Middle East and Arab World by building a conceptual framework based on Kevin Lynch’s methodology and his associated concepts, to assess the urban image of the city and enhance its identity”***.

A case study approach was adopted to examine whether the formulated conceptual framework could be applied in practice. Evidence from the case studies was drawn from a critical documentary review of Jeddah, Saudi Arabia as the main case, combined with field observation, questionnaires and semi-structured interviews. The main factors that affect the perception of the urban image, as well as the barriers which hinder the efficiency of the urban image, were identified from this evaluation.

The final part of this thesis attempted to provide a number of recommendations to address these factors and mitigate the barriers. The most important contribution was that of developing a conceptual framework which can help to assess the urban image of the city and enhance its identity. This framework attempted to provide a methodology and guidelines to improve the urban image in developing countries in general, and in the Kingdom of Saudi Arabia in particular.

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1.1 The Introduction:

In spite of the progress made in the fields of science and technology and, in particular with regards to modern means of transportation since the last century, there are some negative aspects and problems that affect cities. The process of urbanization and development has largely focused on the physical and economic rather than the aesthetic aspects as a concern. As a result, many studies appeared in the middle of the last century which addressed the effects of globalization on the modernization on cities, how globalisation had caused a loss of spatial identity, has negatively impacted upon senses of belonging, and the distinctive image of individual cities. These studies, such as those noted below, focused on the relationship between the urban image and urban identity. Given the expansion of cities and urban development, many researchers and specialists in the field of urban design have studied image and cityscape of cities both singularly and collectively. Three of the most important writers in this area are Jane Jacobs "The Death and Life of Great American Cities" (Jacobs, 1961), Kevin Lynch "The Image of the City" (Lynch, 1960), and Gordon Cullen, "Concise Townscape", (Cullen, 1961). These three authors studied the city image and townscape and have influenced many writers who came after them such as the Italian architect Vittorio Gregotti as well as Christian Norberg-Schulz who was heavily influenced by Lynch (Nesbitt, 1996: p.55).

Kevin Lynch issued his book "The Image of the City" (1960) which released a new way of thinking as to how to understand the form and the shape of the city and its image; namely, through a cognitive map rather than the traditional method which was to follow maps and plans (Appleyard, 1978). Lynch's method was based on how people perceive the place surrounding them and what determines a clear image of the city. In his method, Lynch asked people to draw a mind map of their area, and thereafter interviewed them. Accordingly, Kevin Lynch concluded that there existed five key elements of the physical environment and that these, cumulatively, shaped the public image of the city. These elements are: path, edge, node, district and landmarks (Lynch, 1960).

Kevin Lynch's works brought a notable influence on urban design and planning. This is because his methodology helped researchers and those interested in the field to use qualitative techniques such as interviews and mapping that are still used today. These techniques have been used to collect data on individual and community perceptions of the landscape and the image of the environment. Donald Appleyard (1978) pointed out the

importance and the impact of Lynch's book in the field of design and planning, as he said in the review of "The major published works of Kevin Lynch: an appraisal": *"The book [the image of the city] offered a totally fresh and remarkably developed analysis of how people view cities. It was apparent to most reviewers that this was a seminal book, which would change the way we would all look at cities. In Kuhn's sense, it merited the title of a new paradigm, an exemplar, not only of new concepts, but of new methods of understanding and planning the city"* (p.551). However, there has been some criticism of his work in terms of the small sample size, the ability of people to draw a mind map and others (Carmona et al., 2003).

Several studies on the urban image have applied the methodology of Kevin Lynch to different cities around the world. However, this methodology may not be appropriate for non-Western cities (Groat and Wang, 2002). Chemers (1984) argues that: *"They have been applied only to Western societies and urban settings; they may not apply to other cultures or to nonurban settings"* (p.58). Different urban contexts, customs, history and environmental conditions may make Lynch's methodology invalid. For instance, the Middle East has a long history of settlement and experienced several transformations which, over the years, contributed to the formation of different images and identities. Furthermore, rapid economic progress and urban development in the Middle East has influenced the image of most cities, their spatial identity and their general appearance (Mirgholami, 2011; Elsheshtawy, 2008; Prawesthi D and Prasadha, 2013; Arbak, 2005).

Jeddah, Saudi Arabia is an ancient and yet also modern city representing the original Arabic urban fabric with openness to world civilization. Jeddah influenced the image of the city and local identity as did most other Arab cities in the Middle East and the Arabian Gulf, in particular after the rapid development process (Alharbi, 1989; Abu-Ghazzeah, 1994). Jeddah, as a traditional Arab city, is a model that provides the opportunity to study a traditional Arab environment that has prospered under the impact of urbanization in the era of globalization, but is nevertheless struggling to maintain its identity and its image with its urbanization.

1.2 The Geographical setting of the research:

This study has taken the Middle East and the Arab world as its focus for the study of the urban image. There is often confusion relating to whether the Middle East and the Arab world are one (Cleveland and Bunton, 2009; Özalp, 2011). There is a difference in the terms,

and not all Middle Eastern countries are Arab states (as shown in Figure 1.1). However, the Middle East and the Arab world have many shared environmental and social characteristics such as the Islamic Religion Association which unites the area as a whole. The Middle East and the Arab world are located in the region of Iran to the east, Turkey to the north and Yemen and North African countries to the south (Stewart, 2013).



Figure 1.1: The Modern Middle East, Source: Jewish virtual library

The city of Jeddah in Saudi Arabia has been selected as a case study. Jeddah is the largest city in the western region of Saudi Arabia and the second largest city after Riyadh, the capital city. Jeddah is a principal port and is considered to be the commercial and economic capital of Saudi Arabia. The city is located on the coast of the Red Sea.

The city of Jeddah was selected as the case study for several reasons. Firstly, Jeddah has a long history and the old city (which is now the Al-Balad district) represents an example of a traditional Arab city. It also combines tradition with modernity. Secondly, Jeddah is home to a variety of people who come from different countries, such as those who came to trade as well as those who arrived via a pilgrimage and settled in the land. Thirdly, Jeddah has witnessed rapid developments and an increasing population during the past decade which has impacted its urban image and changed a lot of planning and architectural features. Fourthly, due to the previous reasons, Jeddah has many advantages for researchers in terms of planning, architectural, social, economic and other aspects.

1.3 Research problem:

Numerous cities in the developing world have witnessed rapid development and urban growth resulting in changes to many of their original features (Chadchan and Shankar, 2009; Yacobi and Shechter, 2005). These changes in a city's image may lead to a loss of local identity and the ability of that city to distinguish itself from others. Khattab (2001, p.379) discussed the influence of Western architecture on Arab architecture in the case of Kuwait. He indicated that: *“With the loss of local image in the modern Arab City there was a greater loss of identity”*. He attributed this to the neglect of the past and how it is separated from the present (Khattab, 2001, p.379).

The cities in the Middle East have experienced prosperity and rapid development over the past decades in addition to high population growth. In the cities of the Arabian Gulf, for example, the governments, after the discovery of oil, attempted to develop their cities to keep up with global urbanization. Therefore, there was an urgent need to adapt so that modern technology and transportation could be incorporated in the planning. As a result of the lack of knowledge of the planners in the region, the governments attracted Western planners from Europe and the U.S. to plan their cities. The planners and planning principles were often unaware of the nature of the area which led, inadvertently, to ignoring the identity and image of the traditional Arab city (Costa and Noble, 1986; Al-hemaidi, 2001, p.195).

Jeddah is an example of a city in the Middle East that has undergone rapid urban development from a small town to a metropolitan city. Since the demolition of the city wall in 1947, the city has doubled in size many times and greatly expanded. As a consequence, this has resulted in a loss of local identity (Alharbi, 1989, p.5, Abuzaid, 2012).

1.4 Significance of the research

The importance of studying the cities' image and identity:

The study of the urban image and its relation to local identity is very important, and there is an urgent need to develop and improve the urban image while maintaining and strengthening local identity. There are several studies that have taken the methodology of Kevin Lynch and applied it to several cities around the world, for instance, in the Netherlands, France and Venezuela (de Jonge, 1962; Appleyard, 1970) until now, despite the changes in the

world, technological progress and also differences in customs and cultures among world countries. The work of Kevin Lynch, including his findings, has been criticized (Downs and Stea, 1973, pp.80-81; Carmona et al., 2003). The study of the urban image is supposed to be developed as Lynch (1960) and others (e.g. Fattahi, 2009; Groat and Wang, 2002) recommended. Therefore, this study attempts to develop the previous studies on urban image in line with the modern age and addresses the criticisms of the methodology of Lynch.

Urban image of the Middle East:

There are some existing studies of the urban image and identity in the Middle East and the Arab world such as those of Gulick (1963), Waterman (1980), and Abdelbaseer (2012). However, these studies did not put much focus on the aspects affecting the image and identity of the city; rather they concentrated on the physical form. Studies that have applied Kevin Lynch's methodology are few and thus this research fills a gap in existing academic knowledge. The city of Jeddah was chosen because it represents Arab cities by possessing a traditional urban heart and the trappings of a modern city, in addition to the diversity of the population in terms of their backgrounds, ethnicities and socio-economic characteristics.

The key motivations for this research can be identified as follows:

- 1- The need to create evaluation criteria for the urban image in developing countries.
- 2- The need for studies of the urban image in the Middle East and the Arab world
- 3- The need to improve and enhance the urban image and maintain spatial identity.

1.5 Research aims and objectives:

The main aim of this research is *“to develop the urban image in the Middle East and Arab World by building a conceptual framework based on Kevin Lynch's methodology and his associated concepts, to assess the urban image of the city and enhance its identity”*. The main question of this research is *“How can Kevin Lynch's methodology and concepts be developed to improve the image of the Arabic cities through enhancing their own identity”*? (as shown in Figure 1.2).

In order to achieve this aim, the following research objectives are explored within this thesis: Objective 1: To critically review the concept of the urban image, especially Kevin Lynch's methodology and his concepts to understand the elements, key issues and the

importance of the urban image and how it is related to identity. This objective requires an in-depth literature review in order to explore the following questions:

- What is the importance of a city's image?
- What are the theories and concepts of the urban image?
- What are the components and elements of a city?
- What is the methodology of Kevin Lynch?

Objective 2: To investigate international applications of Lynch's methodology in order to see how they have worked and whether or not they have succeeded in order to develop a conceptual framework for successful urban image making in the future. This objective requires a review of previous studies and applications in order to cover the following questions:

- What are the examples where Lynch's methodology has been applied in different countries?
- How was Lynch's methodology applied in non-U.S. cities?
- Is the methodology of Kevin Lynch valid for non-American cities and compatible with the twenty-first century?

Objective 3: To review the Middle Eastern context and evaluate a current Saudi case study by using the conceptual framework (developed in objective 2). In addition, it is necessary to then determine its suitability for the Saudi context. This objective requires a massive empirical fieldwork study to address the following questions:

- What are the factors that influence the formation of the image of Middle Eastern cities?
- What are the problems and changes in the image of cities in the Middle East?
- How can the conceptual framework be appropriate in the Middle Eastern context?
- How do people in the Middle East preserve their cities?

Objective 4: To design an appropriate conceptual framework to enhance the image of the city in the Middle East and preserve its identity. To achieve this objective, the following penumbral question will also be addressed:

- What is the appropriate conceptual framework for the improvement and development of the image of cities in the Middle East?

The main Aim

To develop the urban image in the Middle East and Arab World by building a conceptual framework based on Kevin Lynch's methodology and his associated concepts, to assess the urban image of the city and enhance the identity.

Objective 1

To critically review the urban image concept and Lynch methodology to understand the elements, key issues and the importance of urban image

Question

- * What is the importance of the city's image?
- * What are the theory and concept of urban image?
- * What are the components and the elements of the city?
- * What is the methodology of Kevin Lynch?

Objective 2

To investigate international applications of Lynch methodology in different countries. in order to see how they worked and what if they succeed or not.

Question

Is the methodology of Kevin Lynch valid for non-American cities and compatible with the twenty-first century?
How Lynch's methodology was applied on non U.S. Cities?

Objective 3

To review the Middle East context and evaluate the case study by using the conceptual framework to determine its suitability or not and how people in Middle East perceive their cities

Question

What are the factors influencing the shape of the image of the Middle East cities?
What are the problems and changes in the image?
How the conceptual framework could be appropriate in the Middle East context?
How do people in the Middle East preserve their cities?

Objective 4

To design appropriate conceptual framework to develop and enhance the image of the city in Middle East and preserve its identity

Question

What is the appropriate conceptual framework for the improvement and development of image In Middle East cities?

Figure 1.2: The aim, objectives and research questions

1.6 Research methodology and strategy:

The research is divided into three main stages as shown in Figure 1.3:

- Stage 1: The Conceptual Framework (General framework)
- Stage 2: The Middle East Framework
- Stage 3: The Proposal framework for cities of the Middle East

The first stage is the initial framework for the urban image. It is based on the literature review and previous studies on cities' image and identity, especially the work of Kevin Lynch (General framework). The objectives of this stage are to develop a full knowledge of the concept of the urban image and identity and their importance for cities, and to review the methodology of Kevin Lynch.

The second stage is about the Middle East and Arab world framework. It is based on the literature review and the empirical study. This stage aims to understand the historical context as well as urban development in the Middle East. In so doing, it addresses changes and transformations in the urban form and image, as well as the problems and issues facing traditional cities. In this stage, the Jeddah case study is selected as an example of a traditional city in the Middle East area. The main task in the stage is the case study method.

The last stage is to design and propose a conceptual model for developing the urban image and maintaining its identity. This phase relies on the two previous phases and applies the most appropriate conceptual elements for the cities in the Middle East.

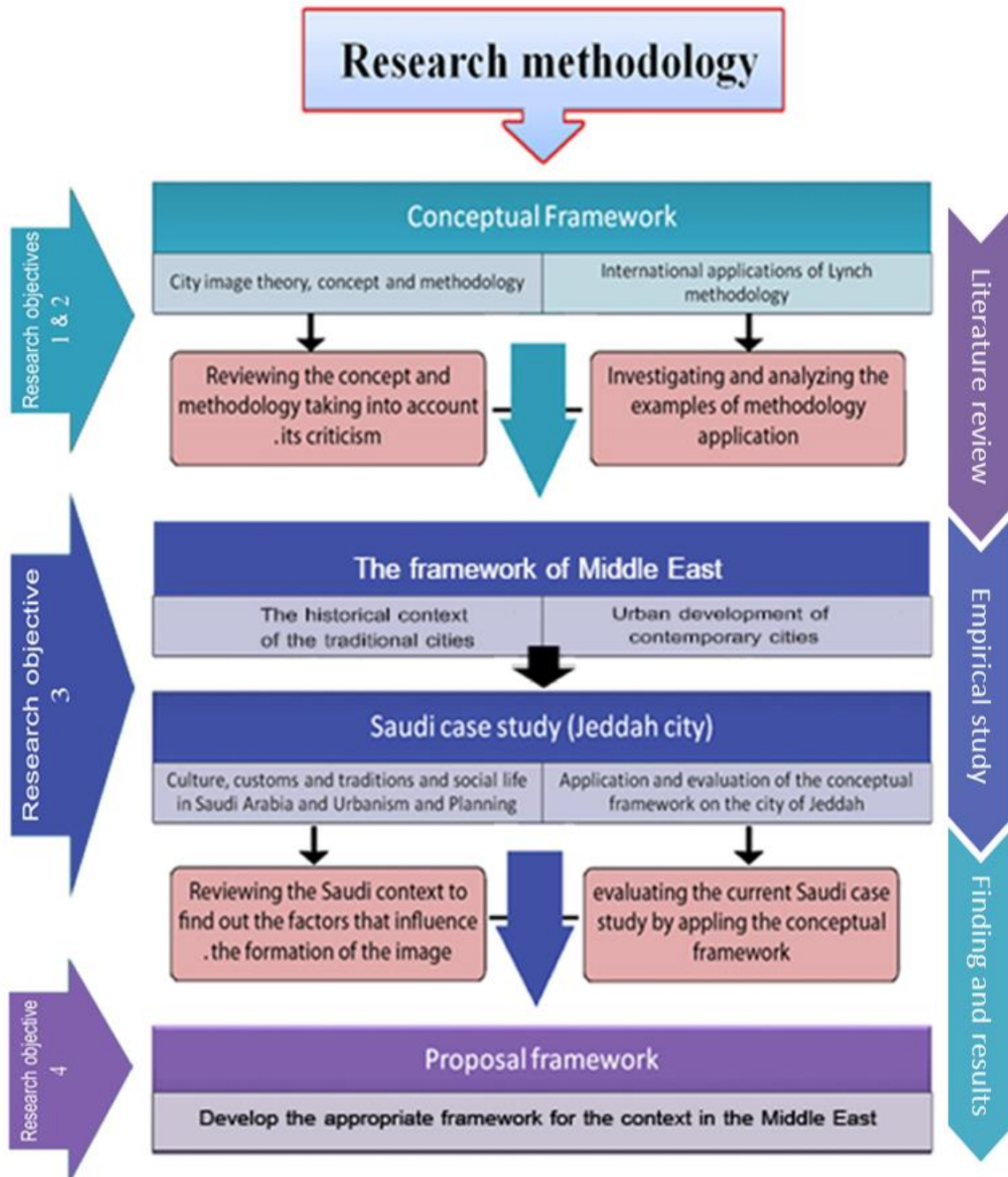


Figure 1.3: The research methodology and strategy, Source: The author

1.7 The structure of the Thesis:

According to research plan and so as to achieve the aims and objectives, this thesis comprises ten chapters:

Chapter One, the introduction, provides the introduction to the research and the subject of the study. It also comments on the geographical setting, research problems, and the significance of the research. It explains the aims, objectives, and research questions. It also presents the research methodology and describes the general structure of the thesis.

The literature review includes three chapters: Chapter Two, Chapter Three, and Chapter Four. These chapters address research objectives One and Two. Chapter Two reviews the theories and concepts of the urban image and also discusses the concept of the image of the city and its components. Chapter Three reviews the theories of the urban image through the concept and the ideas of Kevin Lynch. As well as this, it discusses and clarifies elements of the urban image as identified by Lynch. Chapters Two and Three provide information and the outcomes that contribute to the general framework of the urban image.

Chapter Four presents and reviews the urban image in the Middle East and Arab world. It defines the term 'Middle East' and reviews the impact of Islam on the region. It also discusses the composition and shape of traditional cities so as to find common elements, including physical and social elements. It also proffers analysis on what problems are facing such cities and how these differ from those of Western cities.

Chapter Five focuses on the research design and methodology. It reviews some previous methodologies that were used to determine the city image and notes the methods adopted in this research. It also presents the case study. Lastly, the chapter describes the data collection and the technique for analysis.

The case study comprises Chapters Six to Nine. Collectively they address research objectives Three and Four. Chapter Six describes the case study (Jeddah) and provides a background on Saudi cities and the factors influencing the formation of Saudi cities' image and their development. The conceptual framework is tested on the selected sample in the city of Jeddah (the old district) to uncover the validity of the framework that will be applied to the Saudi cities.

Chapter Seven presents the analysis and results of the application of the conceptual framework. Thereafter, Chapter Eight focuses on the evaluation of the urban image in Jeddah based on the opinions of its residents. Chapters Seven and Eight form the backdrop to the analytical purpose of Chapter Nine which highlights the findings of the research and the development of the framework utilised in this study. This chapter provides a proposal of a conceptual framework for developing an urban image in developing countries; especially Saudi Arabia.

Chapter Ten is the conclusion. This chapter discusses the findings of this research and summarises the outcomes of the thesis. It also notes the contribution of this research to the field of urban planning and makes recommendations for further study and research, which could use this study's unique contribution to the furtherance of existing knowledge represented by this work.

Chapter 2:
Urban Image (theory and concept)

2.1 Introduction

An image of the city can be perceived and felt through some of the mental processes that contribute and help in the understanding and acknowledgement of the environment around us. To understand the concept, ideas and issues related to the image of the city, it is important to make clear what is meant by the phrase and its significance, theories or concepts, including how they were formed. This chapter considers the concept and idea of the urban image as it is related to urban design and in addition, other related disciplines such as psychology and economics are clarified. A review of the literature and previous studies on this subject contribute to the identification and understanding of the urban image and those components that form the theoretical framework of the research.

This chapter is organised into three main sections. The first section simplifies and explains the terms and concepts that clarify the general ideas in the research topic. The second section discusses the concept of the urban image and its components. Finally, the chapter explores the spatial identity concept and the strong relationship between identity and the urban image.

2.2 Understanding of cognition, perception and image:

2.2.1 Cognition:

Cognitive psychology is concerned with the gaining and use of knowledge, and also with the structures and processes that aid this (Smyth, 1994). It deals with an individual's mental life and what happens within it, including processes such as understanding, attending, remembering and thinking, categorizing and making decisions (Galotti, 2008, p.2). People conceive the places that have value and meaning by remembering and understanding the importance of those places, for instance, remembering places where they lived or the beautiful sites they have visited.

Eden (1992) asserts that the cognitive map is a form of visual assistance that tries to enhance the understanding of individuals, groups and organizations. From the urban design perspective, it may be a tool to understand people's perception of the physical places and activities. The term 'cognitive map' sometimes carries with it the concept of the image and the mental map that can be referenced within the mind to get the information (Tversky, 1992, p.134).

The study of cognitive maps began in the nineteenth century. Although there has been much research, activity and theories in the area of cognitive mapping, approaching it from an extensive variety of disciplines, no sufficient and coherent theory exists which defines the cognitive mapping method, process and its product (Roger and Stea, 2005, p.1-2). Furthermore, some of the contributions by a number of the various disciplines have been, to some point, confusing and, in some cases, inconsistent and contradictory. For instance, several contemporary thoughts and notions about cognitive maps are not specific and precise, at least in computational terms. Urban and developmental psychologists give emphasis to the significance of "places" and "landmarks" in cognitive maps (Yeap, 1988, p.297).

The understanding of the concept of a cognitive map and how human minds work in terms of knowledge acquisition, information and the processing method is the first step in understanding the overall outcome of images about the city or place. The cognitive map is a mind image of the physical environment and elements which are used to understand people's perception and the image of the urban area.

2.2.2 Perception

Real world events and their details may be fixed for all of us, but in the perceived world they may vary and are not the same. People interpret what they see and hear. This may lead to individuals forming different visions of different situations. People may also react differently to the same events in the same situation because of differences in their perception of the event and how they are processed within their mind. Reality produces many stimuli that are endless, but people cannot physically notice everything, otherwise, they would be driven to madness and lose their mind (Rooijendijk, 2005, p.1). Perception is one of the characteristics of the human personality and a first stage in cognition. Perception is the process of the operations and specific determinants of individual behaviour. It means that mental processes deal with sensory data through interpretation to give them meaning (Sartain et al., 1958, p.209). There is a relationship between the environment and the perception of humans. People perceive the environment around them by their senses and the visual element of the city and urban form has influenced their perception. For example, good urban form and the qualities of visual elements can passively impact humans' minds.

The term 'perception' can be defined as the identification and organization of information which is received from the senses in order to interpret them for the representation

and understanding of places (Schacter et al., 2011). Thus, perception consists of the neural system that is used to collect information from knowledge and the memory, or even as the expectation to be an intermediary between humans and the environment (Jadon, 2007, p.71). Perception is the mental process by which we recognise the external world. It helps an individual to adapt and interact with the environment. The outside world and human experiences in it do not have intrinsic meaning. They obtain sense through human perception and importance is therefore attached to them.

Perception is concerned with how people make sense of the world and what happens in it. There is a connection between sensation and perception (Schacter et al., 2011, p.130) Perception can also be defined as “an active process of selecting, organizing, and interpreting people, objects, events, situations, and activities” (Wood, 2008, p.31). Perception is influenced by three factors: the perceiver, the target and the setting. The experience can affect the perception of the perceiver where the human needs of the previous information and can also help to improve his perception, as well as social status, time and other influencing factors (Robbins, 2009, p.119).

Humans are exposed to a lot of stimuli which may be fixed or changed. Stimuli are based on the main five senses, which are smell, hearing, vision, touch and taste. However, human senses usually tend to respond to changes of perception of the natural environment and places, which is important for urban design, and by understanding how people perceive environmental elements and how they interact with them. Humans perceive places through the senses and interpret them in their mind. These senses affect the perception, for example, places with noise may remain in their memory, as well as the smell of the place and visual elements. Vision and hearing are the most influential senses in perception (Ward, et al., 2010, pp.73-74). However, the vision may be related more to the senses in the perception of the elements (O’Callaghan, 2008).

2.2.3 Image:

People look at their environment; they know where they live, what they see and what they think about any place or thing. The image of every person comes from the vision of their environment; *“the image is built up as a result of all past experience of the possessor of the image”* and, as a result, *“part of the image is the history of the image itself”* (Boulding, 1956, p.6). Historical, cultural, social, and political factors contribute significantly to the formation

and building of the image in a human's vision. Moreover, connection and communication with others may affect their images (Pratt, 1998, p.3). For instance, when a group of people discusses or describes certain places, the image may change in the minds of those who are not very familiar with these places.

A human's behaviour directly depends on the image that was built in his or her mind. As an individual grows up, he or she receives messages that contribute to changing his or her image and, therefore, change his or her behaviour towards the environment (Boulding, 1956, pp.6-7).

2.2.4 The relationship among the concepts:

Cognition and perception usually cause confusion among people in their definitions (Downs and Stea, 1973, p.13). However, perception may be considered to be a branch of cognition. Perception and cognition have a strong relationship and a significant impact on the formation of individuals' mental images (Ganis, 2015). While perception is a direct way to see objects, cognition is a way of indirectly understanding objects. The image may be taken immediately by direct perception or may be stored by memory. However, the cognitive map is defined as the internal image that is developed about any place by people (Sudas and Gokten, 2012, p.42).

Perception needs to have an object in the immediate time frame and is associated with immediate behaviour, while total awareness is directly linked with immediate behaviour, but may be associated with what happened in the past or what will happen in the future (Downs and Stea, 1973, p.13). Since cognition and perception are mental processes, the image is a production of these operations. The image is considered to be an outcome of the integration between cognition and perception, affected by social and other factors (Montgomery, 1998; p.100).

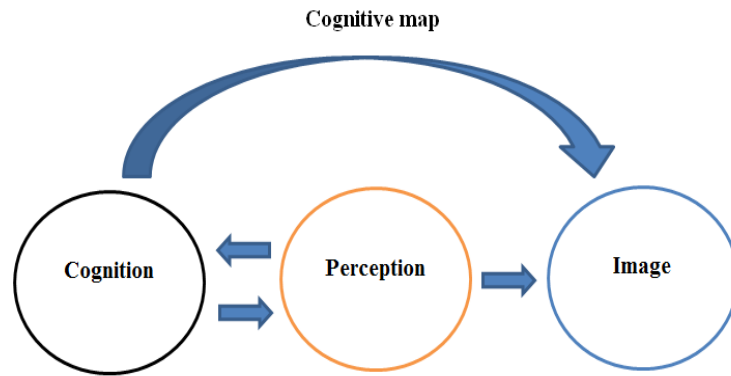


Figure 2.1: The relationship among the image, cognition and perception, *Source: The author*

2.3 The concept of the urban image:

After reviewing some of the terms of the composition of the image within the mind and how we understand things around us, we now move on to clarify the concept of the urban image. The image of a city can be defined as the “*sum of beliefs, ideas, [and] impressions that people have of a place*” (Kotler et al., 1993, p.141). It is also defined as an individual’s set of feelings and impressions about the place (Spencer and Dixon, 1983). Another definition used by Gould and White (1974, p.48) states that “*our views about places are formed from a highly filtered set of impressions, and our images are strongly affected by the information that we receive through our filters*”. Therefore, the urban image is the result of information or stimuli that inspire a person’s mind about places. It presents a simplification of a large number of associations and pieces of information connected to a place.

The urban image is the result of an interactive relation between the observer and the urban area, so that the environment provides substantial information and the observer is dealing with that by using his mental skills (Lynch, 1960, p.6). The urban environment contains several different layers; the physical layer includes buildings and topography, and the second layer, for example, is where the built environment is formed through historical context and developments that have taken place, in addition to the social, cultural and religious layers that influenced the urban area (Bell and Dourish, 2004). Rapoport (1977) believes that urban perception is composed of visual form (the perceptual world) and social importance (the associational world). He argues that the distinction between them is helpful in determining the meaning of the elements of the city where the meanings of identifying elements may vary from person to

person according to influential factors, such as background knowledge and behaviour (Rapoport, 1977, p.319).

The urban planner Kevin Lynch is considered to be the father of the concept of the urban image. He reinforces the term of the city image and its notion. He studied the visual quality of American cities through the mental map held by their residents, and introduced the concept of legibility and imageability.

2.3.1 Legibility:

Legibility is considered as one of the concepts of urban design. It is the ability to organize the components of the cities or places through a clear and coherent structure (Koseoglu and Onder, 2011, p.1191). Lynch (1960, pp.2-3) defined legibility as “*the ease with which its parts can be recognized and can be organized into a coherent pattern*”. The legibility of the city reflects the degree of clarity in the urban area or its landscape, which means the easy identification of any parts of the city and the general form of the city. A legible city is one that can distinguish its elements and interrelate and integrate them (Neacsu, 2009, p.175). In other words, if a city is easy to read and understand through its streets and landmarks, the city would be legible and readable. Legibility can be described as “*the degree of distinctiveness that enables the viewer to understand or categorize the contents of a scene; the greater the legibility, the greater the preference*” (Bell et al., 2005, p.45).

Legibility means people are able to understand and easily move in the environment and minimize disorientation. However, places and cities vary in legibility according to different factors and also to the nature of their environments. Moreover, it relates to imageability, structure, identity and meaning (Lynch, 1960). Dealing with the legibility and taking it into account led to the creation of two innovations for urban design. First, sorting out the responses of people in the environment can identify public responses to direct urban form. Secondly, people can use the common elements of mental maps to enhance legibility (Nasar, 2011, p.165).

The urban image contains five elements of the physical environment which affect legibility. These visual elements are: path, edge, node, district and landmark, as classified by

Lynch. Paths are the channels of movement that people can move and travel through, such as roads or pedestrian paths. An edge is a linear element like a path but is used as a divider between two areas or two districts such as a river, or hill. A node is a gathering point of activities, or a conjunction of paths, such as a square or a roundabout. A district is an area that has a consistent character or distinct urban form that distinguishes it from the other areas.

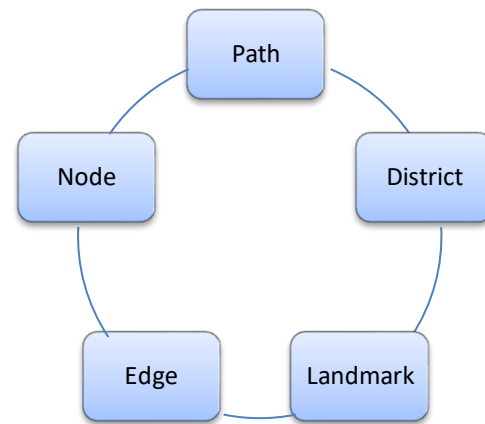


Figure 2. 2: The urban image elements of physical environment (Lynch, 1960)

Landmarks are the prominent points of reference that help in orientation (Lynch, 1960).

Identifying these elements and not others was criticized. Dalton and Bafna (2003) argued that these five elements seem to be chosen as the best elements to describe people's perceptions without specifying how they came together in a systematic map (p.3). However, Lynch suggested that these elements must be connected with each other in an integrated form to give a clear image (Lynch, 1960, p.83). Lynch later set several standards of clarity or legibility in a large scale, such as a metropolitan area. These criteria can be summarised. First, the image may contain different vital elements. However, they may be readable, legible and familiar to the vast majority of adults. Secondly, the structure of the image is likely to extend and might not be clear in the general level, but can be understood at the level of depth and detail. Thirdly, the urban image is supposed to be viewed in different ways by different people, according to their interests and experiences. Fourthly, the image must be adaptable to growth and change in the physical elements and activities and be able to cope with a degree of waste and functional disorganization. Finally, the urban image must be consistent and compatible in its form with the form of other social and functional organizations (Lynch, 1995, pp.66-67).

These criteria should be taken into account when applying the concept of legibility and Lynch's methodology on a different scale. The image must be adapted to the change. However, the study of the image on a larger scale may determine the characteristics of the people in terms of dealing with the broader environment.

2.3.2 Imageability:

According to Lynch, imageability is *'the quality in a physical object which gives it a high probability of evoking a strong image in any given observer'* (1960, p.9). Therefore, it refers to the quality of the urban area that induces the perception of a sturdy image to the observer dealing with a visual view of the city, the feeling of identity of the place and the structure which creates a perfect urban image that can easily be remember and observed. It contains the colour, shape and order of the elements in a clear and managed form (Lynch, 1960, p.9). It also induces identity and contributes to improving the appearance of the city and its planning.

In a broader definition, Gulick (1963) defined it as *'a set of qualities of, or associated with, an object, which maintains in the beholder conscious visual awareness of the object'* (p.193). He focused on the factors that influence human perception of the surrounding area and the visual form of any element with its social significance. Imageability can also be defined as *"a participative technological installation investigating the relationships between special conceptions of the city, historical memory, and the continuous dynamic emergence of cultural identity"* (Shankar and Swamy, 2012, p.134). This trend considers the relationship between history and cultural identity with the diverse elements in the city. Imageability is also *"the quality of a place that makes it distinct, recognizable, and memorable"* (Ewing and Handy, 2009, p.73).

A place has high imageability when particular physical elements and their arrangement attract attention, induce feelings, and produce a lasting impression. Jan Gehl believes that imageability is associated with a 'sense of place' (1987, p.183). It is also linked to various other qualities of urban design such as legibility, enclosure, human scale, transparency, linkage, complexity and coherence, and is, in some way, the net effect of these qualities (Ewing and Handy, 2009, p.73). It is considered a prime factor in the study of urban morphology, urban geography and urban planning and design.

Imageability is not based on or limited to specific elements, components or parts of the city; it refers to the holistic image of the city in the eyes of its citizens and visitors. It is related to the formation of the city, its colour, buildings, rhythm, arrangement and order, atmosphere, environment and people within it (Lynch, 1960). Richards (1994) emphasizes the relationship between imageability and the degree of complexity and ambiguity in the physical form, arguing that these latter factors are more remembered and memorable. He criticizes modern style

because of its simplicity and uniformity (Richards, 1994, p.60). In light of this, character and identity significantly contribute to the stability of the elements of the image and their perception. This discourse may be relevant in the case of buildings and landmarks, but for paths, this may lead to loss and disorientation.

However, the imageability of any city or environment can be analysed in three components, which are identity, structure and meaning. Lynch (1960) stated that:

A workable image requires first the identification of an object, which implies its distinction from other things, its recognition as a separable entity. This is called identity, not in the sense of equality with something else, but with the meaning of individuality or oneness. Second, the image must include the spatial or pattern relation of the object to the observer and to other objects. Finally, this object must have some meaning for the observer, whether practical or emotional. Meaning is also a relation but quite a different one from spatial or pattern relation (p.8).

There are several elements that impact imageability (such as physical and perceptual), in addition to the social meaning of an area, its function, its history, or even its name (Lynch, 1960, p.46). Lynch focused on the effects of physical and perceptual objects and neglected the others. He argued that: “...since the objective here is to uncover the role of form itself... [it] is taken for granted, that in actual design, form should be used to reinforce meaning, and not to negate it” (Lynch, 1960, p.46). The urban image has become an important tool in the field of urban planning and design.

2.3.3 The components of analysing the urban image:

According to Lynch (1960), the urban image can be analysed in three main components as stated above. These are the *structure*, which is defined as “*the spatial or pattern relation of the object to the others*” (p.8), *identity*, which refers to the distinction and identification of an element or an object and consideration of it as a separate entity from the others, and *meaning*, construed as the emotional or the practical relationship between the element and the people (Lynch, 1960, p.8).

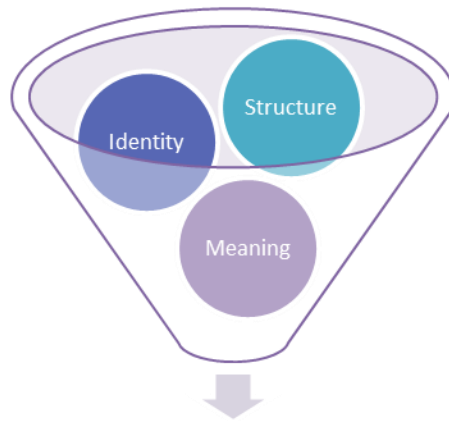


Figure 2.3: The components of analysing the urban image, source: (Lynch, 1960, p.8)

2.3.4 Urban structure:

The city is composed of several elements and these elements need to be organized and linked together as one element. Organization and arrangement of elements and their relationship with each other within the city is called structure. Urban structure is associated with form and urban layout. The term ‘urban structure’ can be defined as:

The pattern or arrangement of development blocks, streets, buildings, open space and landscape which make up urban areas. It is the interrelationship between all these elements, rather than their particular characteristics that bond together to make a place” (Davies, 2000, p.33).

Urban structure is the linking of constituent elements of the environment, such as buildings, roads and spaces and their relationships with each other, in addition to linking them to the city on a larger scale (Babalís, 2008, p.29). It is the organization of the elements in the centre, the suburbs and everything between them. Thus, the urban structure does not focus only on the city or a certain part of it, but includes all the areas in a different scale, such as the city and village. Urban structure works by connecting and integrating elements with the surrounding areas to achieve harmonious unity with the environment and give it a sense of place (Davies, 2000, p.33).

In general, the urban structure is considered as the link and organizer of the elements in the inner city and the environment. It is a fundamental component in the coherence and

integration of urban image elements to operate as a unit in order to give a legible quality to the city. This research used structure to organize the urban image elements.

2.3.5 Urban meaning:

People react to places in which they have feelings about and what these feelings mean to them. Meaning in the city is complex due to the different people's thoughts and their purpose (Ford, 1999, p.254; Steinitz, 1968, p.233). Meaning is not easily influenced by physical manipulation, as in the case of the structure and identity (Lynch, 1960, p.8). Dealing with meaning and developing it in the city is a hard task; Lynch, for example, focused on structure, identity and neglected meaning. He pointed out that meaning may be developed by people (Lynch, 1960). However, humans often feel nostalgic and emotionally associated with the place in which they live and feel comfort and safety.

Urban meaning may be created when there is a common meaning among the majority of the citizens toward a particular place or city (Swearingen, 2010, p.20), which is known as "public meaning". The meaning may also be a personal one, as Lynch noted: "*the visual environment should be meaningful; that is, its visible character should relate to other aspects of life*" (Lynch, 1995, p.296). The city and the environment become meaningful when people can understand the relationship between urban form and the activities that take place in it (Steinitz, 1968, p.233).

However, various studies focus on the meaning of the city or place from different aspects in terms of social and cultural elements (Rotenberg and McDonogh, 1993; Evers and Korff, 2000) or religious (Ellul, 1970) and psychological aspects (Nasar, 1998). Jack Nasar, in his book *The Evaluative Image of the City* (1998), followed Kevin Lynch's work in assessing the urban image – focusing on meaning – and introduced his concept, which is called "likeability". His study was about what people like and dislike in the city. He identified five elements for his concept, which can be summarised as follows:

- Naturalness. Areas with landscaping, countryside, rivers, lakes, and mountains.
- Upkeep. Areas that are clean, well-maintained and not dilapidated or dirty.
- Openness. Areas with open spaces and clear views and that are not crowded or congested.
- Historical Significance. Areas that have authentic historical significance or that look historical to observers.

- Order. Areas that look well-organized and compatible without a lot of conflicting styles and chaos (Nasar, 1998).

2.3.6 Urban identity:

In the era of globalization and in the situation where the national identities have become less important, people still look for the identity of a place or city they live in. Some believe that the role of national states is fading and instead cities are becoming “driving motors” in making a new Europe (Maide et al., 2007, p.7). In this competition for finding an identity for a city, Gospodini (2004) believes that many European cities suffer from an increasing “identity crisis”. In this crisis in searching for the identity, the cities are believed to turn their emphasis in the direction of their built heritage (Maide et al., 2007, p.7).

A sense of place or identity is associated with activities that are accorded in physical elements and give them meaning (Relph, 1976, p.48). Interlaced association among these elements creates a sense of place and identity that distinguishes it from another place.

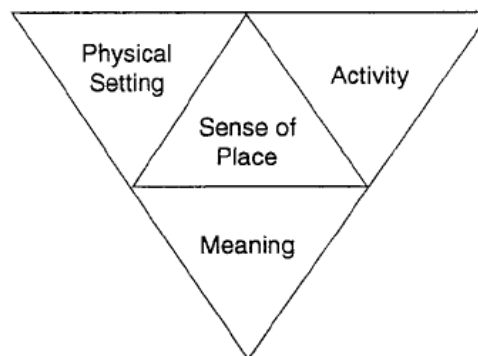


Figure 2.4: Sense of place and association with activities, physical setting and meaning, Source: (Relph, 1976, p.48)

Local identity or sense of place is still an important issue for people where they feel belonging to the place and interdependence between humans and the environment. Urban or architectural identity is one of the healthy ways to improve cities by connecting people with parts of their cities in order to feel the responsibility to preserve these parts and the city as a whole (Faleh, 2013, p.135).

The identity of the city is the sense that distinguishes one city from the other. It is also the features or characteristics that allow us to differentiate between cities (Arthur and Passini, 1992, p.87). Identity gives the city uniqueness from other cities, away from monotony and similarity; with this unique characteristic, the city becomes a landmark compared to other

cities. Urban identity is one of the reflections and manifestations of social life and cultural aspects in urban areas. The continuity of this identity gives people a sense of belonging in the link between humans and the urban area (Kaymaz, 2013, p.740)

2.4 The relationship between urban image and identity:

Any place or city combines both an image and an identity. Regardless, these components are not the same or even similar. Identity concerns the form of a city or place, and thus is related to characteristics that distinguish that place, while image includes the identity of the place with perceptions of that place. The urban image, for people, is a group of senses, feelings, thoughts and impressions towards a city or place (Montgomery, 1998; p.100). Image without a clear identity may be meaningless. Local identity in different cities creates this sense and distinction and gives the city a special character.

Identity is a reflection of the social and physical characteristics of the environment, which distinguish it from somewhere else (Hough 1990, p.180). This reflection creates an urban image in the human mind. Creating a new image undoubtedly means a new identity for the place. According to Montgomery (1998), the good place should have three elements, which are image, activity and form, as shown in Figure 2.5 (Montgomery, 1998, p.97). Urban image includes identity and must be taken into account when creating a special place.

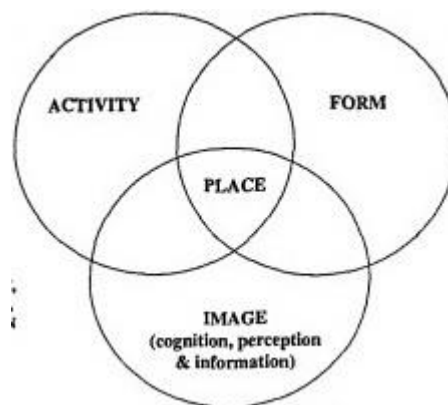


Figure 2.5: The three principles of place making
Source: (Montgomery, 1998, p.97)

Loss of local identity is one of the issues that have emerged as a result of urbanization and the rapid growth of cities, particularly in developing countries (Alharbi, 1989; Khattab, 2001; Yacobi and Shechter, 2005). Loss of identity leads to weak links and a diminished sense of belonging. The emergence of elements in place that do not belong in cities are naturally formed through the concepts and values of spatial and environmental, social, and compatible

for with the established over the years. A change in the identity significantly leads to a change in the urban image; therefore, the urban image and identity are interrelated. Montgomery argued that architectural style helps to create an image and thus an identity, with the result that cities should not be a unified global model (Montgomery, 1998; pp.112-113). Architectural style and character are very important, reflecting the identity of the city. For example, when people see *mashrabiyya* on the facades of buildings, it suggests that this city belongs to the Middle East and so on. The architectural character of the buildings is considered to be a general image of the city in the third dimension.

2.5 Conclusion:

This chapter reviewed and presented some related concepts and terms on the main subjects of the research to give a brief understanding of the urban image. This chapter investigated the urban image as an idea and concept through reviewing its definitions and related concepts such as legibility and imageability and their components. The key summary of this chapter can be identified as follows.

Cognition and perception work together in shaping or producing an image. They have a fundamental influence on the image that is held in people's minds. Factors affecting perception and cognition lead to different images in people's minds. These factors include past experience, knowledge, and so on. Understanding these terms facilitates the task of finding out how the final image is formed in the human mind and thus understanding the main meaning of the urban image.

The urban image has been an important tool in urban design since the middle of the last century. The physical elements of the urban image are divided into man-made and natural elements. These elements contain paths, edges, nodes, districts and landmarks. There are three main components used to analyse the urban image which make these elements memorable. These are structure, meaning and identity.

Identity is one of the components of the urban image. There is a strong relation between urban image and identity. The loss of local identity is one of the problems facing cities in developing countries, which has led to a change in the urban image.

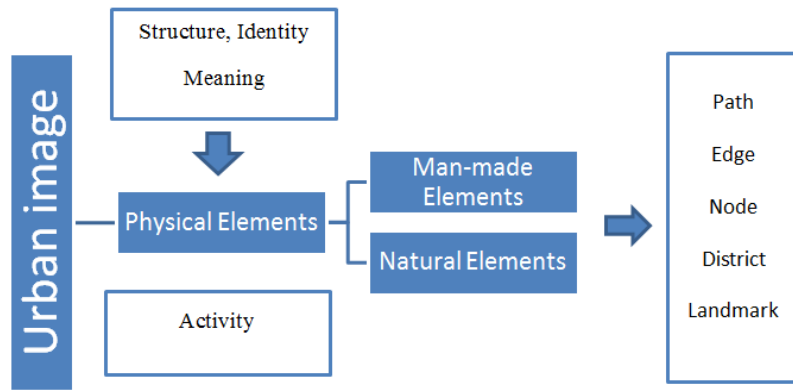


Figure 2.6: Physical elements of urban image and analysis components
 Source: The author based on the work of Lynch (1960), Montgomery (1998) and Relph (1976)

To sum up, this chapter has given a brief and general summary of the concept of the urban image and explained the importance of the study of the city's image in planning and urban design. Figure 2.6 shows the elements that comprise the urban image and the components of their analysis. The elements of urban image, which are path, edge, node, district and landmark, are studied in detail in the next chapter. These elements are important when describing and analysing the city image. Structure, identity, meaning and activity are the components of physical elements and these are used to describe the urban form in this research and how the urban image is shaped.

Chapter 3:

LYNCH'S METHODOLOGY AND CONCEPTS

3.1 Introduction:

This chapter focuses on the methodology of Kevin Lynch. It is divided into four main sections. The first section presents Lynch's methodology and his results. It will present some visual problems that affect the image of the city as well as some urban form qualities which should be considered and addressed to make visual elements more legible. In the second section, the main criticisms of Lynch's methodology and his study will be reviewed. The third section is about the applications of Lynch's methodology in world countries and is divided into two stages. The first stage presents early applications of Lynch's method and the second stage presents new studies that applied his method in order to ascertain if Lynch's study is still valid. The fourth section describes the conceptual framework of the urban image that is built from this chapter.

3.2 Lynch's methodology:

Lynch's methodology was chosen as the focus of this research because of the powerful influence in the field of urban image, as well as the spread of his methodology around the world. Several urban planners, designers and researchers have followed him such as de Jonge (1962) and Gulick (1963) in addition to others from developing countries in Egypt, India, Thailand and Indonesia, whose work is which presented in this chapter.

However, the aim of the empirical work and research of Lynch was to study and understand the relationship between people and their environment, what the relation was between the image of the environment and urban life, and how people perceive their city or place. His study focused on the visual quality of the city. Therefore, Lynch studied the mental map of the city which was held by its inhabitants. He investigated his concept through studying three different American cities which are Los Angeles, Jersey City and Boston. In so doing, he diversified his choice of chosen cities in order to recognize the differences that are inherent between the various cities.

His study was carried out in two stages of analysis. Firstly, there was a primary analysis of the public fabric through a field reconnaissance (observation) and, secondly, a public image study in which he used a small sample. He selected 30 people from Boston and 15 people from each of the other two cities. Lynch interviewed these individuals, asking them to draw sketch maps and imagine the paths they would take for a certain journey (Lynch, 1960).

3.2.1 Urban image's elements:

Through the analysis of the image in the chosen cities, Lynch found five key elements of physical environment that were repeated by the citizens (Figure 3.1) There were common features that were shared by the majority of the people which is called “public image”. These elements are: paths, edges, nodes, districts and landmarks. He expressed these elements as a block building (Lynch, 1960, p.95). These elements may be fixed in most environments.

1- Path

Paths are considered as the arteries in the human body which are associated with all members inside the body, and as a backbone in the planning and design of cities. According to Lynch (1960), *"paths are the channels along which the observer customarily, occasionally, or potentially moves. They may be streets, walkways, transit lines, canals, [or] railroads"* (p.47).

When the main routes lack identity or clarity, this has a significantly impact on the whole image of the city and makes it less legible. According to Lynch, there are several criteria used to distinguish paths and how they are stored in the memory. These include: regular use, the concentration of specific uses, distinctive spatial qualities, characteristics of the facades, the proximity of the special features in the city, and the visual exposure (Lynch, 1960). Most people remember paths that they use everyday. These paths can become more legible if they include special activities such as shopping or are a public area. The facades of buildings play an important role in determining the path and give it strength in its image. In addition to that, these facades are considered as elements of the image itself. Richards (2002) stressed the impact of the redevelopment of urban areas through the changing of the façades of buildings and suggested that such changes may result in these places losing their importance to the people who pass them (Richards, 2002, pp.58). These criteria help urban designers and planners to evaluate paths and are used in this research to assess the urban form and image.

2- Edge

Edges are *"the linear elements not used or considered as paths by the observer"* (Lynch, 1960, pp.47) where people cannot move through them. It may be a natural boundary such as mountains or rivers and may also be built by humans such as such walls or railway cuts. These edges may be obstacles or barriers to the movement of people but are useful in terms of determining or separating areas. It is in this sense that edges are considered as the boundaries of regions and have importance in the organisation of areas or regions for the

observers (Lynch, 1960). Legible edges should be continuous in its shape and should not allow people to move through them.

3- Node

Nodes are defined as "*points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and from which he is traveling*" (Lynch, 1960, p.47). These nodes are usually seen and observed as the centres of residential neighbourhoods and are thus considered as the heart of the place to the observer.

There are two types of nodes; the junction and the thematic concentration. The junction is a point of a break in transportation. It is important in determining the motion path or the decision to change the orientation. The other type is concentration, which is not less important than the junction. These concentrations include open spaces, squares and plazas (Lynch, 1960, pp.72-76). The physical form of a node increases the strength of its image, in addition to the spatial location. A suitable form of functional significance is another factor used to strengthen the imageability of a node (Lynch, 1960, pp.76-78).

4- District

Districts are sections of the city and can be used as points of external reference, especially if they are seen from the outside (Lynch, 1960, pp.47).

According to Lynch, the thematic continuities determine the physical properties of special districts. These may include the shape, spaces, symbols and type of buildings, activities, topographical and architectural details, texture and colours, residents, use, and many other components (Lynch, 1960, pp.67). The social, cultural and economic characteristics of the districts are the determinants of the area and this is important because it contributes to the understanding of the social life of each area and also makes it easy to identify districts.

5- Landmark

Lynch defined landmarks as "*a singular physical element that is unique or memorable in the context*" (1960, p78). Landmarks are external points of reference and are usually physical objects such as distinctive buildings, signs, or mountains. They can also be mobile objects such as the sun (Lynch, 1960, pp.48). According to Steck and Mallot (2000), there are global and other local landmarks where the global landmarks are viewed from great distances. In contrast, the local landmarks are not recognised except when in close proximity (Steck and Mallot, 2000, pp.69-70).

There are several characteristics that may contribute to the strengthening of legible landmarks. A clear form and shape contribute to determine the landmark and whether it will be memorable. Another factor in determining the landmark is the contrast with its background and its surrounding area. A landmark should be prominent in spatial locations. However, other features can also define a landmark such as the history of construction or its newness (Lynch, 1960, p.78-79).

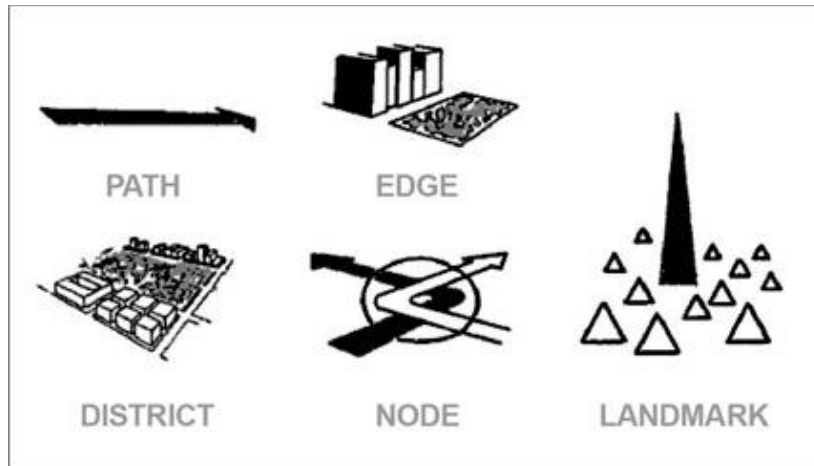


Figure 3.1: The elements of urban image, source: (Lynch, 1960, pp.47-48)

3.2.2 Visual problems affecting the image of the city:

The urban image sometimes faces problems that reduce the quality and degree of clarity ingrained in the mind. The weakness of the clarity of image mostly leads to loss of sensation and communication with the place. After analysing the three cities, Lynch found a number of problems affecting the image of the city, namely: a lack of integration or isolation, confusion, weak boundaries, breaks in continuity, ambiguities, branching, lack of character, and lack of differentiations (1960, pp.25).

Isolation and lack of integration of elements lead to a lack of clarity in the public image. This often occurs in their tracks when they are not clear in the beginning and at the end or in their direction. Strong edges are important in determining the regions and cities and the weakness of these boundaries in terms of continuity lead to a weak urban image quality. Roads in particular need to be continuous in the movement and lack of interruption in order to not cause difficulty in moving in the cities or places. Ambiguities in the shape and organization of the elements may affect the quality of legibility and branching paths may cause difficulty in orientation. In contrast, there are orientations where people may find it difficult to choose the correct road leading to their destination. Special characteristics give a strong image to a city,

but when there is no character or little difference between alternate areas, the quality of legibility can become weak (Lynch, 1960).

3.2.3 Urban form qualities:

There are many ways in which design contributes to strengthening the image of the physical elements. The elements of the urban image need to enhance and increase their quality to be clearer for residents. Lynch (1960) identified groups of these characteristics or the qualities that must be considered and addressed by designers as follows:

- Singularity: Uniqueness is intended as a visual clarity border, property of closure, and contrast with different surfaces, in addition to the size, use, visual shape and spatial location. These characteristics contribute to making elements remarkable and easily recognizable by observers.
- Simplicity of form: This means that the physical elements would prefer to be in a simple geometric design without complexity in their shapes and their angles in order for them to be perceived easier by the inhabitants.
- Continuity: It is through the continuity of the border with each other or the continuity of surfaces as the skyline as well as the proximity of elements to others that appears as an integrated unity. Moreover, similarities in shapes and uses, in addition to the symmetry and harmony of elements' surfaces create uniformity that is realized as a single element.
- Visual scope: These are characteristics that raise the visibility concentration such as transparency, overlap, put remarkable elements at the end of the road, and concavity in curved road which shows many of the scenes. These characteristics increase the enrichment of the urban image.
- Dominance: This means the dominance of one element is compared to the rest of the elements around it either by size or interest. This feature may increase people's perception of the element in addition to the elements around it
- Clarity of Joint: Points of connection between elements must be clear and have a coherent relationship with others. These points are strategies and it is preferred that these be eye-catching and easily visualized.
- Directional Differentiation: the refers to gradient, radial references that make the end of one different from the other, or one side from the other, or a one-way from a two-way. These properties are dealt with at a large level during the city planning.

- **Motion Awareness:** This is a quality that gives a sense of movement to the observers. This may occur through the organization structure, clear curves and slopes and clarity of the overall shape of the movement. Through these qualities, observers should have a sense of the direction and distance.
- **Time Series:** Preferably the time sequences design is a harmonious and coherent series where objects appear with each other through the urban fabric or the skyline.
- **Names and Meanings:** These are non-physical properties but help in strengthening the urban image, where the names are important in enhancing identity and easily identify the places and also work as a guide to places or elements. Meanings are also essential and affect the physical elements whether through social, functional, economic, or historical meanings, which would also strengthen the identity (Lynch, 1960, pp.105-108).

These properties or qualities must not operate alone, but must be considered as physical elements of the urban image as one element or elements that are interrelated and harmonious and contribute to the unity of the urban image and increase the imageability and enhance the identity (Lynch, 1960) as shown in Figure 3.2.

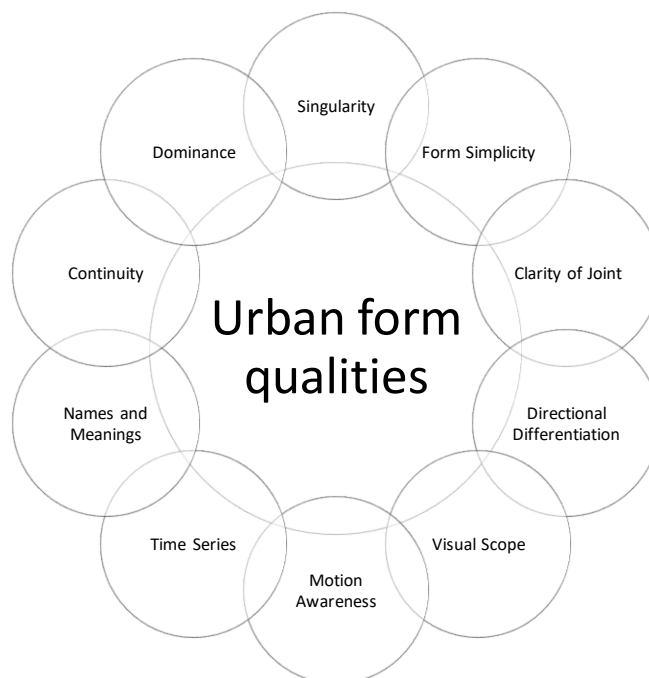


Figure 3.2: Urban form qualities, Source: Lynch (1960, pp.105-108)

3.3 Criticism of the methodology and the study of Lynch:

Although the study and methodology of Lynch is still considered the basis of the present study of the urban image of the cities, there are criticisms of the work of Lynch. These criticisms have generally been focused on the following aspects of his work.

- The study samples:

Several studies see the sample that Lynch used as too small and lacking in variation (Downs and Stea, 1973, pp.80-81; Carmona, et al., 2003, pp.92). His small sample cannot be generalised, and in addition, there was little variation in the sampling of people used. Most were young, professional, and middle class. The age, class and culture are important factors that impact how people perceive the area around them.

- The technique of study:

The second criticism relates to interviews and map drawing which are criticised on the basis that they were not enough to get a true picture in people's minds. The freehand sketch map was criticized because of difficulties in the ability of drawing for some people (Spencer, 1973). Lynch commented that along with this, the interview image remains an important role, either emotionally or socially (Lynch, 1984, pp.109). However, these methods should be developed to obtain more data about the urban area.

- The conceptual interest:

The study was also criticised in terms of the focus on the physical form and that it neglected the social meaning, function of the area, and its history (Strauss, 1961; Crane, 1961; Gulick, 1963, Steinitz, 1968; Appleyard, 1978; Broadbent, et al., 1980). It was also focused on visual elements through vision rather than other sensory elements such as sound (Southworth, 1969) The social element is an important part and is meaningful for people.

3.4 Application of Lynch's methodology in world countries:

There are many research projects that have applied Lynch's methodology and these applications can be divided into two main stages: before the 1980s and after the 1980s. These stages can help to explore how Lynch's methodology has developed since 1960 and also to learn how it was used in different countries at the same or near the time of Lynch's study.

- **Applications before the 1980s:**

In his study, de Jonge (1962) studied and applied Lynch's methodology to Dutch cities such as Amsterdam, Rotterdam, The Hague, Utrecht, Leyden, and Delft. The study

concentrated on some of the following questions: is it possible to apply the methods that were used by Lynch in a simplified form to cover a wide urban area and informants, and if so, will this study confirm the findings of Lynch's work, and can these results be generalized? The study was conducted in two phases; in the first stage, de Jonge interviewed 20 members of the Department of Architecture in Delft to ascertain their images about the centres of cities, whilst in the second stage, a hundred people were randomly selected from the cities of the southern Netherlands. The study found that most people found difficulties in drawing an approximate map, and that visitors experienced difficulties in orientation. Moreover, the study found that the method and techniques developed by Lynch were useful in investigations and comparisons between several urban areas. The research found that Amsterdam had the strongest and clearest image due to the unique spatial structure of its urban area from the surrounding areas. De Jonge (1962) asserted that creating a map image becomes easy when there is a regular street pattern, one dominant path, distinctive nodes and unique landmarks. He believes that good design of those elements would create a clear image of the city. He also stressed that the orientation can be difficult in areas with irregular patterned roads (de Jonge, 1962).

Gulick (1963) studied the urban image of Tripoli in Lebanon. He also followed the approach and method of Lynch. He asked 35 Tripoli residents to draw maps of the city identifying the most important features and elements. The study found that the urban image is the result of perception based on social and cultural associations. He accordingly argued that social significance is very important and determines the physical elements (Gulick, 1963, pp.197). However, the sample used in the study was small and cannot be generalised.

A third study carried out using the methods of Lynch was that of Francescato and Mebane in 1973 who investigated the image of Italian cities. They analysed the cognition and views of people in Milan and Rome. They chose a group of residents of both genders and from different social and economic classes and ages and interviewed them about the places which they liked and disliked, what they remembered about their cities, what was most important for them about the city, and to describe distinct parts of the city compared to the less distinct areas. They also asked the respondents to draw a map of the city. The sample size was 118, which was much larger than the sample used by Lynch (Francescato and Mebane, 1973).

The results obtained in the Italian study were mostly consistent with the framework of Lynch. They found that the main cathedral was a landmark, and thus could be considered to be a node. They also found that the city centre was mentioned as a district. The study emphasized

that the five elements of Lynch's framework are fixed and can be found in the minds of people from various cultures and different environments (Chemers, 1984, pp.55-56). The study also indicated that there is a different vision of the city image based on social classes, age, natives and non-natives. These factors should be considered when choosing a sample in the study of perception and image of the city.

In another study of the image of the city, Stanley Waterman (1980) conducted a study in Israel on the city of Acre, to see the urban image of the city. Waterman used two integrated methods which were free drawing maps and interviews on specific topics. Acre is the northern city of Haifa where most of its population was Jews and about one quarter was Arab. This gives a sense that the city combines different mixtures of different religions and cultures. However, there was a segregation of housing where the Arabs were living in the old walled city, while Jews were living in the new city along with about 10% of Arabs. New and old Acre is different in terms of their urban form and architectural styles.

The study found that there was a difference between the image of Arab and Jews. Jewish respondents drew the new city along with the old one while Arabs focused their drawing on the old town. There was also a difference in drawing maps where Jews drew modern maps of the city with the road network, while the maps of the Arabs were the old style with ornamentation. He found that the urban image of Arabs focused on landmarks and streets with little interest in the orientation, whilst the urban image of Jews focused on linear elements such as streets and neighbourhoods, but less on landmarks (Waterman, 1980). This study confirmed that there are differences between urban images in different cultures.

- **The Applications post the 1980s:**

Three case studies (Egypt):

Researcher (Abdelbaseer, Mohammed, 2012) studied three Egyptian sites: Heliopolis, Maadi, and Cairo CBD within Cairo's city, Egypt's capital.

Sites were identified on the basis of their unique characteristics and were similar in shape. After that, the researcher summarized and reviewed the characteristics of each area. Then, they tried to emulate the idea of Lynch and applied it to the selected sites to determine the elements of the image and incorporated it into two types of maps.

The maps were produced from the survey carried out by the researchers on foot in three case studies. For the mental maps, interviews were conducted with three groups of people involved in the study area, residents or those who work in the area, users for various reasons and visitors or tourists. The age group for the sample of the study was between the ages of 20-40. Thirty people were chosen from Heliopolis in addition to 20 people in Maadi and 20 people in Cairo CBD. This sample was similar in size to the sample chosen by Lynch. Drawn maps were collected from a number of volunteers who were asked to draw maps of the three case studies and characteristics of their elements as is shown in Figure 3.3. There was no specific time for drawing which often took between 15-20 minutes.

The maps were assessed according to the completeness of the drawing and accuracy. Mapping accuracy was measured by comparing the features of the site and element locations and the maps were classified from poor to good with regard to the number of mistakes within them. In the end, the mental maps were produced on the basis of the frequency and repetition of elements in the drawing maps.

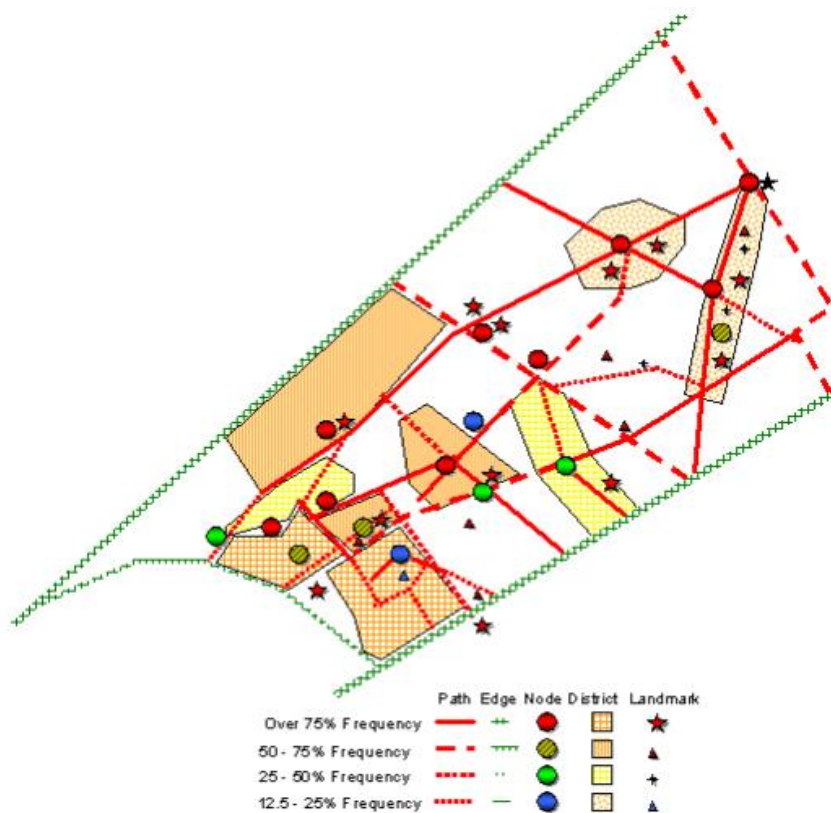


Figure 3.3: Heliopolis image as derived from sketch maps, source: (Abdelbaseer, 2012, p.13)

- The relationship between the example and the case study

This example is similar to the case study of Jeddah in terms of them both being Arabian locations. In addition, the climatic conditions in these cities are close. However, Jeddah differs in terms of architectural design characteristics compared to the non-Jeddah example which is characterized by European touches, especially those of France, as a result of the French colonization of Egypt.

Bahrs Scrub (Australia):

This study was carried out by the Cardno SPLAT company (2010) and followed Lynch's methodology. The Bahrs Scrub study site covers an area of 800 hectares of undulating land situated approximately 2km south-west of Beenleigh and 2.5 km to the west of the Pacific, within the Logan City Local Government Area.

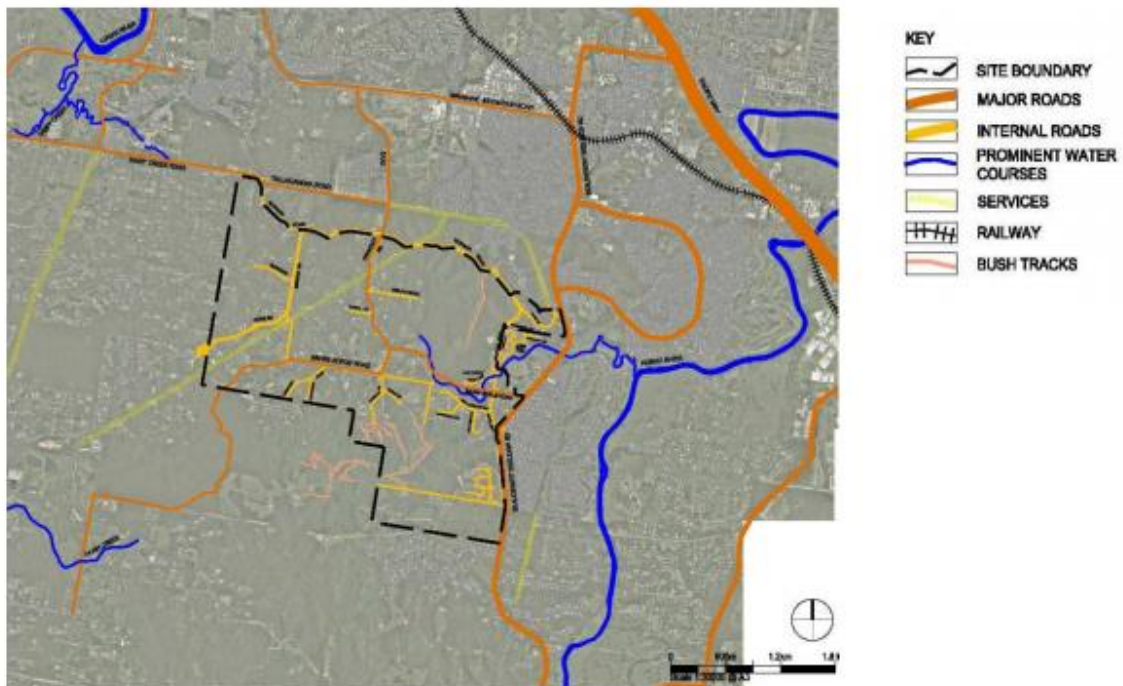


Figure 3.4: Paths in Bahrs Scrub, source: (Cardno SPLAT, 2010)

- Methodology:

The analysis was also based on a combination of on-site assessments, GIS analysis and a desktop analysis of aerial photography. There were no selected sample residents at the site, but the researchers relied on site visits held on: 06 January 2010, 20 January 2010 and 22 January 2010. This study applied the five elements as consistent standards to clarify the sense of the place.

- The relationship between the example and the case study

The example is from an Australian city used Kevin Lynch methodology to analyse the features of the site, and the sense of place. Some computerized programs were used in this analysis such as GIS and desktop analysis of aerial photography. These programs and the method might be useful in the process of analysing the case study for the city of Jeddah and take advantage of how to apply those analyses of the city's image on the case study.

New Delhi, India: (Kumar, 2007, Queen's University, Canada)

This research studied the influence of values and perception on pedestrian behaviour, to recommend how places can be designed to satisfy their users' needs. It examines users' perceptions of a number of pedestrian environments in New Delhi in order to identify if the environments satisfy their users' environmental values, and then explains how this happens. It focused on three of the five elements of Lynch's methodology. These elements were paths, edges and landmarks, and how users perceive them.

- Methodology:

This research used the methodology of Lynch as a guide to explore the perception of users in New Delhi. The site was selected because it is the city of the researcher and New Delhi is one of the big cities and the capital of India. Five sites have been selected in New Delhi.

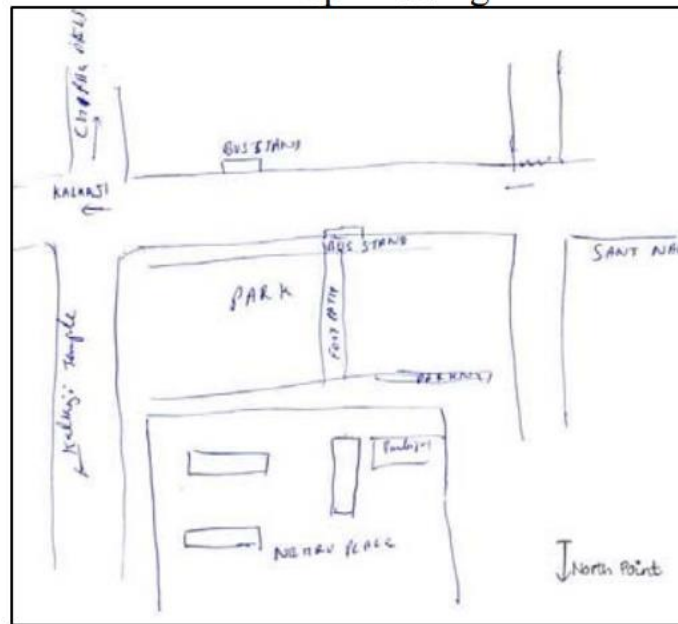


Figure 3.5: An example of drawing a map of office workers, source: (Kumar, 2007, p.63)

The selected sample was a combination of those five sites users of workers, students, tourists, women and others (Figure 3.5). Each group contained about 14 pedestrians for each site with a total number 84 pedestrians. Each group was divided into two groups to walk in the opposite direction of the road. This sample was similar in size to the sample chosen by Lynch.

The study found that people care about safety and orientation. Paths, landmarks and edges were considered the most important determinants in wayfindings and the clarity of these elements affected the behaviour of people or pedestrians in terms of comfort (Kumar, 2007).

- The relationship between the example and the case study

This example focused on the part of the elements of the image of the city which were paths, especially pedestrian paths, and how to achieve the requirements of safety and comfort for the residents and users. This example can be used to analyse and evaluate the elements of movement, such as walkways and paths, and to improve and enhance their image, which fits with the requirements of the residents and modern life.

Historic Area of Kayutangan (Indonesia), (Wardhani, Hariyani, Rizaldi: University of Brawijaya: 2011)

This research studied how people perceive Kayutangan (Figure 3.6).

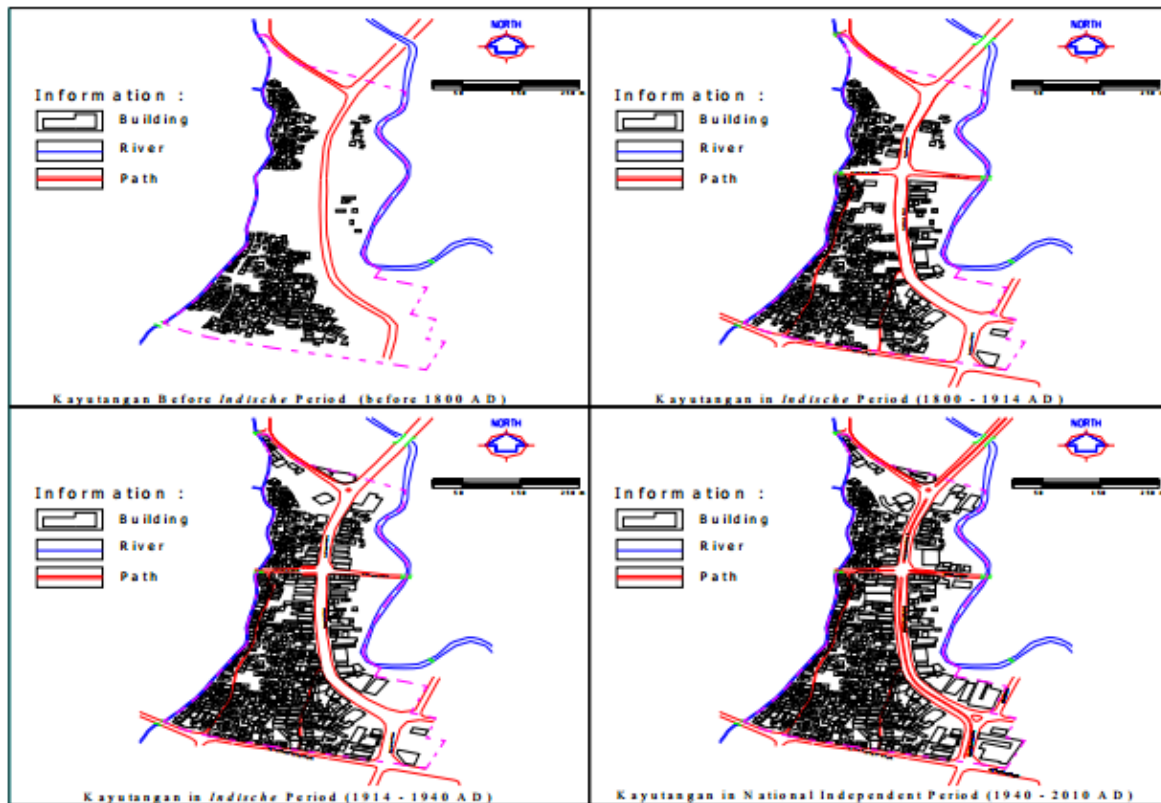


Figure 3.6: Analysis of changes in motion paths, Source: (Wardhani, Hariyani and Rizaldi, 2011, p.421)

- Methods:

The methodology consisted of time-line mapping analysis. The sample included 90 owners and managers of the historic buildings as well as 86 non-owners of historic buildings.

The methodology made comparisons to the five elements of the city: path, edge, district, node and landmark from one period to another. This study included changes in terms of the number of elements, the change in its character and its condition. This study showed the serious changes in the city's image over periods of time. The distinctive elements of the city that represents the image of the city should be maintained from extinction (Wardhani, et al., 2011).

- The relationship between the example and the case study

This example examines and compares different periods of time and the changes that have occurred in the city's image. The relationship between this and Jeddah is the historical aspects and how the elements of the urban image have changed with time. This study focused on the physical elements in Jeddah and evaluated them in terms of the past and the present.

Medan Industrial Estate, (Indonesia) (Fachrudin and Ali, 2012: University Sains Malaysia)

This study compared the two opposite parts of the industrial city in Medan, Indonesia KIM I and KIM II. The research focused on the five elements of Lynch's method and relied on his methodology.

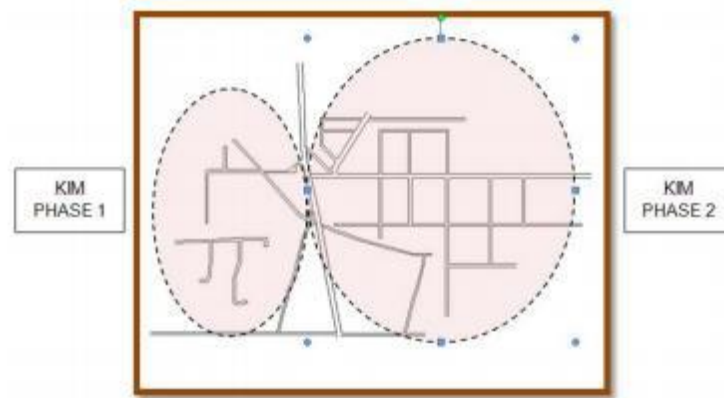


Figure 3.7: Location of (KIM I and KIM II) of the industrial city in Medan, Source: (Fachrudin and Ali, 2012, p.431)

The results of this study showed that physical environment planning can be divided into visual elements, paths, edges, nodes, districts and landmarks, in addition to the non-visual elements related to social, economic and political aspects. The study showed that location and accessibility have impacts on urban image quality.

- The relationship between the example and the case study

This example studies an industrial zone which is divided into two parts. This can be compared to the districts in Jeddah and is therefore important because districts differ from each other and this research does not deal with separate districts, but comprehensive comparison among them.

The Case of Doha, Qatar: (Khalil, Shaaban, 2012)

“The Heart of Doha” is a mixed-use urban development project that was carefully chosen as a study case. The project was built where the old city centre had been destroyed. This research studied the development of Doha city, the causes that enforced reconstruction of the city's centre and how the change in its socio-cultural, behavioural, economical, and environmental conditions affects its redevelopment plans (Khalil, Shaaban, 2012, pp.677).

Rebuilding the centre of the Doha City project, also known as the “Msheireb project”, focused on the new urban form as opposed to the old one. The images of the past influenced the current development in the area. To better identify the new image formed for the new centre of Doha city, the researchers mentioned Lynch’s concept about the image of the city. Lynch’s five elements were applied to the Musheireb Development (Khalil, Shaaban, 2012, pp.685).



Figure 3.8: Msheireb old fabric and the new one, Source: (Khalil and Shaaban, 2012, p.685)

- The relationship between the example and the case study

This example is similar to the situation in the case study of Jeddah where there are projects designed to preserve the old city centre and there are some problems in the conservation process. In addition to that, the two sites are both situated in coastal cities, have similar climatic conditions, and are located in Arab countries.

Case study in Bangkok, Thailand: (Suthasupa, 2011, Bangkok University)

This study is concerned about how young people perceive the city's image. It studied the images of a part of the western Bangkok Metropolitan area as perceived by a small sample of young people (Figure 3.9). The sample was twenty-one architecture students from Silpakorn University.

This study applied Lynch’s method of the image of the city to determine the known elements of the city to the students, and to clarify the mental representations that contain less

spatial data than a mind map contains. The material obtained may be useful in contributing to understanding how young people perceive their urban area and their relationships with the city's elements.

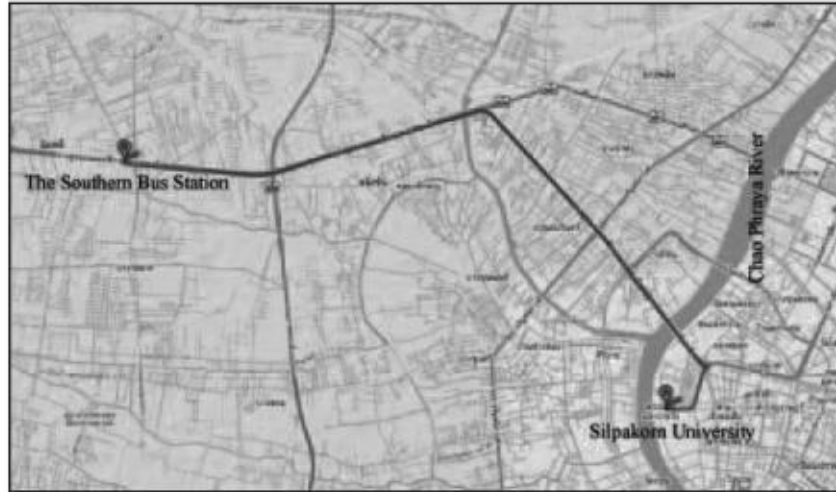


Figure 3.9: The study site and the path of movement, Source: (Suthasupa, 2011, p.61)

The study found that there were two types of representation. The spatial factor was the most important difference in terms of the importance of drawing as a visualization of the representation.

- The relationship between the example and the case study

The study was conducted to learn how young people perceive the city's image around them. It focused on the youth, which is one of the segments of society. However, the selected group may not give the real image and full visualization, especially as a small sample selected for a specific group. This study is useful in places in Jeddah where most people are young. However, the study of Jeddah focuses on different ages.

The virtual city of Tel Aviv:

Lynch's methodology has also been applied in the design of multiple virtual cities (Omer, et al., 2005). This methodology has proven itself in the promotion to find the path to virtual cities in several other studies. From these studies what Isaac and others did in the study of the virtual city of Tel Aviv. "A virtual city is a real-time model of an actual city that enables the user to walk through or fly over a certain area" (Omer, et al., 2005).

The aim of this study was to uncover the effect of the design of the virtual city that relied on the urban population. In the end, two designs were compared for the virtual city of Tel Aviv. The first design did not include distinctive urban design elements that had been chosen by the population, whereas the second did.

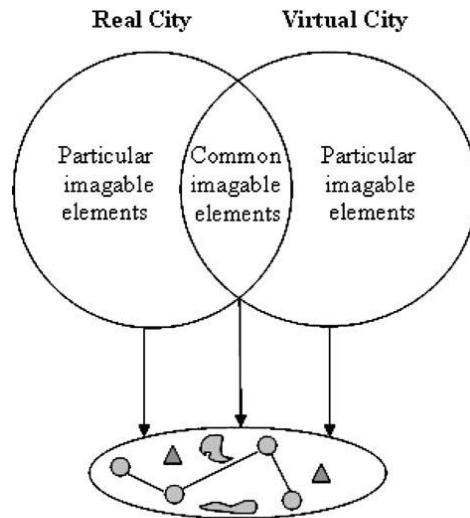


Figure 3.10: Temporary user representation through movement within the virtual city, Source: (Omer, et al, 2005, p.24)

- Sample:

Twenty-four participants were selected who had full knowledge of the city of Tel Aviv to ensure the quality of the drawings and their knowledge of the elements of the city. The sample included 15 males and 9 females who were 26 to 58 years of age. The participants were asked to draw maps of the city. Participants were divided into two groups and each group had 12 participants. The participants had to complete three steps.

The first phase included the paper where the municipal boundaries of Tel Aviv were laid out and required identification of the largest possible number of landmarks. The second phase was a virtual model of Tel Aviv on the desktop screen in a simulated laboratory environment, and the participants were instructed on how to use the flight simulator using the keyboard as an interactive device.

The third phase consisted of two tasks to find the path. In the first task, participants were asked to fly to three locations in Tel Aviv. In the other task, participants were asked to fly to the new station for buses in order to build a base of the city (Omer, et al., 2005).

- The relationship between the example and the case study

This example deals with virtual cities. The user can move and fly in the virtual city.
 This example may be useful in further research on the case study.

Table 3.1: Simple summary of the studies carried out in developing countries

Example	Major study/aim	Elements	Sample	Notes and finding
Egypt <i>(Three sites)</i> <ul style="list-style-type: none"> ○ Heliopolis ○ Maadi ○ Cairo CBD 	Comparison <i>(legibility, intelligibility)</i>	<ul style="list-style-type: none"> ○ Path ○ Edge ○ Node 	70 people, 20-40 years old <ul style="list-style-type: none"> ○ Resident ○ Users ○ Visitors 	Familiarity and knowledge of the places that affect the mental image
Australia Bahrs Scrub	Site character and sense of place analysis	<ul style="list-style-type: none"> ○ District ○ Landmark 	No sample Field observation	GIS analysis and a desktop analysis of aerial photography used for analysis
India New Delhi five sites	Perception of pedestrian behavior	<ul style="list-style-type: none"> ○ Path ○ Edge ○ Landmark 	84 pedestrians: Workers Students Tourists, Women	The legibility of the physical elements enhances perception. Safety and orientation are important to pedestrians
Indonesia Historic Area of Kayutangan	time-line mapping analysis	<ul style="list-style-type: none"> ○ Path ○ Edge ○ Node ○ District ○ Landmark 	90 owners, 86 non-owners Observation questionnaires	Conservation Guidance <ul style="list-style-type: none"> ○ Cognitive mapping community ○ figure ground analysis ○ analysis of linkages ○ analysis of environmental change

			informant interviews	
Indonesia Medan Industrial Estate	Comparison between the two sites	<ul style="list-style-type: none"> ○ Path ○ Edge ○ Node ○ District ○ Landmark <ul style="list-style-type: none"> ● Non-visual elements 	The study site through observation	Location and accessibility have impact on the urban image quality
Thailand Part of the western Bangkok Metropolitan Area	Study urban image through young vision	<ul style="list-style-type: none"> ○ Path ○ Edge ○ Node 	Young people (19-21 years old) 21 architecture students	Spatial factor is effective in the mental representation There is an association between people and places
The virtual city of Tel Aviv	Imageability of virtual city	<ul style="list-style-type: none"> ○ District ○ Landmark 	24 participants 26-58 years old	<ul style="list-style-type: none"> ● Path-integration is position-based

Source: The author based on the previous studies

3.5 The conceptual framework for the urban image:

From the review of literature that has used Lynch's methodology, it is apparent that there are three main components that are needed to understand and analyse the urban image. These are visual elements, non-visual elements, and the factors or qualities that affect the urban image. These components constitute the conceptual framework shown in Figure 3.11.

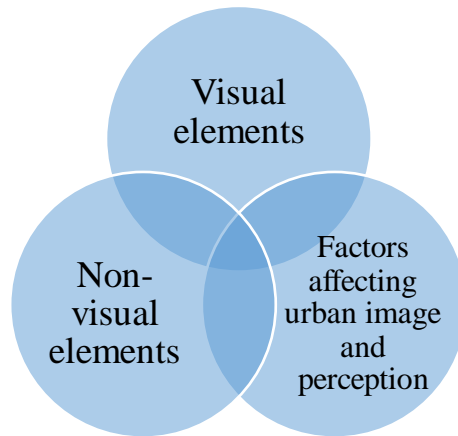


Figure 3.11: Conceptual Framework of Urban image,
Source: The author

Visual elements:

Through previous study of Lynch's methodology and its applications around the world, it can be found that the five elements of urban image are considered as non-variable standards. This framework is based on Lynch's study of the urban image as shown in Figure 3.12. For each of these elements, there are determinants and criteria contributing to the quality of the physical element. These criteria were extracted from Lynch's study of US cities. However, these elements must be structured with each other and have a distinct identity (Lynch, 1960).

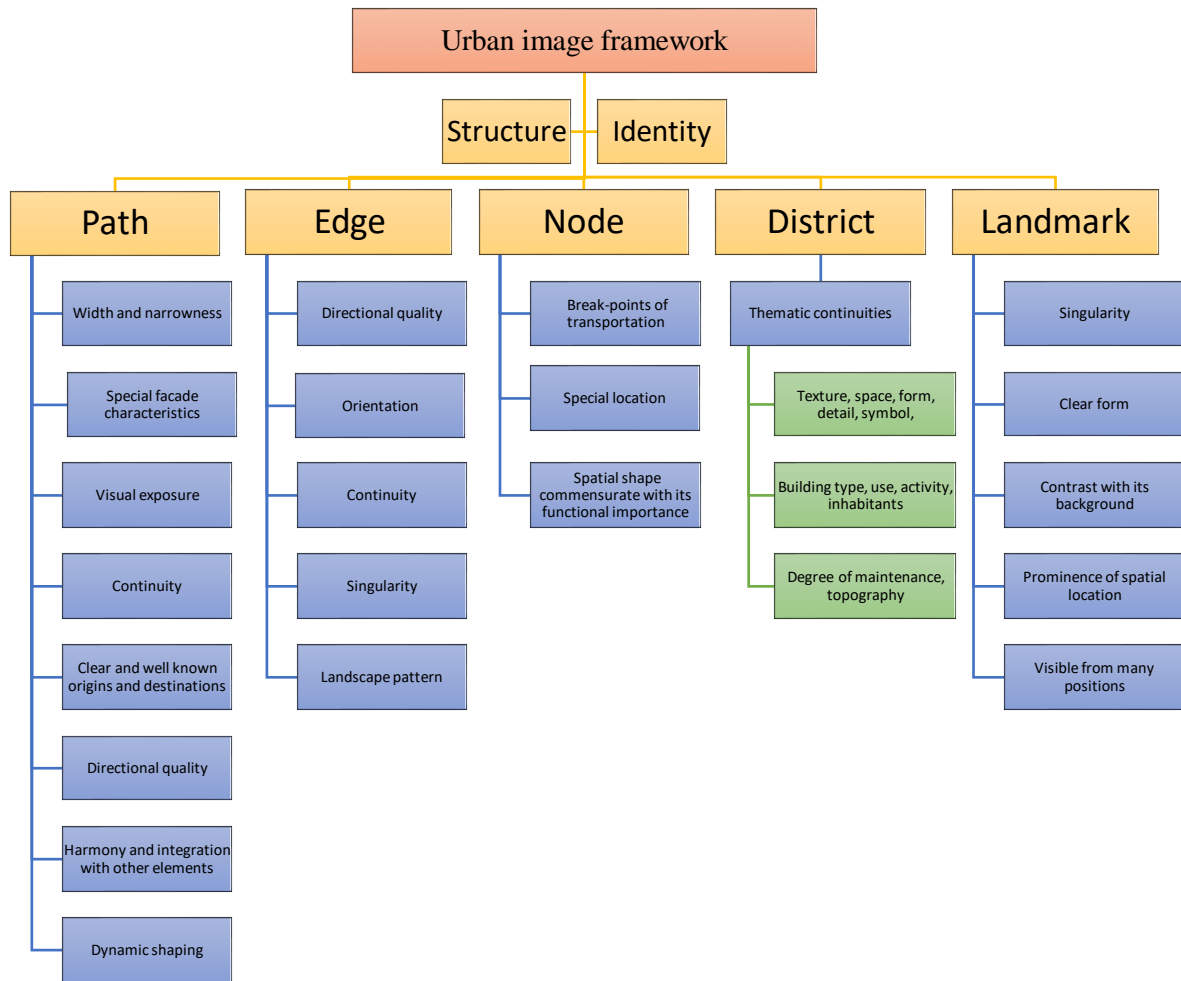


Figure 3.12: Visual elements of urban image, Source: Lynch (The image of The city, 1960)

Non-visual elements:

Through previous studies on the methodology of Lynch, it turns out that there are other non-physical elements of the urban image. These elements contribute to the formation of the urban image as a world consisting of physical and social environments. The social significance is not as important as the physical elements (Gulick, 1963; Rapoport, 1977). However, some studies have emphasized the social significance because it is not valued less than the visual elements.

The non-visual aspects are related to social, political, economic and environmental aspects. These aspects comprise elements such as activities, meaning, policy, economic value, and environmental factors such as pollution (Steinitz, 1968; Fachrudin and Ali, 2012).

The four main aspects can be divided into sub-categories or elements as shown in Figure 3.13.

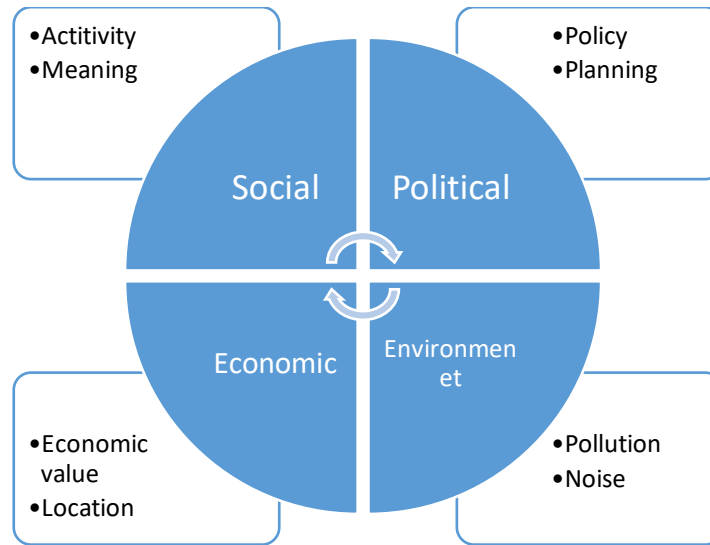


Figure 3.13: Non-visual elements,

Source: The author based on Lynch (1960), Souvatzi, and Hadji (2013), Comerford-Morris (2015), Steinitz (1968), Fachrudin and Ali (2012)

Social aspects have influence on the urban image and urban design where social interactions of residents with the physical aspects create the urban image. Activity is one of the most important elements of social aspects. It cannot ignore its role in the integration with the physical element which contributes to the clarity of the image, for example, meetings in open places, cycling, and buying and selling in the markets, especially in traditional markets. Lynch (1960) emphasized that "*moving elements in a city, and in particular the people and their activities, are as important as the stationary physical parts*" (p.2). Social meaning is another element that influences the urban image. People visit their relatives or friends and this distance has meaning to them. People transform places and re-create spatial relationships based on the social meaning (Souvatzi, and Hadji, 2013). Every action and event in the city or neighbourhood has meaning to its inhabitants and therefore, the urban image cannot be recognized without these meanings.

Political aspects also have an impact on the city image. Planning regulations and policy should deal with requirements of residents. In the current era, the cities have begun to compete in investment and improve their image. Planning policies have dealt with the city's image as a product (Comerford-Morris, 2015). Economic aspects play an important role in creating an urban image. Elements' location in the city or neighborhoods contributes to

highlight the elements or hide others (Steinitz, 1968; Fachrudin and Ali, 2012). Finally, environmental aspects also affect the urban image through noise or pollution. Environmental quality gives a good urban image.

Factors or qualities that affect the urban image:

There are some factors affecting the urban image. These factors are related to the urban image and its elements, and others are related to people's perception of the urban image. The problems that affect elements of the urban image include: lack of integration or isolation, weak boundaries and lack of character, differentiations and others. These should be addressed and resolved to improve the urban image. In addition, social aspects and characteristics along with age, cultural background, and familiarity affect people's perceptions of the urban image, and must be taken into account if one is to garner a comprehensive public image of all of the city's residents.

Factors affecting urban image	Physical form	Confusion
		Lack of integration or isolation
		Weak boundaries
		Breaks in continuity
		Ambiguities
		Lack of character and differentiations
		Branching
	People's perception	Age
		Social class
		Familiarity
		Cultural background
		Safety

Figure 3.14: Factors affecting urban image,
Source: The author based on Lynch (1960), Gulick (1963), Waterman (1980), Kumar (2007) and Abdelbaseer (2012)

3.6 Conclusion:

This chapter discussed Kevin Lynch's work and study of the urban image. His methodology was reviewed and his framework was presented. Lynch found that five key elements represent the public image of the city: path, edge, node, district and landmark. His study has become standard reading and his use of the five elements has been validated by a range of other studies and many are mentioned herein.

However, there are some problems that affect Lynch's elements and there has been criticism, as noted, of his work. These include the fact that the study sample was small, that the group chosen was from a particular class, and that he focused on the study of the structure and identity of the physical elements and neglected meaning, in spite of the importance of this in people's perceptions.

Nevertheless, the methodology of Lynch has been used and applied to many different cities around the world and has proved to be useful in assessing and analysing the image of the city, whether in a modern or a historical area. These studies and examples noted in this chapter have been linked with the current research and to facilitate this, some diverse international and Arab models were taken into account.

This research combines the theoretical framework represented in previous studies, theories and concepts related to the visual composition with applied examples of Lynch's methodology used in different cities of the world and an analysis of those examples to design a comprehensive conceptual framework that aims to improve the urban image and local identity preservation. In addition, the practical aspect of the case study and application of the conceptual framework is used to verify its viability. The conceptual framework is composed of three main components which are visual and non-visual elements and factors affecting the image and perception of people. In the next chapter, the research focuses on the Middle East and Arab world and analyses the main elements that will be including in building the framework.

CHAPTER FOUR:

**URBAN IMAGE AND IDENTITY
IN THE MIDDLE EAST (ARAB WORLD)**

4.1 Introduction:

Since time immemorial, man has looked for a place or shelter to live in and to protect himself from the surrounding environment. This place has been shaped and formed by the local material found in that place, as well as the environmental and climatic conditions that affect its form, in addition to other factors. Arab towns and cities in the Middle East are characterized by the warm nature and climatic conditions that have shaped their places and urban fabric since their inception.

This chapter focuses on the general urban image of the Middle East and Arab world cities. In order to understand the image of Arab cities, it is important to know the historical context of Arab cities before and after the adoption of the Islamic religion. Subsequently, it discusses the form, structure and image of Arab cities and gives some examples of these cities so as to uncover some common elements and features among them. Contemporary cities in the Arab world and the Middle East are also highlighted to identify the main problems and challenges faced by, and related to, the urban image and local identity. In the last part of this chapter, some differences between Arab and Western cities are considered.

4.2 The historical background of Middle Eastern cities:

Cities in the Middle East are historically some of the oldest cities in the world and date back thousands of years BCE (Bonine, 1977, p.141; Silver, 2010, p.345; Andersson and Djeflat, 2013, p.19). This was the beginning of the emergence of civilizations and divine messages which spread around the world such as Damascus, Aleppo, Beirut, Jerusalem and cities in ancient Egyptian civilization (Park, 2004, p.14). Indeed, the first cities in the history were situated in the Middle East, particularly in Mesopotamia, along the Tigris and Euphrates Rivers, and the Levant around 4000 BCE (Zcigler et al., 2012, p.25; Ibrahim, 1982, p.22).

The term 'Middle East' was formulated to describe the area located between Britain and India in colonial times (Silver, 2010, p.346), and includes the countries geographically located from Turkey in the north, the Arabian Peninsula and Iran to the south, Egypt and Libya to the east, and now after the Arab states have become one block, the area has extended to include the countries of North Africa (Choueiri, 2008, p.1; Hobbs, p.209; Bianca, 2000). In some studies, scholars define the Middle East and North Africa using the acronym 'MENA' (Roudi, 2011; Stewart, 2013). However, this research has adopted this term to include all Arab countries within the Middle East, as shown in Figure 4.1.



Figure 4.1: Modern Middle East (MENA), Source: Hobbs (2008)

Arab cities have passed through and seen several transformations in the composition and formation of their identity, patterns and distinctive urban fabric. The most significant historical era is the emergence of Islam in the territory, which has had a deep influence in shaping the Arab and Islamic cities according to the values and principles of the Islamic religion, in addition to a set of patterns of human behaviour that affect the daily life.

Planning systems and urban fabric were derived from the laws and foundations of Islamic principles as the major legislation for the planning and construction of cities and formed what is known as construction jurisprudence or “*fiqh albnaa*” (Al-Dosary and Mir Shahid, 2014, p.17; Fara and Alhesi, 2013, p.127). However, Islam was not the only element contributing to the formation of the Arab city; there have been several eras that preceded it in some Arab cities, both in the north, where Mesopotamia, Syria, and Palestine are located or the southern Arabian Peninsula, where the ancient kingdoms of Yemen such as Sheba and Palmyra among others. These civilizations influenced the formation of cities before Islam. Arab cities before the beginning of Islam were varied; some were under the control of the Romans, Greeks or the Persian state, which influenced the formation of their urban fabric and character (Hoyland, 2001, p.21; Sartre, 2005). The others were controlled by Arab tribes and were formed with their customs and traditions.

Period of Islam:

When the rise of Islam in *Yathrib*, which is the city of the Prophet Mohammed (known at the current time as Medina), and after the migration of the Prophet from Makkah to Medina, the Prophet Mohammed sited and shaped the layout of the city in accordance with the principles of the Islamic religion (Al-Dosary and Mir Shahid, 2014, p.18).

The first thing he did was to build the mosque in the central area and his house next to it, and then divided neighbourhoods with the roads leading to the mosque (Mortada, 2003, p.74; Fara and Alhesi, 2013, p.137). Islam views society as a communal society and hence the principles and foundations are interspersed with Islamic values as opposed to the secular beliefs in modern Western civilization that were interested in individualism and tend to ignore the spiritual hierarchies, which views them as a challenge of the human mind (Bianca, 2000, p.9)

Islam does not just consist of religious rituals performed in isolation from everyday life, but is an urban religion (Reshef, 1982, p.46), a basis and a means of life and also a culture that contributed to the creation of standards of a political, economic, and social nature. In addition, Islam has influenced human behaviour as well as the entry of many other communities which follow other religions under the umbrella of the Arab and Islamic state and that have been influenced by Islamic culture (Choueiri, 2008, p.9). Islamic influence was crucial not only in political organization and social and economic activity, but also in the physical structure of the urban environment of the city in the composition of streets and neighbourhoods, which form a unitary society on the principle of equality between the rich and poor (Salma, et al., 2008). Urban organizations were relatively homogeneous under the rules of Islam.

The Umayyad period was a caliphate after the founding of Islam in the Levant countries (Syria, Jordan, Lebanon and Palestine) and represents a fundamental shift in the history of planning and architecture in the country, from the Byzantine period before Islam to the Islamic era. Umayyads were influenced by cultures that preceded Islam, such as the Sasanian and Byzantine cultures (Tohme, 2005, p.28). Grabar believes that Umayyad harvested from previous culture's models that fit with the principles of Islam to show their faith and to affirm the victory of Islam (Grabar, 1987, p.63).

The Islamic religion has had an impact on the spatial form in the Middle East which has led to the emergence of the term 'Islamic cities' (Silver, 2010, p.346). After the spread of Islam, cities in the Middle East were united under the banner of Islam and the Islamic Caliphate.

In addition to the migration of Arabs to those territories, Islam contributed to the emergence of the commonalities in the character and the urban fabric, which is based on the existence of the mosque and the governor's mansion in the city centre and then branches out to the surrounding roads and residential neighbourhoods. Traditional cities thrived in the Arab world after the rise of Islam and had maintained their identity and image which was derived from religious and environmental principles until colonialism came and dominated most of the cities in the Middle East. Then, some cities were transformed to the cities of Western commercialism and others were affected through Western principles that were different to the region, which led to changes in their image and the loss of local identity for several cities (Zcigler et al., 2012, p.29).

4.3 The urban character (pattern and form):

Islamic and Arab cities were described by some Orientalists such as Kubiak, Grunebaum, Lammens and others (El-Kahlout, 2010, pp.2-3) as organic, and featured a lack of regulation with a maze of streets, no formal squares and no respect for geometry (AlSayyad, 1992, p.26). These are some of the descriptions taken by some authors in the West to describe the Arab Islamic city. These descriptions may not necessarily apply to most Islamic cities, and scholars must study the historical context of Arab cities as well as the natural and climatic conditions in the region. Arab cities have been divided into two parts by a period of origin; pre-Islamic and post-Islam. Therefore, some of these cities were founded before Islam. However, the planning of traditional Arab cities came organically in accordance with Islamic values, the environmental conditions and the needs of the community (Zcigler et al., 2012, p.81).

One of the most important characteristics of traditional Arabic urban planning is a compact fabric, which aims to address the movement paths in terms of width, length and direction including adaptations to the warm climatic conditions of the Arab cities (Ajaj and Pugnaroni, 2014, p.286). The buildings, whether residential or commercial and market, are oriented inward to the inner courtyards and interrelate with each other to form organic alleys and winding narrow roads to address and reduce the high temperatures in the city (Al-Zubaidi and Shahin, 2008, p.82). The urban fabric in Arab cities relies heavily on houses, whether courtyards houses (Figure 4.2) or multiple storeys that define the narrow winding alleys among them (Ragette, 2003, pp.50-51).

A central pattern often dominates urban planning, where the main mosque (*Jame*), the ruling house, market (*Suq*) and public buildings are located in the centre of the city, which is

surrounded by residential areas in a circular or semi-circular pattern, depending on the nature of the environment (Mahdi, 2006, p.59). The dwelling was an integral part of the urban fabric of the city and houses of the rich are adjacent to those of the poor, where there is no difference between them or differentiation of social classes in accordance with the principles of Islam. This can be noticed through the external shape which is similar to all buildings, but there is a difference on the inside according to the wealth of each person, thus achieving "*unity of appearance and different essence*" (Al-Zubaidi and Shahin, 2008, p.82).



Figure 4.2 : Residential district in Damascus showing traditional Arab features
Source: Ibrahim (1982, p. 27)

The basic components of the Arab city are the Grand Mosque (*Jame*), the major market, public baths and schools, in addition to the walls of the city and the organization of the residential neighbourhoods on the basis of tribes, which shape its urban form (Reshef, 1982, p.43; Saoud, 2002, p.6).

The Grand Mosque is the most distinctive element of Islamic and Arab cities and serves to control the city. This is due to the great meaning and connection between the people and the mosque, through the religious requirement to attend it five times every day, as well as weekly Friday prayers. The main market is also one of the important elements in the Arab city. The market provides economic activities and plays a role as a gathering point for people to buy their basic needs, while paths serve as a linked network, as shown in Figure 4.3.

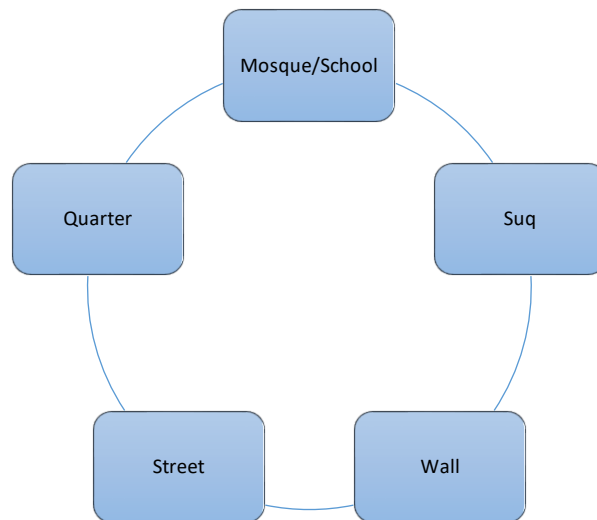


Figure 4.3: Visual elements of traditional Arab features, Source: The author

4.3.1. The structure of the traditional Arab city:

The urban structure of the Arab city shows an organic fabric and character with an integrated and interrelated spatial organization. Walls appear as a dominant feature in the urban structure for environmental reasons and in order to preserve privacy, while the streets and roads are currently seen as a modern feature in the contemporary city due to the development of transport modes and its entry in urban planning (Cetin, 2010, p.53). The general structure of the traditional city could be similar in most of the Arab and Islamic cities in general terms, comprising services or public buildings in the central area of the city and surrounded by private buildings, residential neighbourhoods and public roads that link with and between public and private buildings.

The public services and buildings in the central area consist of the Grand mosque which is a religious, cultural and social centre of the city and was multifunctional (Ibrahim, 1982, p.33) before of some of its functions were removed through the introduction of external buildings. The Ruling house is next to the mosque, which is the headquarters of government and where the Caliph manages the affairs of the state (Uthman, 1988, p. 216). The main market (*suq*) includes “a walled and roofed major textile market” (Reshef, 1982, p.50). However, the tanning industry or trade in livestock and industries that cause harm or foul odours is taken away to the outskirts of the city (Uthman, 1988, p.233). There are also public paths respecting the need for cleanliness advocated by Islam, and other public buildings such as schools and “*Bimarstan*” to provide medical services (Utman, 1988, p.224; Mohammed, 2012, pp.12-15).

Streets and roads connect urban components of the city to each other. Streets vary in length and width according to their function, where there are major roads linking the city centre to residential neighbourhoods and are subdivided into paths between houses (Uthman, 1988, p.51). The urban structure works on organizing and arranging elements within the city to make them a harmonious unit.

4.3.2. The Identity of the Traditional Arab City:

The Arab city is characterized by the hot and dry atmosphere and the harsh climatic conditions which led to the formation of its identity through the use of local materials and environmental treatments to reduce the high temperature, as well as to take advantage of natural ventilation (Reshef, 1982, p.52). Therefore, natural climate, topography and local building materials, in addition to religious and cultural principles and social relations contributed significantly to the creation of the Islamic urban identity (Moustapha et al., 1985, p.140).

Social aspects related to religious principles and social relations with neighbours reflect heavily on the built environment and give it a special identity. Architectural elements contribute to the formation of identity and the dominance of the mosque is considered a prominent feature in the urban identity of the Arab city.

4.3.3. The image of traditional Arab cities:

The image of the traditional city appears as cohesive parts and contiguous blocks (Kiet, 2010, p.39), as well as buildings' elevations that are similar in external shape and minarets rising over buildings as landmarks and forms of direction (Ibrahim, 1982, p.29). Abdelmonem (2015, p.95) indicated that, “[*the*] urban image is constructed through a comprehensive integration of people's culture, traditions and activities within a distinct spatial order and architectural character”.

4.4 Types of Arab cities:

According to the main influence in the region, which is religion, Arab cities can be divided into two parts in terms of their inception; cities founded pre-Islam and post-Islam. All of these cities have undergone continuous changes through the ages up to the present, due to urbanization and the impact of globalization on contemporary Arab cities. Pre-Islam cities, such as Damascus, Beirut and other cities located in the Levant region, have been affected by a lot of changes and different civilizations that have contributed to the formation of the urban fabric and shaped them and given them a distinctive urban image. On the other hand, the cities

post-Islam have arisen on the foundations and principles of Islam, since Islam is considered "an urban religion" (Bonine, 1977, p.148). Al-Medina, in Saudi Arabia, is the first example of a city built at the beginning of Islam, followed by Cairo, Baghdad and other cities.

To understand the urban pattern and transformations in the cities of the Middle East, this research presents some cities in order to understand them in their historical context and origins, and how they have evolved to what they are today, and also reviews common features in the formation of the Arab cities.

4.4.1 Pre-Islam cities:

4.4.1.1 Damascus:

Damascus is the capital of the Syrian Arab Republic. It is the oldest capital city and one of the oldest continuously inhabited cities in the world (UNESCO). Damascus covers an area of 105 km² and has an estimated population (with its suburbs) of 2.6 million in 2009, and is considered to be the second largest city in Syria (cbssyr.org). The city is located in the south west of Syria. It was founded in the third millennium BC (UNESCO). In some studies, Damascus dates back to the 9th century BC (Burns, 2005, p.2) and in others, the 7th century BC (Moore, 1978, p.198; Friedman, 2006, p.24). It was also mentioned as the capital of a small Aramaic kingdom in the 11th century BC (AlSayyad, 1992, p.26). However, the city has a long history dating to more than 3000 BC. Therefore, studying the city is rather complex due to the ancient inhabitants and various civilizations that were on its territory.

Damascus is considered the cradle of civilization where the urban fabric of the city has undergone several transformations since its founding, as a result of a series of diverse civilizations such as Greek, Roman and Islamic, through its various ages until the present time (AlSayyad, 1992, p.26). Thus, the city represents an important point of reference for comparing different systems of architecture and planning over time.

Damascus is closely related with significant historical events as well as traditions and ideas derived from the Islamic period, which have contributed to the formation of the image of the city and its impact on Islamic history and culture. One of the most important Islamic transformations for the city was the building of the Umayyad Mosque (Bianca, 1987, p.3; AlSayyad, 1992, p.28). The line of the walls of the historical city draws the boundary of the UNESCO protected area in addition to some areas outside the walls that represent the

expansion of the city from the thirteenth century as a result of contact with the old city in terms of historical significance (UNESCO).

- **Urban form of the city:**

As previously mentioned, the city of Damascus has undergone several transformations in its urban form. In the Greek and Roman era, its urban form was a regular, geometric grid plan within a circuit wall (Burns, 2005, p.39). The streets were straight and strong until they were weakened during the Roman Empire, which led to the freedom of people to expand their property. At that time, Islam came to the area and the city of Damascus was under the Islamic empire (Behnke, 2005, p.21). The urban expansion continued from the building of mosques and homes, in addition to the use of animals as a means of transport instead of the wheeled chariots used during the Roman Empire. As a result, roads turned from straight and wide to narrow and tortuous (Kennedy, 1985, pp.4-5). These shifts in the urban form took centuries, during periods of various Islamic Caliphates (Salamandra, 2004, p.27).

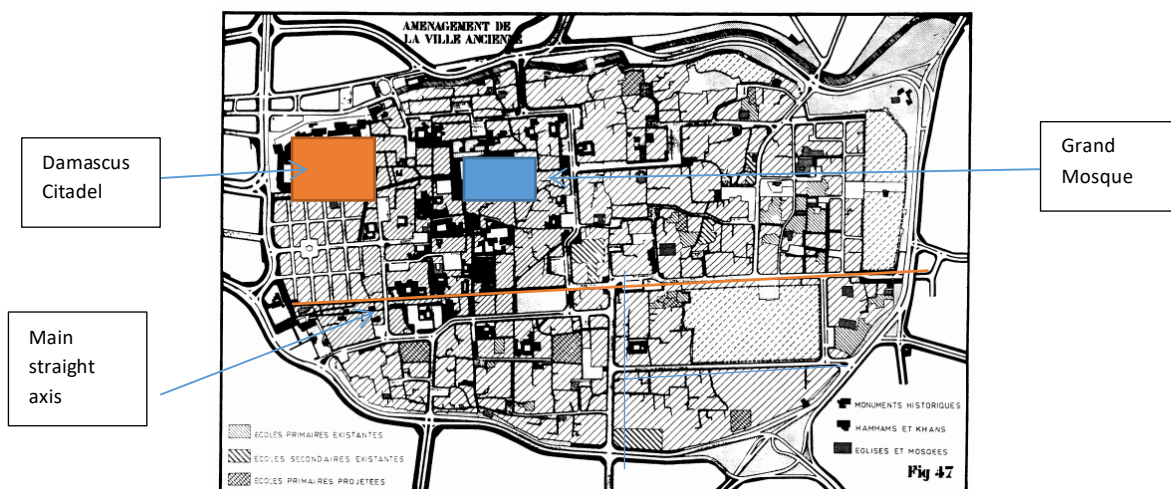


Figure 4.4: The most physical elements of Old Damascus
Source: Adapted from Bianca (1987, p.42)

The most prominent feature of the city is the Grand Mosque, built during the Umayyad era (Figure 4.4) where public paths were designed and Suqs were developed with roofed corridors (Kennedy, 1985; Flood, 2001). In addition, residential areas were organized through ethnic groups and tribes. Most public and private buildings are in the historic district and are from the Ottoman era between the sixteenth to the twentieth century (Weber, 2001).

At the time of the Ottoman Empire, a major the urban form had changed and reformed, where the Ottomans were influenced by Europe. Streets were expanded and the city suburbs were designed in a geometrically regular pattern in addition to the replacement of building

materials where wood was replaced with stones. The urban structure changed through the introduction of some public buildings, such as the office phone, mail and train stations, police stations and others (Weber, 1999, p.732). In general, however, its urban form is compact and the buildings open inward to courtyards while the alleys are narrow and tortuous.

- **Architectural character:**

The traditional houses in the city were formed to face an inward direction through the courtyards where the houses often do not exceed more than two floors, as in many Arab cities (Salamandra, 2004, p.26; Totah, 2014, p.108). External openings were very few and relatively small, while the internal openings were large openings towards the inner courtyard to give a sense of privacy for the residents. Rabbat (2010, p. 47) described this as an “*inward-orientated courtyard house with its black-faced outside and intimate interior*”. Houses are different in size and richness in the inside depending on the economic situation of the inhabitants. Most houses contain fountains in the centre of the internal courtyards. The courtyard is considered to be a gathering centre for residents and also a centre of household activities (van Zeeland, 2014, p.22).

Therefore, the facades of these houses are characterized by a lack of windows and are covered with *mashrabiyya*. Mosques and their architectural elements of minarets and domes form the skyline and serve as reference points. Nowadays, a variety of architectural styles, such as European, modern and classical characters, has emerged in Damascus (Figure 4.5). However, most of the buildings in the old city still maintain originality in an architectural style that fits the physical and social environment.

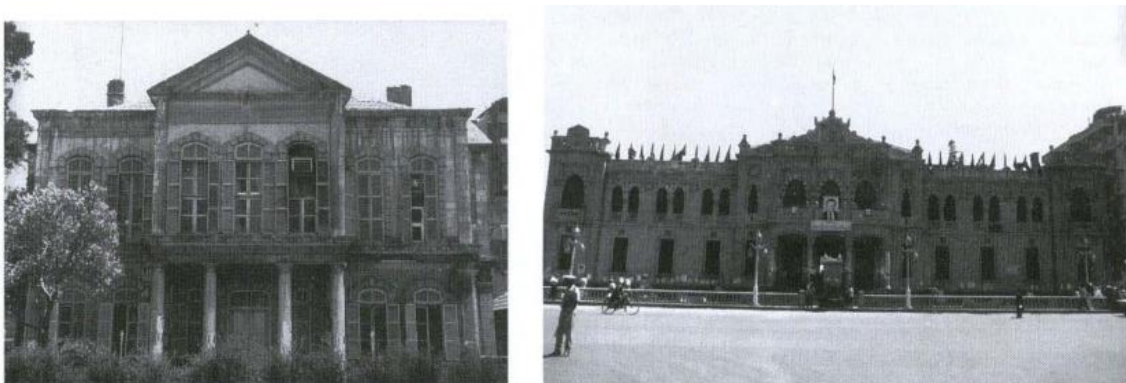


Figure 4.5: European and classical characters that emerged in Damascus
Source: Weber (1999, pp.739-740)

4.4.1.2 Beirut:

Beirut is the capital city of Lebanon, located on the Mediterranean coast and it's the city's main seaport. Beirut has an old history dating back more than 5,000 years (Jehl, 1997; Barakat, 2004, p.486). Beirut was a secondary seaport city for the Ottoman Empire until 1840, with a total of 5,000 inhabitants. Between 1950 and 1970, Beirut experienced the expansion of its population that has doubled in number more than once, and increased from 300,000 to 1,100,000 people. Beirut now has a population of about a million and a half (Fawaz and Peillen, 2013, pp.4-6).

- **The urban form:**

Beirut has faced many forms of destruction in its history, either through earthquakes or wars. However, in the Roman era, the city as seen in Figure 4.6, contained many public buildings in the centre, such as baths, the Forum and *Souks* (markets), in addition to the walled citadel close to the sea. City planning was similar to Damascus in its grid system as was the case for most of the Roman cities. The city was destroyed by an earthquake in 551 (Mikati and Perring, 2006, p.43).

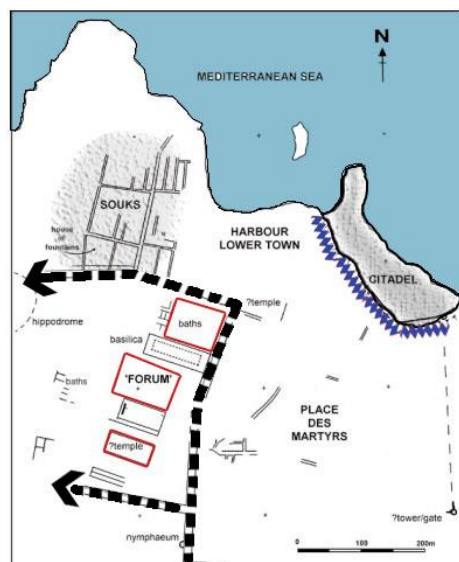


Figure 4. 6: Beirut map in the Roman era illustrating public buildings
Source: Based on Mikati and Perring (2006, p.43)

Until the Ottoman Empire, Beirut was just a small town and then became a main commercial port (Saliba, 2004, p.23), which led to the development and expansion of its borders. After the First World War and since the beginning of the 1930s, the city has grown

significantly, and multi-storey buildings have emerged (Nasr and Verdeil, pp.1119-1120). Projects developed through the planning and modernization of the downtown area.

The civil war in Beirut (1975-1990) led to a complex pattern city, reflecting a mosaic of different various images but connected together by the strange mixture of confessional living going back to several centuries in Lebanon (Barakat, 2004, p.492). Most of the buildings and houses were demolished as a result of the war, leading to a change in urban form. Beirut has traditionally been considered and worked as a pluralistic but ethnically isolated city (Calame, et al., 2011, p.39). During the years of the civil war, the city was divided into two parts and each part had antagonistic groups (Fawaz and Peillen, 2003, p.5; Soliman, 2008, p.27). These divisions have affected the unity of the city, as seen in Figure 4.7. As a result, Beirut is different from other Arab cities, even those containing different religious communities under the umbrella of Islam.

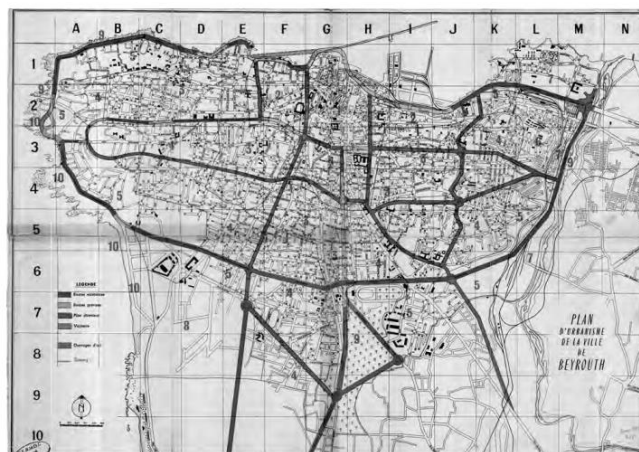


Figure 4.7: Segregation of the urban fabric through zoning and major circulation arteries
Source: Saliba (2013, p.12)

The period after the civil war has seen many projects that seek to rebuild the city; reconstruction and foreign investment have contributed to the modernization of the city through mega projects with a modern character, in addition to the spread of slums in the city (Fawaz and Peillen, 2003).

- **Architectural character:**

Civil wars and political conditions in the city have impacted heavily on Beirut and its identity has become unclear. However, since the mid-nineteenth and early twentieth century,

several of the buildings with Western architectural character appeared on some government buildings in the city as seen in Figure 4.8. This character appeared on the facades of the buildings through balconies and bow windows (Saliba, 2004, pp.30-33).



Figure 4.8: Parliament building (right) City Hall (left) in Beirut
Source: Daher in Saliba (2004, p.34)

The urban image and character changed through the rehabilitation of the city over the past two decades. Investment projects and the abolition of limits in heights contributed to transforming the urban and architectural character to a new one. Therefore, high-rise buildings have emerged with glass fronts that do not fit with the weather conditions and local identity. Haddad (2008) argues that architectural character in Beirut has lost its identity in terms of construction materials. The pluralism in the patterns in Beirut is chaotic which is a result of globalization (Haddad, 2008, p.52).

4.4.2 Post-Islam cities:

4.4.2.1 Baghdad:

Baghdad is the capital city of the republic of Iraq. Baghdad is considered one of the cities that was built after Islam, in A.D. 762 by the Abbasid caliph as the capital of the Islamic empire and has become an important city since that time (Gulick, 1976, p.246; Kotapish, 2000, p.4; Negoita, 2011, p.112). It is located along the Tigris River. The population of Baghdad was 7,216,040 in 2011, which makes it one of the largest cities in the world and the second largest city in the Arab world after Cairo in Egypt (cosit.gov.iq; El-shakhs and Hooshang, p.236).

- **The urban form:**

The layout for the city of Baghdad was in a circular design, as seen in Figure 4.9. It is unique in the region. It had four main entrances or gates, designed on the principle of a curved entrance which helps in the immunity of the city and is walled. The heart of the city was

devoted to the Caliph Palace and the Jami mosque and some administrative institutions such as the police and security; other areas included military housing and residential quarters (Fara and AlHesi, 2013, p.139; Negoita, 2011, p.116). The streets were symmetrically designed and radially connected the centre and residential districts (Al-Hasani, 2012, p.79; Negoita, 2011, p.113).

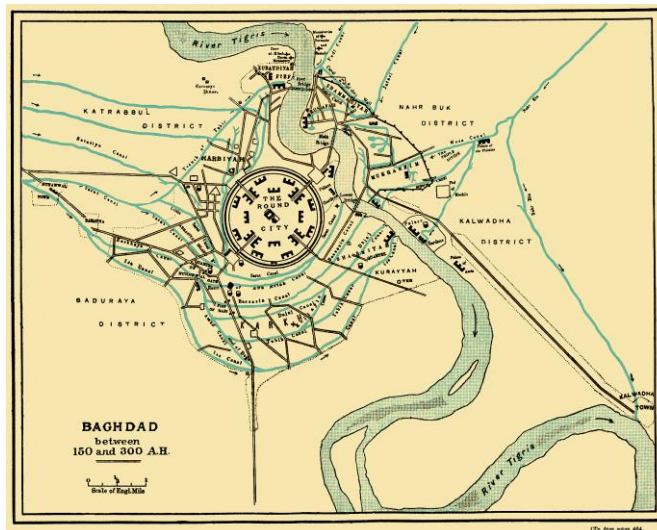


Figure 4.9: Baghdad between 150 and 300 A.H
Source: Negoita (2011, page.119)

Due to insufficient space in the circular city, it was a challenge to adapt to population growth, and hence, urban expansion grew outside the city wall. Each outside residential neighbourhood contained a special mosque and market. The main market “*Suq*” was located near the citadel. The streets of the commercial markets were covered in the city to provide protection from climatic conditions throughout the seasons of the year (Al-Hasani, 2012, pp.80-81). The network of paths was designed in hierarchy starting with the main roads which were followed by the secondary streets and then the alleys, as shown in Figure 4.10 (Pieri, 2008, p.267).



Figure 4.10: Part of a residential neighbourhood presenting its internal alleys and courtyards in Baghdad
 Source: Al-Haidary (2009, p.43)

The city was under attack by the Mongols in the fourteenth century, which led to a change in the original city (Gulick, 1976, p.246). However, the city returned to growth and developed subsequently. The city walls were destroyed in the mid-nineteenth century by order of the Ottoman Empire. The city was affected by British colonialism after World War I. A new structure was developed where the construction of new roads and others were expanded to fit carriages (Pieri, 2008, p.267). In recent years, Baghdad has faced several wars that contributed to the destruction of some parts of the city. However, the city still maintains its history and distinctive features.

- **Architectural character:**

Baghdad has continued to grow and expand under different Islamic eras. The houses had two floors and windows covered with wooden shapes (Gulick, 1976, p.246), which were called “*Shanshil*”, like “*Mashrabiyya*”, to give shade in alleys between residential buildings, as well as privacy from the passersby in alleys (Figure 4.11). Gulick (1976, p.246) attributed the inability for high housing construction of more than two floors to the use of local building materials, such as a soft brick and also human values, such as family privacy.

Traditional houses contained an interior courtyard while newer ones showed Western influence and increasing affluence and often public buildings (Gulick, 1976, pp.250-251). Baghdad has one of the oldest schools in the world, Mustansiriya, which was founded in 1227. This school represents a distinctive architectural style through columns, colonnades and decorations, engraving and the *muqarnas*, as seen in Figure 4.12 (Al-Haidary, 2009, p.41).

Architectural details in the school and other public and private buildings reflect the traditional identity and image with a rich aesthetic vocabulary.

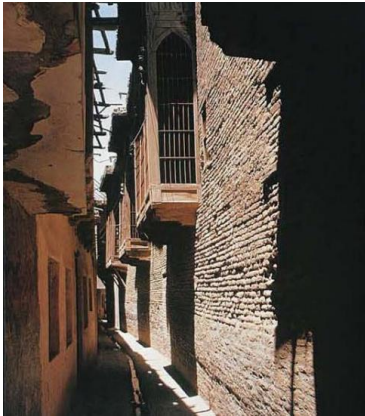


Figure 4.11: Shanashil and alleys in Baghdad
Source: Mandilawi (2012, p.128)



Figure 4.12: Mustansiriya University in Baghdad
Source: Al-Thahab (2013, p.929)

4.4.2.2 Cairo:

Cairo is currently the capital of Egypt and is a city of high population density and growth in the world. Its population currently stands at about 9,102,232 (CAPMAS, 2014). Cairo is located on the banks of the Nile River. Its climate is considered to be hot and dry, with a sharp sunshine and a low rainfall (Mohamed and Ali, 2014, p.6). The area was inhabited in ancient times, but its foundation as a city was established after Islam arrived (Mohareb, 2012, p.5). Arabs founded the area on behalf of Fustat in 642 (Raymond, 2000, p.5) and it was a camp for armies. The city has evolved and passed through many of the Islamic Caliphate, which has influenced its shape and identity. In addition, French and British colonialism in past centuries have influenced the form of the current city.

- **The urban form:**

As previously mentioned, the actual settlement of the Cairo area was in the seventh century. The city began to develop slightly and the roads were narrow but expanded at intersections. The streets were generally irregular in shape and main roads linked the quarters and the city centre (Raymond, 2000, p.21). However, a major point in Cairo city is that it was founded in the tenth century in the Fatimid era as “Al-Qahira” (Mohareb, 2012, p.5). Its form changed and the traditional urban fabric in Cairo was characterised by narrow streets, adjacent houses, and dead end alleys. The goals of these features were social relations, unity and security through semi-private spaces. The general structure was organized and the Casbahs were located

on the north and south axes, as seen in Figure 4.13. Secondary streets led to the areas inhabited by armies which later became the quarters of the city (Raymond, 2000, p.54).

Cairo has begun to grow and change in its form and its fabric. Thus, the city grew as an accumulated combination of urban form and architectural character that was shaped over historical periods. In Fatimid, Cairo was described as featuring regular, wide streets and large open squares (AlSyyad, 1992, p.32). In the Mamluk period between the thirteenth and sixteenth centuries, the city witnessed expansions in urbanization. The city also thrived in the field of architecture which continued during the Ottoman period and up to the present century of urbanization. The main streets such as Muiz and Mohammed Ali streets connected elements and buildings of the traditional city within its walls. The historical buildings such as mosques and markets are distributed on the main axes (Mohareb, 2012, pp.6-7).

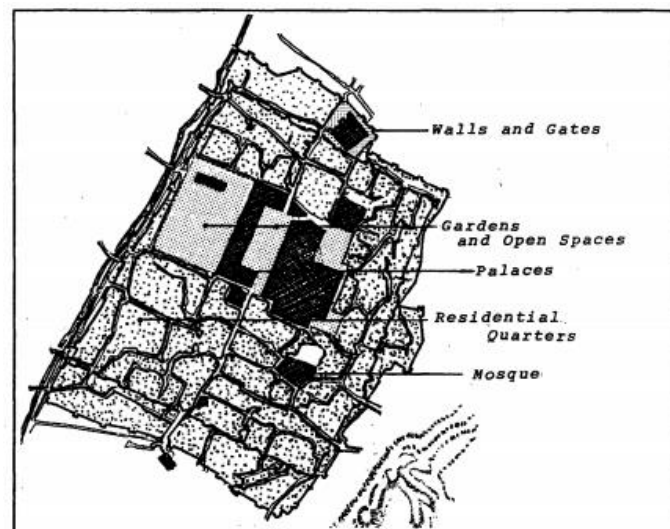


Figure 4.13: The structure of Fatimid Cairo
Source: Al-Sayyed (1981, p.12)

- **Architectural character:**

Cairo has a rich architectural heritage, which has been attained over past centuries, especially in the Middle Ages, and that still exists at the present time in old Cairo (Mostafa, 1987, p.762). As in other Arab cities, Cairo has a traditional urban and architectural character. The houses are characterised by courtyards with most of them either in the centre or to the side. The cohesive houses give shape to and facade of the streets and the similarities among the wooden windows (*mashrabiyya*) show the unity of residents, in which there is no difference between the rich and the poor in the residential quarter, at least outwardly (Abdel Moneim and Selim, 2012, p.183). These show the urban and architectural character of the city and thus reflect local identity (Figure 4.14).



Figure 4.14: Street on Old Cairo showing a Mosque and Mashrabiyya
Source: Abdel-Hadi, et al. (2009, p.4)

In the quote that is provided by Abdel Moneim and Selim, Ali Mubarak (1888) argued that people now have turned to the Western style with modern form, which provides better shape and standards at low cost, while old houses often focus on the internal courtyards with more space but are subject to humidity and dust, which may lead to impacts upon health (Abdel Moneim and Selim, 2012, p.174). This problem might be economic rather than one tied to social values. The openness of residents towards Western civilization might have led to a dilution of privacy and also the desire to change the housing style at a low cost. The impact of Western culture on local identity appears in some cities which were formerly colonized.

The population explosion and the migration from villages around the city of Cairo led to a rapid growth in the architecture and therefore modern architecture emerged in some areas inside the city, as well as the emergence of new cities around Cairo's postmodern architecture, as shown in Figure 4.15 (Rabbat, 2008, p.18). Continuation of this growth without control by the official authorities may make the city lose its urban and architectural identity.



Figure 4.15: Postmodern architecture in Cairo
Source: Rabbat (2008, p.18)

4.4.2.3 Dubai:

A modern city, Dubai is well known in the Middle East for its skyscrapers and economy. The city is located in the United Arab Emirates (UAE). It is the second Emirate after the capital Abu Dhabi in terms of the area size. It is located on the Arab Gulf. The city is considered to be in high economic development. Dubai is now one of the largest construction sites (Thapar and Yannas, 2008, p.1).

The historical context of the UAE area dates back to 5500 BC (Al Abed, et al., 2006, p.11). Nevertheless, some civilisation may have influenced the city, such as Persian or Indian culture. The strategic location of Dubai on the Gulf Coast and on the trade route between Europe and India contributed to the settlement of the area (Ramos, 2009, p.3). However, the most important factor influencing the city was the discovery of oil in the 1960s (Ramos, 2009, p.17).

- **The urban form:**

In the early twentieth century, Dubai consisted of three settlements located around the mouth of the Creek, as seen in Figure 4.16. Deira contained 1,600 houses and about 350 markets and shops for Arab merchants. Al Shindagah was inhabited by the royal family and Bur Dubai, the third settlement consisting of 200 homes, and included mostly traders from Persia and India. There was a fortress which was located in Al Shindagah serving as the Ruler of Dubai's palace (Rab, 2010, p.221). Most of the traditional buildings in Dubai date back to the nineteenth and beginning of the twentieth century, and are comprised of mosques (religious buildings), markets (commercial), houses (residential), and the fortified castle (defensive). These buildings were in response to worship, shelter, employment and business (Abedi and Soltanzadeh, 2014, pp.26-27).



Figure 4.16: Dubai in 1950 showing its settlements
Source: Bukhash (2003)

Houses and residential buildings constituted the majority of the urban fabric, which were divided into two types according to the economic situation of the inhabitants. Houses with courtyards were for the rich class while houses with palm fronds were for poor people. Markets were located on the coast in linear shapes (Al-Zubaidi, 2007, pp.97-98). These markets followed the shape of the coast and were dependent on maritime trade or fishing. Nowadays, the urban form of Dubai is composed of high-rise towers and mid-rise buildings, in addition to the traditional houses with courtyards (Thapar and Yannas, 2008, p.2).

- **Architectural character:**

Traditional houses in Dubai were characterized by courtyards and also wind towers, as shown in Figure 4.17 (Rab, 2010, p.222). These wind towers allowed air to enter the houses. Building materials were from the local environment, such as mud, wood and palm fronds (Mitchell, 2008, p.49). Architectural character in Dubai was characterized by adaptability, durability and simplicity (Al-Zubaidi, 2007, p.182). These features had resulted through using local building materials that fit with the environment.

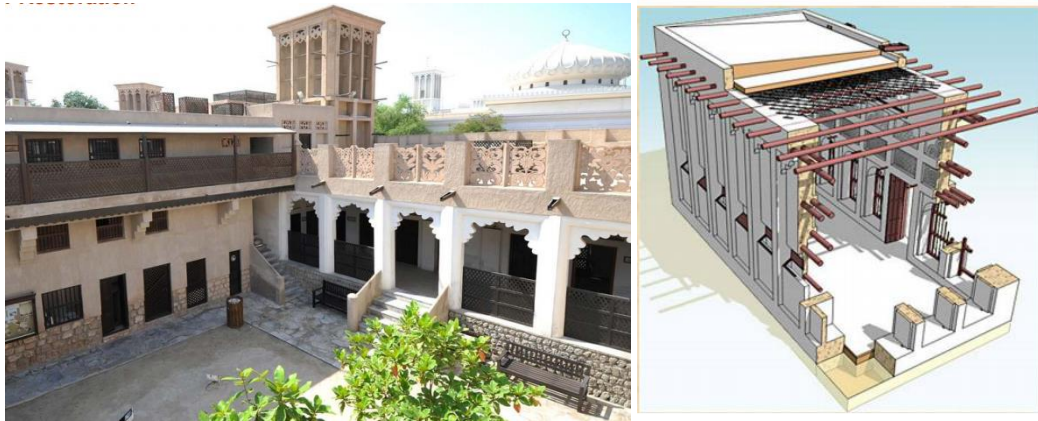


Figure 4.17: Courtyard and burj in AlUlama House; other photo shows the old method of building
Source: Bukhash (2003)

Since the discovery of oil, architectural and urban projects have increased in Dubai. It has transformed from a trade port into a global city, and has appeared in a variety of styles from the global architectural forms (Ali, 2010; Mitchell, 2008). Dubai's image shifted from traditional buildings to skyscrapers, a giant global market and upscale neighbourhoods (Kanna, 2011, p.38). Towers and skyscrapers appearing on the Arabian Gulf led to the demolition and removal of traditional buildings and thus, it led to a loss of local identity for Dubai. However, the urban and architectural character of the traditional city is still maintained, especially in Deira and Bur Dubai. The modern part of the city has brought Western architectural styles, including both modernism and postmodernism (Rab, 2010, p.225).

4.5 The urban image elements of the Middle East and Arab cities:

Traditional Arab cities have several key elements that shaped their urban form. These elements or components are similar in most Arab and Islamic cities. After reviewing some of the Arab cities in the Middle East, there are some common elements, such as the mosque or *masjid*, a religious institution that includes a school; citadel or *kasbah*, a ruler of the city palace; the *suq* which is a marketplace; a network of paths; the city wall or *sur*; and residential quarters or *hara*. These are the most common physical elements in Arab cities. Other public buildings, such as the *hammam*, a public bath, and *rabat*, a quarter for the poor and the elderly, may be found in some cities but are less important. There are also other social and non-visual elements which shape the urban image, such as privacy and social cohesion.

4.5.1 The physical elements:

1- Mosque:

The mosque is a distinctive landmark of the Arab city. It is a religious institution which is a dominant element in the Islamic and Arab city. The function of the mosque is not only to pray but also as an educational school and a meeting place for people. It is a comprehensive place in the life of the individual and society (Morris, 2013, p.387).

The site of the mosque is often in the centre of the city in order to be easily accessible from all over the city; however, in some cities, the Friday mosque is located on the outside of the city walls. In traditional cities, mosques usually have internal courtyards such as the Prophet's Mosque in Medina and the Umayyad Mosque in Damascus and elsewhere. Mosques also contain one or more minarets, depending on their size or importance. The prayer wall (*Qibla*) of mosques everywhere must be directed to the Holy Mosque of Makkah.

2- The *kasbah*:

A citadel is the seat of government in the Islamic and Arab cities. The site of the *kasbah* is usually next to the mosque in the central area. *Kasbahs* often contain special walls to protect them due to their important political position. In addition to that, it sometimes had an open space in front in which to enjoy popular celebrations (Bosworth, 2007, p.330; Hakim, 2013, p.57). The *kasbah* is sometimes located in a high place in the city to protect the ruler. In some cities, the *kasbah* is near the city wall and has a special crossing to the outside.

3- The *sug*:

The *sug* is the place of trade, buying and selling the requirements of life. *Suqs* differ in their classifications, such as special markets which provide certain goods and a general one. The public markets for daily life are often close to the mosque. Blacksmithing, carpentry and leather markets are often on the outskirts of the city or outside the walls. Some markets have special streets which are known by names such as the Silk Market, gold and other market mosques (Bear, 1970, p.635). Markets are usually on main roads (Wheatley, 2001, p.247).

Markets take several forms, including linear markets which exist in most Arab cities where the corridors may be roofed. There are “grouped markets”, in addition to a commercial building such *Wakalah* and *Khan* which appeared in the Ottoman Empire in Syria, Egypt and some other Arab States (Morris, p.390).

4- Street network:

Streets in the traditional city were not previously planned, as is the case in modern cities. It is in this sense that the pattern and form of buildings and housing define the roads and give them their shape. These roads differ in their widths and lengths and are also functional (Mortada, 2003, p.82). Narrow streets were environmentally beneficial as they contributed significantly in reducing temperatures through the shadows of the facades of buildings in addition to their curves, which help to limit dust and help with issues of privacy. However, the main streets generally had a minimum width to allow the passage of two loaded camels (Hakim, 2013, p.61).

5- Residential quarters:

The city is usually divided into several residential areas or quarters. These neighbourhoods have common elements, such as a mosque and a small market, and are considered an integrated unit at the quarter level and linked to the city by the main axes. Districts are usually divisions based on common characteristics of the population, such as tribes or ethnic groups or by special interest. These divisions are in an organizational form, but all residents have social equality under the rule of Islam (Saoud, 2002, pp.6-7). These quarters are often characterized by narrow alleys, as in the examples of traditional Arab cities. These alleys give privacy for the residents of the district.

6- City walls:

Cities built walls to defend them and protect them from external aggression and to save the city's population from thefts from abroad. These walls contain gates for entry and exit as well as observation towers (Hakim, 2013, p.60). Traditional Arab cities were characterized by these walls, as can be seen in Damascus, Baghdad, and old Jeddah.

4.5.2 The social elements:

- Privacy:

Privacy is one of the most influential social elements in Arab and Islamic city planning and residential buildings. It also affects the urban form through an influence on the formation of elements and their relationships which provide privacy and comfort to residents. This can be achieved in two ways. First, the orientation of buildings towards the inner courtyard gives privacy to the people of the house while the external facades are few and with small openings (Mortada, 2003, p.99). Internal courtyards appeared in houses that are located in warm, dry and desert climates.

Secondly, *mashrabiyya*, sometimes called *Alrouachin* (and *shanashil* in Iraq), are geometric wooden shapes covering openings to allow air and light to enter. In addition, they provide privacy through allowing people to see outside the house, while not allowing others to see inside. These were common in Arab cities and the Middle East, especially in Syria, Iraq, Egypt, Turkey and Saudi Arabia, and in hot humid climates (Sidawi, 2013, pp.32-33).

The issue of the separation of men and women to achieve the privacy of the household is customary in the Arab and Islamic cities, even in the design of the house, where there are spaces or rooms for the visitors so that they could not see women. There are also other solutions at the district level through asymmetrical external doors and openings to the opposite openings of the neighbours' houses (Abu-Lughod, 1987, p.167).

- Social cohesion:

Social cohesion is one of the Islamic principles that contributes to the nation's unity and coherence among the population and achieves cooperation among them. Social cohesion emerged through the narrow alleys in residential quarters, and that contributed to the solidarity between residents in addition to the urban fabric.

4.6 Contemporary Middle East and Arab cities:

Contemporary cities in the Middle East began after the First World War and the fall of the Ottoman Empire, which led to divisions in the Arab world in addition to the entry of colonialism and its control over most of their cities. Hence, the Arab city started a modern composition and transformation in the new transitional phase, building an independent personality based on economical and natural resources (Abu-Lughod, 1984, pp.1960-1974).

Arab cities in the Middle East are now the product of numerous factors and previous civilizations in their territories. In addition, the emergence of oil in Arabian Peninsula cities has led to rapid development and urban renaissance (Lingawi, 1988, p.15). Therefore, the governments in those countries attracted planners from Western countries to plan their cities (Al-Hemaidi, 2001, p.197). These factors had an impact on the shape of cities in the Arabian Gulf. In addition to these effects on the current Arab cities, globalization also led to the rapid transformation in the area.

Faleh (2013) stated that architecture is an important element that addresses the problems of contemporary Arab cities in terms of aesthetics, sustainability and visual

continuity in the urban character (Faleh, 2013, p.134). Local architecture is undoubtedly one of the solutions that enhances identity through the aesthetic vocabulary that it uses to reflect the architectural, cultural and historical character of the city.

4.6.1 Problems and challenges in the image of Middle Eastern and Arab cities:

Over the last fifty years, Arab cities have faced many changes and transformations that have affected their urban form and led to competing factors with regard to their traditional, social and urban identity (Al-Dosary and Mir Shahid, 2006, p.13). Most of the Arab cities have faced problems related to the image of the city and its identity in terms of physical and social aspects. Therefore, various researchers have pointed this out in their research. For instance, Cetin (2010) indicated that:

Arabian Peninsula and its culture is also suffering from the problem of loss of identity. Middle Eastern countries, in general, had to go through a sudden and destructive process rather than a gradual transformation whereby old and new values are reciprocally balanced and digested (p. 52).

4.7.1.1 Physical problems:

The loss of urban identity:

Loss of local identity is one of the problems facing Arab cities and especially affects those cities who planning foundations originated from the principles of Islam embedded in social and cultural aspects. Elsheshtawy pointed out some of the projects in the city of Riyadh, which led to changes in the image of the city and the continuing loss of local character (2008, p.133). In addition, he referred to the suffering of the city of Amman, Jordan, as a result of its loss of identity and the resultant sense of people not belonging (Elsheshtawy, 2008, p.39). What is more, Mahgoub pointed to the loss of identity and urban character in his study of the UAE cities (Mahgoub, 1995; Haggag and Rashed, 2003), and concluded that the loss of identity problem is a common problem amongst cities in the Middle East and the Arab world.

The loss of architectural character:

Architectural character also faces the problem of from where to copy Western architecture as large openings do not fit with the social principles such as privacy and respect for the rights of neighbours that underpin traditional Arabian lifestyles (Sidawi, 2013, p.26; Al-Ibrabim, 2003, p.67). In addition, Western architecture reduces the value of life and the

preponderance of family activities inside the house, which was hitherto evident in the houses with integrated courtyards.

Change in urban morphology:

Islam affects the urban environment. Arab cities are considered "*as manifestations of religious ideals, and so the structure and morphology of the Islamic city reflects the religion of Islam*"(Lingawi, 1988, p.8). Cetin (2010) criticized the current situation in Arab cities by noting that he believed that urban morphology refers to division and conflict while not sufficiently treating the problems. He also pondered as to how the traditional fabric of the Arab city was destroyed, erased and replaced by exotic features (Cetin, 2010, p.55). The transformation of the urban form in this manner was the result of multiple factors such as the development of modern transportation, which has led to the expansion and the adoption of straight streets in addition to the adoption of the Western regulations in the planning of new cities around the traditional core areas of the central heart of Cairo, Dubai, Beirut and others.

4.7.1.2 Non-visual problems:

Societal disintegration:

The Arab city has transitioned from a conservative and homogeneous society to a liberal and non-homogeneous society (Cetin, 2010, p.53). This may affect the unity of the community and its interdependence, leading to a loss of cultural and social identity which generally reflects on the dominant urban image. This phenomenon of redevelopment has affected cities across the globe since at least the mid 20th century as, for instance, Dockerill (2013) notes with regards to planning developments in the UK.

The most important challenges currently facing Arab cities are economic trends that lead to the neglect of the social aspects and how people's vision for their cities can be realised. City officials deal with the cities on the basis of investment profit, regardless of the identity of the city and the social cohesion of its population; factors which previously gave the Arab and Islamic cities significant interest, within the principles of Islam. Consequently, urban characteristics have changed from local to global, and this has led to the loss of a distinctive image. This challenge can be clearly seen in the case of Dubai and other cities in the Gulf.

Loss of privacy:

Large openings that have been integrated into buildings along with glass facades of buildings has resulted in the loss of much of the privacy that was hitherto a guiding principle of Arab cities in the past (Eben Saleh, 2002). In addition, the disparate building heights disclose the privacy of neighbours (Moustapha, et al., 1985, p.143).

A lack of planning policies:

The deficiencies in the holistic concepts presently applied to the planning system by planners and officials has led to a veritable smorgasbord of problems affecting the urban image and local identity in traditional Arab cities and the absence of competencies that are pivotal to one's being in order to understand the requirements of the Arab city in the modern era (Madbouly, 2009). Through the examples of cities that were presented in this research and the contemporary situation of Arab cities attracting Western planners or adoption of Western regulations, it is possible for the researcher to confirm the need for policies and planning protocols to deal with the urban development system that will control aspects of non-thoughtful growth.

Generally, the challenges that are facing Arab cities are those that are centred upon issues such as entry technology and modern means of transportation, and how these have conspired to lead to changes in urban character. This is one of the modern transformations, but the problem also lies in the cloning of building ideas and wider societal ideas from the Western world that are inappropriate for the Arab environment.

4.7 The differences between Arab cities and Western cities:

Traditional Arab cities are very different from Western cities as a result of several factors which encompass a plethora of aspects of life including religious, cultural, social and economic, as well as the history of the region, the human settlement and the many stages of transformations that Arab cities have passed through. Moreover, one of the most important factors which distinguishes many cities around the world are the underlying climatic and environmental conditions which formed the cities and influenced their initial, and ongoing, planning and design considerations. These differences play important roles in shaping the city image and how Arab people perceive their cities.

Religious factor:

There is no doubt that the religious factor or the principles of Islam is one of the most important factors that influenced the formation of the Islamic environment (Reshef, 1982, p.43). Indeed, it has placed bases and values that underpin the planning and design of Arab cities, as well as the composition of spaces and elements within them and with which religious buildings have a special importance as a consequence of their being a main pillar in the planning of the city. This is in addition to other principles derived from religion such as the neighbouring unit which is graphically illustrated below in Figure 4.18 (Al-Zubaidi and Shahin, 2008, p. 82).

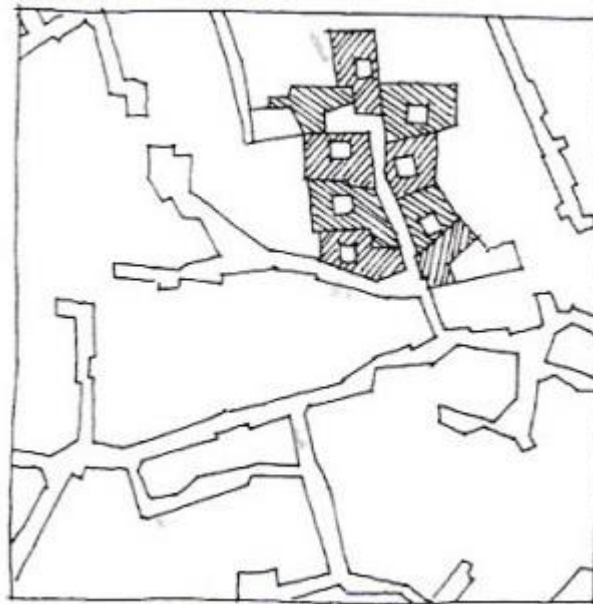


Figure 4.18: Neighbouring unit
Source: Al-Zubaidi, and Shahin (2008, p. 82)

Cities in general have been affected by religious and political factors, whether Islamic or those religions that dominate Western cities. Nevertheless, the religious factor in the Western cities had a weakening effect on city planning and control of the society from the thirteenth and fourteenth centuries onwards (Patty, p.12). In addition, the process of the English reformation along with the period of Enlightenment and the French Revolution at the end of the eighteenth century led, within the UK and France, to a further separation of religion and state whilst religion still represents a key influence upon Arab cities. In contemporary Western countries, the religious factor may have no fundamental importance in urban planning and may

be isolated from city life (Wieringa and Attia, 2005, p.11), as is often the case in societies that are dominated by the viewpoints of the liberal and secular.

Culture and social life:

Arab culture and social life has, throughout time, influenced the layout of the city. This is because of the long tradition of tribes who live together and constitute residential neighbourhoods in cities with their customs and traditions (Saoud, 2002), as well as social networking and family bonding creating a dynamic, longstanding and inter-generational social environment distinct from the Western cities that are less interdependent and are planned and classified based on the differentiation of class between segments of society.

Historical context:

Arab cities have a long history of human settlement and may be the oldest settlements in the world. Western cities, especially in America and Canada, are modern cities compared to the cities of the Middle East, where habitation and civilisation were only discovered about three centuries ago (Bonine, 1977, p.141; Silver, 2010, p.345; Andersson and Djeflat, 2013, p.19). Even if some of them do have a slight historical character or heritage, the depth of their history and heritage is not the same as that to be found in the cities of the Middle East or in Europe.

Urban morphology:

The urban fabric in Arab cities is organic and spontaneous with a network of winding roads in accordance with the needs of the population and environmental conditions (Figure: 4.19), In contrast, the dominant fabric in some of the Western cities follows a different layout and system such as grid planning, for instance in New York (USA) and Milton Keynes (UK). The streets are mainly basic and impose themselves at the expense of buildings (AlSayed, 2002). Janet Abu-Lughod (1987) stated that: *“There is no doubt in my mind that the historic quarters of Arab cities were built to be imageable in a way that gridiron planned Chicago was not”* (p.164). This may be related to the US or modern cities in Western countries, but the setting of the Arab region and climate contributed significantly to the organic planning, which is consistent with the nature of the Middle East.



Figure 4.19: Interrelated urban fabric – Morocco
Source: Ibrahim (1982, p. 42)

Traditional Arab cities offer a compact fabric that is not cluttered with contained open spaces (Figure: 4.20), as is the case in the Western concept (Ragette, 2003, p.51). Large spaces may be a mosque courtyard or the internal courtyards in homes, both of which offer a closed world in which privacy is paramount. The structure of the city centre is different between Arab and Western cities. In Western planning, the functions of each urban component or land use are often separated from the other in the sense that commercial activities are isolated from educational and religious buildings, while in Arab cities, there is integration and interdependence amongst the elements of religious, commercial, educational and public buildings in the city centre (Lingawi, 1988, p.155).

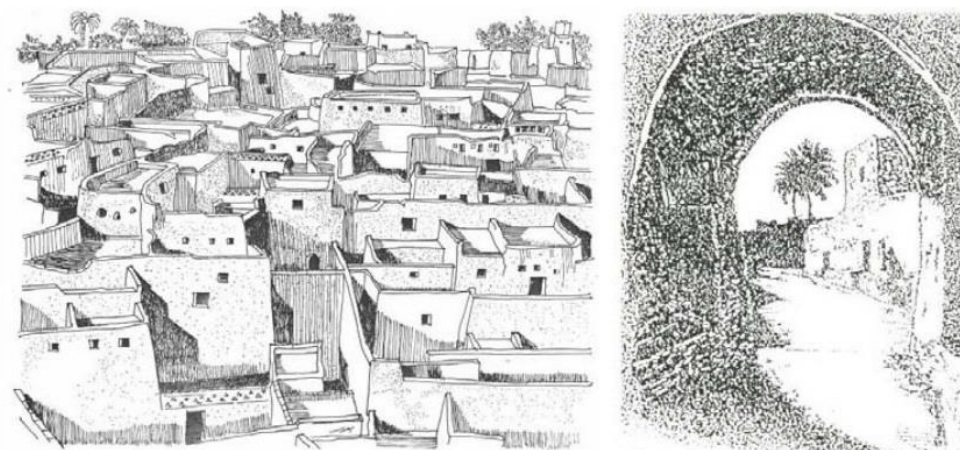


Figure 4.20: A compact organic fabric and alleys in the city of Ghadames – Libya
Source: (Saini, 1980)

Moreover, in the traditional Arab city, planning techniques give importance to culture and society, while in the Western world, planning contrasts with the traditions and beliefs and gives importance to efficient and rational development above all other considerations (Kiet, 2010, p. 41).

Kiet (2010) also stated that: *“The differences, however, in the concepts of development, community, aesthetics, planning, land use, circulation, urban form, and architectural form are great and require further examination to understand the future of planning in the Arab city”* (p.41). These differences reflect on urban form and how Arab people perceive their cities. This research envisages an example of Arab cities to better understand the image of the Arab city.

4.8 Conclusion:

This chapter has reviewed and presented the urban context of Middle Eastern and Arab cities. Arab cities and those of the wider Middle East have a long history, and have passed through many civilizations and transformative periods with regards to the development of their shape and urban fabric. Cumulatively, these varied processes have contributed to the formation of their image and identity; indeed, they are both the product of these factors as well as the environmental factors of climate and topography.

Social factors, especially the religious factor, have greatly affected city planning, and urban design through Islamic principles which has resulted in the establishment of the foundations of planning and set standards that were always traditionally taken into account in the design of cities. Social factors such as privacy and social cohesion are the social factors that contribute to the urban image.

Physical elements of urban form in Arab cities consist of a mosque, market and the Casbah in the city centre, then residential neighbourhoods and cities which are often protected by city walls. There is a hierarchy to the streets with regards to how these are connected to the centre and to residential neighbourhoods.

This chapter reviewed several examples of Arab cities, such as Damascus, Cairo, Baghdad, Beirut and Dubai in order to identify the characteristics and the common elements, including the religious factor that made these cities and other Arab cities similar in urban form and urban image in the extensive context.

Globalization and urban development, as well as colonialism in some cities, has been noted within this chapter as important factors that have influenced the development of contemporary Arab cities, and it was suggested that these have led to a local loss of identity, and to a transformation in the urban fabric of the Arab cities to the Western style. This, the chapter has further discussed, has been done without paying attention to the differences between the historical, social and urban context between Arab and Western cities.

This chapter also showed the Middle East framework which contains the visual elements such as the Mosque and other physical elements and non-visual aspects that are essential to the urban form such as privacy and social cohesion. In addition to these specific aspects, the wider problems and challenges that affect the urban image are graphically summarised in Figure 4.21.

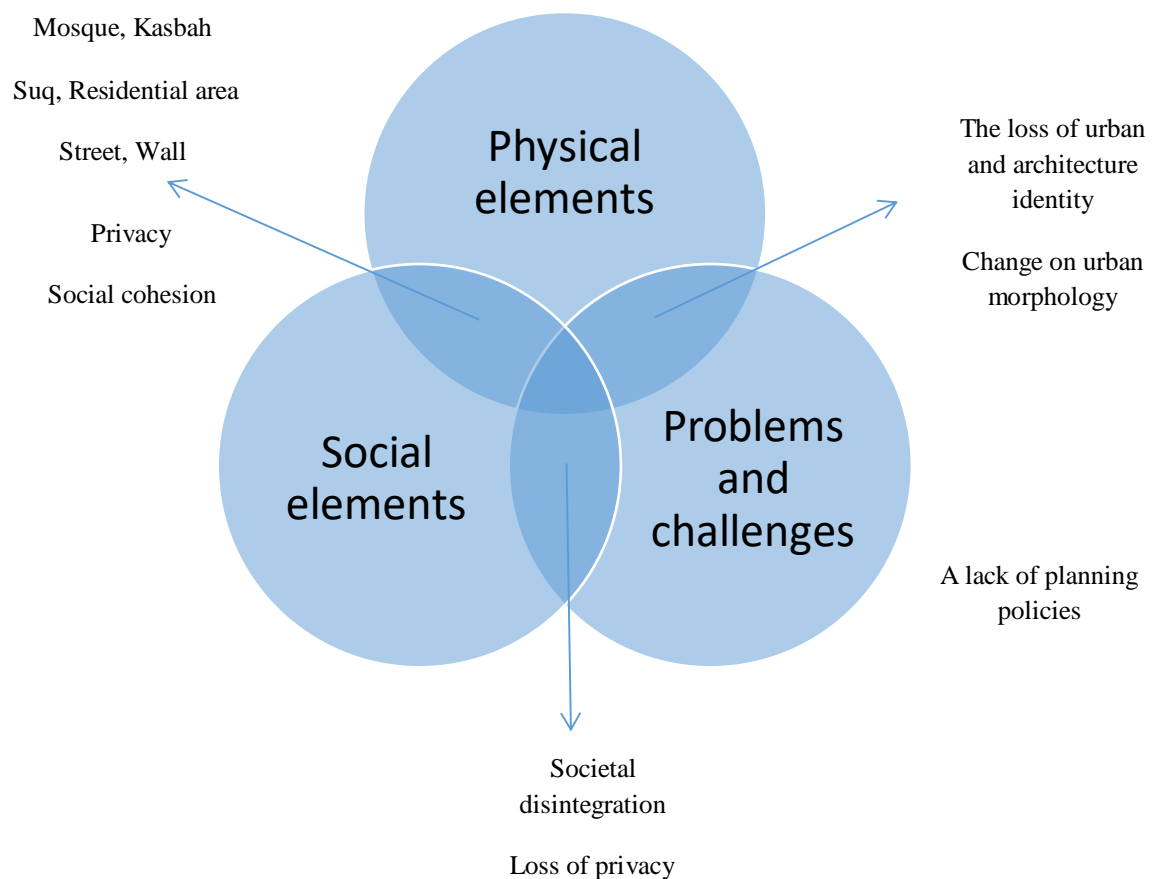


Figure 4. 21: The framework of Middle Eastern and Arab cities and its components,
Source: The author based on the previous studies.

In general, this chapter has explained the similarity in the overall shape of the Arab cities. Thus, any study of an Arab city may be useful in the general framework for other Arab cities. In addition, the chapter allows both the specialist and general reader to garner an appreciation for the key differences between Arab cities and Western cities and thus the chapter also gave preliminary comments as to why models of identity that have been applied to the study of Western cities may not fit in application to the specific characteristics of Arab cities. This chapter and the previous chapters built the framework to be used on the case study.

CHAPTER FIVE:
RESEARCH DESIGN AND METHODOLOGY

5.1 Introduction:

This chapter reviews and presents the methodology of the research and is structured into four main sections. The first focuses on the choice of research methodology. It discusses the previous methods used in the mental maps to obtain the perceptions of people towards a place and aspects of the methodology used and discussed relating to the seminal work of Kevin Lynch. The second section explains why a case study approach was chosen. The final section discusses the data collection and analysis approaches that were used.

5.2 Choice of research methodology:

Visual research has several methods. These typically include photography, videography, sketching, diagramming, storyboarding, model-making, prototyping, and so on (Boradcar, 2011, p.150).

Lynch asked people to draw a mental map of their city to see how they actually perceive the area and compared that with the physical map to understand the difference between the two maps (Lynch, 1960). This method is a good and useful way to understand and analyse the urban image, but there are some difficulties in that some people may not be good at drawing.

Following Lynch, Spreiregen (1965) suggested a new analysis of the city based on the methodology of Lynch that emphasized the importance of the visual survey to assess the urban image constantly, while protecting the good elements and addressing anomalous elements which need to be improved (Spreiregen, 1965, pp.50). The visual survey allows urban designers to look at the city and its parts that need to be reformed or reshaped in order to be more visible and clear (Spreiregen, 1965, p.49; Malt, 1970, p.63; Bădiță and Popescu, 2012, pp. 224-225).

In addition to the methodologies hitherto noted, the Visual Preference Survey (VPS) is a popular method in image surveying (Crisman, 2006, p.38). It is a way to analyse the characteristics of an urban space by producing images that define the environmental features of the place and the elements and forms of buildings, with the participation of the residents and their assessment of the city's image (Bădiță and Popescu, 2012, p. 225). This method gives residents participation in presenting their views and ideas and is a way to find out their impression about the image of the present community in order to build a consensus for the future (Nelessen, 1994).

However, this technique has been criticised due to its focus on physical aspects and its neglect or exclusion of historical, social, political and economic aspects (Crisman, 2006, p.38). According to Nelessen, the VPS analysis model combines two key elements to assess the city. The first phase is fieldwork; this is achieved by observing the urban configuration and the second phase is the public input of the people. These two stages contribute to an urban analysis and a vision plan that helps in developing the design guidelines (Figure 5.1, source: Nelessen (1994)).

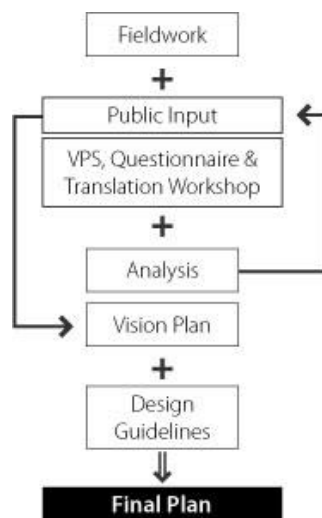


Figure 5.1: The VPS analysis model
Source: Nelessen (1994)

Bădiță and Popescu (2012) applied the VPS model in Romania to study the image of the city of Craiova. The survey was undertaken via the Internet by 100 respondents, and was divided into three sections: the first one was demographic data of the respondents and the second was “image rating”. The final section was open-ended questions which provided participants the opportunity to indicate Craiova’s topophilia and topophobia areas and the places where they feel the need for more urban development (Bădiță and Popescu, 2012, p. 225).

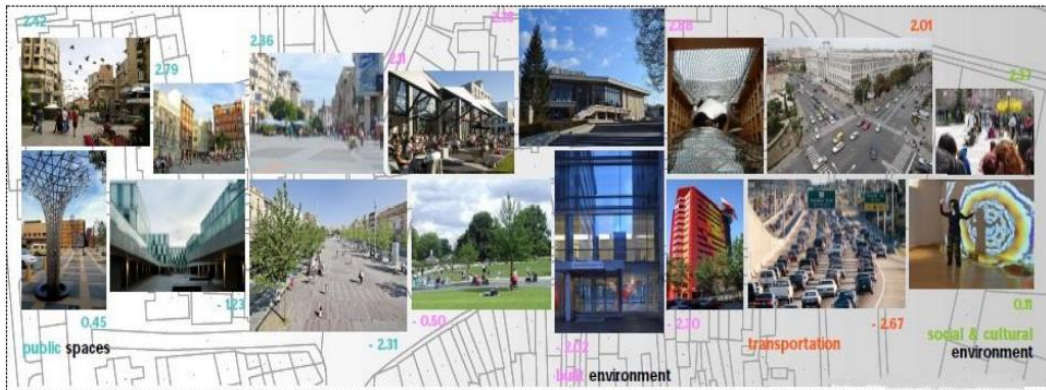


Figure 5.2: VPS images results with the highest and the lowest scores
 Source: Bădiță and Popescu (2012)

The Community Image Survey consists of 40 slides from a community or region. Approximately 80 percent of the slides come from the specific locale in which the survey is administered. Taken as a whole, the 40 slides present contrasting images of our living environment - its streets, houses, stores, office buildings, parks, open space and key civic features (<http://www.lgc.org>, accessed on 17/06/2013).

This technique (Community Image Survey) is a powerful planning tool and a way to encourage public participation that will help decision-makers. The pictures are shown to community participants in order for them to rate them from -10 dislike, +10 more like and 0 for a natural. Then, these images with their scores are displayed to the participants and they discuss their ranking and why they decided on those rankings.

The participatory video (PV) which also known as a community video is considered to be more effective than traditional methods which lack a voice in the community development and increase fair results (Kinson, 2003, p.143). This method is a quick tool to understand people's perceptions by producing a video and discussing that with them. As Johansson et al. (1999) expressed, one "*cannot imagine a more effective method to quickly comprehend the often-complex perceptions and discourses of local people than to produce, watch, discuss and analyse PV material together with them*" (Johansson et al., 1999, p.36).

A participatory video allows for the participants in the research to clarify and express as they want through voice and photo. This technique gives the participants in the research opportunity to present their views in an appropriate manner for them and the freedom to choose what they want to say and show through their thinking (Garrett, 2010, p.8).

Table 5.1: Comparison of various methods in urban image

Method	Mental map	Visual survey	Visual preference survey	Community image survey	Participatory video
Pioneer	Lynch	Spreiregen	Nelessen	(CLS)	
Aim	People's perception and evaluate urban image	Reform and assess urban image elements	Assessment of the city's image	Assessment of the city's image	Understand people's perceptions
technique	Sketch, drawing map and interview	Sketches, photographs, and notes	Photo rating Fieldwork Public input of the people	Photo rating and discuss with community	Producing video and discuss with them
Advantages	People can describe the city by words or drawing map	Not complicated, nor need it be done with a high degree of precision	Engage people to involve with a future scheme	Interaction with the community	Easy to use Present views through photo and voice
Disadvantages	Difficulties in drawing skills for some people	Lack of resident's perception	Focuses only on physical elements	Focuses only on physical elements	Limited video and time

Source: The author based on Lynch (1960), Spreiregen (1965), Nelessen (1994) and CLS.

Based on the above reviews of the different methods and techniques (Table 5.1), each method has advantages and disadvantages. This research attempted to take advantage of these methods that commensurate with the objectives of the research and its questions. So, Lynch's methodology seems the most appropriate to investigate the case study supported by other techniques in order to obtain more information serve the main aim.

5.2.1 Research methodology adopted:

The main aim of this research is *'to develop the urban image in the Middle East and Arab World by building a conceptual framework based on Kevin Lynch's methodology and his associated concepts, to assess the urban image of the city and enhance the identity'*. To achieve this aim, the research used qualitative methods to collect the required data. Denzin

and Lincoln define qualitative research as: “...*multi-method in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural setting, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them. Qualitative research involves the studied use and collection of a variety of empirical materials, case study, personal experience, introspective, life history, interview, observational, historical, interactional, and visual texts that describe routine and problematic moments and meanings in individuals’ life*” (1994, p.2).

5.3 The research strategy:

A case study is seen as the most appropriate strategy to investigate a contemporary phenomenon within its real-life context as the urban image (Yin, 1984). Additionally, Yin (1984) emphasized that the case study is the preferred strategy when the boundaries between the phenomenon and context are not clearly evident in order to describe, understand, predict, and/or control the contemporary issues. This research investigates a contemporary issue in a real-life context where it attempts to understand and analyse the urban image and the city’s identity in order to develop a conceptual framework for improving the urban image whilst maintaining the city’s identity. The main question to be answered is “*How can one build and develop a conceptual framework for improving a city image whilst enhancing the identity that is appropriate for Middle Eastern cities?*” Consequently, a case method strategy is the most appropriate strategy for this research.

5.4 Data collection approaches:

The evidence from a case study can come from several sources such as documents, archival records, interviews, direct observation, participant-observation, and physical artefacts (Yin, 2009, pp.98-99). To obtain results and a better understanding of the city's image and link these to the research problem, mixed and multiple methods were chosen within the strategy of the case study instead of choosing one method. This research used field observation, in-depth interviews and questionnaires as the primary sources, and documents and archival records as the secondary sources.

The empirical study focused on the basis of the “perceptions of city people” of a varied range of city users: residents and decision-makers. In order to achieve this objective, the data collection stage was structured into the following practical phases (as Figure 5.3 shows):

- To study the changes in the original image of the city and the factors that influenced the loss of distinctive identity.
- To investigate people's perceptions of the environment and the city in which they live and how they see their city.
- To find out the opinions of experts, planners and decision-makers in the city about the urban image and how they take this into account in the urban planning and design processes.
- To find out the views of investors to see if they take the identity and image of the city into account in their investment projects.

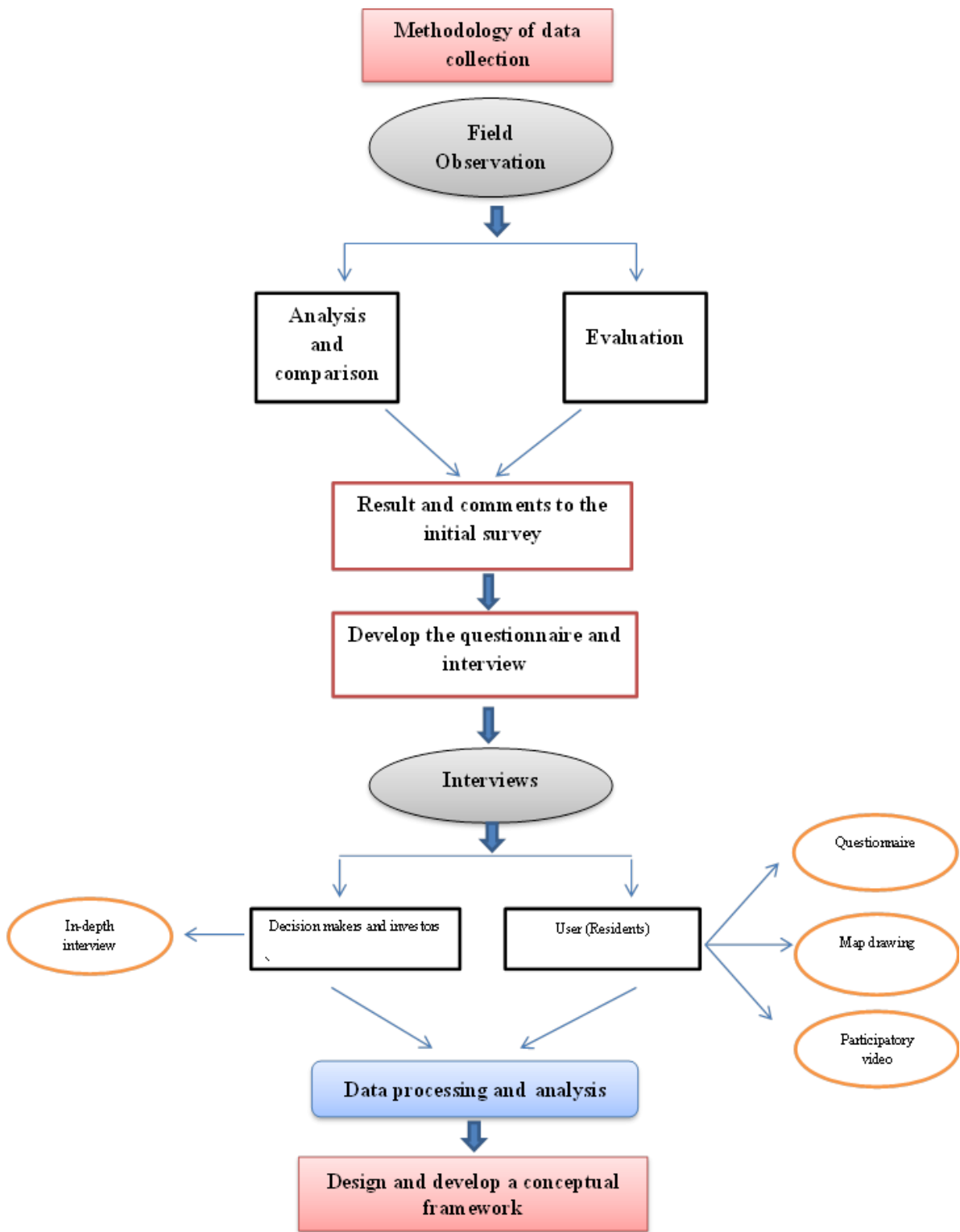


Figure 5.3: The methodology of data collection, Source: The author.

1- Documentation:

Documentary information is likely to be relevant to every case study topic (Yin, 2009, p.101). The documents can be "*letters, policy frameworks, regulations, guidelines. They provide a formal framework to which you may have to relate the informal reality*" (Gillham, 2000, p.20). Documentation is a direct source of case study evidence and is used to triangulate data that have been collected from other methods. The reviews of documents relating to the specific case study used in this thesis include archival records, such as previous maps and development plans for the city, in addition to population statistics and technical reports. These documents were collected from governmental bodies and authorities that are responsible in the city:

- Ministry of Planning
- The Principality of Makkah area
- Municipality of Jeddah (including the sub-municipality)

The main outcome of this document review was the classification of Jeddah into six areas in order to choose seven districts (one district from each area except the central area which was represented by two districts to cover variety in this area). The criteria that had been used in classification were:

- Topographic diversity: as the areas are divided based on different topographic levels or the climate aspect and whether they are internal or coastal areas.
- Land uses: whether they are industrial, residential, business and commercial or tourist areas.
- Historical dimension: whether they are historical areas, new areas or modern based on the time of their planning.
- Population density: whether the population is high or low density.
- Races and ethnic diversity: that contributes to the difference in the image of the city as a result of differing cultures and social status.

According to the above criteria, Jeddah city was divided into six areas: slums, the historical area, the industrial area, the northern area, the central area and the coastal area (waterfront).

- **Historical area:**

The historical area is the centre of the city and is the historic heart of the city. It is the old part of the city which contains the history of the city and its distinctive character. This part is called “Al-Balad” and presents the traditional Arab city through its character and its urban form that contributed to configuration of several factors such as environmental, religious, cultural and social factors.

After removing the wall of the city and, as a result of city expansion and outward urbanization and globalization, several factors have impacted the historic part of Jeddah. This has resulted in the demolition of buildings and this drew the attention of officials in the city (Jeddah Municipality). As a result, they quickly sought to preserve the remaining historic buildings by establishing a programme of historic city conservation. In this context, the conservation programme pursued two major tasks: to conserve a number of significant public and private buildings, and to enhance the urban environment (Abdulac, 1986, p.1).

- **Slums:**

There are fifty slums in Jeddah, which is equivalent to 60% of its districts, and is akin to 83 districts according to a recent map (2009). Around 1 million residents live in these slums. Most of the residents of these slums are non-Saudis who dwell in the area without building permits. These slums or unplanned areas have passed through four stages since the city wall was removed in 1947 (Jeddah Municipality, 2014).

- **Industrial area:**

The industrial city is located in the southern part of Jeddah city. It accounts for about 2,444 km squared, and includes the industrial zone that is home to 89,000 people.

- **Northern area:**

The northern area is a new and modern area in terms of architecture and planning. It abounds with villas and luxury buildings and its inhabitants are wealthy citizens.

- **Central area:**

The central area is the area extending from the historic central area to the north which was, as Jeddah Municipality notes, one of the first areas constructed after the wall of the city was removed in 1947. This area has a high population density and is where most of the city's population live.

- **Coastal area:**

The waterfront of Jeddah city is the interface along the coast of the city from north to south. The Corniche is seen as the main destination for tourism and recreational activities for residents and visitors. The coastal area is divided into three sectors; north Corniche, central Corniche and south Corniche (Jeddah Municipality, 2014).

2- Field observations:

There are two main types of observation when conducting research; direct observation and participant observation. Direct observation is often more of a detached perspective where the researcher is observing rather than taking part. Technology tools can be useful in a direct observation, for example, using video camera to record and collect the data in the field. The participant observation is one of the most common methods for collecting qualitative data and this is where the researcher is a participant in the context. However, this requires a long length of time in order for the researcher to become accepted and for observations to be accurate (Sothea, 2012). Observation can be done with formal or informal data collection (Gagnon, 2010, pp. 61). Therefore, this research chose the direct observation due to the limitations of time.

The observation of the case study was conducted through the study of the urban image in the original part of the historical city and compared with several examples within the modern city. All of the latter were built post 1947. The observations were carried out using several phases. These phases are: visit the site and take notes and draw sketches for details, (character, the urban fabric and the urban image) and test the initial conceptual framework, take photos or a video of the places that have been identified to do the comparison among them and uncover the changes in the urban image and identity.

This field observation was conducted to garner an understanding of the city and thereafter the researcher undertook an analysis of images and identity through sampling the study areas. Six sample areas are carefully chosen; one from each of the traditional and historical area, waterfront area, central area, industrial area, northern area and slum area (in this stage, the old area will be chosen for more details). Some sketches and photographs were taken for analysis as well as for evaluation and comparison of images and identity in the various areas of the city and their changes.

3- Interviews:

One of the most significant sources of case study material in this research was the interviews. Gagnon (2010) divides interviews with reference to terms of depth and detail into three types: open-ended interviews, semi-structured interviews and structured interviews (p.61). This method allows the respondent to talk about his views and ideas on the issue. The objective of interviewing is to understand the perspective of the respondent and his or her thoughts instead of just generating generalizations about his or her behaviour.

These interviews were held with ten people; five from government authorities (decision-makers in the Jeddah Municipality and its subsidiary municipalities), and five businessmen and investors in the field of urbanization in Jeddah city. The five government interviewees were selected based on their relationship with the subject in the field of planning and design projects in the city, while investors were identified based on their efforts and large projects in the city. All interviews were semi-structured interviews and used open-ended questions. The questions were expanded when required so as to obtain the largest amount of information possible on in the city. The interviewees, in both sectors, were chosen using snowball techniques starting with a key informant person in each sector.

Interviews with representatives of government authorities were around the following questions:

- What is the current image of the city?
- Has the image of the city of Jeddah changed from the past? And if it does, would you say that this is a positive or negative change?
- Does Jeddah maintain its identity or has it change?
- Are there specific criteria and policies for the city image in the planning process?
- How do you deal with new buildings and projects in the city? Are these projects subject to being studied for their suitability for the city's image and maintaining its identity?
- What do you think are the most important criteria in a city's image?
- What is your vision of the city image in the future?

Interviews with investors were around the following questions:

- Is Jeddah an attractive city for the investors?
- Why did you choose to invest in Jeddah? If you invested in other city, what are the differences between them?
- What does the city's image mean in investment projects?
- Are there any special standards in the city image and local identity that are taken into account in your investment projects in the city?
- Does the image of the city affect the investment projects from your point of view?
- How can you create investment projects, taking into account the city's image and local identity?

4- Questionnaire:

Questionnaires can be used to gather information in social research and can be used to directly collect specific data (Oppenheim, 2000). Oppenheim adds that, depending on their specific design, questionnaires may include checklists and opinion scales and evaluation scales and that they can be administered in a variety of ways, including, for instance, mail or as structured interview by phone (p.100). The questionnaire was used in this research in conjunction with the interviews. It was designed to enable the researcher, through the data that was compiled, to understand how the city is perceived and evaluated by the people who live and work within it.

Questionnaires were conducted with 105 people (15 of each selected sample district) so as to ensure, in keeping with the comments of Oppenheim, that a wide and generalized base of respondents was interviewed. The questionnaires were administered face-to-face in order to take advantage of meeting with people and discussing the issues with them. In addition, this approach allowed for the recording of information and further explanation of the questionnaire when needed, thereby maximizing its utility. These respondents were chosen randomly from those who live in Jeddah.

The efficiency and effectiveness of the questionnaires was further enhanced by piloting the questionnaire in order to test the structure and the questions. This pilot was conducted with seven people during the field observation to uncover the problems and difficulties in filling out

the questionnaire that was valuable for developing the structure and questions. The main questionnaire was carried out from January 2014 until April 2014.

The selection of the sample was randomly based on the availability of those who dwell in the area with an attempt to take into account the diversity of the demographics. All samples were men since it is culturally difficult to conduct interviews with women.

The questionnaire was divided into six sections:

Section One: Basic and general information:

The first part of the questionnaire asked the respondents about their relationships with the city. In this section, the respondent was asked some questions such as their age, length of residence (this question was important in order to ascertain his association with the city and whether or not he has sufficient information to answer the questions, especially those concerning the meaning and identity of the city). Respondents are summarized as follows in the tables below:

- Age

Table 5.2: Respondents' age

Districts	18 – 25	26 - 40	41 - over
Al-Balad	2	7	6
Al-Kandarah	8	6	1
Al-Karantina	8	4	3
Al-Rwouis	3	8	4
Al-Waziriya	5	8	2
Al-Salamah	6	9	-
Al-Shati	10	5	-
Total	42	47	16

- Education

Table 5. 3: Respondents by educational qualification

Districts	1-10	11 - 20	21 - over
Al-Balad	-	2	13
Al-Kandarah	1	3	11
Al-Karantina	-	3	12
Al-Rwouis	-	4	11
Al-Waziriya	11	4	-
Al-Salamah	6	9	-
Al-Shati	7	8	-
Total	23	35	47

- The length of stay

Table 5. 4: Respondents by the length of stay

Districts	School	Diploma	University
Al-Balad	7	5	3
Al-Kandarah	4	4	7
Al-Karantina	9	4	2
Al-Rwouis	1	6	8
Al-Waziriya	3	-	12
Al-Salamah	2	4	9
Al-Shati	1	-	14
Total	27	23	55

Section two - The urban image and identity:

Respondents were asked about the urban image and identity in Jeddah. The questions attempted to ascertain people's opinions and perceptions about the city through the following questions:

- What first comes to your mind when you think of Jeddah?
- How would you describe Jeddah's image? Please include positive and negative aspects.
- How do you distinguish Jeddah from other cities?
- Is there an identity for the city? Is it different from the past?
- How do you describe the city of Jeddah in terms of specific attributes?

Section three - Locating places in the city:

Pictures of some parts of the city were presented for specification by respondents as the following: "Would you please identify where this place is and what features help you to recognize it?"

Section four – The evaluation of the city image:

There are some aspects, which have been selected based on previous studies and the literature review as well as on the study that analyses city image of Granada (Luque-Martínez et al., 2007) (as detailed in the appendix), that were used to evaluate the city image. These aspects included:

Table 5.5: Aspects of evaluation of the city image

Aspect	Items
Architectural and urban aspect	Architectural and urban character, pattern, building style and types, landmark building
Transportation aspect	Transport service, parking spaces and traffic problems
Historical aspect	The importance of heritage and heritage preservation
Environmental aspect	Noise pollution, visual contamination and air pollution
Social aspect	Citizen safety, social integration and illegal immigration

Cultural aspect	Cultural events, museums and exhibitions, and cultural activities
Economical aspect	Shopping malls, tourist accommodation options, and housing
Services aspect	Health services, social services, and public services
Education aspect	Quality of university teaching and educational centres
Aesthetic aspect	Art and sculpture, quality of open space

Source: The author based on literature review and field observation

These aspects and elements were answered through evaluation where rating scales were used and scaled between strongly agree, agree, neutral, disagree, and strongly disagree. This assessment was used in order to uncover the problems and the factors affecting the urban image of the city.

Section five - Map drawing:

The respondents were asked to draw the part of the city where they live and to highlight the most important elements and features. Through the drawing, they were asked about the main elements and the features that, in their opinion, represented the districts.

Section six: Participatory video:

Respondents were asked to record a video clip of the city showing their local identity. Each video clip did not exceed one minute. It is useful to give the opportunity for respondents to express themselves more by using their voice and choosing their favorite places, which they see as representing the urban image and meaning to them. This technique was easy to use, especially with the spread of cameras in smartphones.

5.5 Data analysis approaches:

Analysis is the process or activity through which meaning is added to measured data (Haile, 2003, p.1). In order to analyse data in this research, appropriate analytical methods were chosen. These are discussed below.

5.5.1 Field observation:

The field observation was analysed through:

- **Urban Morphology (spatial analysis)**

Urban morphology is the study of the urban form and human settlements (Carmona et al. 2003). This study is concerned with understanding the urban form and character. The urban morphology was used in order to analyse the past and present of the historical city and to understand its current physical form and structure. Each sub-case was analysed and compared to the traditional area so as to see the differences or similarities.

- **Figure ground**

This is a basic tool used to understand the urban form through analysis of the relationship between solids and voids (Trancik, 1986). Urban solids may reflect the local identity and character of the city or neighborhood. These solids include public buildings, dominant urban blocks and edge-defining buildings, while urban voids can include streets, open spaces and inner block voids (Trancik, 1986, p.102). In this research, this analysis is used to distinguish between built-up areas and open areas in order to emphasize the urban patterns and density to compare them to other parts of the city. The seven districts were analyzed and their patterns described.

5.5.2 Interviews:

All interviews were transcribed in Arabic and translated into English. The classification is one of the most appropriate strategies for analysing the interviewees' views in this research. The conceptual framework components were used as a reference for these classifications. The five interviews with official authorities and planners were classified under the main concepts of this research which are urban image and identity, in addition to the planning regulation and policy to find out the criteria that related to urban image and identity. The other five interviews were with investors in the field of urban planning and design, and real estate in Jeddah. The interviews were also classified under the main topic and discussed the importance of the urban image in investment projects.

5.5.3 Questionnaire:

The questionnaire used quantitative and qualitative data for the reasons previously noted within this chapter:

- **Legibility analysis:**

This technique is based on Lynch's concepts of the city image, and people were asked to draw mental maps and categorize the main elements within them. The mental maps were derived from the drawings in addition to the interviews, which added more elements that were not drawn.

The scale of the mental map elements was classified into three levels based on the frequency reference to each element through questionnaires and drawings. The frequency levels were (2-5), (6-10) with the most frequent (11-15). AutoCAD software was used to present the outcomes of the mental maps analysis. The physical map was drawn by the researcher. It was based on his knowledge and his study of these districts through the field observation.

- **The evaluation rating scale:**

Information was collected about the urban image components and the factors influencing the quality of the image and was analyzed using Excel to get the proportions. The analysis of these data was based on the rating scale on statements.

- **Video analysis:**

Video clips were manually analysed through classification videos and elements were categorized into specific groups. Moreover, videos for each district were categorized based on the main physical feature that was presented in each one in order to identify the level of importance of these elements for the people.

5.6 Challenges and reflections on the methodology:

This research applied different techniques such as questionnaires, drawing maps, interviews and observation. The researcher faced some challenges in collection of data such as time as well as occasions when the respondents rejected the request to draw maps and take videos. For these reasons, the data collection took much more time than what was expected. However, some people were happy to help and hoped they could aid in improving their city. Drawing maps was difficult as respondents felt their drawing was not perfect, it was explained to them that it was not expected that these drawings would be perfect.

The second challenge related to the field observations, especially in the slum areas where most of the people who live there are non-Saudi and are there illegally. They believed

the researcher to be from the government authorities and therefore they felt threatened and escaped. The best way to deal with this situation would be to know someone from this area.

Another challenge was related to the interviews. It was difficult to meet with official authorities as most of them had responsibilities and meetings. Emails and contacts proved to be useless. The researcher attempted to deal with the challenge through personal contacts and visited them in their offices. Some of them avoided the interviews by stating that he was not competent enough to explore the research topic. However, five of them were excepted without recording their interviews.

5.7 Conclusion:

This chapter focused on the methodology of the research. It discussed the research and strategies that were adopted in the data collection and analysis design. The main methodology of this research is the case study that was used to investigate the perception of residents and to develop the conceptual framework of the urban image.

At first, the previous methodologies and techniques were reviewed in order to take advantage of previous expertise and to choose the most appropriate methodology. The chosen methods followed Lynch's methodology for the study of the urban image. The second section focused on the methodology and strategy that was adopted, which was the case study. The case study approach was best suited for the study of the phenomenon in the current situation which gave multiple choices of techniques and tools that contributed to the development of the conceptual framework of the research.

The third section focused on the strategies that were made in order to collect data such as observation, interviews and questionnaires. Then, the analysis of data that were used in the research were presented, such as the analysis of the city's image, mental maps and videos. Finally, some challenges in the data collection were discussed.

CHAPTER SIX:

**INTRODUCTION TO THE CASE STUDY
OF SAUDI CITIES: JEDDAH**

6.1 Introduction:

After reviewing Arab cities in general in Chapter 4, this chapter focuses on the city of Jeddah as a case study for Arab cities. It introduces the case study which was selected for the research. This chapter is divided into four sections. The first section provides an introduction to the cities and urbanization in the context of Saudi Arabia. It also presents the division of Saudi regions as the case study is located in the western region. Further, it provides a brief geographical nature of Saudi Arabia and the western region in addition to the urban character. The second section reviews the case study and in so doing it presents the historical background and development planning of the city, in addition to the social and economic aspects. The third section focuses on sub-case studies within the city.

6.2 The context of Saudi Arabia:

Saudi Arabia was a new country when it was established by King Abdul-Aziz al Saud in 1932. However, it has an ancient history (Wynbrandt, 2010; Janin and Besheer, 2003; Zuhur, 2011). The Kingdom of Saudi Arabia is one of the developing countries of the world which has witnessed a rapid growth in land development and urbanization that has brought about comprehensive changes at the national level.



Figure 6.1: Saudi Arabia location, Source: The Saudi Network (2014)

Saudi Arabia is located in West Asia, between latitudes 16' and 32' in the south, and between 35' and 55' in the north as shown in Figure 6.1. It has an area of about 2.149 million square km and a population of around 30 million (CDSI, 2014). Saudi Arabia is divided geographically into six major regions. Of these, the deserts occupy about 50%, plateau territory about 32%, the Hijaz and Asir mountains approximately 7%, the Northern plains close to 4%,

the Eastern lowlands around 5% and Tehama with the Western coastal area about 2% (Alhathloul and Edadan, 1995, p.3).

The urbanization processes in Saudi Arabia began in the middle of the last century after the discovery of oil. Since then, and with greater acceleration as the decades have progressed, the country has witnessed significant growth and its urbanization level has risen from a base level of between 10-15% (Alhathloul and Edadan, 1995, p.5) to about 82% (CIA, 2013). This significant rise reflects the high speed of urbanization in the past half a century. In the early 1970s, Saudi Arabia developed its first five-year plan that addressed the developmental processes of modernization for the infrastructure, as well as the social and physical structure of the cities (Saudi Embassy, 2013). Urbanization in the Kingdom of Saudi Arabia has passed through three stages namely, pre-oil, pre-planning, and post-planning (Alhathloul and Edadan, 1995, p.79). The first stage was to settle the nomads into abandonment.

Due to the expansion of the Kingdom of Saudi Arabia and its large size (2.149 million km²) and the diversity of its topography, there are differences in the composition of cities and the urban and architectural character of each region. Indeed, such differences are reflected in the nature of the environment and local materials, whether coastal, mountainous or desert areas.

At the present time, Saudi cities are becoming somewhat similar in composition while maintaining some of the traditional characteristics of the respective regions in which they are individually sited.

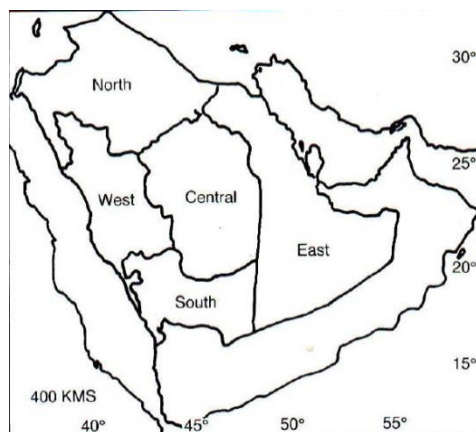


Figure 6.2: Main regions of Saudi Arabia

Source: Al-Mazrou et al (1995)

In general, Saudi Arabia is divided into five main regions: northern, western, southern, eastern and the central region (Figure 6.2). Historically, each of these regions has its own

customs and traditions, as well as architectural characteristics which fit and reflect the nature of the dominant environment within the specific sub-area of the Kingdom. The main or major cities of Saudi Arabia are Riyadh - which is the capital city of the Kingdom, Jeddah which is the main port on the Red Sea and the economical capital of the country, and the cities of the western region (Dammam, al Khobar, Dhahran and Jubil which are at the centre of oil production on the Gulf Coast (Janin and Besheer, 2003, p.15). The two holy cities of Makkah and Medina are the most important cities in the Kingdom because of their religious value (Saudi Embassy, 2013). In addition to several other cities which are less important than those that have hitherto been mentioned, there are in the north of the Kingdom, cities such as Tabuk and Hail and in the south, cities such as Asir, Baha, Najran and Jizan.

6.2.1 The natural environment in the Kingdom of Saudi Arabia:

- **Geographical location:**

Saudi Arabia is located in the southwestern part of the continent of Asia, in the heart of the Arabian Peninsula. It is bordered by Iraq, Kuwait and Jordan on the north, Yemen is located on its southern border, Oman to the south-east, and to the east by a plethora of countries; Bahrain, Qatar, the United Arab Emirates and the Arabian Gulf, and the Red Sea on the west.

- **The topography of Saudi Arabia:**

Given the wide area of Saudi Arabia, the geographical terrains vary from one area to another. There are deserts, mountains, plateaus and coastal areas as seen in Figure 6.3.

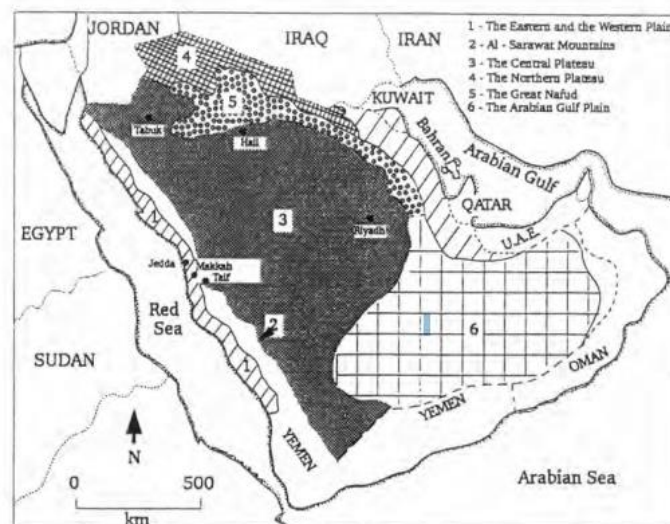


Figure 6.3: Topography of Saudi Arabia

Source: Al-Turki (1995)

- **The climate of Saudi Arabia:**

In addition to the previously discussed diversity of terrain in Saudi Arabia, the climate varies according to the terrain and geographical territory. However, the general climate is a desert or semi-desert and tropical dry. Rates of temperature, humidity and rainfall vary from region to region and from season to season (Sher and Aldosari, 2012).

There is no doubt that natural factors greatly affect the character of the urban fabric in any place, so the environment in Saudi Arabia has imposed certain circumstances on the population which they have been forced to adapt to and deal with. In Saudi Arabia, three types of environments are of specific significance: the desert environment, the mountain environment, and the coastal marine environment.

6.2.1.1 The natural environment of the Western Region:

- **Geographical location:**

The western region of Saudi Arabia contains the Makkah and Medina regions, with an area of 337 thousand square kilometres. It is located on the west coast of the Kingdom on the Red Sea.

- **The topography of the Western Region:**

The topography of the western region varies between the mountains, block lava, and the coastal plains, as well as the diverse valleys. The Sarwat mountain range is the most famous mountain in the western region and it extends from southern Arabia to the north and passes through the western region. Makkah has many mountains that form its distinctive topography (Touba, 1997). Madina has two sides of Lava blocks which are in south and west of the city (Mecci, 1975). Taif is located on the eastern slopes of the mountains and the Sarawat range enjoys heights of between 1,700m above sea level, and the height increases toward the west and south up to 2,500m. Jeddah is located within the Tihama plains on the west coast of Saudi Arabia and along the coast there are parallel chains of coral reefs which is important to note in this thesis because of the extent to which natural features can be mirrored in architecture and design.

- **The climate of the Western Region:**

The Kingdom's climate is characterized as a tropical dry desert, which is affected by its having a lack of rainfall and high temperatures in the summer. As a consequence of the various geographical topography aspects apparent in the western region, the climate is influenced by

highland mountain characteristics as well as those of the coastal plains. The humidity in the coastal regions rises, while the mountains prevent the arrival of the maritime influence to the inner cities of Mecca and Medina (Lingawi, 1988, p.110). In the highlands, the temperatures are low and there is frequent rain, as is evident in the city of Taif. In a similar manner, Jeddah's climate is directly influenced by its geographical location whereby the temperature rises and humidity also rises during the summer. In addition, rising sea temperatures and decreases in winter are due to the impact zone of moderate air mass associated with high air (Al-Lyaly, 1990, p. 10).

Through field observation and a thorough examination by the researcher of previous studies written upon the wider field of this thesis, it has been concluded that the clear influence of the terrain and climatic conditions on the formation of the city of Jeddah in character, fabric and distinctive buildings, in terms of the use of methods and techniques, and construction materials, which exist in the local environment, such as limestone reefs (Lingawi, 1988, p.71). These materials were extracted from the area near the coast of the sea and cut stones to be given forms and sizes, in addition to the high-rise buildings to resist the conditions of temperatures and high humidity in the summer.

6.2.2 Urban pattern and character in Saudi cities:

Before the unification of the Kingdom of Saudi Arabia, the cities within it were more like a series of small villages, for example: Riyadh was just a small village with a small population in the middle of the peninsula. It had mud buildings similar to other cities in the central region. Riyadh began the process of modernity almost half a century ago and tried to maintain its original identity but in so doing, experienced difficulties as it was (and is) the capital of the Kingdom (Elshestawy, 2008, p.121). Saudi cities remained in their former gradual development after unification with little changes until oil was discovered, which significantly contributed to the major change, development and a construction renaissance that led to Saudi Arabia developing into its present state.



Figure 6.4: A compact fabric in traditional city in Riyadh with courtyards

Source: Al-Hemaidi (2001, p.187)

The traditional cities in Saudi Arabia were planned and designed on the religious principles and cultural and social values of traditional Islam and also in accordance with the needs appropriate to their individual climatic conditions. Cities, though planned spontaneously, shared some similar characteristics with the main mosque located in the centre of the city and surrounded by open public spaces. In addition, there were winding roads that formed themselves spontaneously through residential areas (Moustapha, et al., 1985, p.141; Saleh, 1998). Residential buildings were focused inwards so as to maintain the importance of personal privacy, as well as to deal with the climatic and environmental conditions of the area of the Kingdom in which they are sited (as shown in Figure 6.4). For the purposes of construction, the dominant local materials were used and their colour and texture gave the cities their character and identity (Al-Hemaidi, 2001, p.197).

Planning and design principles of traditional cities were not equipped to adapt to technological advances such as electricity and telecommunicational devices as well as modern means of mass transportation. Thus, Saudi Arabia –in trying to adapt to modern requirements of globalisation- had to attract foreign experts in the arena of planning and the development of cities so that they could evolve in line with the demands of modern technology. Most of these schemes were Western and are not appropriate with the prevailing environment and local identity, and have, as a result, created many problems with regards to ongoing designs (Al-Hemaidi, 2001, p.197). This has led to the largest contemporary challenge in Saudi Arabian cities; to protect their original image and identity in the modern 21st century world.

6.2.2.1 Urban character in the Western Region of Saudi Arabia:

The presence of the holy cities in the western region of Saudi Arabia has given great importance to the area. Jeddah and Taif appeared as commercial centres near the holy cities (Alhathloul and Edadan, 1993, p.43). Nevertheless, the cities of the Western Region (Makkah, Medina, Jeddah and Taif) are similar in many of their urban characteristics and the elements of their urban images are a result of their proximity to each other, the similarity of their environmental and climatic conditions, and the extent to which their customs and traditions are based on similar traits of social fabric.

Urban patterns in the western region differ slightly from the other Saudi and Arab cities, in terms of their lack of internal courtyards. This may be due partly to the climatic conditions of the coastal city. This factor is added to by the mountainous obstacles in the holy city of Makkah, which limit the ability of the city to extend horizontally. As a direct consequence, the western region is characterized by multi-storey buildings, while the urban fabric is compact as Arab cities are blessed with winding streets (Zwemer, 1900, p.32). Buildings were characterized by large openings and covered wooden geometric shapes known as *Mashrabiyya* as shown in Figure 6.5. The *mashrabiyya* is useful from an environmental point of view because it enables an appropriate amount of air and light to enter the buildings. They are also important culturally and socially as they provide privacy (Eyuca, 2012, p. 21).



Figure 6.5: Historical buildings in Jeddah show mashrabiyya, Source: The author

However, in contemporary times, Makkah and Medina cities have lost many of their previously distinctive urban characters and distinctive identity (Al-Mahdy, 2013, p.43) as a result of the urban and architectural development and large projects that have appeared focusing on the economic side of life and the negligent approach that such developments have

shown towards issues of local identity and the character that hitherto distinguished the cities (Al-Mahdy, 2013). Historical buildings and landmarks were demolished and replaced by buildings shaped upon modern international models which have no relevance to the local environment.

Moreover, the city of Taif has undergone several acts of demolition which have resulted in the catastrophic removal of historic buildings and their replacement with many modern commercial buildings. However, despite this Western inspired cultural vandalism, there are still some historic buildings, in addition to the historical market in the city centre. Indeed, the urban fabric still brings visitors to view the character of the old Arab city. Jeddah remains the most important city in the western region, and still, despite the forces of globalisation and standardisation, retains its old identity (UNESCO, 2014). Historic buildings still preserve their styles and their distinctive architectural elements, whilst the city as a whole retains its urban fabric which is characterized by squares, narrow paths and winding roads.

6.3 Jeddah city:

Jeddah is traditionally known as the bride of the Red Sea (Bokhari, 1983). It is a Saudi city which is located in the coastal east of the Kingdom of Saudi Arabia (as shown in Figure 6.6). It is the second largest city in Saudi Arabia after Riyadh which is the capital of Saudi Arabia. It is the largest city in the Makkah region (Jeddah Municipality, 2008). Jeddah is the main port in the Red Sea and the major gateway to the holy city of Makkah which most Muslims arrive to via the airport to visit Makkah and perform the *Umrah* and the *Hajj* obligations every year. It has both a seaport and an international airport which is called King Abdul-Aziz airport.



Figure 6.6: Jeddah location in Saudi Map, Source: Wikimedia

Jeddah city is considered as the industrial and commercial centre of Saudi Arabia and also the capital of the economy and business. It is one of the wealthiest and richest cities in the Middle East. It is the second ranking diplomatic city of the Kingdom of Saudi Arabia in terms of its international importance. It is also an educational, health, and cultural centre and land communication. These varied aspects have made the city one of the most important cities in the Kingdom (Jeddah Municipality, 2010).

The population of Jeddah is estimated at around 3.4 million and this, from a national perspective, accounts for 14% of the total of the national population (Jeddah Municipality). The residents in Jeddah city are a mix of different nationalities and cultures who have come to the city over time because Jeddah is blessed by being a port in land, sea and air to the holy cities of Makkah and Madinah. This has contributed to the diversity of the urban heritage in the city.

The governmental system in Jeddah is one of monarchy. Jeddah, like other cities of the Kingdom of Saudi Arabia, follows the system of the royal State. Jeddah is in the region of Makkah. The city is governed by the Jeddah Province and this controls the city's affairs. The current governor is Prince Mishaal bin Majed bin Abdul Aziz Al-Saud.

The features and the strategic functions of Jeddah have been changed since 1947 when the city wall was removed. Prior to that date, it was a small city inside a city wall and also had about 30,000 inhabitants. In contrast, today Jeddah has become a large urban city with the high density of population (Daghistani, 1993, p.4). It is now an industrial and commercial city while historically it was merely concerned with fish and fishing. In addition to that, tall buildings have been erected in Jeddah to keep pace with global developments in the field of construction and urban renaissance. Jeddah is also known as a city of art because there are several world famous sculptures of art that can be found in its squares which are, as noted, scattered throughout the city and linked by winding streets and paths.

6.3.1 Jeddah population and Demographics:

Jeddah is the main gateway to the holy city of Makkah, where Muslim pilgrims come every year to do Hajj (Al-Saleh and Hannam, 2010, p.259). For more than a thousand years, Jeddah has received millions of pilgrims from diverse races and ethnicities and from different backgrounds that encompass the regions of Central Asia, South Asia, Africa and the Middle East, as well as Europe (Alhathloul and Edadan, 1993). Some of them have been so impressed by the culture, history and ambiance of the city that they have decided to take Jeddah as their home without returning to their original countries and have, as a result, become citizens. As a

result, Jeddah has become an ethnically diverse city and is now riddled with various cultural and social backgrounds which have influenced the city and its environment. In addition to this, the oil boom has influenced the city during the last half-century in attracting hundreds of thousands of immigrant workers from Europe, America and East Asia which has further increased the ethnic diversity (Mandeli, 2011). Jeddah is considered as the economic capital of the Kingdom of Saudi Arabia and its commercial centre has contributed to the diversity among the city's residents and immigrants who have come to work in the city from all over the world.

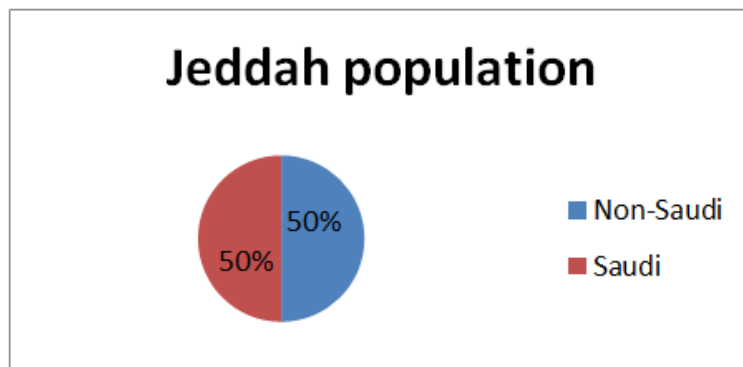


Figure 6.7: Population in Jeddah (Saudi and non-Saudi) and equal ratio between them
 Source: Central Department of Statistics and Information (CDSI), (Saudi Arabia), 2010.

As previously noted, the total population of Jeddah city is about 3.4 million and about half of its residents are non-Saudis (Figure 6.7). This shows the diversity of races within the city and makes it one of the Kingdom’s most diverse and liberal cities. In addition, the population by gender shows that about 58% of the residents are males, while 42% are females as shown in Figure 6.8:

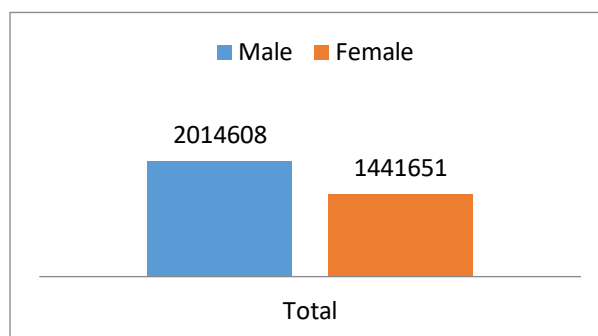


Figure 6.8: Total of Jeddah population by gender
 Source: (CDSI), (Saudi Arabia), 2010

The figures of population by gender show a marked variation between Saudis and immigrants, where females almost equal the number of males when measured purely in terms of their being

native Saudis, and there is a significant difference in the gender spread of foreigners. The percentage of foreign males is about two-thirds that of foreign females as shown in Figure 6.9. This may be due to the fact that foreigners are often single when they come to work in Saudi Arabia.

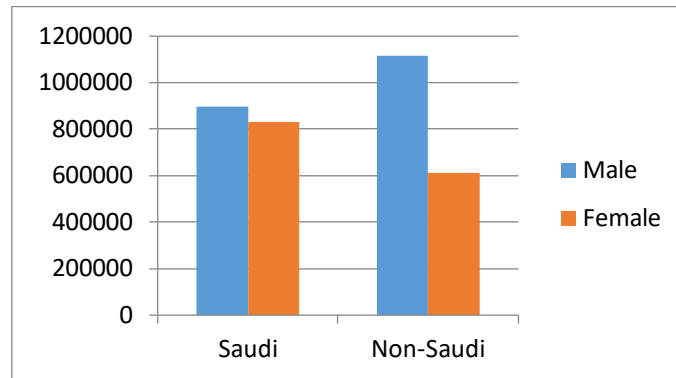


Figure 6.9: Population by gender between Saudis and non-Saudis
Source: (CDSI), (Saudi Arabia), 2010

6.3.2 The history of Jeddah city:

The history of Jeddah city and the stages of its development can be divided into several important stages that are considered by a range of respected academic historians as turning points in its history in terms of economic, political, physical and social aspects. Indeed, all of these aspects are important for evaluating the manner by which the city has changed and how the formation of the current old part of the city and its urban heritage was first initiated.

The first point is that of the Islamic civilization; Jeddah has become one of the most important religious cities in the Kingdom because it is near the two holy cities (Makkah and Medina). Its importance in this regard was especially significant and noted in the period of Caliph Othman, who first adopted the city of Jeddah as the marine port to Mecca and Medina in 647 (Bosworth, 2007). From that time, Jeddah has become the seaport to Makkah instead of the Shuaiba seaport and thus, increased its economic and commercial significance.

Given the importance of economics and trade of the city, a wall was built around it to protect it from external aggressions. Jeddah was dominated by Persians as Maqdisi said in his description of Jeddah as a city which was blessed with densely inhabited fortification, trade people and the wealthy, and shelters for Yemen and Egypt. The city has good straight alleys, and very intense heat (Maqdisi, 1991, p.79). The wall was built by Persian Sayar and Meas in the seventh century AD (Figure 6.10) as Ibn al-Mujawer noted (1996, p.56).



Figure 6.10: Map of Jeddah by Ibn Al-Mujawer 7th Century
 Source: Ibn Al-Mujawer (1996, p.57)

The city had a population of 5,000 inhabitants in 1050 (Kusuro, 1983, p.135). The city continued under the banner of Islam and there were no important events until the Mamluk period. After the weakness of the Abbasid caliphate, the Mamluk took control of Jeddah city. The Mamluks encouraged traders to use the port of Jeddah by reducing customs duties (Almabbadi, 1993). This contributed to the importance of the port and the city – an influence that has continued to grow to this day. At the beginning of the sixteenth century, the Portuguese began attacking the Islamic ships, and were considered by the elders of the town to be a threat to the city of Jeddah. As a direct result of this concern, it is chronicled that the Mamluks attempted to repel the attack and protect the city of Jeddah from Portuguese attacks as shown in Figure 6.11. Indeed, such was the concern and the importance of safeguarding the city of Jeddah that Sultan Guensoh Ghouri built a wall around the city to protect it from future risks (Bosworth, 2007; Mandeli, 2011).



Figure 6.11: The earliest known depiction of Jeddah shows the unsuccessful Portuguese raid of 1517. They never reached Jeddah again., Source: Gaspar Correa / Lisbon Geographical Society, from Aramco World.

The Sharif of Makkah and the English agreed to declare war on the Ottoman army in Jeddah in 1916. After the siege, the city of Jeddah came under the control of the Sharif of Makkah whilst also benefitting from being under the protection of Britain (Nasif, 1930, pp.49-51), which was especially significant given the global strength of the British Empire at the time.

The other turning point was when the city entered into the governance of Saudi Arabia, after signing an agreement in 1925 with the Governor of the Hijaz following another agreement between Saudi Arabia and the British in 1927. Since that time, Jeddah has been considered as an informal capital of the Saudi government in the west of the Arabian Peninsula (Figure: 6.12). It was the home to several world embassies and the headquarters of some notable government departments (Wahhabi, 2009, p.25).

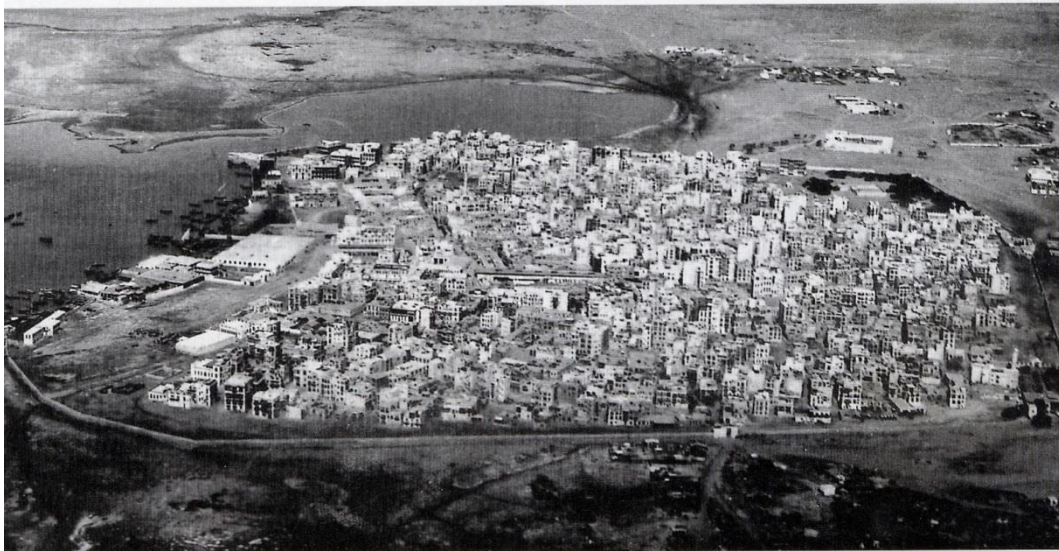


Figure 6.12: The view of old Jeddah in 1938, from the southern side of the wall, Source: Jeddah Municipality

The third turning point was the demolition of Jeddah wall in 1947 (Figure 6.13). The government of Saudi Arabia destroyed the wall of Jeddah to make way for urban growth without any consideration as to the principles of urban conservation (Abdu, Salagoor, Al-Harigi, 2002, p.132). This act has led to urban sprawl – which is a global phenomenon that has blighted many cities throughout the world (Dockerill, 2013).



Figure 6.13: Aerial photograph of Old Jeddah in 1948 after the wall was destroyed
Source: Jeddah Municipality, Planning Department

The fourth turning point was the boom period. During the period from 1970 to 1980, the city witnessed a dramatic increase in urbanization through migration from the suburbs and

newcomers from all over the world and the city's population grew at an explosive annual rate of 9.5 between 1947 and 1971; the population grew from 404,650 to 1.312 million in 1978 (Mandeli, 2008, pp.12). The government prepared comprehensive plans for the physical development of the city under the first five-year national plan for the period from 1970 to 1975. The master plan of Jeddah had been prepared by an international consultancy consortium - Robert Mathew Johnson Marshall & Partners in 1973 (Abdu, Salagoor, Al-Harigi, 2002, p.117). In the post-boom period and to date, the city of Jeddah has continued development and population growth, but at a rate of growth that is significantly lower than that which it experienced in the boom period.

6.3.2.1 The current old city:

Today, the historical city has a number of monuments and historical buildings and much heritage, such as the Wall of Jeddah, its historical quarter, a number of historical mosques, and an array of historical markets. These make up the primary destinations of the city's tourist industry. Led by the government and coordinated by the Tourism Authority in collaboration with the Secretariat of Jeddah, they have successfully registered the old city within UNESCO. The old city has been divided into four quarters, called "Hara". These quarters include Al-Mazloun, Al-Sham, Yemen, and the Al-Bahr quarters. Nowadays, the quarters remain but the wall, as noted, has been breached as it was destroyed on the altar of modernity, urbanism and globalisation. There are a number of historic mosques in particular: the Othman Mosque, the Mosque of El-Shafei, and the Mosque of Pasha. In addition, there are the old markets, including: Al-Jami market and Al Alawi market, as well as a large number of heritage buildings and monuments that not only still exist but are still being used on a regular basis by residents and transient tourists alike.

Jeddah is a unique example of a city with an historical urban and architectural tradition in Saudi Arabia. It is characterized by the beautiful palaces and houses which retain much of the technical elements and characteristics of the initial planning and resultant project is a homogeneous fabric. It gives a vivid example of an Islamic city. The urban fabric in Jeddah is characterized by its urban spaces such as small streets and squares which are considered to be the people's forum for their celebrations and festivals. The historical neighbourhoods of Jeddah are characterized by narrow streets which, like stone buildings, reduce heat from the sun and provide shade on the external corridors. In addition to that, buildings are adjacent to each other

and winding roads help to give the area a cold air that reduces the temperature. The mosques are considered as community centres.

In terms of architecture, the historical buildings in the city of Jeddah are unique models of multiple floor buildings with refined architectural details on the elevations of buildings especially mashrabiyya (the Roshans) which are the wooden distinctive designs (Sheriff, 2009, pp.65-69). This type of construction ceased in most cities and towns of the Red Sea basin many years ago. Buildings in the historical city of Jeddah consist of several floors because of the accommodation needs associated with the extended family, where the father, grandfather and grandchildren all live in the same house. Most of the historical buildings are of Hejaz character in the western region with some features of Egyptian and Andalusian architecture (Shaikh, 2009). The construction materials in the historical buildings are local with the exception of wood, which was imported. Walls were thick to protect the buildings from the climatic conditions and the thickness may reach 70-80 cm (oldjeddah.org) and the wall materials are often limestone covered with a layer of plaster. Windows and openings are usually covered with wood decorations and a small aperture which further adds to the protection of privacy, as well as issues pertaining to ventilation and lighting.

6.3.3 The development of Jeddah city:

The modern city of Jeddah began after the removal of its wall in 1947 and since that time, Jeddah has passed through five stages and developmental schemes as shown in Table 6.1.

The first scheme of redevelopment for Jeddah city after the removal of the wall of the city was prepared by Dr. Abdulrahman Makhlof in 1963. It was an area of about 700 km² and the possible capacity of the proposed new area was estimated to be between 1.1 and 2 million people. The master plan was designed to achieve a balance between competing factors whilst ensuring that there was interdependence amongst the needs of the population, as well as between land uses, whilst simultaneously enabling the city to adapt and embrace new urban growth trends. It was suggested that within the new areas there should be placed a university and sports and agricultural areas in addition to the urban expansion to the south of the historic city and the location of the new airport to the north (Makhlof, 1985).

The second scheme for the city was advanced by Robert Matthew in 1973 and it envisaged an area of development of approximately 800 km² with a potential capacity to house

between 0.8 to 1.65 million people. It was aimed to supply the city by a road network and embraced the idea of the development of a modern mass transit network. It also aimed to protect the historical district and to address the needs of different service users. Indeed, the development strategy was designed to continue the growth of the city northwards along with two axes of development on the Makkah and Medina roads. It was considered to be the base for the future development and growth of the city and lay the founding guidelines for future structures (Konash, et al., 1984). However, the implementation of the scheme did not achieve its objectives when the plans were transposed to the physical reality of construction on the ground. The historical area was also preserved as planned. This might have been due to the arrival of the largely foreign workforce in the oil boom and population increase associated within it in addition to the need to provide enhanced requirements for the private sector (Abdulgani, 1993, p.54).

The third scheme was planned by Sert Jackson in 1979 with an area of approximately 1,000 km² and envisaged living space for a possible population of between 1.6 and 2.25 million people. The master plan was aimed to reduce population densities and to ensure the separation of land uses, in addition to providing a framework for the establishment of facilities for future development. Moreover, the growth strategy was designed to keep the main factors in the scheme and to move industries that cause environmental pollution to the outlying districts of the city whilst also ensuring that due attention was paid to the central area (SJI/SC, 1980).

The fourth scheme was planned by Al-Somait in 1987 and was planned to cover an area of approximately 1,875 km² with a housing capacity capable of absorbing 2.2 million people by 2005. The master plan was aimed to provide a full and integrated road network system to the areas being extended, to address the problems of unplanned areas and to ensure that a longer-term balance was achieved amongst competing land uses, especially those required for residential areas. The growth strategy aimed to develop plans for areas with unplanned growth and direct growth to the vacant areas within the urban areas (Jeddah Municipality, 2013).

The fifth scheme was by the Environmental Consulting Group (AlBeea) in 2005 with an area of approximately 2,400 km² planned for expansion and an envisaged population capacity of 4.6 million. The master plan was aimed to make the city more sustainable, to improve movement through developing roads and public transport, to improve housing conditions and public services, and to enhance the land uses. The strategy aimed to make the

city a commercial and tourist centre by exploiting its strategic location (Jeddah Municipality, 2013).

Table 6.1: Master plans of Jeddah

Master plan date	Area (km ²)	Population (million)	Objectives	Growth strategy
1963	700	1.1 – 2	<ul style="list-style-type: none"> • Achieve needs of population • Create a balance between current land uses • Create new urban growth trends 	Suggest new areas and the urban expansion in the south and the north
1973	800	0.8 – 1.65	<ul style="list-style-type: none"> • Develop mass transit network • Protect the historical district • Provide needs of different services 	Continuity of growth toward the north
1979	1000	1.6 - 2.25	<ul style="list-style-type: none"> • Reduce population densities • Separate of land uses • Establish facilities for future 	Attention to the city centre and the implementation of previous suggestions
1987	1785	2.2	<ul style="list-style-type: none"> • Provide road network in extensions areas • Address unplanned areas • Create a balance for required land uses 	Growth directed toward vacant areas and guidelines for unplanned areas
2005	2400	4.6	<ul style="list-style-type: none"> • Develop roads and public transport • Improve housing conditions and public services • Enhance the land uses 	Make the city more sustainable, effective and attractive

Source: Adapted from Jeddah Municipality/Jeddah Plan

6.3.4 Social composition of the population:

Jeddah is a city with a diverse population and social structure (Othman and Anderson, 2006, p.116). There are several reasons for this: it is the main port and the gateway city for the two Holy mosques. In addition, before the demolition of the city wall, Jeddah residents comprised multiple ethnic groups with a mixture of Meccans, Ethiopians, Turks, Egyptians, Indians, Syrians and Yemenis (Shesha, 1982, p.134). Turks have also lived in the city because of their having ruled the city until the beginning of the twentieth century, whilst the Arab presence of Egyptians, Syrians and Yemeni - in addition to others like Bukharys, Indian and Persians (Al-Lyaly, 1990, p. 28), is primarily a consequence of established trade routes and the proximity of the city to the holy cities.

After removing the wall of the city in 1947, and with the construction that accompanied the economic boom and the emergence of oil in Saudi Arabia, the city expanded and increased in population size. The city also benefitted from the emergence of industries that contributed to attracting greater amounts of manpower from outside Saudi Arabia, as well as internal migration to the city (Al-Lyaly, 1990; Alshahrani, 1996). Variants within social structures and the denominations of population bases have increased after the expansion and now include Africans and East Asians, such as those from Indonesia, the Philippines and Bengal in addition to Moroccans and others (Basha, 1988).

- **Social life in the Old city of Jeddah:**

The traditional society of Jeddah was a coherent society based on expanding families and intermarriage among them (Al-Lyaly, 1990, p. 26). The residents in old Jeddah were very few and they communicated with each other intimately (Abu-Ghazze, 1994). They met in the squares and open places, and one of the primary manifestations of social life was that rich people gave to the poor and felt brotherhood, affection and interdependence with each other. Despite the ethnic diversity, there was no separation; it was homogeneous society according to Shari'a "Islamic law" (Al-Lyaly, 1990).

- **Economic life in the Old city of Jeddah:**

Economic life has thrived in the city of Jeddah since it became a port at the time of Caliph Uthman in the seventh century (Mandeli, 2011, p.123). Maritime convoys arrived to the city from Egypt, Ethiopia, India and other places, and markets spread in the city and it flourished commercially (Abu-Ghazze, 1994). There were several markets such as the Mosque market, Al Alawi and Bedouin suq where commercial activities are still held (Figure 6.14).



Figure 6. 14: Commercial activities in an old market, Source: Jeddah Municipality

- **The human condition (religious, social, economic and political aspects):**

Religious, social, economic and political influences have all played an important role in shaping the character of the urban fabric of the city of Jeddah. The religious factor is the most prominent of these influences.

- **Religious influences:**

The influence of religious factors on patterns of the urban fabric, urban form, and local character of Jeddah city are great (Abu-Ghazzeah, 1994). The mosques in the urban fabric are the core and the main centre, and this is where people associated daily and met with each other to perform religious duties. The mosques play an active role in the planning of the city and the distribution of land use; it is from where the streets and corridors start and thus the mosques connect dwellings and districts.

- **Social influences:**

Customs, traditions and social influences also play an important role in housing designs, especially with regards to issues of privacy and the separation of men and women along with the practical need to allocate appropriate places to welcome guests in the Arabic tradition (Abu-Ghazzeah, 1994, Alitany, et, al., 2013). These factors also influence the formation of the external appearance of the houses and especially, as discussed, their windows (mashrabiyya). In addition to that, building heights were set in such a manner as to ensure that there was no infringement on the privacy of neighbours.

- **Economic influences:**

Economic factors influence the formation of the city and play an important role in houses (Al-Lyaly, 1990). Economic factors are reflected on the facades of buildings through geometric shapes and designs on mashrabiyya and doors.

- **Security and political influences:**

There is, as numerous scholars have attested, no doubt that security and political influences play a prominent role in shaping the city of Jeddah and historically these issues were addressed through the provision and construction of a city wall (Bosworth, 2007, p.223). The wall rose to 4 meters and its purpose was to protect the city from external attacks.

6.4 The case study districts:

The selected districts:

Jeddah now possesses a series of large urban sprawling and diverse districts. Through an analytical study of the city of Jeddah, it was decided to study the seven districts that represent the primary areas noted earlier in the chapter. These districts are: Al-Balad, Al-Kandarah, Al-Ruwais, Petromin, Al-Waziriya, Al-Salamah and Al-Shati as shown in Figure 6.15.



Figure 6. 15: Locations of selected districts in Jeddah,
Source: The author based on Jeddah Municipality

- Al-Balad district: represents the historical city and the city centre of Jeddah.
- Al-Kandarah and Al-Ruwais districts: represent the central area around the historical district and its extension
- Petromin district (Quarantine): represents the slums
- Al-Waziriya district: represents the southern area near the industrial area
- Al-Salamah district: represents the new northern districts
- Al-Shati district: represents the coastal neighbourhoods and the waterfront

Al-Balad district:

The district is located in the core of Jeddah (Figure 6.16). It is the oldest district in Jeddah with an area of nearly 0.7 km². The district contains many markets and is considered

to be a trade centre. The population in the district is ethnically diverse. Most of the population is from the associated nations of Yemen, Pakistan and those of Africa and they work in shops. In addition, there are a few Saudi residents (Jeddah Municipality, 2005).



Figure 6. 16: Al-Balad District is located in the core of Jeddah (Google Map, 2013)

Al-Kandarah District:

The district is located in the central area of Jeddah (Figure 6.17). It is considered to be an expanded area of the historical city (Al-Balad). The district has an area of nearly 1.5 km² (Jeddah Municipality).

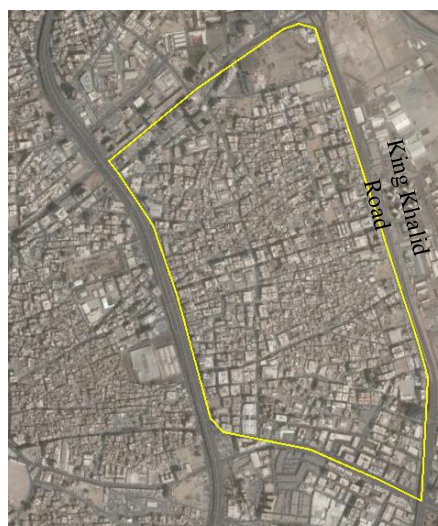


Figure 6. 17: Location of Al-Kandarah District (Google Map, 2013)

Al-Ruwais district:

The district is located in the central area of Jeddah (Figure 6.18). It is one of the oldest districts in Jeddah outside of the wall (which was knocked down in 1947). It has an area of nearly 3.77 km² and a population of 63,340 inhabitants with a population density equal to 176 persons per hectare (Jeddah Municipality, 2005). The district contains a slum area where the Jeddah Municipality is now administering a redevelopment project (Jeddah Municipality, 2008).



Figure 6. 18: Location of Al-Ruwais District (Google Map, 2013)

Petromin district (Quarantine):

The district is located in the southern area of Jeddah. It is near the Aramco Petroleum manufactory. It is also near to the Islamic port (Figure 6.19). The district is considered to be a slum, with an area of nearly 4.16 km². Most of the population is from Africa (Jeddah Municipality).



Figure 6. 19: Location of Petromin District (Google Map, 2013)

Al-Waziriya district:

The district is located in the southern part of Jeddah (Figure 6.20). It is a new area compared to the older ones located in the core centre of the city. However, there is a part of the district which is the old quarter. The district has an area of nearly 11.5 km² (Jeddah Municipality).

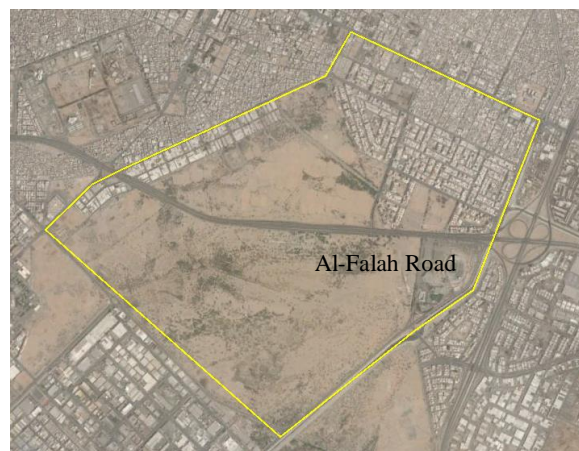


Figure 6. 20: Location of Al- Waziriya District (Google Map, 2013)

Al-Salamah district:

The district is located in the north of Jeddah (Figure 6.21). It is a new district in Jeddah with an area of nearly 6.68 km². It has a population of 90,100 people with a population density equal to 129 persons per hectare (Jeddah Municipality, 2005). The district is considered modern and inhabited by people with medium and high levels of economic security.



Figure 6. 21: Location of Al-Salamah District (Google Map, 2013)

Al-Shati district:

The district is located in the northwest of Jeddah. It is the most modern district and runs alongside the coastal area of Jeddah with an area of nearly 17.6 km² as shown in Figure 6.22. The population is about 29,000 inhabitants with a population density equal to 17 persons per hectare (Jeddah Municipality, 2006). It is a low density neighbourhood due to it being a new district and most of its area is comprised of investment projects on the coast. The district is inhabited by high-income residents.



Figure 6. 22: Location of Al-Shati District (Google Map, 2013)

6.5 Conclusion:

This chapter has presented a thorough and detailed introduction to the selected case study. It has also provided an in-depth overview of the changing dynamics of the city and how these are influenced by a variety of factors. In so doing, it has noted that Saudi Arabia is an urban country facing increasing urban development and growth and that this process has been in operation since the middle of the last century. It has also noted that the country is divided into five geographic regions and that each one is characterized by different geographical natures. Cities in Saudi Arabia are affected by climatic factors and topography, especially the hot desert climate, mountains and coastal climate in the western region.

The urban character of the cities of Saudi Arabia is similar. Meandering streets and mosques are located in the city centre of the case study city (Jeddah) and other similar cities throughout the Kingdom. Religious, social and climatic factors affect the urban character of the cities of Saudi Arabia and, as a result of urban development and the need – from that – to attract foreign planners, the urban fabric of the cities has changed and, along with it, issues pertaining to urban identity and image

Finally, the chapter noted the geographic location of Jeddah in the western region on the Red Sea coast and noted that it was affected by a highly humid climate. It was further opined that it is a fast growing city and the reasons for its expansion over time, including differences in its rate of growth, were analysed in expansive detail. Jeddah combines the history of the Al-Balad district with modernity present in the north of the city. The social fabric is homogeneous in spite of the different ethnic groups and this is due to religious factors that bring people together and how it also pervades all aspects of social life.

The chapter concluded by offering a detailed critique of the individual districts within the case study of Al-Balad, Al-Kandarah, Al-Ruwais, Al-Waziriya, Al-Salamah and Al-Shati. In the next chapter, these districts are analysed in accordance with the research methodology.

Chapter 7:

CASE STUDY EVALUATION AND ANALYSIS

7.1 Introduction:

This research stems from the choice of the city of Jeddah as an area by which to study the urban image of Saudi Arabia, as well as it being a model for Arab cities in the Middle East. This chapter focuses on an analysis of the case study in terms of its physical and social form. This chapter is divided into four main sections. The first section analyses the urban character and form in Jeddah. The second analyses the visual element of all districts. The third section analyses the non-visual elements. The fourth section analyses the video data. Thereafter the chapter concludes.

7.2 Urban character in Jeddah districts:

The urban fabric and character of Arab cities is derived from the social environment criteria, which are enshrined in Islam as previously discussed. Jeddah is one of these cities and the historic city is considered to be a representative example of a traditional Arab and an Islamic city. It still maintains its distinctive shape and its image as a coherent unit with a unique urban character. It has several features and characteristics of the traditional Islamic city, for instance, it has a compact urban form and a unity of the urban environment. However, the city was not planned around the great mosque like other Islamic cities. This was due to their economic significance. The public areas and open spaces are the centres of all social and economic activities which are near the local mosques. Therefore, the integration between mosque and the market “Suq” is still found (Figure 7.1). Today, the urban fabric has changed and transformed to cope with modern technology and modern transportation. In addition to that, new districts are planned in Western styles.

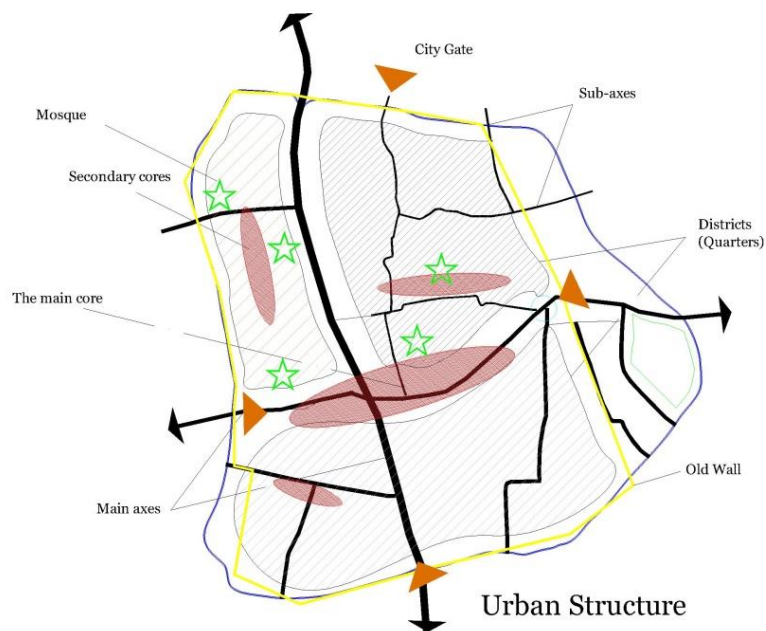


Figure 7.1: The basic urban structure of old Jeddah showing the centre *suq* with mosques,
Source: The author

7.2.1 The urban form of the city:

- **The marketplace “Suq”:**

The location of Jeddah as a major port played a key role in the development of the economic and commercial activities of the city. Therefore, markets spread in old Jeddah along the main axes. There are several distinct markets in Jeddah, such as Al Jami market, Al Alawi, Al Nada and others. These markets took a linear form along the main streets and consist of one floor and still exist and maintain their function as commercialists.

- **Mosque:**

There was no dominant mosque at the centre of Jeddah in contrast with other Arab cities. Mosques in old Jeddah were adjacent to markets and this confirms the strong relationship between religious and economic aspects in Arab cities. The most important mosque was Shafei Mosque (Al Jami) close to the Al Jami suq. Al Maamar mosque is located near Al Alawi market, and in addition there are the Al-Basha and Akash mosques near the Al Nada market.

- **Residential quarters:**

The city was divided into residential quarters despite the absence of clear evidence of a reason for this division. The main reason may be due to the main suqs or axes that connect the city from the inside to the outside. Therefore, the districts comprised of Al Madhloum, Al

Sham and Yemen quarters. Each of these quarters were linked to a major gate, mosque and Suqs. However, the Yemen quarter also contains what is now known as the Al Bahr “Sea” quarter. Within the quarters, there were some public buildings as seen in Figure 7.2. These buildings were located around the northern and northwest section of the wall in Al Sham quarter (Figure 7.3).

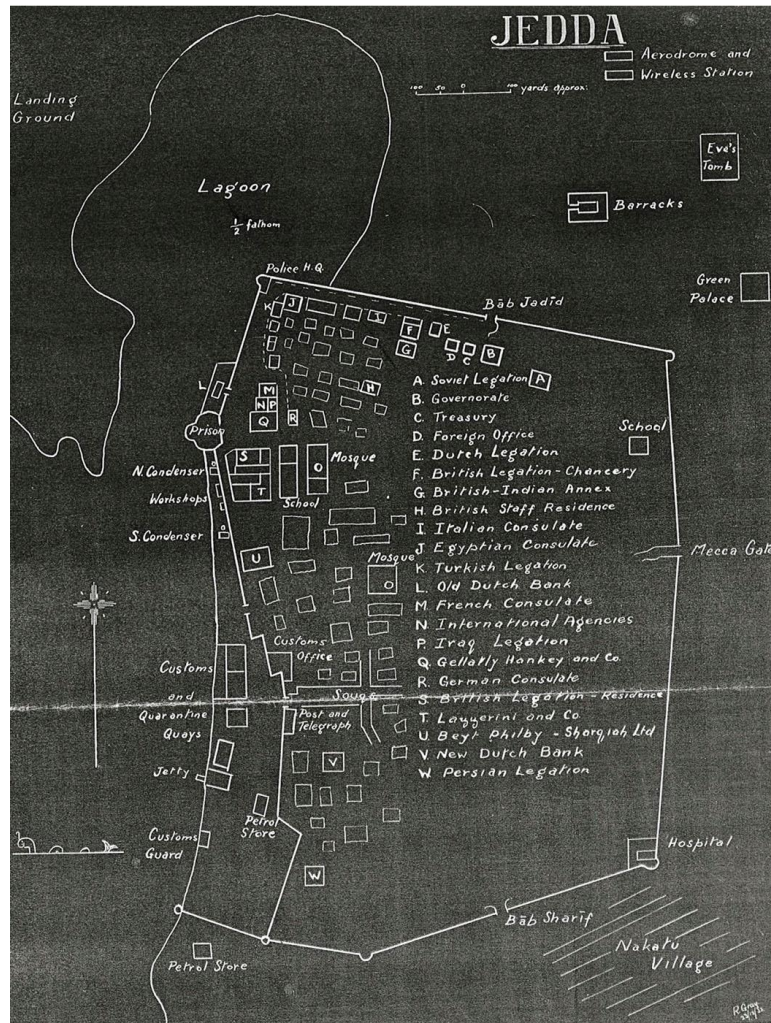


Figure 7.2: Sir Andrew Ryan’s map of Jeddah in 1931
Source: Bakr (2013)



Figure 7.3: Aerial photograph (1932) shows the north wall of Jeddah and public buildings in the northern part and Al-Dhahab street before its expansion

Source: Jeddah Municipality

- **Path network:**

The paths were essential elements where they were active in terms of movement and commercial activities. The paths in old Jeddah, similar to other traditional Arab cities, were divided into three types based on the hierarchical grading which were the main axes, secondary streets, and alleyways (Figure 7.4). The main axes were the roads that linked the city to the external areas while the secondary streets linked the main axes and the quarters, and the alleyways branched off the secondary roads to connect them within individual areas of housing.



Figure 7.4: Street network in Al-Balad district, Source: The author

The main means of movement were camels, horses and donkeys. Therefore, the width of streets was calculated upon being suitable for these means of transportation and pedestrians. Secondary streets and alleys were tortuous and irregular as a consequence of their being created between buildings (Figure 7.5). These streets have contributed to the environmental and social aspects of the city by minimizing reflections of sunlight and reducing wind, in addition to increasing the privacy of residents.

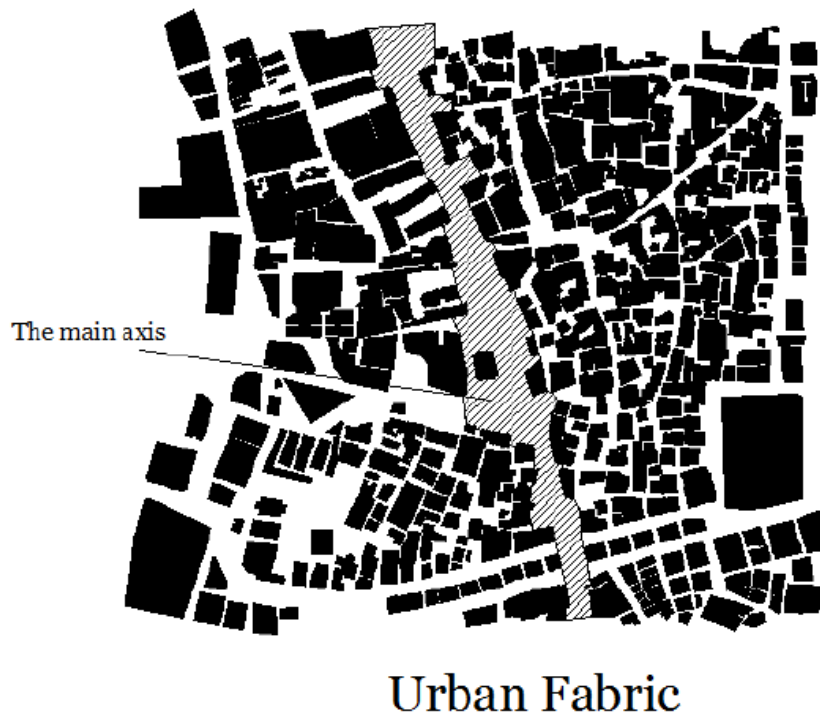


Figure 7.5: Urban Fabric of Al Balad district shows the main axis and tortuous and irregular alleys,
Source: The author

However, the streets have changed since the 1940s after the arrival of automated vehicles. The Saudi government added a new gate known as the Jadeed Gate in the north wall next to the Medina Gate which allowed the free entry and exit of vehicles. In addition, some streets were expanded, such as Al Dhahab street (Figure 7.6).

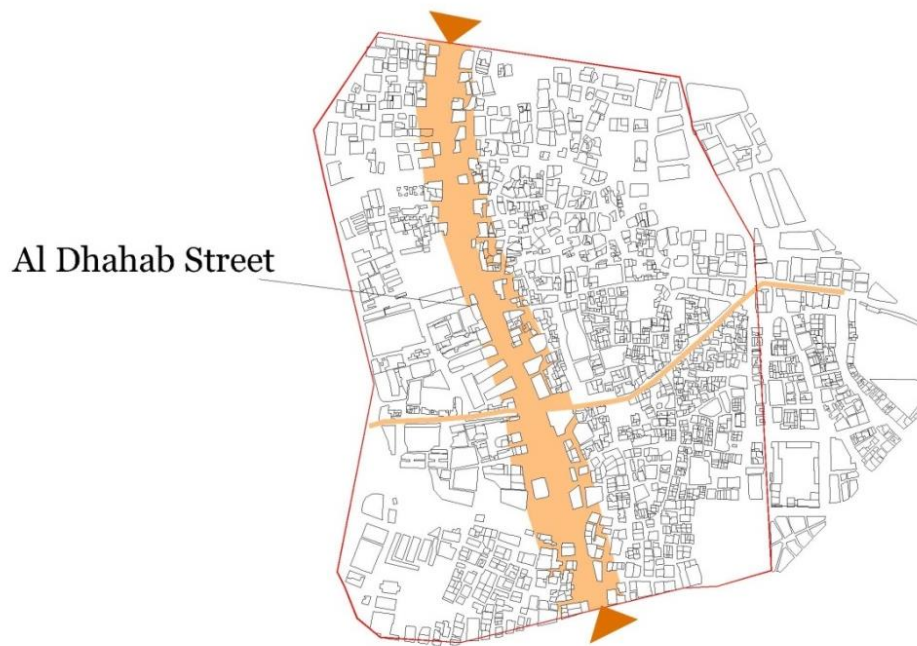


Figure 7.6: Expansion of Al Dhahab street compared to the other axes (Al Alawi and Qabil streets),
Source: The author

- **City wall:**

As mentioned previously, the city was surrounded by a wall that served a defensive function. The wall had seven gates that linked to the main axes that led to the heart of the city. The wall in Jeddah's old city did not take a regular form, unlike in other Arab cities as shown in examples of Damascus and Baghdad (Chapter 4). However, this wall was irregular, perhaps due to the topography of the site. The wall was built at a height of about 10 meters and the gates were constructed of wood with a thickness of 12-20 cm. Each gate was surrounded by two towers. In the 1940s, the Saudi government added a new gate to the old seven which allowed cars to enter and exit from the city. Later in 1947, the wall was removed to enable the expansion of the city (Figure 7.7). The city expanded in the south, east and north without planning. However, Jeddah has taken a linear expansion due to the edge of the Red Sea in the west and the mountains in the east.



Figure 7.7: Jeddah map after the demolition of the wall in 1948 and shows the directions of urban expansion
Source: Jeddah Municipality

The urban fabric of the historical area has changed since the demolition of the city wall; buildings have been demolished and replaced by other modern commercial buildings, especially to the west of Al-Dhahab street. Al-Balad contains nearly 3,000 houses inside the wall. In 1972, Robert Matthew developed regulations and classifications of historical buildings based on their historical and architectural significance (Figure 7.8):

- Class A: buildings of national importance (Red).
- Class B: buildings of regional importance (Orange)
- Class C: buildings of local importance (Yellow).

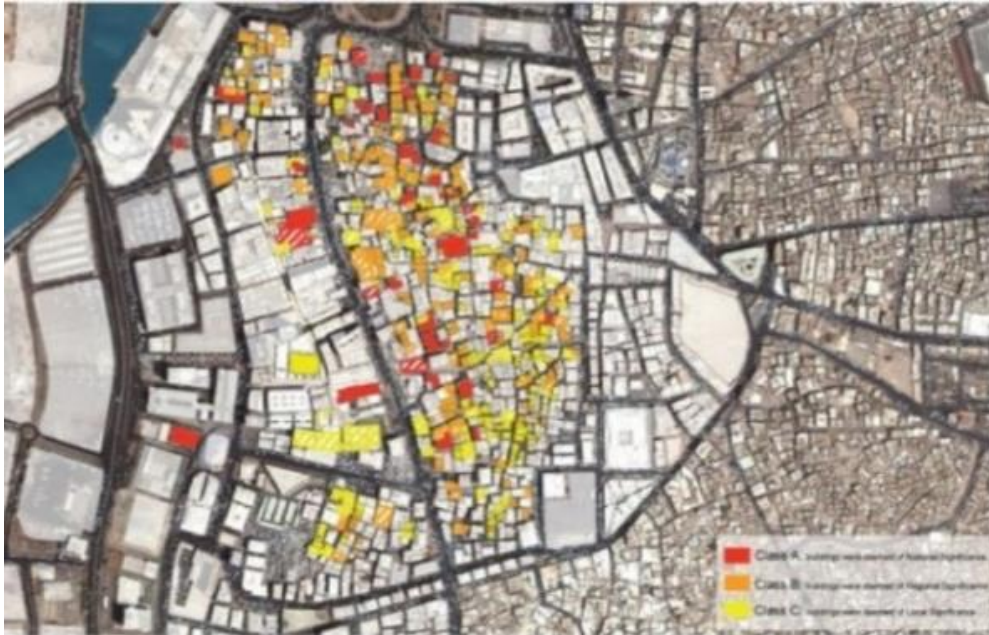


Figure 7.8: Classification of historical buildings in 1972
 Source: Robert Matthew from Jeddah Municipality

The number of buildings which have been classified and placed on the list of historical buildings is 557 and there are now only 312 of these buildings left. As a result, the fabric has changed (Figures 7.9 and 7.10).



Figure 7. 9: Aerial photograph, (1967), shows (Dhahab Street) and transform the western part into modern commercial buildings, Source: Bakr (2013)

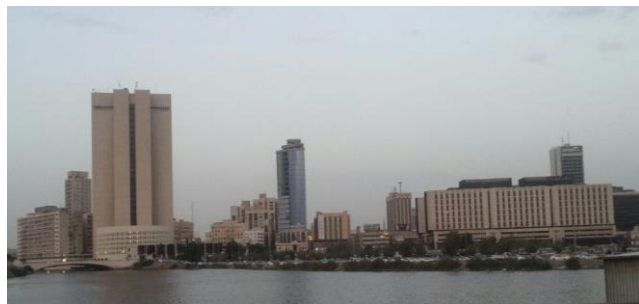


Figure 7. 10: the modern commercial buildings in the front of historical city, Source: The author

7.2.1.1 Evaluation of urban form:

Evaluation of the elements of urban form that form the image of the city is to build on the conceptual framework of the urban image and criteria that contribute to the degree of legibility.

➤ Paths:

To evaluate the paths in Jeddah, this research has adopted some criteria that help to assess the paths in the districts of Jeddah. These criteria have been chosen from the work of Lynch (1960) and some international applications of his methods. The evaluation criteria of paths include the following:

- Width and narrowness: Paths must be subject to width and length dimensions where these are determined by the design of the path and its purpose. Therefore, paths vary in their width and function, whether they are vehicle paths or pedestrian paths. In cities, there are often major roads, secondary roads and alleyways.
- Special facade characteristics: The facades of buildings or landmarks overlooking the paths are considered as one of the important criteria (Lynch, p.51). Architectural style, landmark buildings or shops are significant and give a special feeling when transgressing the paths.
- Visual exposure: This is also an important criterion to clarify in that the paths are prominent. When paths are open and exposed, this will increase the degree of legibility.
- Continuity: People feel comfortable with continuous paths.
- Clear and well known origins and destinations: The clarity of the beginning and end of the path contributes to a high degree of certainty in the purpose of the path.
- Directional quality: It is considered important to expand ranges of landmarks, or nodes on the paths, in addition to the distinctly marked or landscaped area in order to strengthen the direction.
- Harmony and integration with other elements: The path must not be separated from the other elements of the urban image; it must be integrated and consistent. The relationship between the path, the node and residential areas gives strength and clarity to the image of the city.
- Dynamic shaping: Dynamic shaping and formation of the path make people feel comfortable.

Table 7.1: Evaluation of the paths of the historical city

Criteria	main axes	secondary streets	alleyways
Width and narrowness	6-8 m	3-4 m	1.5-2 m
Special facade characteristics	Shops and commercial buildings	Residential buildings with shops on lower floor	Residential buildings
Visual exposure	High	Medium	Low
Continuity	Yes	No	No
Clear and well known origins and destinations	Yes	No	No
Directional quality	High	Medium	Low
Harmony and integration with other elements	Yes	Yes	Yes
Dynamic shaping	Dynamic	Semi Dynamic	Static

Source: The author, based on the field observation

The paths in the historic parts of Jeddah were designed according to their functions; their widths vary from 8 to 1.5 meters (Table 7.1). At present, and after the developments and the construction boom and the entry of cars as a means of transportation, these paths have been demolished and change the urban fabric. There were two main axes; one from north to south and the other from east to west. These were commercial axes, and large markets were built on their sides while the secondary streets had commercial facades on the lower floor with residential buildings and the alleyways had residential facades and a lot of privacy in contrast to the main axes.

➤ Edge:

Edges are the boundaries that separate the city from other cities or neighbourhoods. In the old city, the wall separated the city from the outside and the main axes also separated its quarters. The evaluation criteria of paths include the following:

- Singularity: It should be clear, visible and a notable character. In addition, it should contrast with the surrounding area. The singularity of the edge could be strong or weak depending on the degree of legibility.
- Landscape pattern: This identifies the edge and gives it identity. The topography, mountains, river and other such features could make the edge high or low in terms of its level of legibility.
- Continuity: The edge should be continuous such as the wall of a city so as to give it more clarity.

- Directional quality: The edge is similar to a path. The directional quality is important to make a strong image.

Table 7.2: Evaluation of the edges of the historical city

Criteria	Old city	quarters
Singularity	Strong	Weak
Landscape pattern	High	Low
Continuity	Yes	No
Directional quality	High	Low

Source: The author, based on the field observation

The edges in the old city of Jeddah are strong because the wall was a clear boundary and the main axes separated the quarters from two sides (Table 7.2). The main axes are paths, according to Lynch, and are not considered as edges. However, the main axes act as boundaries inside the city and may not be strong edges.

➤ Node:

Nodes are the focal points, intersections or spaces for human activities. In the old city of Jeddah, there were some examples of nodes such as traditional markets, squares and open spaces. The evaluation criteria of paths include the following:

- Break-points of transportation: The nodes or the junctions are as important as breaks in transportation. They help people to change their ways.
- Special location: The location of the node in the city or district is essential. It should be in a strategic site and has a function that serves people in the city.
- Spatial shape: This should commensurate with its functional importance where the spatial shape and node form should be compatible with its function. The node is designed to suit the activities related to it whether those be a market, a gathering place or an intersection.

Table 7.3: Evaluation of the nodes in the historical city

Criteria	Markets	Squares	Open spaces	Intersections
Break-points of transportation	No	Yes	Yes	Yes
Special location	Heart of the city and roadsides	On main roads	On the centre of quarters	On main and secondary roads
Spatial shape commensurate with its functional importance	Yes	Yes	Yes	No

Source: The author, based on the field observation

The nodes in the historical city of Jeddah are different (Table 7.3). They are clear and legible in markets, squares and open spaces but a little less clear in intersections.

➤ District:

The old city of Jeddah was divided into four quarters. Each neighbourhood has its own administration and boundaries. The evaluation criteria of paths include the following:

- Thematic continuities: These are one of the important criteria used to evaluate the image of districts. They include texture, space, form, symbol, building type, land use, activity, degree of maintenance and topography.
- Space, form, texture, and symbol: The district shows the size or scale of space and form and the pattern.
- Building types, land use, activity: This gives the identity and the image of the district. The types of land use encompass factors and areas such as industrial zones, commercial sites, and residential areas, amongst others.

Table 7.4: Evaluation of the districts of the historical city

Criteria	Al Sham	Yemen	Al Mazloun	Albaher (Sea)
Thematic continuities				
Space, form, texture, symbol	Linear, small	Medium	Large quarter	Medium
Building types, land use, activity	Residential, commercial	Residential, commercial	Residential, commercial	Residential, commercial

Source: The author, based on the field observation

The four quarters in the old city are similar in type of building, land uses, and form. Their characteristics gave them a clear identity (Table 7.4).

➤ Landmark:

Landmarks are the objects that are easily identified as external reference points. In the old city, there are several landmarks such as mosques and the distinctive buildings, as well as the large markets.

The evaluation criteria of paths includes the following:

- Clear form: Landmarks should be designed in a clear form. They should be well known and easily distinguishable from other urban features.
- Singularity: The landmark must be memorable and notable. It could be strong or weak.

- Contrast: The background of the landmark and surrounding area should be in contrast so as to magnify its prominence.
- Prominence of spatial location: The spatial location of the landmark must be chosen in a convenient and good location.
- Visible from many positions: The landmark should be seen and visible from several sites and positions. It should be used as reference point. It could be that this is achieved through its height, girth, or openness (Table 7.5).

Table 7.5: Evaluation of the landmarks of the historical city

Criteria	mosques	distinctive buildings	large markets
Clear form	Yes	Yes	Yes
Singularity	Strong	Strong	weak
Contrast with its background	Yes	No	Yes
Prominence of spatial location	Yes	Yes	Yes
Visible from many positions	Yes	No	No

Source: The author, based on the field observation

Comparison of Al-Balad district before and after removing the city wall:

This comparison is for a historical district which was the main town before the removal of the city wall in 1947. This comparison is based on observation, historical maps and images of the city, as well as the data compiled from the informal interviews held with residents. It can be summarized in the following comparison chart (Table 7.6). This comparison is based on the basic elements identified by Kevin Lynch in the study of urban images.

Table 7.6: Evaluation of the landmarks in the historical city

Element	Before	Now
Path	<ul style="list-style-type: none"> • The streets were intended for camel caravans. 	<ul style="list-style-type: none"> • Streets expanded to cope with cars • Some streets remain as walking paths
Edge	<ul style="list-style-type: none"> • The edges were defined through the city wall • Within the district, the main markets were slightly divided into the quarters 	<ul style="list-style-type: none"> • The edge is defined through main roads surrounding the area • The major streets inside the area are divided into the quarters
Node	<ul style="list-style-type: none"> • The nodes include the markets along the main streets • Small open spaces between the buildings are used as a place to gather for residents • Mosques were also used as gathering areas for neighbourhood residents 	<ul style="list-style-type: none"> • The nodes are still represented by markets • The open spaces are expanded due to the demolition of some buildings • Mosques retain their function as a node

District	<ul style="list-style-type: none"> • Quarters were divided according to the major Suq • There were three districts namely Yemen, Al Sham and Al Madhloum • Land uses were mostly in the form of residential buildings with some commercial buildings on both sides' axes and few governmental buildings on Al Sham (north-west) 	<ul style="list-style-type: none"> • Quarters are divided according to the major roads • The quarters are the same but Yemen is divided into two parts. The south part is known as Al Bahr quarter • The land uses have changed in the western part of Al Dhahab street where most of them are used for commercial purposes
Landmark	<ul style="list-style-type: none"> • Mosques are considered distinctive landmarks in addition to being a node through minarets and locations • In addition to some of the houses of senior traders, the mayor also lived there • As well as the Ottoman government buildings 	<ul style="list-style-type: none"> • Mosques are still landmarks, especially the historical mosques • Some public building such as Al-Falah school and new government buildings like the post office become landmarks • Some historical buildings are also now considered as landmarks

Source: The author

7.2.2 Architectural character:

While traditional Arabic buildings are characterized by internal courtyards used to regulate the temperature and ventilation, and to protect privacy, Jeddah had a lack of inner courtyards in its traditional buildings. These were replaced by windows covered with wood 'mashrabiyya' that filled the large external facades of the buildings. *Mashrabiyya* are considered distinctive and an integrated architectural element that distinguishes facades of traditional houses and works in a manner that is similar to the inner courtyards but their positioning is upon the external side of the building. The lack of courtyard enables traditional buildings to consist of several floors built of coral stone and plaster with teak shaped into beautiful geometric forms that decorate and cover the windows.

Privacy is an important element in the social aspect of daily life as discussed at considerable length in previous chapters of this thesis with regards to the noted cases of other Arab cities. The issue of privacy is realised in Jeddah on the historical buildings through the *mashrabiyya* that cover the large openings on building facades, and in addition provide a clear and visual separation between men and women. *Mashrabiyya* consists of very small spaces among geometric formations to allow air and light to enter the building and prevent passers-by from seeing the inside of the house.

Traditional buildings used materials that were extracted from the local environment. In the case of Jeddah this included particular extraction of substances from the sea like coral or sand shore. Moreover, some materials were imported from other countries, especially wood, which is an essential material for the making and the formation of *mashrabiyya*. Buildings were covered with plaster, which gave facades a soft texture and the use of white colour characterizes the traditional buildings in the old Jeddah.

7.2.3 Urban expansion and transformation:

Jeddah has expanded since the destruction of its wall in 1947. Since that time, the city has grown in terms of population and urban areas, and expanded in areas around the Al-Balad area. Indeed, only since 1947 has the Al Kandarrah district appeared to the east near the old airport, and the Al Ruwais district began to grow and evolve from mere huts of fishermen and sailors to properly constructed buildings and houses. The Al Sabil, Al Hindawaih and Karantina districts also appeared in the south. This expansion began randomly outside the old city without prior planning until the beginning of the sixties, when development mushroomed and the first formal scheme for planned development appeared. The city continued to develop until the oil boom in the seventies. During the period between the demolition of the wall and the oil boom, many districts around the old area appeared. This research focuses on three of them; Al Kandarrah and Al Ruwais and Karantina districts.

- **Al Kandarrah district:**

The district is located to the east of the historical district and is considered by many eminent scholars as well as residents to be extension to it. Al Kandarrah began in an unplanned manner by virtue of its strategic location near the former location of the airport. This has given importance to the neighbourhood and as a result, many hotels have been built along the main streets. After moving the airport to a new location in the north, the neighbourhood lost its significance and some hotels were removed. Currently, the neighbourhood is bounded by major streets such as King Khalid, Old Makkah and Old Airport roads. The urban fabric developed organically and spontaneously and the buildings are contiguous and coherent as shown in Figure 7.11.



Figure 7.11: The urban fabric and the street hierarchy of Al Kandarrah district,
Source: The author

- **Al Ruwais district:**

The district is located to the north of the historical district and was also developed in an unplanned manner. It has a strategic location in the central area of Jeddah. The district contains modern slums. At present, the slum area is underdeveloped.

- **Karantina district:**

This district is located to the south of the old district and was also unplanned and is, furthermore, an additional slum area with poor service and infrastructure. It is inhabited by a majority of African persons and illegal immigrants. The urban fabric is compact with narrow and winding streets.

After the oil boom, the new districts that have appeared are those such as Al Waziriya in the south and Al Salamah and Al Shati in the north. These districts are similar in terms of the urban fabric and their street pattern. The comparison among these districts is graphically illustrated in the visual form of Figure 7.12.

































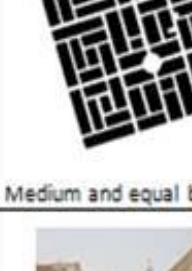












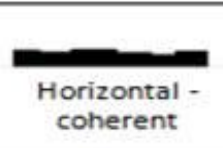



	Al-Balad	Alkandra district	Al-Ruwais district	Petromin district	Alalamah district	Albataa district	Al-Wazeeriah district
Location	 Centre of Jeddah	 Centre of Jeddah	 Centre of Jeddah	 South of Jeddah	 North of Jeddah	 North of Jeddah	 South of Jeddah
Figureground							
	 Point urban fabric	 Point urban fabric	 point urban fabric	 Spontaneous compact	 point urban fabric	 point urban fabric	 Linear and point urban fabric
Streets Hierarchy	 Organic and winding streets	 Organic complex	 Relatively regular	 Organic complex	 Regular	 Regular	 Regular
Block Analysis	 Small and spaced	 Small and convergent	 Medium/small and variety	 Small and cohesive	 Medium and equal blocks	 Medium and variety	 Medium and variety
Visual Formation	 compact Buildings and winding streets	 Varying heights and winding streets	 compact Buildings and winding streets	 compact Buildings and winding streets	 Regular streets and buildings with high fixed	 Regular streets and buildings with high fixed	 Wide streets and converged height buildings
Sky line	 Horizontal- coherent	 Difference in heights	 Horizontal with some vertical	 Horizontal - coherent	 Regular horizontal	 Regular horizontal	 Regular horizontal and graded

Figure 7.12:
Comparison of all districts in urban character,
Source: The author

A comparative study between the cases shows the difference between the old and new districts and this can also be classified with reference to individual time periods. Urban analysis shows the similarities among the old districts through the urban fabric, which is and compact. However, the historical city's fabric has changed and now appears more spaced out as a result of many buildings having been destroyed and the knock on effects of this with regard to the disintegration of the traditional social and architectural fabric of the area. Streets stretched organically and in a winding, nay meandering, manner in the older districts in contrast to the new districts where the streets are regular, straight and wide.

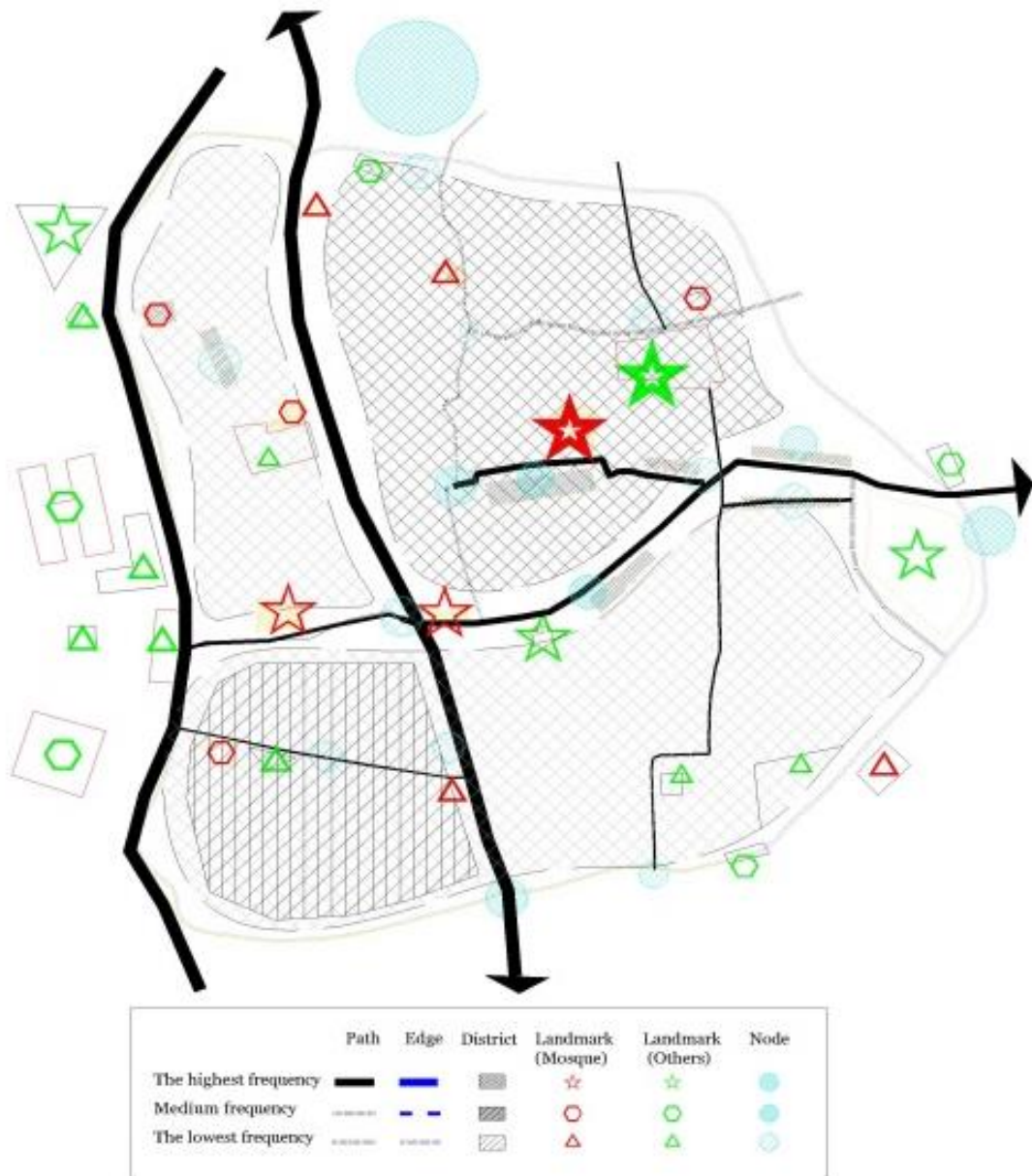
The blocks in the new districts are equal while in the old areas they vary in size between small and medium. The skyline in the new districts is regular, while in older districts it enjoys a greater variety of height. However, high rise buildings appeared on the coast and the main streets in Al Shati district. Some of them are still under construction, which may change the skyline of the district yet further as the buildings are completed.

7.3 Visual elements of the urban image:

This section analyses the visual elements of the urban image in all districts. A mental map was derived from residents through sketch drawing and talking, while a physical map was perceived in the field by the author.

7.3.1 Al-Balad district's image:

The image of Al-Balad district shows the main elements that were mentioned by the population in the area. These elements are classified according to the methodology of Lynch (Figures 7.13, 7.14).



Urban Image

Figure 7.13: Mental map of urban image of Al Balad, Source: The author

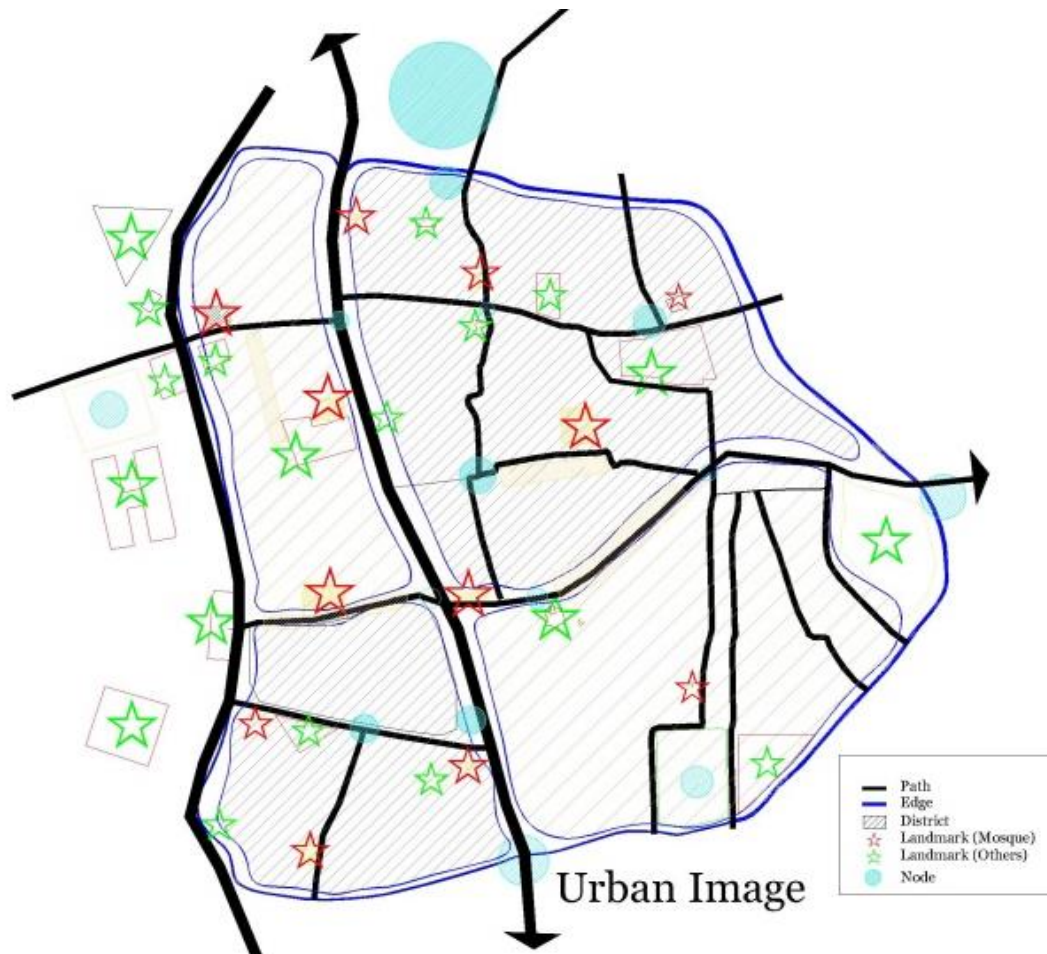


Figure 7.14: Physical map of urban image of Al Balad, Source: The author

- Paths:

Residents in the Al-Balad district feel a deep belonging to their old quarters and their popular markets. Al-Dhahab (Gold) street is the most important path (100%) in the neighbourhood, running from north to south. *Suq* Al-Jami street, which extends from the Makkah gate, is also important, in addition to *Suq* Al Alawi street that connects to the Qabel trail. Talah Alaidarus, Abu Inabah, Al-Muassasah street, Al-Asad street and Bazan lane are less important. The least mentioned paths are Al-Tamar and Halagat Alfahm. Compared to the physical map, the other paths are not mentioned, such as Al-Basha street and the extension of Bazan lane, as well as Al Bukhariyah lane and As Sawwaf lane. These may not be very important compared to those surveyed.

- Edges:

Edges may not be clearly defined boundaries in the district; therefore, few were mentioned by residents. Removal of the city wall has greatly impacted the clarity of its borders. However, there were some attempts to draw the district boundaries, in addition to drawing quarters within the historical district. Compared to the physical map, there is some clarity if we consider the roads as the border.

- Districts:

Al Balad is divided into the four quarters of Al Mazloum, Sham, Yemen and Al Bahr (sea). However, the majority of local residents believe that Al Bahr is just a section within a quarter of Yemen, so few people indicated Al Bahr separately.

The old social relations between the inhabitants of those quarters are identified divisions, in addition to the internal streets, such as Al Dhahab street and the other commercial streets from the Makkah gate to the Qabel trail.

- Nodes:

Nodes are defined by Lynch as “*points or strategic spots in the city into which an observer can enter*” (1960, p.47). The node may be a major junction, gathering place or square and could be called the core of the area. In Al Balad, there are several nodes which differ in terms of frequency and importance. Allegiance square is one of the most important nodes in the city, in addition to popular markets such as Al Jami market and Al Alawi market. The Bab Makkah market and Qabel market are less important. The Al Bado and Al Nada markets are the least mentioned.

Compared to the physical map, some of the squares, in which celebrations, anniversaries, and meetings are held, may have lost their importance to the native population who have been displaced from the area.

- Landmark:

Landmarks were divided into two types: religious buildings and other landmarks. The mosque is considered one of the most important landmarks in the area, as residents see it as easily identifiable or reference to. For the participants, these mosques differ in terms of importance and frequency according to the date of construction or size.

The most important mosques that have been mentioned are Shafi, Almiamar and Akash. The Bin Laden and Al Amoudi mosques are less frequently mentioned, while the Al Basha,

Othman bin Affan and Abu Anabah mosques are the least mentioned. Mosques in the area have an easy shape and are divided into two parts. They contain an open courtyard which rests on four pillars.

Other important landmarks vary, depending on history or something that distinguishes them from the buildings around them, such as the historic Nassif building, or Ahli Bank tower.

The most often-mentioned landmarks were the Nassif historic building, Al Falah school and AL Ahli Commercial Bank, while the gates of old Jeddah such as the Makkah, Medina and Jadeed gates, and commercial centres of the Corniche, Almahml centre and Assad cemetery were mentioned an average number of times. The least mentioned were the Saudi post office, Saudi Monetary Agency and centre of Sharif Bab. Compared with the physical map, there are several landmarks that have not been mentioned, for example, Ain Faraj Yosr, Banaja and Badeb Ribats, in addition to Zainal's house and Faisaliya Commercial Centre.

7.3.2 Al-Kandarah district's image:

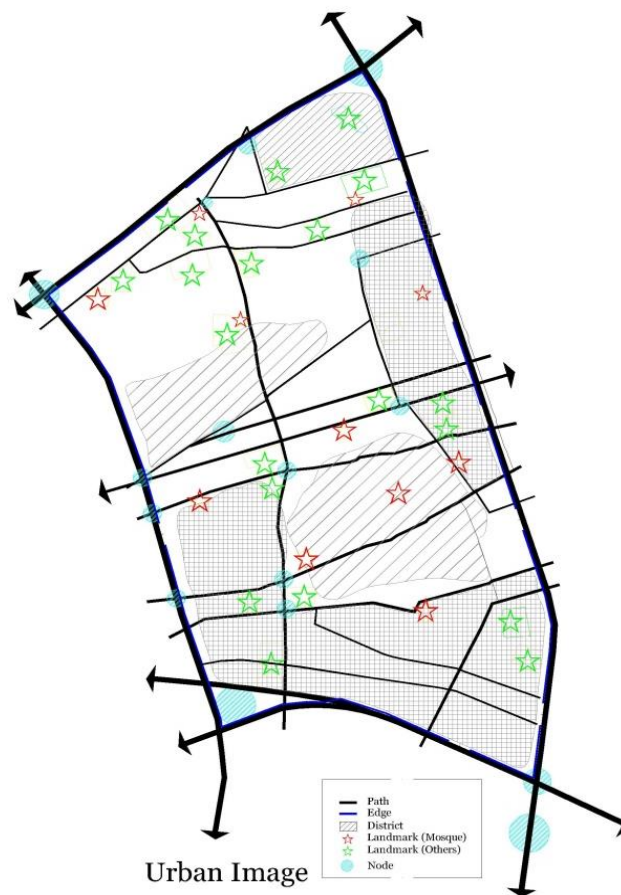


Figure 7. 15: Physical map of urban image of Al Kandarah. Source: The author

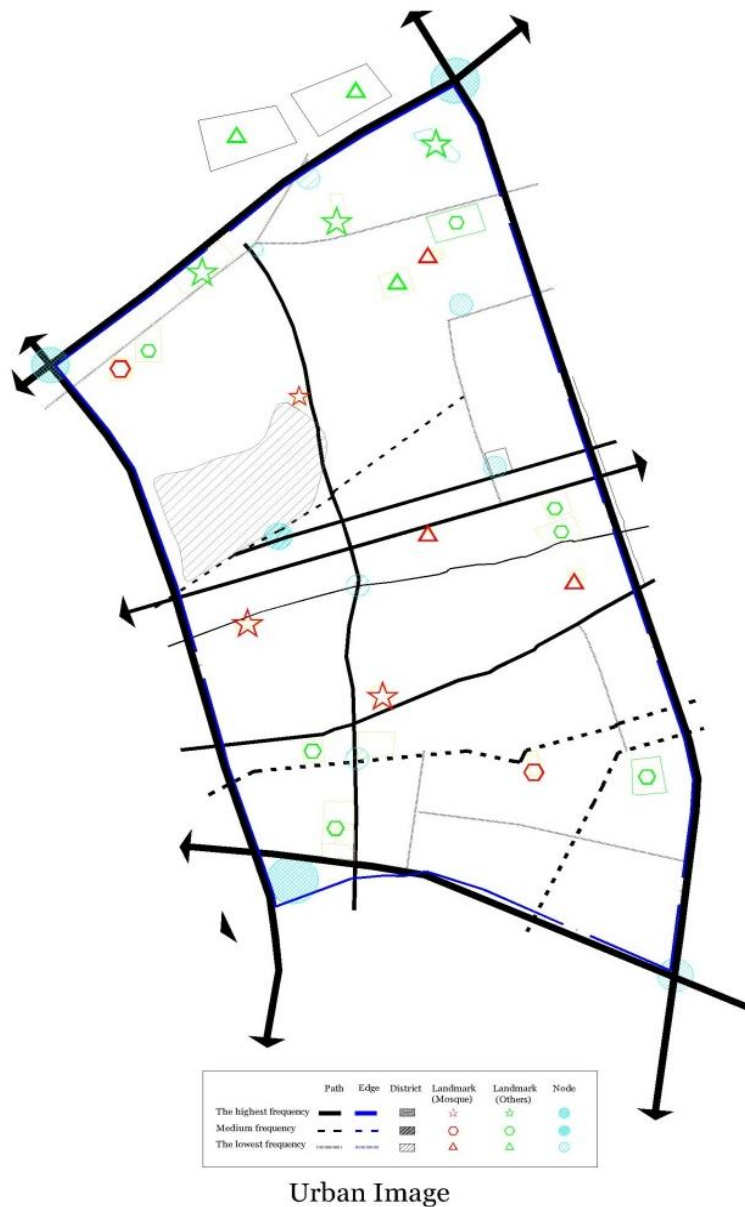


Figure 7. 16: Mental map of urban image of Al Kandarrah, Source: The author

The image of the Al-Kandarrah district shows some elements and features that describe the neighbourhood (Figures 7.15, 7.16). There is a variation in the elements and the difficulty of clarity within the area.

- **Paths:**

Paths may be clearer elements in Al Kandarrah. The main roads that define the neighbourhood are the most prominent of these paths. Abha road, which extends from north to south, is one of the most important streets in the neighbourhood, in addition to Ibn Zaydun street, Abu Ubaidah and Amr ibn al-Aas streets. Sidr and Almsubbhi and Abu Al Taher Al

Zahri streets were mentioned an average number of times, while Furat bin Tha'labah and Murrah ibn Ka'b streets were the least mentioned. These are the most frequently used streets in the district. However, there are other streets which may be no less important than those, such as Shumaisi street and Tolaitla street.

- **Edges:**

The border in the area is straightforward and is where major roads such as King Fahd, King Khalid and Old Airport roads in addition to Old Makkah road surround the neighbourhood. Within the district, quarters seem to be difficult to identify in a mental map. This is in contrast to the physical map which could identify some areas that have common characteristics and vary from other.

- **District:**

Quarters are not clear within the neighbourhood and there was difficulty in determining the quarters; some of them had varying estimates with regard to the proportion in the drawings.

- **Node:**

Plane Square, and the intersections of main roads are considered the most important nodes, while some open spaces for social events in the district were also mentioned. There are also spaces used as playgrounds for youth which were the least mentioned nodes in this part of the city.

- **Landmark:**

The mosques of Al-Rajhi, Al Tawbah and Abdullah bin Mubarak were mentioned the most, followed by the mosques of Abdullah bin Abbas and Saeed bin Jubair. In contrast, the mosques of Batiah, Shalhoub and Johaina were not mentioned very much and Baraka Mosque and the Mosque of Khair not at all.

Other landmarks, such as the hotels, Kandarah Palace, AlBader Hotel and Jeddah National Hospital were the most mentioned while the charity buildings of Abdullatif Jameel, Blue Building Centre, the cemetery of Kandarah, the Kandarah mall, the school of Waziriya and the Saudi intermediate school were mentioned less, as was Aqeel bin Abi Talib school. There are other landmarks not mentioned in the mental map, such as the Insurance Building, the schools for girls, the headquarters of the former Social Security building, the Kaki building and family clinics. Landmarks in Kandarah may be local but they are not city-wide.

7.3.3 Al-Ruwais district's image:

The urban image of Al-Ruwais has changed in the past years and the district is still under development to remove the slum areas from the district (Figures 7.17, 7.18).

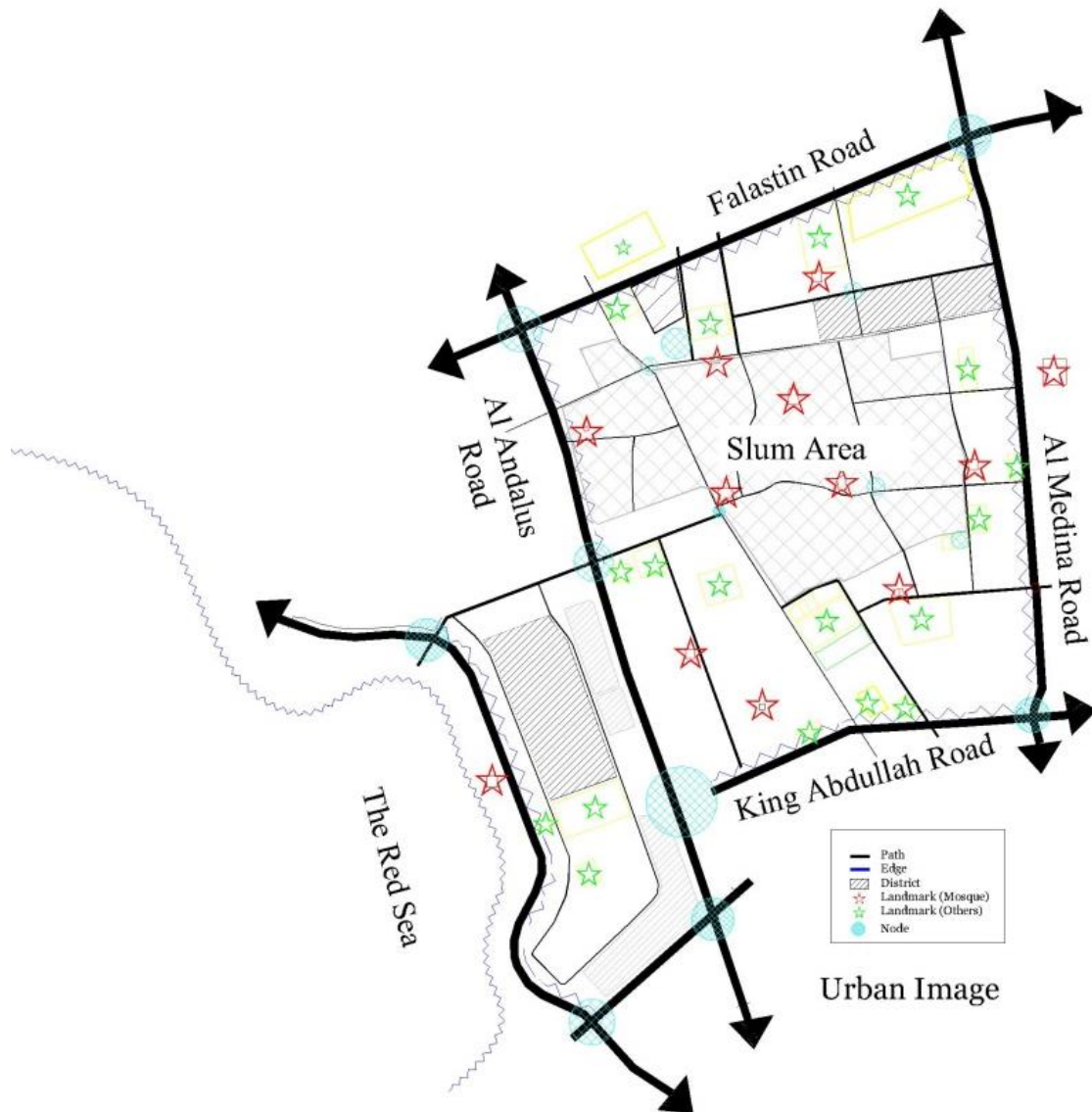


Figure 7.17: Physical map of urban image of Al Ruwais, Source: The author

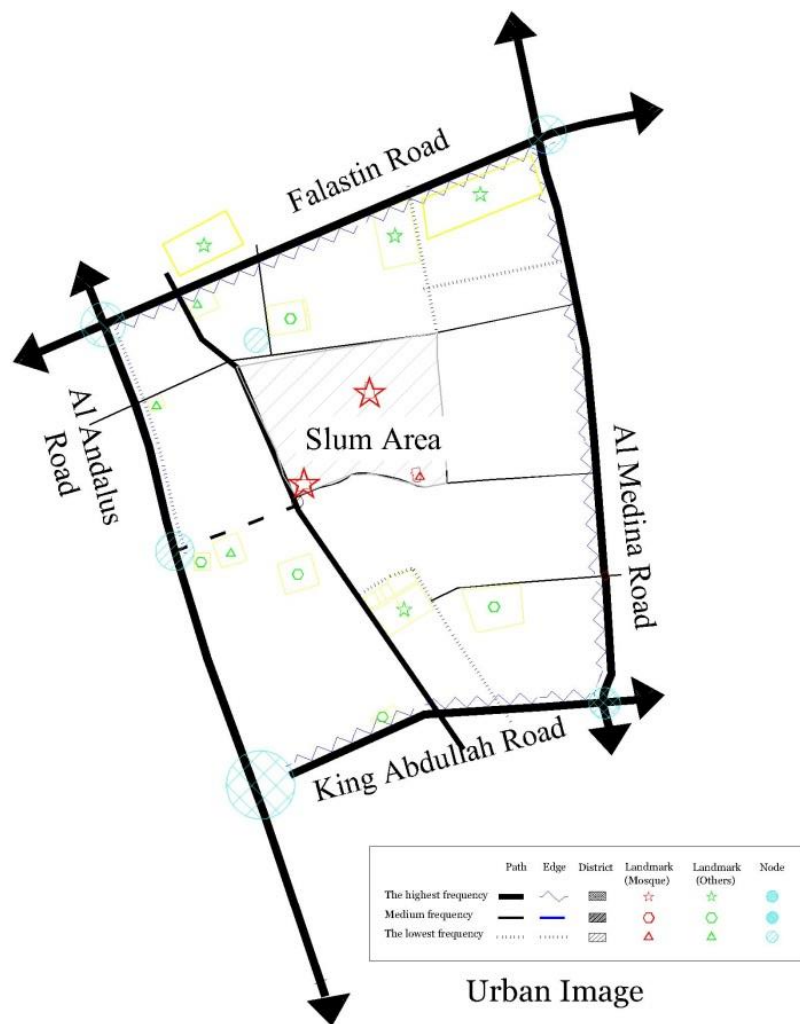


Figure 7.18: Mental map of urban image of Al Ruwais, Source: The author

- **Path:**

Al Ruwais is located on the major roads and includes Al Medina Road, Falastin Road, King Abdullah Road, Al Andalus Road and Al Kurnaysh Road. These roads are very significant paths in Jeddah, which give the district a distinctive location.

Alsayed, Hail and Abu Firas al-Hamdani are the most important internal paths. They serve as artery feeders within the district. Maadi Street is less important while Al-Abaqirh, Amr bin Abdul Aziz, Abtal Palestine, Muftah Al-Saad and Al Farsi Street were the least mentioned

paths. Compared to the physical map, some streets in the neighbourhood such as Al Sharq, Unshudat Al Amal, Al Uqsur and Al Jazeera, were not mentioned at all.

- **Edge:**

Edges in the district are clear and based on the main streets in addition to the neighbourhood overlooking the Red Sea, which is considered a key edge in the district.

- **District:**

Quarters in the district, like the older neighbourhoods, are divided according to social composition. The district includes the unplanned area which the Municipality of Jeddah seeks to develop. However, some parts of the district are well-planned, especially the eastern and western parts of the seaside.

- **Node:**

The Saudi Flag Square is one of the most important points in the area, in addition to the intersection of the Medina Road with King Abdullah Road through the tunnel, and the intersection of Palestine Street Bridge with Medina Road, as well as the intersection of Palestine Street with Andalus Road. The Andalus Road intersection with Al Maadi Street is less important, while an unnamed open space that is used as a gathering point for local residents is the least mentioned.

- **Landmark:**

Al Bayan and King Abdul-Aziz mosques inside the district and King Saud Mosque near the area are the most important religious landmarks. The Ruwais cemetery Mosque and the Rashad and Ruwais Mosques were mentioned less while the Thu Alnorin and Corniche mosques were the least mentioned. Mosques such as Al Saud, Zahed and AlSubaie were not mentioned at all.

Other landmarks included the commercial landmarks; the Haifa Mall and Sahara Mall, and, with regards to health, the Dr. Suleiman Faqih hospital and the International Medical Centre. These, along with the Ruwais graves were the most frequently mentioned. The Farsi Centre, the Saheli Centre, the Prince Sultan Aviation Academy and the Saudi Electricity Company were not mentioned as often while sites such as Mattioli Plaza, the Alzoman Centre, Toys "R" Us and the Gas station and car services, were mentioned least of all. Compared to the physical map, the regional headquarters building of the Saudi French Bank, the Palace of

Mohammed Suroor Sabban, the United Doctors Hospital, the Saudi Import Company, the Alfarsi Building, the Mohammadiya Plaza and the AlJandoul Village were not mentioned.

7.3.4 Petromin (Karantina) district's image:

The image of the Karantina district shows the main elements that were pointed out by the inhabitants in the area (Figures 7.19, 7.20).

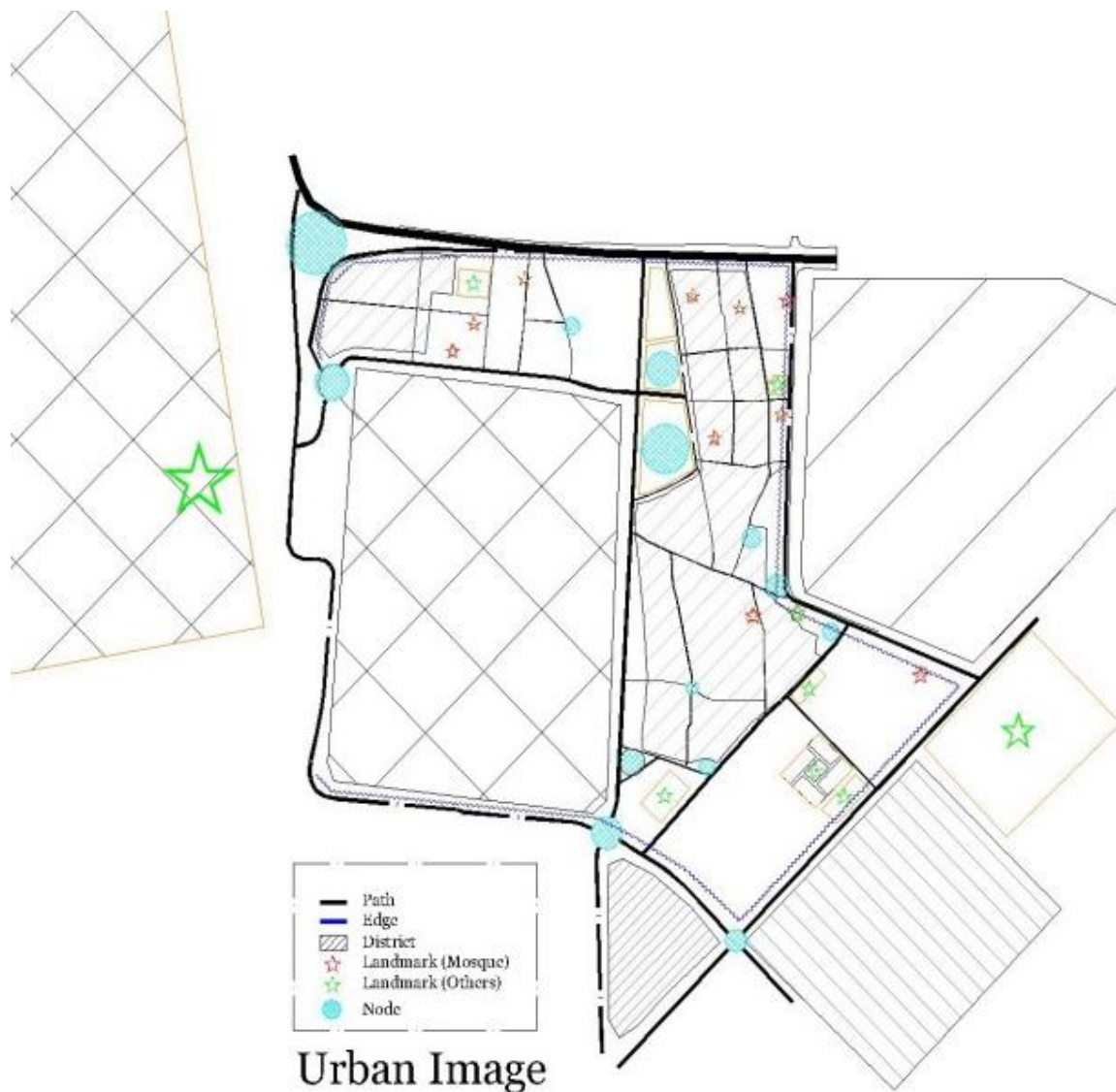


Figure 7.19: Physical map of urban image of Karantina, Source: The author



Figure 7.20: Mental map of urban image of Karantina, Source: The author

- **Path:**

King Faisal Road, which separates the neighbourhood from the Aramco industrial zone, and is the most famous street in the district, as well as Yazid bin Naim Street, followed by the streets of Abu Musa Alhakmi, Amr ibn Amir and Hind Bint Alwalid. The least mentioned streets were Abiad Ibn Aswad, Abdullah Ibn Muhammed, Al Aswad Ibn Sufyan and Qais ibn Ka'b. These streets derive their importance from the social and commercial activities of the area. Compared to the physical map, there are some important paths which were not mentioned at all, such as Asad Ibn Yazid, Hezzal Ibn Amr and Fudiq Ibn Amr. Though it is speculative, these streets may not have remarkable activities taking place within them.

- **Edge:**

The edges are fairly straightforward in the district. Al Falah Road and Al Mina Road define the neighbourhood from the north and the south. Al Telfizyon Street and Al Mahjer Street are much less clear.

- **District:**

The neighbourhood is divided into several quarters but it has been difficult to identify them. Quarters are often divided according to social groups, especially within African or Bengali communities. The Aramco industrial area was the most frequently mentioned area while the slum area and the shipping company's zone were notably less often mentioned. There are other areas such as the Galilee district, which is similar to Karantina, in addition to the Stores area (Physical map).

- **Node:**

The area opposite Al Mina Bridge and Yazid Ibn Naim Street is considered by many to be a major node and this area houses a rather splendid and well-stocked Friday Market (it is a large open marketplace). Stars Square was mentioned less while Triangle Square was the least mentioned. Compared to the physical map, there are several other open squares used as car parking areas or intersections.

- **Landmark:**

Religious landmarks in the district are few and comprised of a number of small mosques. Alnorin Mosque is considered the most important of these mosques while Ma'arof and Malibari mosques were not mentioned as often. Bilal bin Rabah, Othman bin Affan, Bengali, and Mujahid mosques were less frequently mentioned whilst Al Habib Mosque may be far from residents as no one mentioned its existence. Other landmarks, such as the Hayat Hospital and the Islamic port were the most mentioned, followed by the King Abdulaziz Hospital, driving school and the various schools of education that are located in the area. The Abar and Zinni building was the least mentioned of all. Some other landmarks, which have not been mentioned, are the Zaqzouq commercial centre and the residential compound in addition to the Nissan Motor Company.

7.3.5 Al- Waziriya district's image:

The image of the district shows the key features that were mentioned by the dwellers and as seen in the field (Figures 7.21, 7.22).

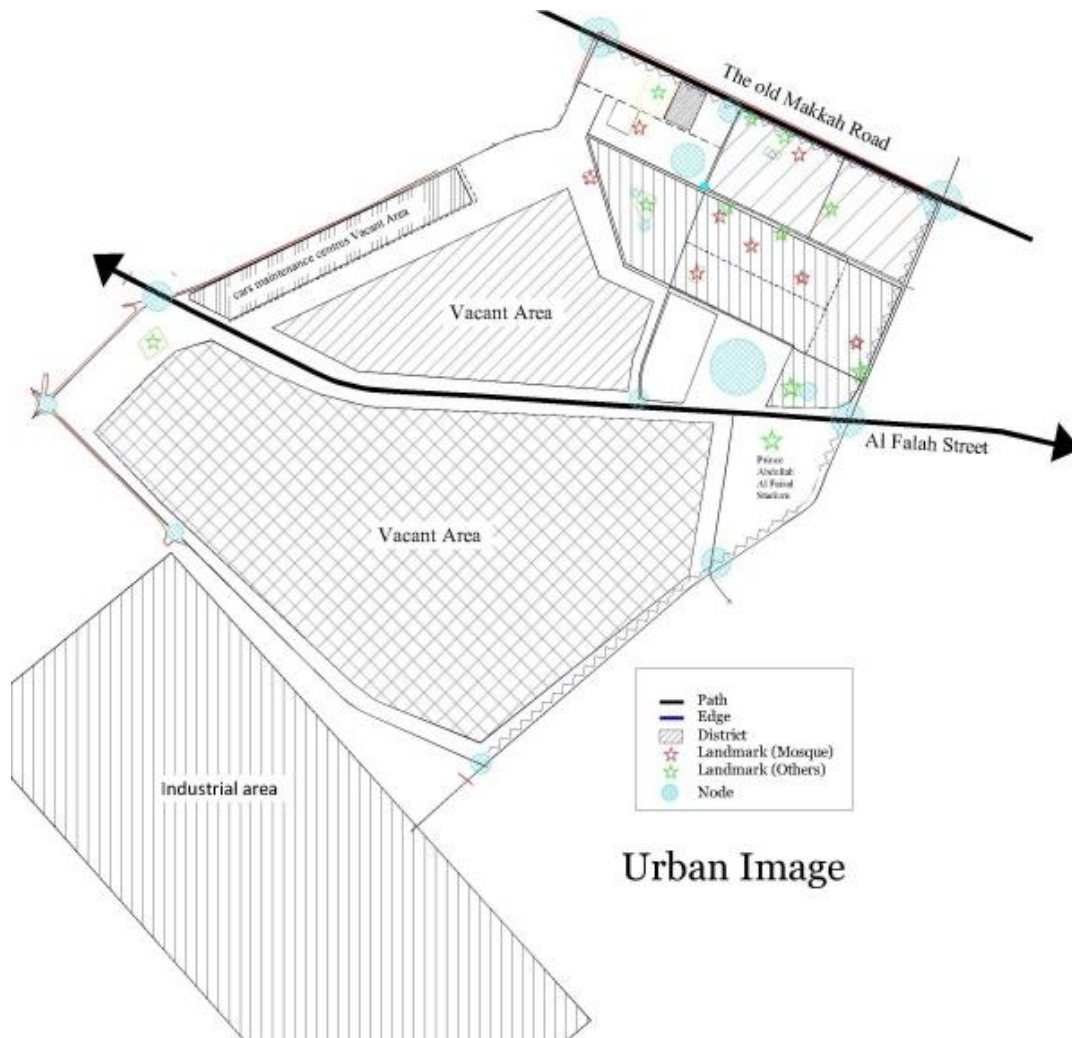


Figure 7.21: Physical map of urban image of Al- Waziriya, Source: The author



Figure 7.22: Physical map of urban image of Al-Waziriya, Source: The author

- Path:

Al Falah Street is the most important path in the neighbourhood and it passes through the middle of the area and is one of the main roads in the city; connecting with Makkah Road in the city centre of Jeddah. Al Waziriya Street is the most internal street that has been mentioned because of its importance in being an access point to the residential area with a width of around 30 metres, in addition to Moror Street, which is just as important. El Omda Street and Amri Street were the least mentioned.

- Edge:

Edges in the district are clearly defined where determined by major roads such as the stadium and Al Iskan streets and the old Makkah Road, in addition to Al Falah Street. Local residents do not perceive that the area behind the Al Falah Street belongs to the neighbourhood. There is a difference in the naming with the Municipality of Jeddah, where the land (vacant) located south of Al Falah Street is officially part of the Waziriyah district, while the northern district is called Al Fahad Madain. Compared with the physical map, Zainal and Almiher streets are considered edges for the district.

- District:

Districts are not very important to the residents, the Quarter of Al Daqik and the vacant land were mentioned an average number of times, while car maintenance centres were the least mentioned. There was no mention of bicycle repair shops and the district also has a large vacant area in the south, as well as a well-planned area that was also not mentioned.

- Node:

Road intersections are the most important nodes; for instance, the intersection of Al Falah Street with Al Iskan Street (Al Iskan Square) were most frequently mentioned, in addition to the intersection of Stadium Street with the old Makkah Road. The intersection of Al Iskan Street with the old Makkah Road and the intersection of Stadium Street with Falah Street, as well as the Dubai yard were pointed out an average number of times, while a walking yard was the least mentioned. The district has a lot of open spaces and a notable vacant area that is used as a football yard. Zahara Al Waziriya Park is also a place used by some who live in the area to gather within.

- Landmark:

Religious landmarks stand out in terms of their importance to residents. Alsoror, Al Isaei and Hassan bin Ali mosques were the most frequently mentioned while the mosques of Al Shuqihi and Taibah were less frequently noted and the least mentioned was the Al Falah mosque. The other mosques were not pointed out at all. This included the Omar Ibn Al Khattab mosque and this may be due to its size. However, it should be pointed out that this does not mean a significance element in general, but it might be for the respondents because of their association with the place.

The Prince Abdullah Al Faisal Stadium is a famous district landmark and also one of the most important and globally respected landmarks of the entire city of Jeddah. Incidents south of Jeddah, Panda Centre and Hall of Omnetti, in addition to the Shati and Bara bin Malik schools were less frequently mentioned, while some gas stations and Talieh School were barely mentioned. Other landmarks in the district were not mentioned at all such as the educational complex for girls, the tuberculosis and respiratory diseases centre, and the Al Ahdal market.

7.3.6 Al-Salamah district's image:

The image of the district shows the key features that were mentioned by the dwellers and as seen in the field (Figures 7.23, 7.24).

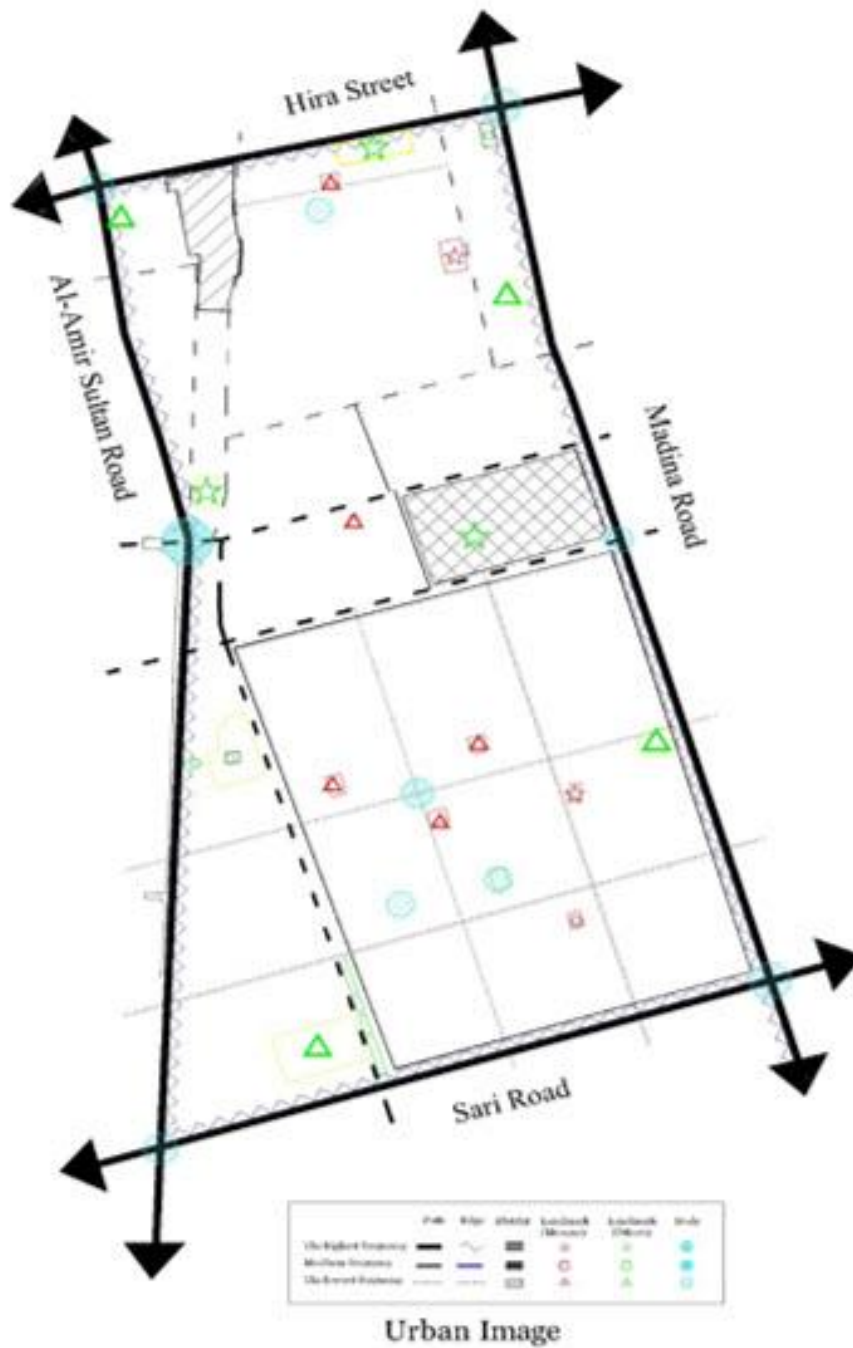


Figure 7.23: Mental map of urban image of Al-Salamah, Source: The author

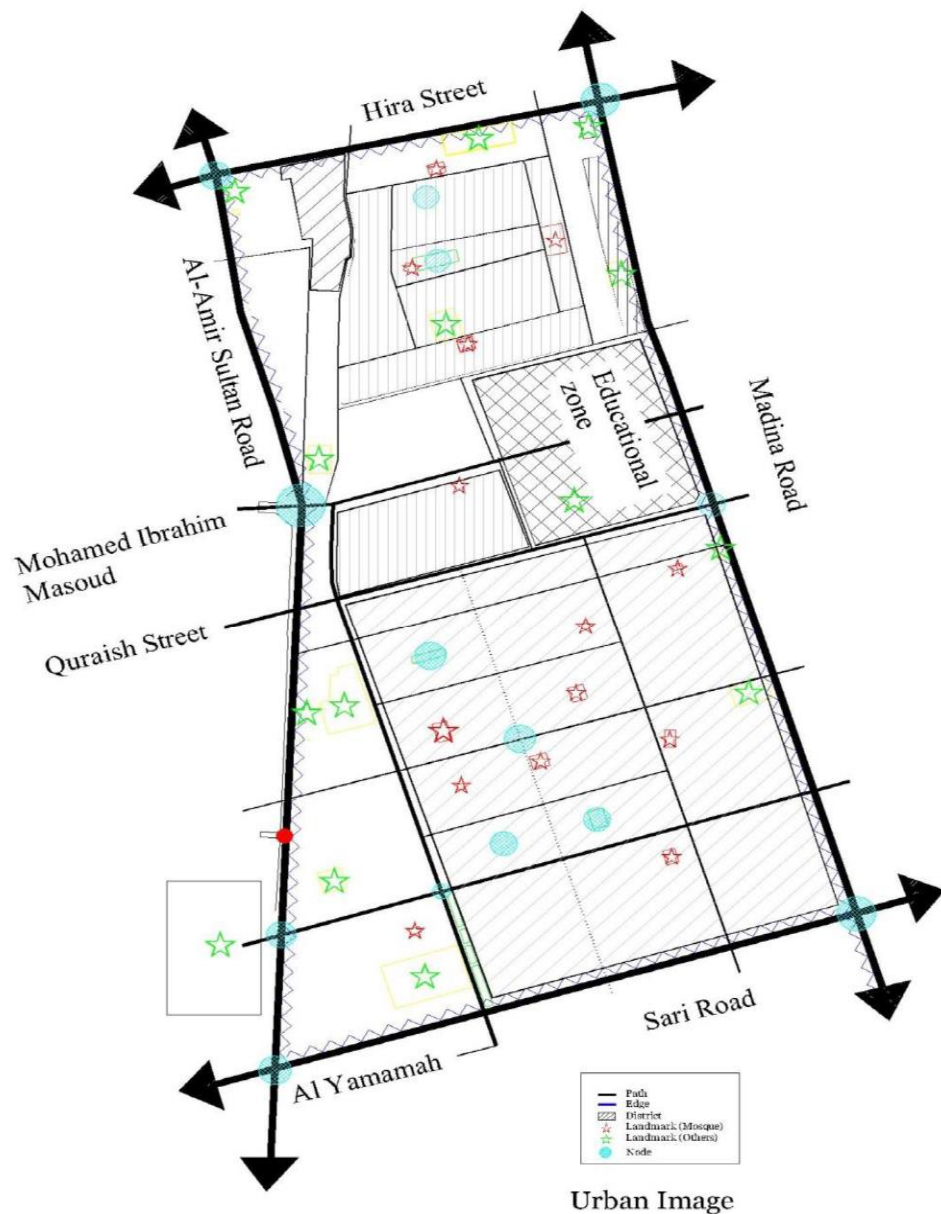


Figure 7.24: Physical map of urban image of Al-Salamah, Source: The author

- Path:

The main streets in the district are considered to be the most important and this is especially true of those that act as entrances and exits from the neighbourhood. The Al-Yamamah Street, Muhammad Ibrahim Masoud, Quraish and Saqr Quraish streets were the most important paths in the district, while Abdul Rahman Al-Sudairi Street, Muhammad Abdul

Reda, Hujaa bin Wahab and Omar Abdul-Jabbar streets were less frequently mentioned. The least mentioned were the streets of Ali Afandi Jamal and Ahmed Zenal.

- Edge:

The majority of respondents confirmed that edges in the district are clearly defined. Al Medina Road (12 respondents), Hira St. (11), Sari St. (12) and Prince Sultan Road (9) border the district.

- District:

As the district is modern and formed in a grid plan, the districts are not important for people. There were a small number (three) who mentioned the existence of a slum area in the district.

- Node:

The roundabout, Peninsula Shield (13) and the intersection of Prince Sultan Street with Hera Street and Sari Street, are the most important nodes in the district. These were considered, as a consequence of their aesthetic shapes and sculptures, to add important characteristic elements to the district and could, accordingly, be defined as a landmark.

7.3.7 Al-Shati district's image:

The image of the district shows the key features that were mentioned by the dwellers (Figure 7.25) and the physical map drawing undertaken by the author (Figure 7.26).

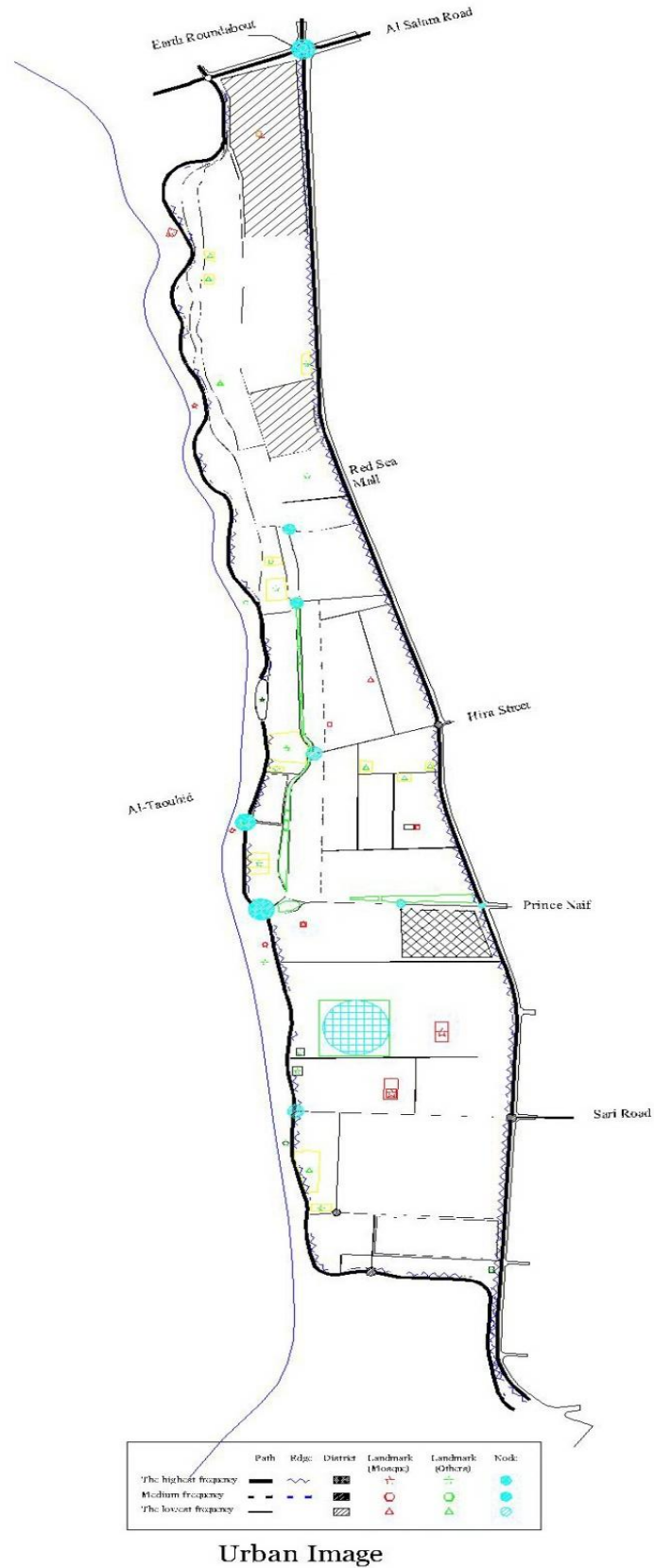
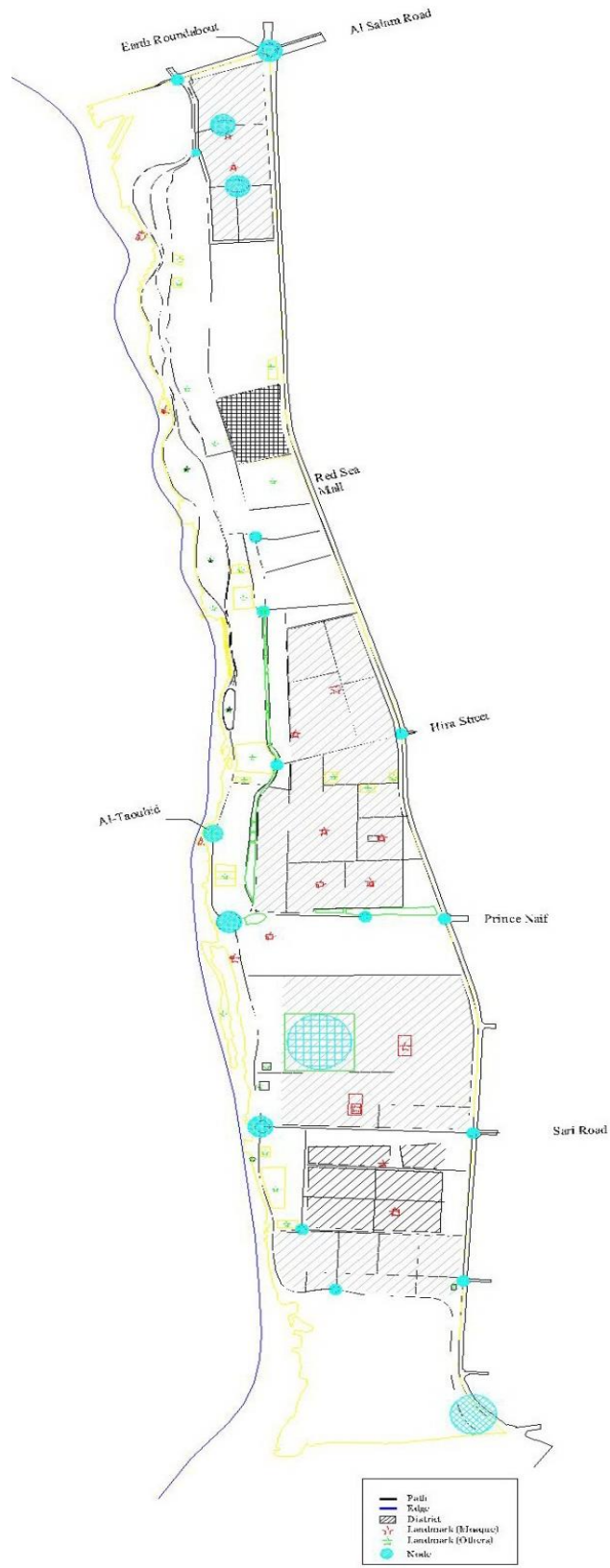


Figure 7. 25: Mental map of urban image of Al-Shati, Source: The author



Urban Image

Figure 7. 26: Physical map of urban image of Al-Shati, Source: The author

- Paths:

Prince Faisal bin Fahd Street is one of the most important paths in the district in addition to the Corniche Road. Hira, Sari and Prince Nayef streets were mentioned less because of the length of the district's area. The streets of Zaid ibn al-Khattab, Jubair ibn al-Harith, Abu Abbas bin Abdul Muttalib, Nasser Abdel Wahab, Hudhayfah ibn al-Yaman, Abdullah Hakim, Abdul Rahman Bin Zubair, Saeed bin Amir, Ibrahim al-Ghafari, Tahir Zamajhari and Musab bin Omair were the streets that were the least mentioned. There were also other paths not mentioned due to the large number of streets in the district and they may not be important for the people who were surveyed; accordingly, their names are not recorded in this thesis.

- Edge:

The district possesses a clear boundary where it is bounded by King Abdulaziz Street and the Corniche Road in addition to Al Salam Street. The Red Sea is also considered to form the edge of the neighbourhood to the western side. Local residents do not pay attention to edges.

- District:

As in the case of the edges, the districts were not of much importance to the residents of the area. Prince Naif Park and Palace of the Prince Nayef may be the most prominent and may also be considered landmarks. Shati 6 is one of the districts that has been mentioned, and this may, or may not, be as a result of the clarity of its planning and its boundaries.

- Node:

Roundabouts and parks are considered the most important nodes in the district. The North Corniche is the most open place in the district. King Abdullah and Prince Nayef parks were also the most mentioned nodes, in addition to the roundabouts of the Earth, Al-Taouhid, and Al Nawras Square, while the Wave and Molecules roundabouts were the least mentioned by those who were surveyed. The district has several open spaces distributed throughout the area.

- Landmark:

The Mosques of Prince Sultan, Prince Salman, Al Rahma, and Al Nawras along with the Corniche mosque were the most frequently mentioned while the Al-Khair and Sherbatly mosques were less frequently mentioned, and the mosques of Al Hassan, Hafez Brothers, Ahel Al-khair and Prince Abdulaziz bin Mohammed were the least mentioned. There are other small mosques that were not pointed out and no one referred to them, perhaps because of their size.

Other landmarks are too many to note in the Shati district. These features vary from distinctive commercial centres and residential areas to commercial towers along with entertainment places and fun cabins. Commercial markets include the Red Sea Mall and the Sawary Landmark on King Abdulaziz Road.

Residential towers include the Rosewood Tower, the Tower of the King, the Lamar Tower, the Corniche and Hetlon. The resorts that encompass green land, Movenpick, Alnakhal, and the Fakeih Aquarium along with the Atallah Happy Land, were considered to be the most important leisure landmarks. The Al Farsi Towers was less often mentioned while the waterfall amusement park, along with the schools of Dar Al-Rowad for boys and girls, the Al Mashfa hospital, the Tower of the beach and the Diamond Tower were the features in the district that were mentioned the fewest number of times.

7.4 Non-visual elements of the urban image:

As discussed in Chapter 3, non-visual elements are associated with different aspects; social, political, economic and environmental.

Social integration:

Social cohesion is an important element in the affected urban image. To evaluate this element, 105 respondents were asked this question: “To what extent do you agree with the following statement: the city is safe?”

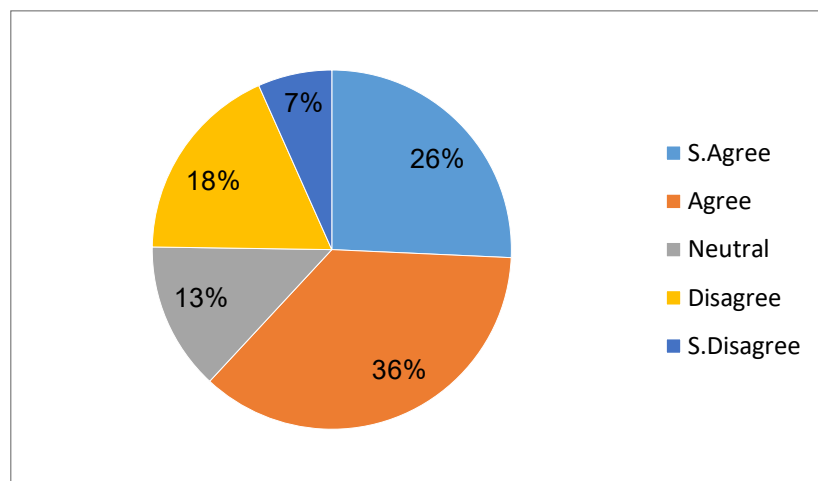


Figure 7.27: The pie chart shows the extent of social integration among the residents

The pie chart (Figure 7.27) shows the extent of social integration among the residents in the city, from the perspective of the population that was questioned. Of respondents, 62%

believe that there is still integration and social cohesion between the city's inhabitants, which strengthens social relations; most of them from the old districts. In contrast, 25% of respondents stated that social integration had ended at the present time and 13% of respondents expressed a feeling of neutrality. Through observation, it was confirmed by the author of this thesis that the older districts are more socially cohesive, while there is less cohesion in the new ones. This, it is furthered, is due to the planning of these areas where the built urban fabric reduces social cohesion.

Privacy:

Privacy is a significant non-visual and social element. This element can be perceived in the separation that exists between men and women. As discussed earlier in this chapter, the traditional buildings in the Al Balad district achieve privacy through the use of the Mashrabiyya. In the new district, the privacy required for decency in human life is achieved through the use of additional materials such as curtains.

Social activity:

Activities play an important role in enhancing physical elements where they occur (Relph, 1976, p.48). Social activity is the link between man and the environment. To evaluate this in Jeddah, the respondents were asked about this statement: "Does the city have diverse social and cultural activities?"

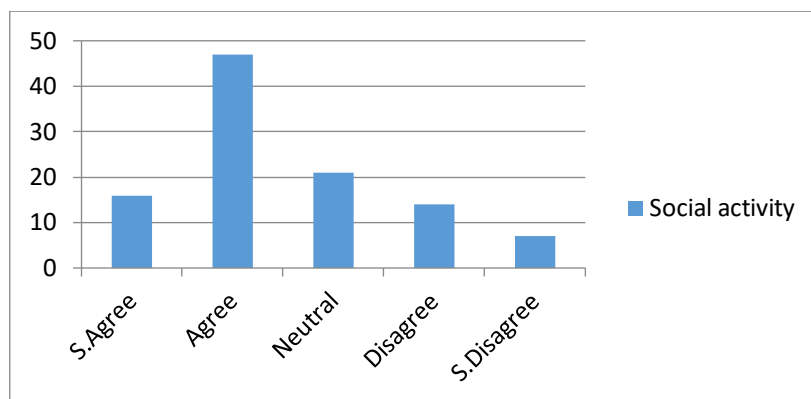


Figure 7.28: The city has diverse social and cultural activities

The chart above (Figure 7.28) illustrates the views of the population towards the activities available. Of the respondents, 60% agreed that the city has diverse social and cultural activities, while about 20% were neutral and this level of commitment continued to decline

until it reached about 7% for those who did not agree that there were any cultural festivities in the city or if there were, that they were rare. In reality, however, the city often holds a variety of activities, especially in Al Balad district and the open spaces in the coastal area.

- Meaning:

The city has an important meaning for its residents. These meanings can be summarized as follows: most respondents perceive Jeddah as a social city. The social meaning is that it successfully combines the many races and nationalities that live in it and easily adapts to their social needs. The Red Sea also adds meaning to residents as it is a coastal city that has been shaped by the sea as well as the historic plight of the fishermen and its role as a seaport to important holy cities. The historic part of Jeddah also has a special meaning for residents in addition to those areas that have undergone significant urban and economic development. Moreover, the lifestyle of the city is such that it has provided many excellent job opportunities and this increases the meaning and importance of the city to those who reside within its territories.

The urban identity of Jeddah city:

Urban identity has changed as noted with regard to urban fabric and character and also when one makes comparisons between the city's past and present imagery and sense of being. These changes have led to the loss of a distinctive city identity. In addition, the new urban projects have contributed to the transformation of the local identity and this has happened in a manner that commensurate with the environment and a global identity that does not belong to the region. This research was conducted through the use of a questionnaire that was administered to 105 residents to understand if there is an identity of the city and whether their perceptions of the city differed from the recorded imagery of the city of the past. According to the age of the residents, this research classified respondents into three groups so that it was possible to evaluate the extent to which there was a notable difference among the generations towards the identity of Jeddah. All respondents agreed that the identity had changed but they differed in terms of how it had changed and whether, on balance, such changes represented a change for better or worse (Figure 7.).

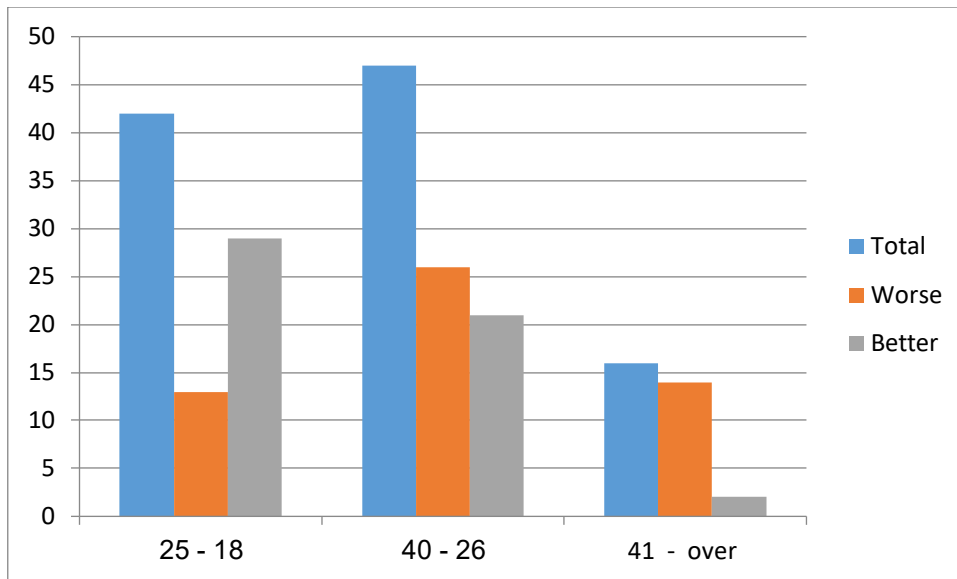


Figure 7.29: Views of residents by age about change in urban identity

The chart (Figure 7.29) shows the residents' opinions about the change in urban identity in the city and their impression of whether it was a change for better or worse. As shown in the chart, more than a half of the respondents aged between 18 and 25 believed that the changes had resulted in a better life. On the other hand, the respondents whose ages were recorded as being between 26 and 40 were split – with a very close number of recorded views for both camps. The older people thought that the changes were for the worse.

Younger people seem to reject tradition and they aspire to a better lifestyle while the older people of the city adhere to the old life and social closeness and sense of place. However, the emphasis on identity does not mean living in the past and neglecting it does not mean moving forward in isolation, impervious to that which one is around. Local identity gives the place a distinctiveness from other places and increases the value of the place as may be measured, economically, with reference to the burgeoning heritage tourism enjoyed by the city. Identity must, however, comply with the requirements of contemporary life.

7.5 Video recording for the urban image:

This is a new method in the field of images of the city and it was used to explore the important and distinctive favourite places in the city which constitute and reflect the urban image. This method was chosen to get people's perceptions through the third dimension. Respondents were asked to record a video clip of the city showing their perceptions of image and local identity and to highlight the main elements of what, in their opinion, reflects the city's

image. The video clips were each about 30 seconds in duration and respondents were informed that they should not exceed one minute.

The video clips were presented in terms of the dominant element in the video, with reference to the individual comments made and were further used to determine the distance between the district and the site selection of the video in order to understand the association between local residents and their favourite places. To determine the distance, the videos were classified into three sections: within the district, close to the district (less than 3 km) and outside of district (more than 3 km).

➤ **Al-Balad district:**

Table 7.7: Favourite and distinctive places for Al Balad’s residents

V. C	Name/ Element	Type	Comment	Distance
1	Madina Gate <ul style="list-style-type: none"> • Landmark • Architectural details 	<ul style="list-style-type: none"> • Gate, • Historical buildings • Mashrabiyya 	Historic buildings in the old Jeddah where there is a need for restoration Mashrabiyya and architectural shape and wood forms Makkah gate, one of the famous gates of the old wall	Inside district
2	Madina Gate <ul style="list-style-type: none"> • Landmark • Node • District 	<ul style="list-style-type: none"> • Gate • Square • Historical area 	Medina gate, one of the gates of the city of Jeddah Near field of Allegiance Behind the historical district	Inside district
3	Makkah Gate <ul style="list-style-type: none"> • Node 	<ul style="list-style-type: none"> • Market • Open space 	Makkah gate area Makkah markets from the east	Inside district

4	AlShafie Mosque • Landmark • Node • Path	<ul style="list-style-type: none"> • Mosque • Market • Street 	<p>The oldest mosque in the area and the city of Jeddah</p> <p>AlJami market, one of the famous markets</p> <p>On Commercial Street</p>	Inside district
5	AlShafie mosque • Landmark	<ul style="list-style-type: none"> • Mosque 	<p>Historic mosque is the oldest mosque in Jeddah and is more than 800 years old</p>	Inside district
6	Abu Anabah mosque • Landmark • Path • Architectural details	<ul style="list-style-type: none"> • Mosque • Historical building • Mashrabiyya Street 	<p>Historical mosque was named after its owner</p> <p>Historical buildings next to it with architectural details such as mashrabiyya</p> <p>Small internal streets</p>	Inside district
7	Nassif House • Landmark • Node • Path	<ul style="list-style-type: none"> • Historical house • Market • Street 	<p>Old house has been renovated, One of the city's landmarks</p> <p>Alawi street and market, a historic Jeddah market</p>	Inside district
8	Akash mosque • Landmark • Node	<ul style="list-style-type: none"> • Mosque • Open space • Market 	<p>Historic mosque was founded 200 years ago</p> <p>Square is beautiful and is in proximity to Almahmal markets</p>	Inside district

9	AlFalalah School • Landmark	• School	Falah elementary, middle and secondary schools The oldest schools Jeddah	Inside district
10	AlHamny building • Landmark • Architectural details	• Historical building	Alhmany commercial centre, one of Jeddah's landmarks Featuring the old style and mashrabiyya with beautiful motifs	Inside district
11	Eve Cemetery • Landmark • Path	• Cemetery • Road	Eve Cemetery, Mother of humans It is located on the old airport road	Inside district
12	Allegiance Square • Node • Aesthetic form	• Roundabout • Sculptures • Parking	This is field the of Allegiance, a well-known landmark These forms are aesthetic sculptures and are around the parking area for Al-Balad	Inside district
13	Allegiance Square • Node	• Roundabout	This is a famous roundabout in Jeddah Here was a pledge to King Faisal	Inside district
14	Al Dhahab street • Path • Node	• Street • Shops	This is a famous street in Jeddah, Al-Balad area, a commercial street with shops here and there	Inside district

15	Al Nada market	<ul style="list-style-type: none"> • Market • Shops • Corridor 	This is one of the oldest markets, one of the most famous markets in Al-Balad, featuring a ceiling with a shaded corridor between shops	Inside district
	<ul style="list-style-type: none"> • Node • Path 			

Source: The author, based on the empirical study

Fifteen respondents chose places within the district (Table 7.). This may be due to their possessing a strong belonging to the area or due to the abundance of favourite and distinctive places within the neighbourhood.

Most of them see the landmarks (10) as the most relevant in the mind, as well as paths (6) and nodes (9). Mosques (4), markets (6) and old gates (3) are the most frequently seen, and while the streets are mentioned, they are not primary considerations.

Architectural details and vocabulary that characterized traditional architecture in Jeddah were present, especially *mashrabiyya*, which is considered to be the most prominent architectural vocabulary because of how the structures appear on the facades of buildings and how they ensure that people are granted privacy. History and talk about the age of the buildings to the extent of its importance was also highlighted in the comments (Table 7).

Table 7.8: Summary of analysis video recorded from Al Balad's residents

Element	Type	Comments
Path	Road/street/corridor	Commercial street/small internal streets/ceiling shaded corridor
Landmark	Gate/building/mosque/cemetery/school	History/old style/location/ Significant event
Node	Market/square/open space/parking	History/ location/significant event
District	Historical area	History

Architectural details/Aesthetic form	Mashrabiyya/sculptures	Motifs/shape/form
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Source: The author, based on the empirical study



Figure 7.30: Al Balad's example (V.C: 2): video shows the main elements, **Source:** Based on the empirical study

➤ **Al-Ruwais District:**

Table 7. 9: Favourite and distinctive places for Al Ruwais's residents

V. C	Name/ Elements	Type of Element	Comment	Distance
1	International Medical Centre • Landmark • Path	<ul style="list-style-type: none"> • Hospital • Street 	The centre is located on Hail street and features a design form inspired by the traditional architecture in Jeddah in a modern shape	Inside District

			It is one of the most important hospitals, which includes the majority of medical specialties	
2	King Saud Mosque <ul style="list-style-type: none"> • Landmark • Architectural details 	<ul style="list-style-type: none"> • Mosque • Motifs 	<p>The largest mosque in Jeddah with a wonderful design and Islamic motifs</p> <p>Mosque has Quranic lessons and people always pray the Friday</p>	Near district (100m)
3	Haifa Mall <ul style="list-style-type: none"> • Landmark • Path 	<ul style="list-style-type: none"> • Market • Street 	<p>Big markets located in Palestine Street</p> <p>It contains a variety of shops and global brands, restaurants and recreational places for children</p>	Inside district
4	Haifa Mall <ul style="list-style-type: none"> • Landmark • Node • Path 	<ul style="list-style-type: none"> • Market • Road • parking 	<p>This is Haifa Mall which is characterized by a distinctive location on Palestine Street and Medina Road Highway</p> <p>Is a great place to shop due to the diversity of shops and parking is available</p>	Inside district
5	New Jeddah Clinic Hospital <ul style="list-style-type: none"> • Landmark • Path • Aesthetic form 	<ul style="list-style-type: none"> • Hospital • Road • Sculpture 	New Jeddah Hospital is located on Medina Road next to Nakhiel centre and has a nice aesthetic shape	Near district (300m)

6	Tahlia Street • Path	<ul style="list-style-type: none"> • Bridge • Building • Street 	<p>This consists of Tahlia Street Bridge and there is usually a traffic jam</p> <p>These buildings are located along Prince Mohammed bin Abdulaziz Street, known as the Tahlia</p>	<p>Outside of district (3 km)</p>
7	Anani Mosque • Landmark • Node • Edge • Architectural details	<ul style="list-style-type: none"> • Mosque • Corniche • Dome • Minarets • Sea 	<p>This mosque is built close to the sea and is on the Corniche</p> <p>It is clear from Jeddah landmarks overlooking the sea</p> <p>It has a large dome, minarets and some small domes</p>	<p>Near district (1.1 km)</p>
8	Fakih Hospital • Landmark	<ul style="list-style-type: none"> • Hospital 	<p>This hospital, Fakih, is composed of several buildings</p> <p>Superbly designed and contains medical devices and disciplines</p>	<p>Near district (30 m)</p>
9	Andalus Road • Path • Node • Aesthetic form	<ul style="list-style-type: none"> • Road • Garden • Sculptures 	<p>Andalus Road is one of the important roads adjacent to the Corniche</p> <p>It has civilized buildings and some beautiful sculptures and gardens for children and picnics</p>	<p>Inside district</p>
10	Prince Sultan Aviation Academy • Landmark	<ul style="list-style-type: none"> • Educational building 	<p>This is Prince Sultan Academy of Aeronautics</p> <p>It is an educational building in Aviation Science</p>	<p>Inside District</p>

11	Fitness Time Centre • Landmark	• Sport centre	This gyms and large halls sports is well-known in Jeddah This includes playgrounds, swimming pools and fitness equipment, amongst others	Outside of district (3 km)
12	Al Khayyat Centre • Landmark	• Markets	This market brings many brands of perfume, clothing and designs that are beautiful and unique on Tahlia Street, but are expensive	Outside of district (3 km)
13	Maize Roundabout • Node • Path	• Roundabout • Market • Street	This is Maize roundabout on Tahlia street and around the many famous markets such as Jeddah Mall and Tahlia centre	Outside of district (3 km)
14	Falsteen street • Path • Node	• Street • Shops	Palestine Street has many mobile phones shops and any person who wishes to buy mobile phones finds a lot of options here	Inside district
15	Jeddah 7575 Centre • Landmark	• Building	This is a commercial and administrative building and modern design in which there are many offices and Car Rental shops.	Near district (300 m)

Source: The author, based on the empirical study

The respondents in the Al-Ruwais district selected (6) places inside the district and (4) near their area and (5) outside the district. Most of them chose landmarks (11), as well as paths (9) and nodes (5), as shown in Table 7.9.

Markets (5) were the most important site noted by the people of the district, followed by hospitals (3) and mosques (2), and thereafter the main roads due to them being one of the most important elements that the residents recognized. Districts are not mentioned in Ruwais neighbourhood while the Red Sea is considered to be an edge (Table 7.10).

Table 7.10: Summary of analysis video recorded from Al Ruwais’s residents

Element	Type	Comments
Path	Road/street/bridge	Commercial street/highway/ traffic jam
Landmark	Hospital/sport centre /mosque/ shopping centre (mall)/building/ educational building	Traditional and Modern design/ shape/ Location/function
Node	Market/roundabout/open space/ parking/garden/ Corniche	Function/location
Architectural details/ Aesthetic form	Mashrabiyya/sculptures/dome/minarets	Islamic motifs /shape/form/size/design
Edge	Sea	Landscape/view

Source: The author, based on the empirical study



Figure 7.31: Al Ruwais's example (V.C: 2): video shows mosque in coastal area, Source: Based on the empirical study

➤ **Al-Kandarah District:**

Table 7.11: Favourite and distinctive places for Al Kandarah's residents

V. C	Name/ Elements	Type of Element	Comment	Distance
1	Andalus mall • Landmark • Path	<ul style="list-style-type: none"> • Market • Street 	<p>This Andalus Mall, a large commercial market between University Street and King Abdullah Street</p> <p>It is nice place for shopping.</p>	Near district (1.5 km)
2	King Tower • Landmark • Architectural details	<ul style="list-style-type: none"> • Tower • Elevation 	<p>This is the largest display in the world, is located in the city of Jeddah and consists of 37 floors</p> <p>It is located in the north of Jeddah</p> <p>It features the wonderful landscape explicitly and can be seen from very far distances</p>	Outside of district (10.1 km)
3	King Abdulaziz University • Landmark • District	<ul style="list-style-type: none"> • Educational building • Colleges 	This is the King Abdulaziz University and contains a variety of buildings and colleges	Outside of district (4.8 km)
4	The Islamic Development Bank	<ul style="list-style-type: none"> • Tower • Mosque 	This is the Islamic Development Bank building	Near district

	<ul style="list-style-type: none"> • Landmark 		<p>and shows the Television tower behind it as well as one of the mosques.</p> <p>These are of the famous landmarks in Jeddah</p>	(2.18 km?)
5	<p>Middle Corniche</p> <ul style="list-style-type: none"> • Node • Edge 	<ul style="list-style-type: none"> • Corniche • Open space • Sea 	<p>This is the middle Corniche, a distinctive place in Jeddah and we note the sea and behind it some factories and buildings</p>	<p>Near district</p> <p>(2.4 km)</p>
6	<p>The Ministry of Finance Complex</p> <ul style="list-style-type: none"> • Landmark • Architectural details 	<ul style="list-style-type: none"> • Building • Design 	<p>This compound features a unique form and beautiful design</p>	<p>Outside of district</p> <p>(5.2 km)</p>
7	<p>King Saud Mosque</p> <ul style="list-style-type: none"> • Landmark • District 	<ul style="list-style-type: none"> • Mosque • Buildings • Neighbourhood 	<p>This mosque is one of the largest mosques in Jeddah and religious landmarks</p> <p>These buildings are in Al-Sharafiah neighbourhood</p>	<p>Outside of district</p> <p>(3 km)</p>
8	<p>Ali Almortada street</p> <ul style="list-style-type: none"> • Path • Node 	<ul style="list-style-type: none"> • Street • Open space • Market 	<p>Distinctive street featuring a variety of shops</p>	<p>Outside of district</p> <p>(4.4 km)</p>

9	Yamama market	<ul style="list-style-type: none"> • Market • Parking 	This is Yamamah market, one of the largest markets in Jeddah, featuring a variety of shops and has parking	Inside district
	<ul style="list-style-type: none"> • Landmark • Node 			
10	Mobily data centre	<ul style="list-style-type: none"> • Building • Design 	This is Mobily building and it has a beautiful shape and is unique and strange in its design	Near district (2.1 km)
	<ul style="list-style-type: none"> • Landmark 			
11	Jeddah Municipality building	<ul style="list-style-type: none"> • Building • Design 	This is one of the landmarks of Jeddah, a Jeddah Municipality building We also note that the building consists of several floors	Out district (3 km)
	<ul style="list-style-type: none"> • Landmark • Architectural details 			
12	Allegiance Square	<ul style="list-style-type: none"> • Roundabout • Road • Historical area 	This is the Historical Area, which consists of old buildings and one of the old Jeddah Gates This also consists of the famous Allegiance Square and Old Airport Road These places are distinctive landmarks in Jeddah	Near district (1.1 km)
	<ul style="list-style-type: none"> • Node • Path • District 			
13	King Abdulaziz University	<ul style="list-style-type: none"> • College 	This is university and the College of Engineering, where I study, the university is one of	Outside of district

	<ul style="list-style-type: none"> • Landmark 		the best universities in Saudi Arabia	(4.8 km)
14	Al-Shalhoob mosque <ul style="list-style-type: none"> • Landmark • Path 	<ul style="list-style-type: none"> • Mosque • Street 	This is a mosque where I pray and people also pray here on Friday. It is on Al-Musabahi street	Inside district
15	Al-Kandarah Hotel <ul style="list-style-type: none"> • Landmark • Node • Path 	<ul style="list-style-type: none"> • Hotel • Station • Bridge 	This is a gas station and on the left is King Fahd bridge as well as Al-Kandarah Hotel	Inside district

Source: The author, based on the empirical study

The respondents in Al- Kandarah district selected (3) places inside the district, (5) near their area and (7) outside the district. Most of them chose landmarks (12), as well as the paths that were mentioned (5) and nodes (5) as shown in Table 7.11.

There were varied choices between public buildings, commercial markets and religious landmarks. The vast majority were attracted to the shape or link to either functional or religious factors as well as needs (Table 7.12).

Table 7.12: Summary of analysis video recorded from Al Kandarah's residents

Element	Type	Comments
Path	Road/street/ bridge	Commercial street/distinctive street
Landmark	Hospital/sport centre /mosque/shopping centre (Mall)/building/public building	Design/shape/location/function/lands cape/ unique form/strange

Node	Market/roundabout/open space/parking/garden/Corniche	Function/location/distinctive place/variety of shops
District	Historical area/neighbourhood	History/location
Edge	Sea	View
Architectural details/Aesthetic form	Mashrabiyya/sculptures/dome/minarets	Elevation/shape/form/size/design/high glass

Source: The author, based on the empirical study



Figure 7.32: Al Kandarrah's example (V.C: 8): video shows the main elements at night, Source: Based on the empirical study

➤ **Al-Karantina District:**

Table 7.13: Favourite and distinctive places for Al Karantina's residents

V. C	Name/Elements	Type of Elements	Comment	Distance
1	Jeddah Islamic Port • Landmark • Edge	<ul style="list-style-type: none"> • Seaport • Sea 	This Islamic port of Jeddah is on the Red sea and is a major port for the transport of goods and passengers and travellers arrival to perform Hajj and Umrah	Near district (300 m)

2	Al-Balad • Architectural details • District	<ul style="list-style-type: none"> • Mashrabiya • Historical area 	This is the historical Albalad area, a tourist area which is characterized by traditional buildings and mashrabiya that decorate their windows	Near district (2.5 km)
3	Seaport Tower • Landmark • Architectural details	<ul style="list-style-type: none"> • Tower • Design 	This is a seaport tower, one of the famous buildings in the city of Jeddah, and is of the cylindrical form and great height	Near district (2.9 km)
4	Seaport Tower • Landmark • Node	<ul style="list-style-type: none"> • Tower • Seaport area 	This is a seaport tower that is has a beautiful and geometric design and is near the Jeddah Islamic Port and the sea	Near district (2.9 km)
5	Khuzam Tower • Landmark	<ul style="list-style-type: none"> • Tower 	This is a water tower in the neighbourhood of Nazla and is an historical landmark that distinguish Jeddah	Near district (2.3 km)
6	Telecommunications market complex • Node	<ul style="list-style-type: none"> • Shops 	This is a communication and smart devices complex	Outside of district (7.8 km)
7	Saheli Centre	<ul style="list-style-type: none"> • Centre • Building 	This is set in a modern building and consist of banks such as the Arab and	Outside of district

	<ul style="list-style-type: none"> • Landmark 		Samba banks and the Saheli Trade Centre. I like the design and façades	(6.5 km)
8	<p>Corniche Commercial Centre</p> <ul style="list-style-type: none"> • Landmark • District • Path 	<ul style="list-style-type: none"> • Commercial centre • Historical area • Bridge 	<p>This is the commercial centre of the Corniche in the Al-Balad area and is one of the famous shopping centres and is cheap</p> <p>This is the great Ahli Bank building and has a bridge</p>	<p>Near district</p> <p>(2.9 km)</p>
9	<p>Corniche</p> <ul style="list-style-type: none"> • Node • Edge 	<ul style="list-style-type: none"> • Corniche • Open space • Sea 	<p>Of the best places in Jeddah is the Corniche overlooking the sea with places to sit and view the sea</p>	<p>Outside of district</p> <p>(15 km)</p>
10	<p>Al-Rahma Mosque</p> <ul style="list-style-type: none"> • Landmark • Node • Edge • Architectural details 	<ul style="list-style-type: none"> • Mosque • Corniche • Sea • Domes and minaret 	<p>This is a well-known mosques in Jeddah, which is located in the sea and around the Corniche in a wonderful shape and design, along with many domes and one minaret</p>	<p>Outside of district</p> <p>(22 km)</p>
11	<p>Old mosque</p> <ul style="list-style-type: none"> • Landmark 	<ul style="list-style-type: none"> • Mosque 	<p>I liked this mosque in its design because it is built the old way, a method of construction in the past</p>	<p>Outside of district</p> <p>(6.5 km)</p>

			time with its distinctive colour	
12	King Fahd's Fountain • Landmark	• Fountain	This Jeddah Fountain is the world's tallest fountain and entered the Guinness Book of World Records at a height of 320 meters. The lights consist of 500 headlamps It looks very gorgeous and is a tourist tospot in the city of Jeddah	Outside of district (7.3 km)
13	Al-Farsi Towers • Landmark • Path	• Tower • Road	These are Farsi towers which are famous towers in Jeddah on Al-Kurnayish Road	Outside of district (17 k m)
14	Aramco refinery • District	• Industrial area	This Aramco refinery in Jeddah is one of the famous places that you can see the smoke appear from a long distance	Inside district
15	Friday market • Node	• Market • Open space	This is the most famous open-air market that sells many things on Friday and people come from everywhere to Jeddah	Inside district

Source: The author, based on the empirical study

The respondents in Al- Karantina district selected (2) places inside the district, (6) near their area and (7) outside the district. Most of them chose the landmarks (10) as well as paths (2), edge (3) and node (4) as shown in Table 7.13.

The population showed varied choices between public buildings, commercial markets and religious landmarks. The vast majority of respondents were attracted to the shape or to the links between the sites and their functionality, or religious factors or needs (Table 7.14).

Table 7.14: Summary of analysis video recorded from Al Karantina’s residents

Element	Type	Comments
Path	Road /bridge	Distinctive street
Landmark	Tower/seaport/mosque/building/ fountain/commercial centre/banks	Design/shape/location/function/landscap/lights/c olour/tourist interface/construction/modern building
Node	Shops/marketplace/open space/Corniche	Function/location/distinctive place/variety of shops/time/great turnout
District	Historical area/industrial area/tourist area	History (traditional buildings)/location/tourism
Edge	Sea	View
Architectu ral details/ Aesthetic form	Mashrabiyya/	Elevation/shape/form/size/design/high

Source: The author, based on the empirical study



Figure 7.33: Al Karantina's example (V.C: 6): video shows the main elements which are shops at night,
Source: Based on the empirical study

➤ **Al-Waziriya District:**

Table 7. 15: Favourite and distinctive places for Al Waziriya's residents

V. C	Name/Elements	Type of Elements	Comment	Distance
1	Prince Abdullah Al Faisal Stadium • Landmark • District	<ul style="list-style-type: none"> • Stadium • Neighbourhood 	This Waziriya neighbourhood and it contains a sports stadium	Inside district
2	Ahli Bank and the Corniche Centre • Landmark • District	<ul style="list-style-type: none"> • Commercial Centre • Historical area 	This beautiful place has wonderful and historical buildings in the Al-Balad area such as Buqshan, Corniche centre and Al Ahli Bank	Outside of district (6.7 km)
3	Prince Abdullah Al Faisal Stadium • Landmark • District • Path	<ul style="list-style-type: none"> • Stadium • Neighbourhood • Bridge • Street 	This contains Al-Falah Road bridge, Waziriya district buildings and Stadium street There is also the Prince Abdullah Al Faisal Stadium	Inside district

4	King Abdul-Aziz University • Landmark	• University	The Deanship of Student Affairs at King Abdul-Aziz University is located here and it has a beautiful design	Outside of district (3.2 km)
5	Jeddah Municipality building • Landmark • Path	• Public Building • Bridge	This is the Jeddah Municipality building, one of the beautiful buildings of the city and is characterized by a clear location. It also manages the city's projects and contains the Municipality bridge	Outside of district (8.2 km)
6	Isa'ee building • Landmark • District	• Building • Neighbourhood	This is Isa'ee building, a glass building with a very beautiful design It is a commercial and residential building in AlAziziah district	Outside of district (11 km)
7	Al Rehaily station • Landmark • Node	• Gas station	This is Al Rehaily station and is famous at the end of Jeddah, heading towards the holy city of Makkah	Outside of district (6.3 km)
8	Anani Mosque • Landmark • Edge	• Mosque • Sea	This mosque is at Jeddah Beach and is an old mosque that has a lot of history It also has a very wonderful design with a great location on the sea	Outside of district (9.3 km)

9	Jeddah beach <ul style="list-style-type: none"> • Edge 	<ul style="list-style-type: none"> • Sea • Beach 	Jeddah sea and beach is a nice place and has a beautiful view of the sea. It is one of the places that characterizes Jeddah from other cities	Outside of district (9.1 km)
10	Bicycle Square <ul style="list-style-type: none"> • Landmark • Node 	<ul style="list-style-type: none"> • Roundabout 	This is a famous roundabout in Jeddah It has an old memorial of a bicycle It is an important landmark for Jeddah	Outside of district (12.55 km)
11	King Tower <ul style="list-style-type: none"> • Landmark • Node 	<ul style="list-style-type: none"> • Tower • Parking • Open space 	This is one of the Jeddah landmarks and is a glass-fronted tower that uses pallet advertising and is a beautiful building It contains several parking areas and is close to the Corniche	Outside of district (16.6 km)
12	Tower <ul style="list-style-type: none"> • Landmark • Architectural details 	<ul style="list-style-type: none"> • Building • Design/Glass 	These are huge glass towers and I like these buildings because they are completely made of glass	Outside of district km?
13	Aldrees Tower <ul style="list-style-type: none"> • Landmark • Path 	<ul style="list-style-type: none"> • Office building • Road 	This is a distinctive tower on King Abdullah Road	Outside of district (7.6 km)

14	Fakih Aquarium • Landmark • Edge	<ul style="list-style-type: none"> • Entertainment • Sea 	<p>This is a characteristic of the type of place that you can see at Sea World</p> <p>It is the only one of its kind in Saudi Arabia and here you can watch dolphins</p>	<p>Outside of district (17 km)</p>
15	Al-Nawras Roundabout • Node • Aesthetic form	<ul style="list-style-type: none"> • Roundabout • Sculpture 	<p>This is Al-Nawras roundabout and it is a famous roundabout from the past.</p> <p>It has a nice shape</p>	<p>Outside of district (19 km)</p>

Source: The author, based on the empirical study

The respondents in Al- Waziriya district selected (2) places inside the district, (6) near their area and (7) outside the district where the farthest place is 19 km. Most of them chose the landmarks (13), as well as paths (3), edges (3) and nodes (4) as shown in Table 7.15.

The respondents varied their choices between public buildings, commercial markets and religious landmarks. The vast majority were attracted to shapes or links as functional or religious factors and also needs (Table 7.16).

Table 7.16: Summary of analysis of video recorded from Al Waziriya's residents

Element	Type	Comments
Path	Road/bridge/street	Movement
Landmark	Tower/stadium/mosque/aquarium/building/ commercial centre/university	Design/shape/clear location/function/landscape/ history/old memorial
Node	Roundabout/open space/Corniche/ parking/gas station	Function/location/distinctive place/variety of shops/time/ great turnout

District	Historical area/neighbourhood	History (historical buildings)/ location
Edge	Sea/beach	View/landscape
Architectural details/ Aesthetic form	Sculpture/glass	Elevation/shape/form/size/ design/high

Source: The author, based on the empirical study

➤ **Al-Salamah District:**

Table 7.17: Favourite and distinctive places for Al Salamah's residents

V. C	Name/Elements	Type of Elements	Comment	Distance
1	City Max • Landmark • Architectural details	<ul style="list-style-type: none"> • Plaza • Dome 	<p>This is dome City Plaza, a beautiful building in its design that resembles the White House in Washington</p> <p>It has a large dome</p>	Inside district
2	Mayor's building • Landmark • Node • District • Architectural details	<ul style="list-style-type: none"> • Traditional house • Neighbourhood • mashrabiyya 	<p>This is the mayor's building, which is built in the traditional way; it has mashrabiyya</p> <p>These are modern buildings in the neighbourhood with diverse forms</p>	Inside district

3	Basateen Centre • Landmark	<ul style="list-style-type: none"> • Market (mall) 	<p>This is one of the best shopping centres in Jeddah and has been there for more than twenty years</p> <p>It has a wonderful coffee shop</p>	<p>Near district (2.9 km)</p>
4	King Tower • Landmark • Path	<ul style="list-style-type: none"> • Tower • Road 	<p>This building is huge and has a glass tower where its facade is used for display</p> <p>It is located on King Abdulaziz Road</p>	<p>Near district (2.65 km)</p>
5	Iceland • Landmark	<ul style="list-style-type: none"> • Amusement 	<p>This Island amusement park is in Jeddah, which is a special place, and most young people like it because it is the only place where snow games and skating are available</p> <p>One of my favourite places</p>	<p>Inside district</p>
6	Tahlia Street • Path • Node	<ul style="list-style-type: none"> • Markets • Street 	<p>One of the most important streets in Jeddah and features a lot of shops and markets</p> <p>We note that the markets are distributed from the beginning to the end of the street</p>	<p>Near district (2.9 km)</p>
7	Al-Shaya Centre • Landmark • Node	<ul style="list-style-type: none"> • Market • Street • parking 	<p>This commercial market on Tahlia Street is characterized by global brands of furniture</p>	<p>Near district (2.9 km)</p>

	<ul style="list-style-type: none"> • Path 		Everyone needs to find furniture for his home here and there is parking for the centre	
8	<p>New Town Centre</p> <ul style="list-style-type: none"> • Node 	<ul style="list-style-type: none"> • Open space • Market 	<p>These markets in New Town Centre Group have a wonderful variety of galleries</p> <p>These are newly established markets that meet the needs of people</p>	<p>Near district (2.9 km)</p>
9	<p>Rosewood Hotel</p> <ul style="list-style-type: none"> • Landmark • Edge 	<ul style="list-style-type: none"> • Hotel • Design • Sea 	This hotel is one of the largest hotels in Jeddah and has distinctive design, is a wonderful shape, overlooks the sea, and has a swimming pool above	<p>Outside of district (3.5 km)</p>
10	<p>Space roundabout</p> <ul style="list-style-type: none"> • Node 	<ul style="list-style-type: none"> • Roundabout 	<p>This is a Space roundabout, and is a very famous roundabout because it is located in the heart of Jeddah</p> <p>Everyone in Jeddah knows it</p>	<p>Near district (1.2 km)</p>
11	<p>Literary and Cultural Club</p> <ul style="list-style-type: none"> • Landmark • Path 	<ul style="list-style-type: none"> • Public building • Road 	This is a literary and cultural club in Jeddah and one of the distinctive places for the development of thought and there are useful training sessions that I take advantage of; it is on Corniche Road	<p>Near district (2.8 km)</p>

12	The flagpole roundabout • Node	• Roundabout	Jeddah is characterized by roundabouts and this is one of them The highest flagpole in the world and built in 2014	Outside of district (7.9 km)
13	Shoulah roundabout • Node • Path	• Roundabout • Street	This is one of the roundabouts, which is famous in Jeddah, and serves Prince Sultan Street in Al-Salamah	Inside district
14	Stars Avenue • Landmark	• Market (Mall) • Interior design	This is one of the nicest and most beautiful markets in Jeddah, with beautiful shops and a restaurant overlooking the fountain; I see this as my favourite place	Near district (1.6 km)
15	Al-Jawhara Tower • Landmark • Path	• Residential building • Road	Now, I drive on King Abdulaziz road and there is Al-Jawhara Tower which you can see from far away It is one of the tallest building in Jeddah	Outside of district (3.4 km)

Source: The author, based on the empirical study

The respondents in Al- Salamah district, which is a modern neighbourhood, chose (4) places inside the district, (8) near their area and (3) outside the district which is the farthest place at almost 8 km. Most of them chose the landmarks (10), as well as paths (6) and nodes (7) as is shown in Table 7.17.

The design and form of the buildings were factors that determined the choice of the elements (nine of the fifteen respondents). The activities and meaning were also important. Five of the respondents had associations to selected places with regards to either specific meaning or activity (Table 7.18)

Table 7.18: Summary of analysis of video recorded from Al Salamah’s residents

Element	Type	Comments
Path	Road /street	Main road/commercial street/importance
Landmark	Tower/plaza /hotel/public art building/mall/mayor’s building/commercial centre/residential building/amusement	Design/shape/location/function/view/ favourite place
Node	Shops/market/open space/ Corniche/roundabout/parking	Function/activity/location/distinctive place/variety of shops/the needs/fame
District	Residential Area (neighbourhood)	Traditional/modern buildings
Edge	Sea	View
Architectural details/ Aesthetic form	Mashrabiyya/dome/interior design/ glass	Elevation/shape/form/size/design/high

Source: The author, based on the empirical study

➤ **Al-Shati District:**

Table 7.19: Favourite and distinctive places for Al Shati's residents

V. C	Name/Elements	Type of Elements	Comment	Distance
1	Red Sea Mall • Landmark	• Market (Mall)	It is a large mall and very beautiful place, everything you want you can find here. It is the best mall in Jeddah	Inside district
2	Rosewood Hotel • Landmark • Node • Architectural	• Hotel • Corniche • Design	This hotel is beautiful and overlooks the Jeddah Corniche; it one of the famous hotels and landmarks in Jeddah Designed with the latest architectural forms	Inside district
3	Farsi Towers • Landmark • Node • Edge • Aesthetic form	• Tower • Corniche • Sea • Aesthetic models	The Farsi Towers, which is distinct around the sea, is close to the Corniche There are some of the aesthetic models of ships	Inside district
4	Al Jawhara Tower • Landmark • Edge	• Tower • Sea	This building is one of the new towers and is a high-rise overlooking the sea	Inside district

5	The Headquarters Business Park	<ul style="list-style-type: none"> • Tower • Road 	This is the King Abdulaziz Road and this tower is one of the high-rise towers in Jeddah and includes many of the offices and a great location where you can watch from distant places	Inside district
6	Al-Rahma Mosque	<ul style="list-style-type: none"> • Mosque • Corniche • Sea 	Beautiful old mosque next to the sea and the Corniche; one of the landmarks of mosques in Jeddah Many of its worshipers come to the Corniche	Inside district
7	Rosewood Hotel	<ul style="list-style-type: none"> • Hotel • Tower 	This beautiful Rosewood Hotel has a wonderful design and has a swimming pool. Also, there is Al Jawhara Tower, one of the distinctive towers overlooking the sea	Inside district
8	Space Roundabout	<ul style="list-style-type: none"> • Landmark • Aesthetic Model 	This circle is Space, how the earth turns around the sun; this is a famous thing in Jeddah, and everyone knows it	Outside of district (5.2 km)
9	Hilton Hotel	<ul style="list-style-type: none"> • Hotel • Open space • Corniche • Street • Sea 	This is a set of famous and well-known hotels in Jeddah, which is next to the Hilton, Zharh AlSharq and the Headquarters Business Park, in a front open space on	Inside district

			Corniche street and has a view of the sea and the Corniche	
10	<p>Movenpick Resorts</p> <ul style="list-style-type: none"> • District • Node • Edge 	<ul style="list-style-type: none"> • Chalets Corniche • Mosque • Sea 	<p>This is the Fakhri tourist group, places of entertainment and chalets overlooking the sea and the Corniche and this a beautiful mosque belonging to the resort</p>	Inside district
11	<p>Belagio Resorts</p> <ul style="list-style-type: none"> • Node • Edge 	<ul style="list-style-type: none"> • Resort • Corniche • Roundabout • Sea 	<p>It is a place of entertainment which is close to the sea and the beach and on the Corniche in Jeddah and is beside a roundabout</p>	Inside district
12	<p>Al Jawhara Tower</p> <ul style="list-style-type: none"> • Landmark • District 	<ul style="list-style-type: none"> • Tower • Hotel • Neighbourhood 	<p>This is a big tower and one of the hotels in Jeddah, which is a high-rise, and it has a modern glass design</p> <p>It is located in the Shati neighbourhood</p> <p>This Rosewood Hotel is one of the well-known hotels in Jeddah</p>	Inside district
13	<p>Public Garden</p> <ul style="list-style-type: none"> • Node • District 	<ul style="list-style-type: none"> • Park • Neighbourhood 	<p>This public park features a children's playground and places for family seating in the</p>	Near district (1.6 km)

			Muhammadiyah neighbourhood	
14	Al-Shati Garden <ul style="list-style-type: none"> • Node • District • Landmark 	<ul style="list-style-type: none"> • Open space • Tower • Vallas • Neighbourhood 	This has a wonderful view of the garden in the Shati neighbourhood and there is the King Tower and beautiful Villas in the neighbourhood	Inside district
15	Al-Baik restaurant <ul style="list-style-type: none"> • Landmark 	<ul style="list-style-type: none"> • Restaurant 	These are some famous restaurants Al-Baik and Al-Orobah in Jeddah; my favourite restaurant is there	Near district (1.2 km)

Source: The author, based on the empirical study

The respondents in Al- Shati district selected (12) places inside the district, (2) near their area and (1) outside the district which is the Space Roundabout (5.2 km). Most of them chose landmarks (12), paths (2), edge (6) and node (8) as shown in Table 7.19.

Seven of the residents chose high-rise towers that relate to the Shati neighbourhood overlooking the sea. The Red Sea is the most important edge in the district for it is bounded by the sea on the west. The Al-Baik restaurant is one of the city's landmarks and it has a very good reputation amongst the population of Jeddah. Advertising is considered a major source of sites becoming a famous landmark to the resident population (Table 7.20).

Table 7.20: Summary of analysis of video recorded from Al Shati's residents

Element	Type	Comments
Path	Road/street	Main road
Landmark	Tower/mosque/building/commercial centre (mall)/restaurant/hotel	Design/shape/location/function/landscape/construction/modern building/high-rise

Node	Open space/roundabout/ Corniche/park/garden/resort/	Function/activity/location/ distinctive place/view/family seating/ children's playground
District	Neighbourhood/ vallas/ chalets	Modern/design/entertainment place
Edge	Sea	View
Architectural details/Aesthetic form	Ships models/modern glass design/ sculptures	Elevation/size/shape/design/high

Source: The author, based on the empirical study

Summary of all videos:

Table 7.21: Summary of elements' number for video recorded

Elements	District	Al- Balad	Kandarah	Al- Ruwais	Karantina	Al- Waziriya	Al- Salamah	Al- Shati
Path		6	5	9	2	3	6	2
Landmark		10	12	11	10	13	10	12
Node		9	5	5	4	4	7	8
Edge		0	1	1	3	3	1	6
District		1	3	5	3	4	1	4
Architectural details/ Aesthetic form		4	3	4	2	2	2	3

Source: The author, based on the empirical study

Landmarks are the most important elements that can be observed and distinguished through the eyes, and this may be due to their shape, design and height, or uniqueness when placed within the dominant context of the surrounding area, or their own function (Table 7.21).

Edges are less important to the residents of the old areas, while their importance increases for residents of the new areas, but there may be a logical reason for this which is related to distance (a neighbourhood near or far from the sea). One notes, for instance the Al-Salamah district, which is a modern internal area in which the edges are considered less important than other elements.

Paths are less important in Al-Shati and Al- Karantina districts, while they are more important in Al- Ruwais due to their location on several main roads.

This analysis shows that in the third dimension, landmarks and nodes are perceived more than paths, while paths, according to Lynch (1960, p.49), are more important in two dimensions. The architectural elements are important in shaping the urban image and cannot be replicated in two dimensions.

This collection of video clips can be analysed in terms of the third dimension or functions. The following Table (7) shows the types of elements selected.

Table 7.22: Summary of analysis of video recorded for types of elements

District	Al-Balad	Kandarah	Al-Ruwais	Karantina	Al-Waziriya	Al-Salamah	Al-Shati
Elements							
Path	Street Road Corridor (walking)	Road Street Bridge	Road Street Bridge	Road Bridge	Road Bridge Street	Road Street	Road Street
Landmark	Gate Building Mosque Cemetery School	Hospital Sport centre Mosque (Mall) Building Public building	Hospital Sport centre Mosque (Mall)	Tower Seaport Mosque Building Fountain Commercial Centre	Tower Stadium Mosque/ Aquarium Building Mall University	Tower Hotel Public art Building Mall	Tower Mosque (Mall) Restaurant Hotel

			Building Educational building			Amusement	
Node	Market Square Open space Parking	Gas station	Market Roundabout Open space Parking Garden Corniche	Shops Market Open space Corniche	Shops Market Open space Corniche Roundabout Parking	Open space Roundabout Corniche Park Garden Resort	Open space Roundabout Corniche Park Garden Resort
Edge	0	Sea	Sea	Sea/Beach	Sea	Sea	Sea
District	Historical area	Historical area Neighbourhood	0	Historical area Industrial area Tourist area	Historical area Neighbourhood	Neighbourhood	Neighbourhood Vallas Chalets
Architectural details/ Aesthetic form	Mashrabiyya Sculptures	Mashrabiyya Sculptures Dome Minarets	Mashrabiyya Sculptures Dome Minarets	Mashrabiyya	Sculpture Glass	Mashrabiyya Dome Interior design Glass	Ships' models Modern glass design Sculptures

Source: The author, based on the empirical study

Table 7.22 presents the key elements of the urban image and types. Roads and streets are the main types of paths while the pedestrian is mentioned in Al Balad district; bicycles were not mentioned at all. The corridor of Al Nada suq is clearly perceived as important due to its features and its being roofed. Mosques and towers, and the large shopping centres (malls) were considered as the most important landmarks. Roundabouts, Corniche, open space and parking are the most important nodes. The market is a popular node in the old districts while parks and gardens are more popular in new districts. The Red Sea is the common edge in the city. The historical area is the most archetypal type of district. *Mashrabiyya*, sculptures and domes are the most important architectural and aesthetic elements.

7.6 Conclusion:

This chapter focused on an analysis of the case study city of Jeddah through the use of mental maps in all districts.

First, transformations and changes in the form of the city were analysed and the urban image of the historical city evaluated by applying Lynch's framework. Thereafter, the previous image was compared to contemporary urban images to understand the changes that have affected the urban image's elements. In addition to that, a comparison of case studies was made through the analysis of the urban fabric and character. The changes in the old city form became less clear as time progressed.

The current image of the historical city compared with the previous one has changed as a result of changes in the urban form, the demolition of buildings, and the widening of streets to accommodate modern forms of transport rather than camels, because the width of streets needed for camels were incompatible with the demands of modern motor vehicles. Moreover, the removal of the city wall and the expansion of some streets along with the functional change of role for several buildings led to further changes in the urban image. Nodes in the historical city were considered the most important elements of the urban image. Evaluation of the elements in the historical city has proven that the city has a high degree of legibility.

The second section analysed visual elements in selected districts. The visual elements are closely linked to their association with the people who reside therein. Most people perceived mosques as important landmarks in the urban image. Roundabouts are the most important nodes in the urban image. This is due to the presence of design sculptures that make them landmarks as well as functional accoutrements to modern motoring. In addition to that, the marketplaces' "suq" are also important nodes in the image. The main roads around the districts were considered as edges to those who live in these districts

The third section analysed the non-visual elements. The social integration, activity, privacy and meaning are important non-visual elements in the urban image. The urban image of the residents connected the social meaning more than the physical form. The local identity of the city has become more important to older people, while it is of lesser importance to the youth of today.

The fourth section analysed the videos that were recorded. The results demonstrated the importance of architectural character in the formation of the urban image and its effect on

people's perceptions. The point elements of the urban form, such as landmarks and nodes, become more important in the third dimension than the role of paths.

Chapter 8:

Urban image evaluation:

The factors affecting the urban image

8.1. Introduction:

This chapter identifies and analyses the factors that affect the urban image and its elements through analysis of the questionnaire and interviews conducted as part of the primary research undertaken for this thesis. This chapter is divided into two sections. The first section focuses on an analysis of factors affecting visual elements. The second section focuses on factors affecting non-visual elements.

8.2. Factors affecting urban image

There are numerous factors that affect the urban image, both positively and negatively. These factors may be related to physical or social elements. To define these factors, a questionnaire was developed to show the extent of residents' perceptions and satisfaction with the urban image of the city through their agreement or not, with a series of statements identified to evaluate various aspects of concern relating to the public image of the city.

Factors affecting Physical elements:

Many factors affect the quality of the visual elements and the extent of people's satisfaction with them. These factors may reduce people's perceptions and each of the elements has influential factors. However, some factors may have associations with other elements. In this research, these are discussed and analysed.

Landmark and district:

Landmarks and districts can be affected by several factors that contribute to enhancing or minimizing the perception of the people. Architecture and urban aspects are the important factors where landmark and district are given the features and characteristics that emphasize their legibility.

- Urban and architectural character:

From the literature and case study analysis, it is found that architecture and urban character have influenced these elements, For instance, the old district (Al Balad) has a unique character and thus, it is more memorable, while the Al Waziriya district is less memorable due to its lack of character. The respondents were asked the extent to which they agreed with the statement “The city has a unique architectural and urban character”.

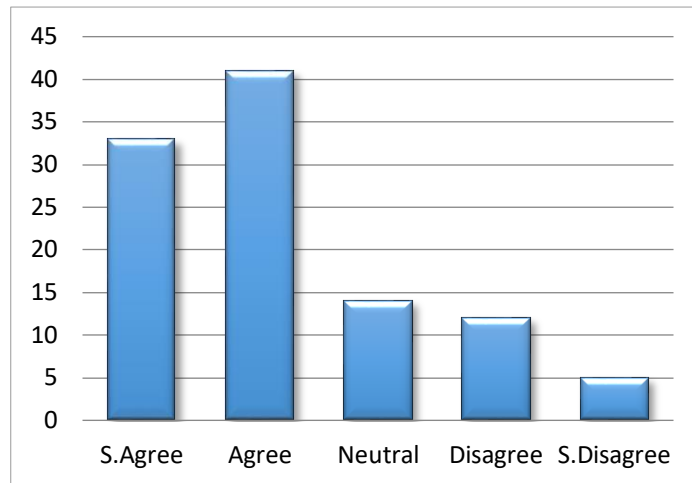


Figure 8.1: Views of the residents about Jeddah’s urban and architectural character

The bar chart (Figure 8.1) shows the views of the residents of the city of Jeddah in relation to the urban character of the city. The vast majority believe that the city has an urban character and that this reflects its history and distinctive origins. Their opinions were split between agreed and strongly agreed by about 70%, while there were 16% who did not agree that the city has character, especially at the present time where the city has become a multi-urban character. There were about 14% of respondents who expressed a view of neutrality as it was not clear in their minds as to whether they agreed and disagreed with the central premise of the question posed.

Understanding the concept of urban character has had an impact in determining the vision for the city's residents because the comprehensiveness of the concept arises from the interaction of environmental, economic and social characteristics, in addition to the overlap of the concept of identity with the character of the place. The historical district provides rich value to the city.

Local identity and building styles:

The influence of identity and building style factors can be assessed under the urban and architecture aspects. They can also affect the elements and give them a unique form. Respondents were asked about the extent of their agreement with the following statement, "The city has a distinctive local identity" and if they agreed with the statement: “The buildings’ styles reflect the city and its identity”.

Local Identity

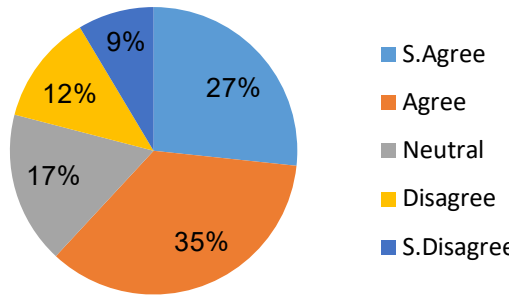


Figure 8.2: The residents' vision about Jeddah having a distinctive local identity

Building styles

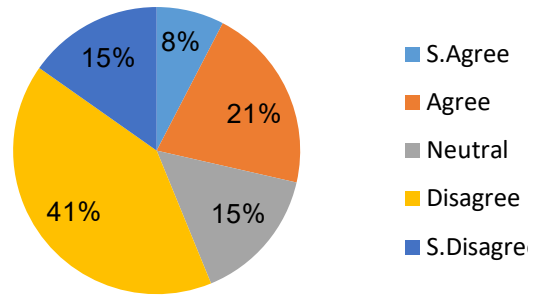


Figure 8.3: The reflection of identity on the styles of existing buildings

The pie charts (8.2 and 8.3) illustrate the extent of the Jeddah population's belief that the city owns a distinctive identity which should be taken account of in the construction of new buildings and the extent to which such historic aspects should be reflected in the buildings patterns and forms presently being adopted.

Approximately 62% of the population believe that the city of Jeddah has its own identity, especially in the old city. In contrast, about 21% believe that the city does not have an identity or that it has disappeared as a consequence of urban development. Neutrals, who are estimated to represent approximately 17% of the respondents interviewed, believe that the city has an identity but that it is not consistent; some areas still possess it whilst others have become overtly Western or now possess an unidentified identity.

One of the older respondents in Al-Balad district (city centre) pointed out that: *“Jeddah is one of the most important cities in Saudi Arabia, which is characterized by local identity which maintained it, but life has changed and the city flourished”* (Questionnaire 2014, translated from Arabic).

In a similar vein, a young respondent from the modern district indicated that: *“the identity of Jeddah was in the past and now [it is] considered as a modern city and [is] much different both in buildings and even in social relations”* (Questionnaire 2014, translated from Arabic).

The other chart presents the opinion of the population with regards to the reflection of local identity in the style of existing buildings. Comparing these views with others related to

local identity shows that more than half believe that the patterns of buildings, especially in the new areas of Jeddah, did not give attention to local identity, while less than a third believe that the buildings still maintain a distinctive identity.

This suggests, in summarising this section, that in general, the city of Jeddah owns a distinctive urban and architectural identity which is considered an historical legacy. This identity must be preserved and taken into account when designing buildings or seeking approval to implement them. It further suggests that such concerns have not always been respected sufficiently with the result that identity has disappeared or been ignored in many modern buildings.

Landmarks and distinctive buildings:

Distinctive buildings are also an important element of the urban image. This factor affects the general image of the city. The importance of this factor can be seen in both the historical district and the modern one. In order to evaluate Jeddah's image, respondents were asked about the extent of their agreement with the following statement: "The city contains a distinctive building and landmark".

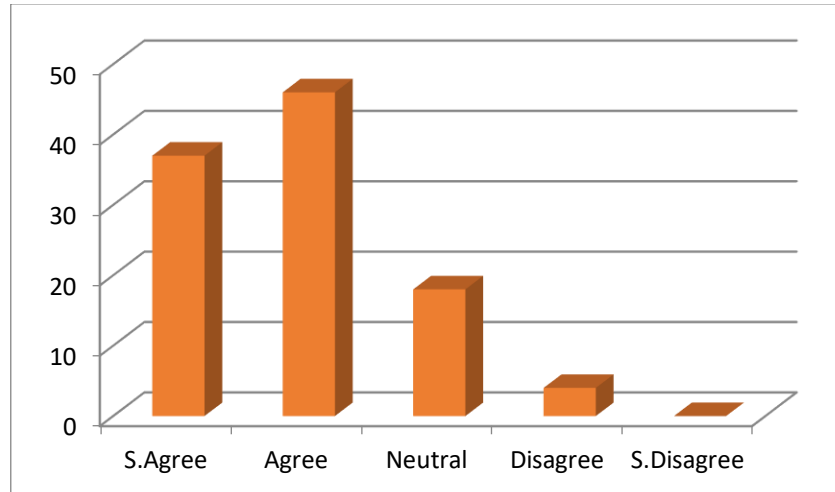


Figure 8.4: Views of the residents about Jeddah containing landmarks and distinctive buildings

The bar chart (Figure 8.4) shows that the vast majority of the population agree that the city of Jeddah contains several buildings and landmarks, whether they are of historical or modern construction. Indeed, nearly 79% of the population interviewed held this belief.

Only 4% believe that the landmark buildings in Jeddah were few in number and not negligible compared to the vast majority of buildings in the city, whereas about 17% were

neutral. Overall, this question illustrates that there are numerous buildings and landmarks that are characterized by the city of Jeddah, whether residential, commercial or governmental buildings, and specifically those in the waterfront area and Al-Balad district have a landmark status.

Urban fabric:

Urban fabric also affected the element of the urban image. In order to evaluate Jeddah's image, respondents were asked about the extent of their agreement with the following statement: "The urban fabric in the city is legible".

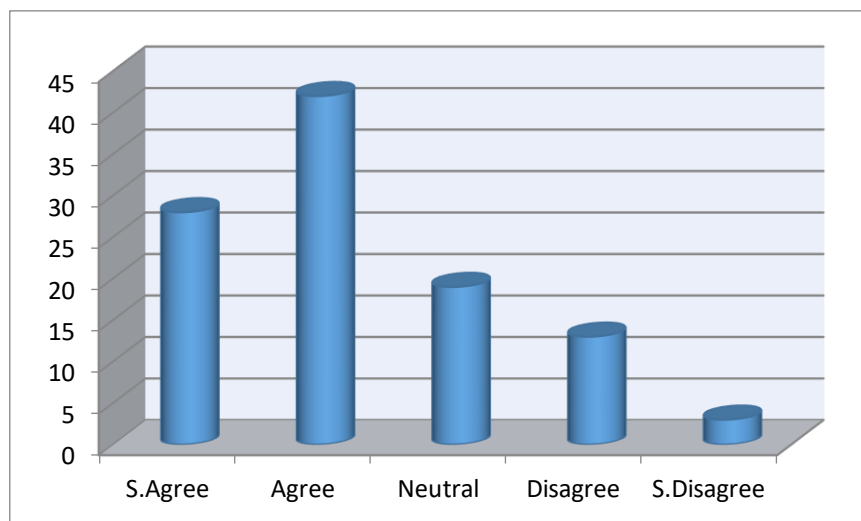


Figure 8.5: Views of the residents about Jeddah having urban and architectural character

The chart above (8.5) shows the perceptions of the interviewed population about the urban fabric and physical formation and the extent to which there exists an ease of movement within it.

Approximately 67% of respondents declared that the city of Jeddah is clearly defined and legible, that there is easy movement and that it is possible to readily navigate through both the roads and around the roundabouts with their aesthetic sculptures. There is about 15% of the population that believes that the city is not completely well-defined, while 19% are neutral – this group believes that there are some areas clearly legible as in the waterfront area and Corniche, whilst other internal areas are illegible. However, the clarity of the city of Jeddah in the population may be due to familiarity to their areas and ease of movement inside.

Path:

There are several factors and aspects affecting the path and its quality. Transportation is an important aspect which has an impact on the function and image quality of the path. Factors associated with this include good service, infrastructure, parking and traffic problems.

- Transportation Services:

Transportation services are important in terms of providing the modern day mass transit requirements of the population as well as impacting upon issues of congestion and air pollution. To evaluate this, the respondents were asked the following question: “To what extent do you agree with the following statement: Jeddah has a good transportation service?”

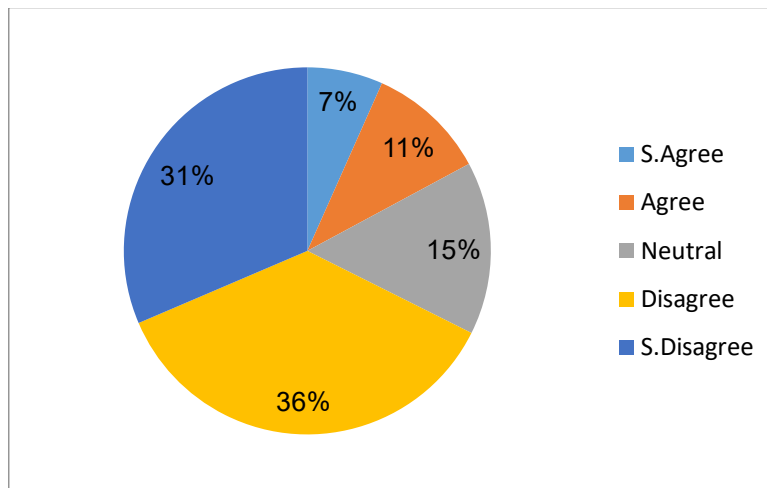


Figure 8.6: Evaluation of quality of transportation service

The pie chart above (Figure 8.6) shows the quality of the transportation service in the city and the extent of satisfaction of the population as to this service.

The majority of the population (67%) is not satisfied with the present transportation services provided in the city and they believe that a large metropolitan city like Jeddah needs better services that are in line with the globally robust reputation of the city. In contrast, there is a proportion not exceeding 18% of the population which believes that the transportation services in the city are good, while there are about 15% who had no definitive position either for or against the statement. Transportation services in the city of Jeddah need to be developed further especially since Jeddah is the gateway to the Holy cities, and the external transportation services are deemed acceptable, but local transportation within the city needs to be improved.

Whilst Jeddah has come a long way since its streets were widened to accommodate the needs of cars rather than camels, there is still, evidently, much further work to be done.

Transportation infrastructure:

A good transportation infrastructure contributes to making legible paths and improving their function. It affects the path quality and perception of people who move along the specific paths. The question asked of respondents was: “To what extent do you agree with the following statement: Jeddah provides a good transportation infrastructure?”

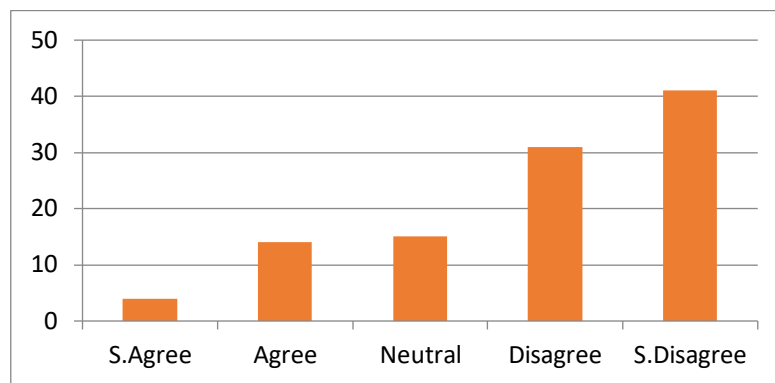


Figure 8.7: Evaluation of quality of transportation infrastructure

The chart (Figure 8.7) shows the extent to which the city owns or provides good infrastructure for transportation, and the extent to which residents are satisfied with the infrastructure provided. The graph dramatically illustrates the resentment that most of the population in the city possesses with regards to the present transportation infrastructure. Seventy-two respondents believed that the road infrastructure is very bad and that there is neglect of maintenance and in the ongoing development of roads and streets.

Car parking:

Parking is also related to a node. Therefore, the provision of car parking would be linking paths to nodes. To assess this, the respondents were asked this question: “To what extent do you agree with the following statement: The number of parking areas are sufficient in the city?”

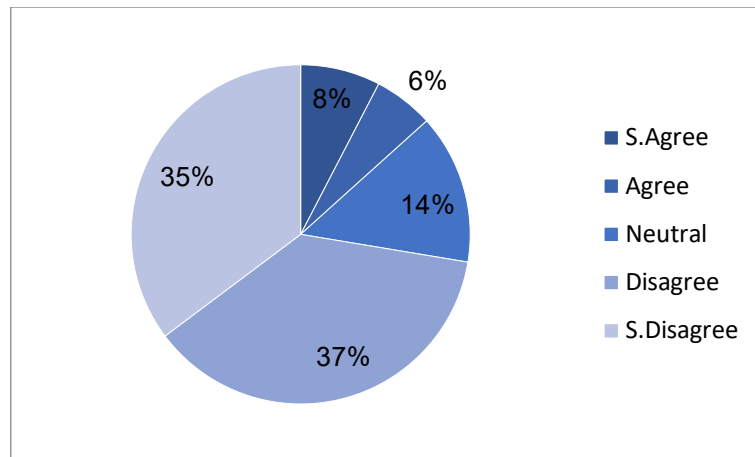


Figure 8.8: Evaluation of car parking

The pie chart (Figure 8.8) shows that the amount of car parking is not sufficient for the city. Only about 14% of respondents believe that the city has a sufficient number of parking spaces and this percentage is similar to those who exhibited a view of neutrality upon the question, while nearly three-quarters of the population argue that the city lacks sufficient parking.

Traffic problems:

Traffic congestion is one of the problems related to the movement paths. To assess this, the respondents were asked this question: “To what extent do you agree with the following statement: The number of parking spaces is sufficient in the city?”

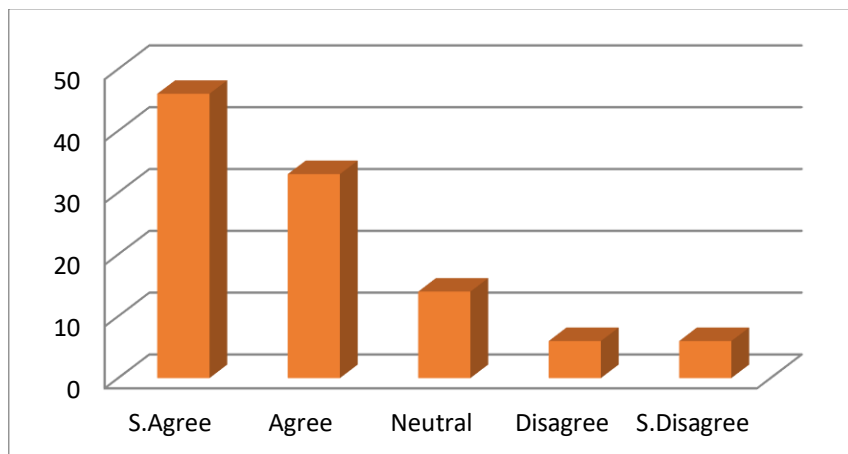


Figure 8.9: Traffic problems

The bar chart (Figure 8.9) presents the responses to the question relating to congestion and traffic problems in the city. The majority of the population covered in the survey argue that the city suffers from traffic problems and congestion, (75%), while only 12% does not believe that there are problems with traffic and 13% of respondents were neutral.

The city of Jeddah has developed in terms of transportation routes and established many roads to overcome traffic congestion. However, further work is needed and some of the work to date has been of a poor quality and implementation of roads has led to many of the traffic problems in addition to the large number of cars, the lack of services and other alternative means of transportation.

Node:

- **Open spaces:**

Open space is one of the node types. To assess this, the respondents were asked this question: “To what extent do you agree with the following statement: The city contains open space of high quality.”

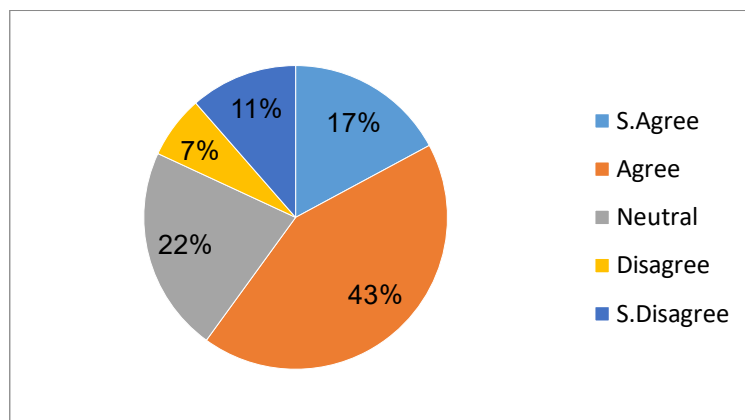


Figure 8.10: The city contains open space of high quality

The pie chart (Figure 8.10) shows the extent to which the city of Jeddah contains urban squares and open spaces and shows the responses of residents to those places with reference to their quality. The majority of the population (60% in the survey) believe that the city has urban squares and open spaces, while 18% disagree that the city has urban spaces and nearly 22% expressed no definite view; accordingly they adopted a position of neutrality when asked the question.

Art sculptures:

“To what extent do you agree with the following statement: Art sculptures are important in the city?”

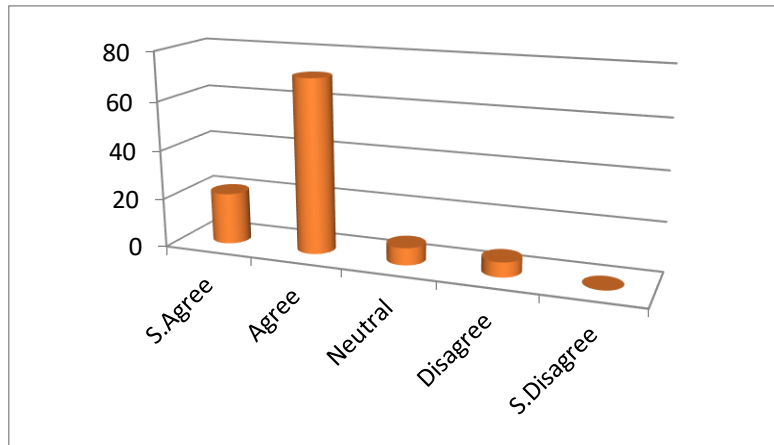


Figure 8.11: Art sculptures are important in the city

The bar chart (8.11) shows the views of the population on the question posed and their impressions about the aesthetics and art sculptures in the open air. The vast majority (86%), agree that the city contains figurative art in the open air and it has been noted that much of this is located in the roundabouts which is considered to be a specific design feature that characterizes the city. There were about 6% who did not agree with the dominant view while 7% were neutral.

8.3. Factors affecting non-visual elements:

There are several factors that affect non-visual elements. These, as previous chapters within this thesis have noted, relate to social, political and environmental aspects.

Social aspects:

- **The safety of the city:**

Safety is an important factor that affects the urban image (Kumar, 2007). To evaluate this factor, the respondents were asked this question: "To what extent do you agree with the following statement: The city is safe?"

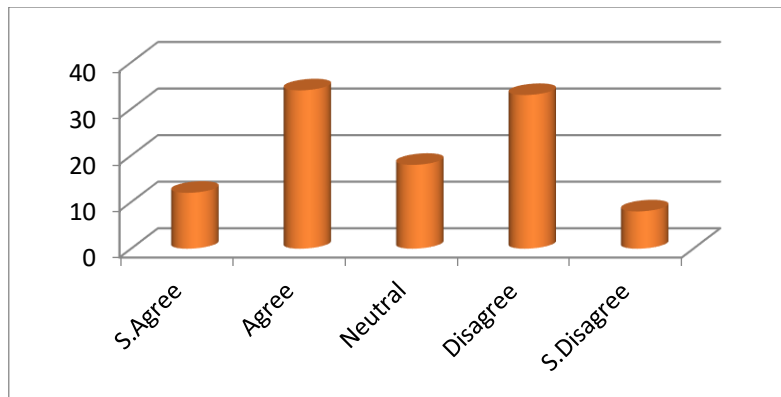


Figure 8.12: The city is safe

The chart (Figure 8.12) shows how the population of Jeddah responded to this question. About 34% of the population view the city as safe, while about 39% believe that the crime rate is high and 17% of the population were neutral upon this issue.

There are differing opinions amongst the population of Jeddah interviewed for this study about the security and safety of the city. This difference may be due to the residential areas in which the individual respondents live; some of the districts are unsafe, such as Karantina. This affects the district and these areas must be addressed in urban planning and design so that levels of personal safety can be increased

- Illegal migrations:

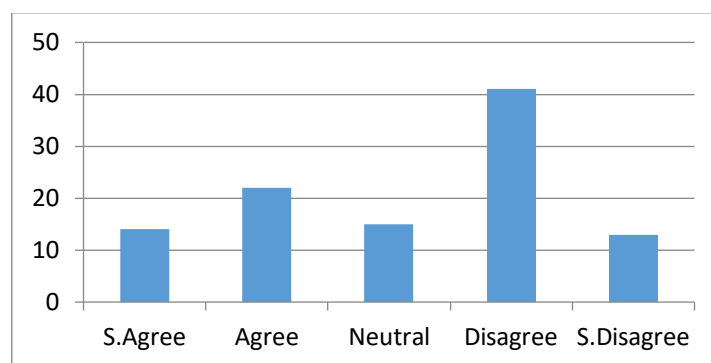


Figure 8.13: Problems with illegal immigration in the city

The graph (Figure 8.13) illustrates the extent to which there are problems with illegal immigration in the city. Over half of the population reviewed believe that there are illegal migrations and that these persons have caused problems in the area, while 34% believe that there are no problems related to illegal migrants and 13% of the population in the survey committed themselves to a position of neutrality.

Environmental aspects:

This aspect focuses on the behaviour of the population and how the authorities deal with the environment and environmental problems in the city with special reference to both noise and visual pollution as well as air pollution and the overall cleanliness of the city.

- The behaviour of the population and the government with the environment:

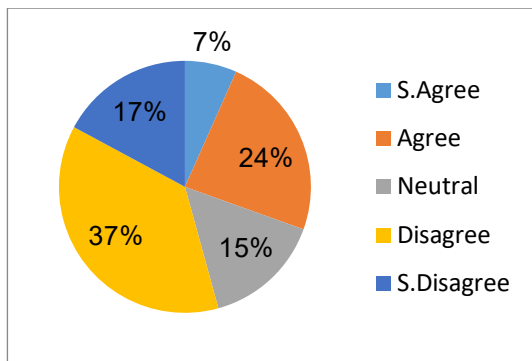


Figure 8.14: The behaviour of the population with the environment

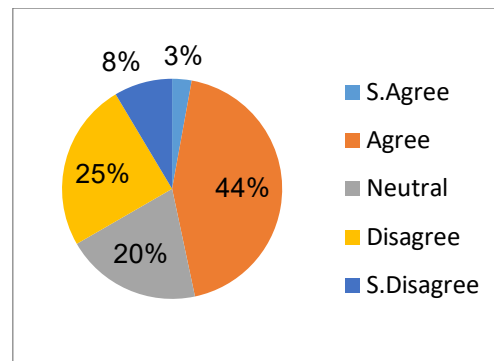


Figure 8.15: The behaviour of the government with the environment

The pie charts (Figures 8.14 and 8.15) show the opinion of the respondent population about the behaviour of themselves and the authorities when dealing with the environmental concerns prevalent in the city. About 31% of the population view themselves as dealing well with the environment, while 54% believe they are not doing well, whilst in contrast, about 47% believe that the authorities are dealing well with the environment, whereas 33% believe that the government does not pay much attention to the environment.

- Noise pollution:

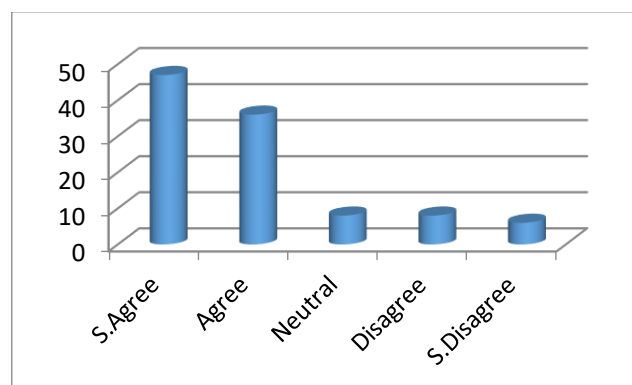


Figure 8.16: The city has noise and unwanted sounds

The graph (Figure 8.16) illustrates the views of the residents and their assessment of noise and other unwanted sounds in the city. The majority of the population, some 79% of those questioned, believe that the city is noisy and that they suffer from noise, while there is a small percentage of about 14% of the population that does not see any noise problems within the city and about 7% were neutral in their stated opinion upon the issue.

- **Visual pollution:**

Visual pollution is “*the whole of the irregular formations which are generally found in natural and built environments, which is usually seen indirectly, and which leaves negative impressions in the minds of people*” (Yilmaz and Ayse, 2011, p.99).

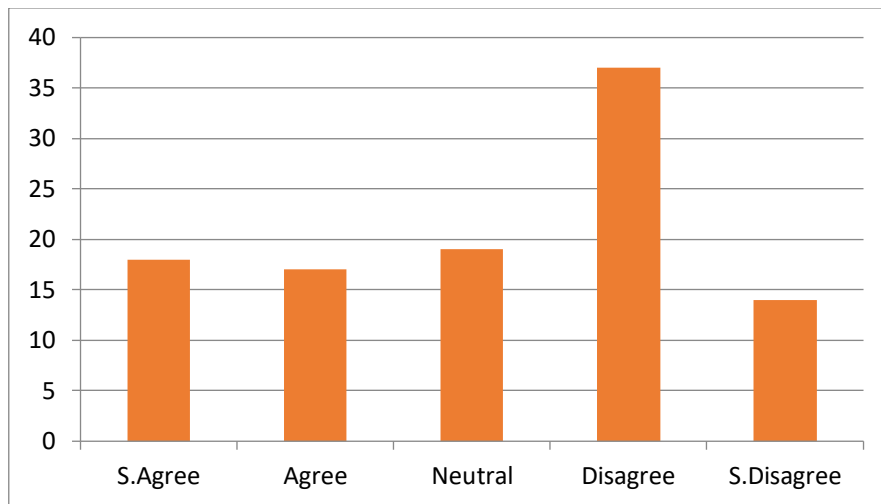


Figure 8.17: The city has visual pollution

The chart (Figure 8.17) shows the views of the questioned population of the city of Jeddah about visual pollution in the city. Nearly half of those questioned do not believe that there are visual pollution issues detrimentally affecting the wellbeing of the city, while there are about 33% of respondents who believe that there are visual pollution problems and 18% refused to commit themselves.

Air pollution:

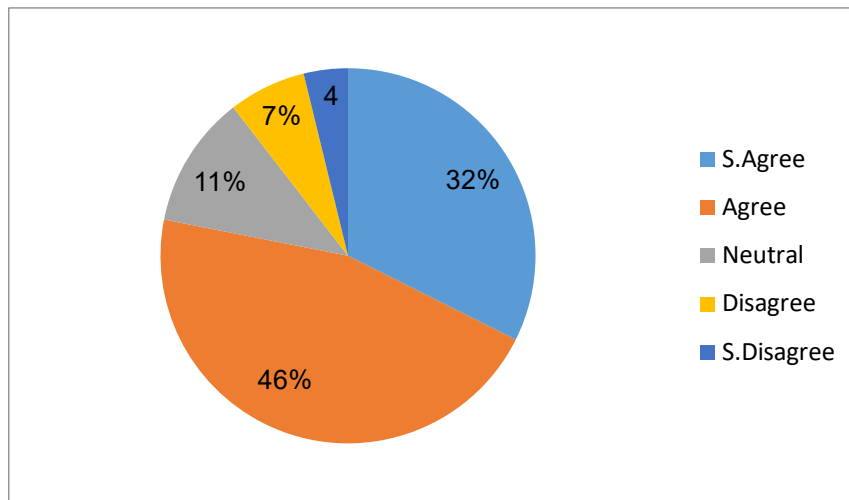


Figure 8.18: The city has air pollution

The pie chart (Figure 8.18) shows that the vast majority of interviewed respondents, about 76%, believe that the city suffers from air pollution, while 11% do not agree with it, and the same percentage are neutral in their opinion.

Cleanliness of the city and health:

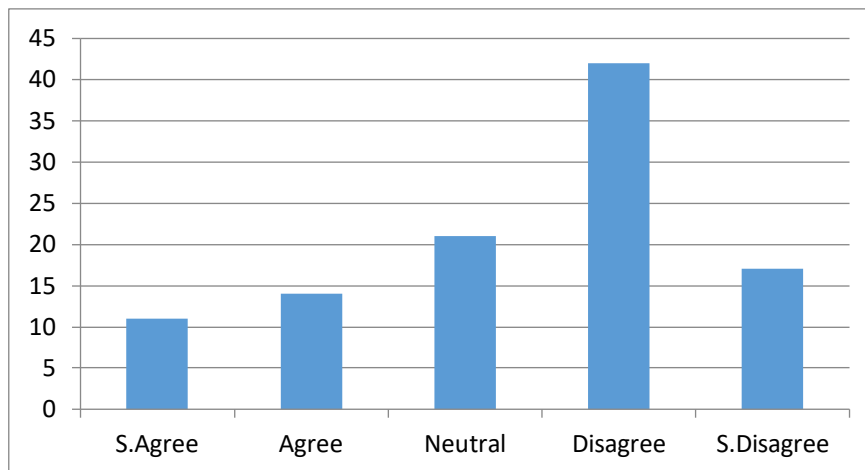


Figure 8.19: The city is clean and healthy

The chart (Figure 8.19) shows how clean the city is from the viewpoint of Jeddah's residents surveyed in this thesis and their assessment of the health and cleanliness of the city. The majority of the population (56%) believe that the city is not healthy and that there is a need for this issue to be addressed by the municipalities, while 24% believe that the city is clean and

there are 20% of the interviewed respondents who do not believe that the city is either healthy or unhealthy.

Political aspects:

This aspect focuses on the planning policies pursued in the city and projects relating to investment in Jeddah. This aspect of the thesis was assessed through interviews with representatives of both the public and private sectors.

- Planning policies:

Planning policies are non-visual elements that shape a city and its image (both internally and externally). The structure of the elements of urban form and how land use is distributed in a given setting can enhance the legibility of the site. Through interviews with five specialists in the field of planning and architecture in the Municipality of Jeddah and its sub-municipalities, the researcher sought to ascertain what the overriding priorities of the experts were with regards to policies and the criteria for the city's image and identity in the planning process. They pointed out that there is no specific policy for the urban image, for instance, (PJ-No.1) stated that, *“Currently, there are no fixed criteria or policies, and grid planning is dominated on the majority of the new plans, as well as other effects as a means of transportation, it is difficult to maintain the old fabric in the current planning. Thus, the schemes rely on [a] grid pattern [while] giving interior open spaces for parks and services”* (Interview PJ-No.1, 2014).

However, three of them made mention of a general framework for planning and megaprojects, for instance, (PJ-No.4) indicated that, *“There are no specific criteria, but there is a general framework that projects should be appropriate for the local environment”* (Interview PJ-No.4, 2014). Another planner added that: *“There are limited criteria in sustainability and the preservation of human scale of the city”* (Interview PJ-No.3, 2014).

The main concern for urban planning in Jeddah is the megaprojects. The city faces several large projects for development. The urban image and how it can be used to enhance the local identity should be considered when the municipalities deal with these projects. The official authorities were asked about how they deal with these projects in terms of urban image and identity. Most of them indicated that these projects are subjected to study and review before acceptance and adoption as (PJ-No.4) stated: *“We cannot accept any project unless it is*

compatible with the policies of planning and tak[e] into account the local environment” (Interview PJ-No.4, 2014). Another stated that, *“Definitely... these projects are being studied and modified with investors before issuing the approval of the implementation.”* However, some official planners argued that dealing with large projects was difficult, for instance, one planner (PJ-No.2) stated: *“We have policies in general, but it is difficult to force investors and owners of all projects on the planning and design as in the past and put Alrouachin and mashrabiyya on their projects. However, we try to be close [to] the views and attempt to link the past and the present in agreement with investors”* (Interview PJ-No.2, 2014). Another planner added that there are exceptions for some projects. He stated: *“Projects must be subject to studies to be appropriate for the city's image and identity, but sometimes there are exceptions if these projects serve the city”* (Interview PJ-No.2, 2014).

- Projects Investment:

Jeddah is considered one of the most important cities in Saudi Arabia in the field of investment, and when the development investors who were asked if *“Jeddah is an attractive city for investors or not and why”?*, all investors agreed. Commenting further on the reason for agreement with the first question statement, and thus noted, (DI-No.2) that Jeddah is an attractive city and that: *“This is due to several reasons, population growth, the housing prosperity and its strategic location, as well as, the existence of the sea port and it is also a tourist city”* (Interview DI-No.2, 2014). Commenting further, another investor referred to *“[a] construction boom in the city and for the coming years, therefore investors are interested in the establishment of their projects in Jeddah”* (Interview DI-No.3, 2014). In a similar manner another investor (DI-No.5) pointed out more reasons and he stated that: *“Of the most important features that attracted us to invest in Jeddah is that it is a coastal city, As well as the large population density and migration to the city and career opportunities, as well as its proximity to Mecca and Medina, or what is known as religious tourism and the Islamic port. Feature[d] in Jeddah and the Western Region of the Kingdom is the large number of vacant land[s], as well as, tourism and religious [and] commercial aspects and [a] housing demand”* (Interview DI-No.5, 2014).

The difference in investment between Jeddah and other cities:

When investors were asked about the difference between investing in the city of Jeddah and others, most of the people interviewed believed that the positives to investing in Jeddah are higher than those in other cities due to several of the reasons mentioned earlier within both this chapter and the wider thesis. (DI-No.2) indicated that: *“the rate of investment risk is much lower than other cities, as well as higher profit for us from small towns. In addition to that, there is heavy demand at the present time because of the population increase in the region and its strategic location.”* (Interview DI-No.2, 2014).

The strategic location of the city, along with the migrant settling residents, raises the investment opportunities and the desire of investors to exploit these advantages to achieve profits. In addition, the investment regulations and procedures for the approval of projects did not reduce Jeddah as a favourably viewed investment destination. One investor (DI-No.3), indicated that: *“We have other projects in the Gulf cities, such as Dubai and other[s]. Investment in Dubai, for example, is better than investing in Jeddah; there is no complexity in regulations and delays in the approval and issuance of permits”* (Interview DI-No.3, 2014).

The meaning of the urban image in investment:

One investor (DI-No.4) defined the meaning of urban image in investment as: *“the overall shape of the investment projects and how to suit them with the surrounding area and their integration with the city”* (Interview DI-No.4, 2014). Investors agreed that the urban image is important to the success of projects with one of the investors opining that: *“The city’s image means a lot to us; we want our projects to be featured within the city and [be] attention-grabbing and attractive for people”* (Interview DI-No.2, 2014). However, these projects create a new image for the city and the potential negative effects of this upon sub-sections of the city’s population have been noted throughout the thesis.

The impact of the city's image on investment projects:

The urban image of any city is significantly impacted upon by inward investment. The image of the city and its components can be reflected positively or negatively as a consequence of any given project. Therefore, a city which has a good image is likely to attract further investors while the city that has a negative image may be one in which they refuse to invest. One investor (DI-No.1) stated that: *“Undoubtedly they affect the investment and development*

[of] projects. As I said earlier, when the image of the city is good and beautiful, they attract investment and people who want to take benefits from these projects and contribute to raising the chances of success of projects and economic feasibility” (Interview DI-No.1, 2014). Another one of the investors interviewed likened the success of the project with the good image of the city. He said: “When the image is good, this makes the project more likely to be successful” (Interview DI-No.4, 2014).

8.4. A discussion of the findings:

The purpose of this chapter was to identify the main factors that affect the urban image (both its physical and non-physical elements) through people's perceptions and their impressions about the current image of the city (compared to that of the past) through the assessment of different aspects that affect the urban image quality. Several statements have been developed to take account of the views of those who dwell in Jeddah and these have been divided into several aspects and criteria. This approach has been further enriched by noting the process of planning policies and evaluating how investment is related to changes in the perception and reality of a city's urban image.

The results of this survey show that there is a great deal of difference between the views and impressions of the city's image in some respects, and the impact of urbanization and modernity in changing its image and identity. There is satisfaction in terms of economic, recreational, educational, tourist, historical and aesthetic aspects. In contrast, there is dissatisfaction with regards pertaining to environmental, urban and architectural aspects as well as issues relating to transportation.

Residents in Jeddah believe that the city has an urban character and local identity, especially in the central area, while they believe that this has largely disappeared – or been severely compromised - in modern districts. This is one of the effects of rapid development, which led – as has been noted at length through the thesis - to the loss of the distinctive character and identity of the city in the modern districts. Moreover, residents believe that there are numerous distinctive landmarks in the city, whether historical or modern; examples of each have been discussed within the main body of the chapter itself.

Although residents assert that the city form is clear and legible, they argue that transportation services and infrastructure are of a poor quality and need improvement. They also note that there is a substantial lack of parking and a number of severe traffic problems that need addressing. The clarity of the elements within the city faced weakness in the quality of its use as the paths, because although they are legible, the population questioned in this thesis do not believe that they are appropriate at this time. Indeed, an increase in both population and vehicles numbers has contributed to this.

8.5. Conclusion:

The results, as discussed, indicate that Jeddah has lost its identity in modern districts while the traditional urban image has been maintained in the old district. The main factors that affect the physical elements of this image were urban and architectural character, local identity, building styles, urban fabric and open spaces. Transportation aspects such as infrastructure and congestion affected path quality and its function.

Non-visual factors have also affected the urban image in people's perception. These factors related to social (safety, cohesion), political (planning policy, investment) and environmental (pollution, noise) aspects.

This chapter further showed, through the analysis of interviews, that there is no specific policy related to the urban image. There are special exceptions for some investors and the difficulty of forcing them to abide by policies relating to the protection of traditional aspects of identity are immense.

Chapter 9:

Results and Findings:

9.1. Introduction:

This chapter provides the main findings of the case study of Jeddah. It presents and discusses the results of the research in terms of visual and non-visual elements and determines the challenges and obstacles affecting the urban image in Jeddah in order to aid in improving the image.

Jeddah case study:

The seven districts in Jeddah differ from one another in a number of respects, be they historical or social, economic or educational. These districts also differ in their demographic composition, as well as in the nature of the urban fabric prevalent within their boundaries. Historically, districts can be classified into three main categories; pre-wall removal, the post-removal of the wall until the seventies when oil was discovered, and finally the post-oil discovery to the present time. The Al-Balad district is considered the oldest neighbourhood that was inside the city wall, and is followed chronologically by Al Ruwais, Petromin (Karantina) and Al-Kandarah in the second period which are located around the Al-Balad area, and thereafter the new neighbourhoods which are Al-Waziriya district in the south, and Al Salamah and Al Shati in the north (Figure 9.1).

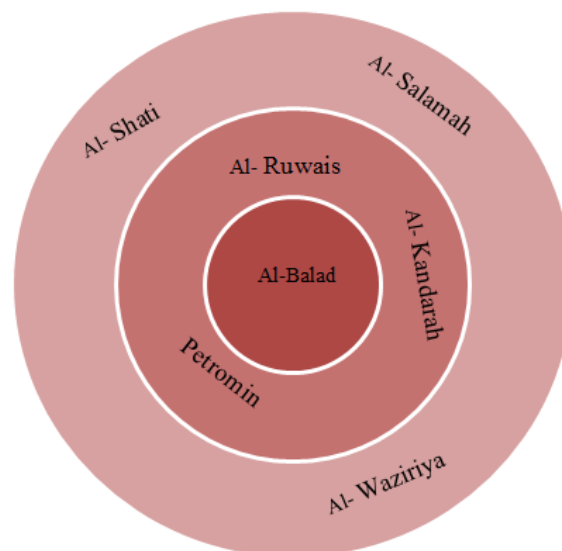


Figure 9.1: The seven districts in the historical periods and their locations, Source: The author

Although Al-Balad area is a commercial zone, the migration of many its original inhabitants has been replaced by foreign labour and this has contributed to changes in its

internal demographic structures as well as with regard to the dominant, social and economic fabric of the area. However, the residents in the district have strong social ties and they meet in open squares between residential areas – thereby keeping the old traditions alive.

9.2. Findings of the case studies:

The research focused on four main components. These components included:

- Visual elements
- Non-visual elements
- Key factors affecting the urban image
- Challenges and problems facing the urban image

The urban image of Jeddah can be classified into two categories, which are visual and non-visual elements.

9.2.1 Visual elements of urban image:

The five physical elements were confirmed to be fixed on different environments and cultures. Through the study and analysis of the case study, these elements were found to significantly impact on people’s perception. However, these elements are of different importance in different areas and of different importance to individual respondents.

- **Path:**

Paths are the most important elements in the urban image of all districts, especially paths which are now used by cars. Most of the residents in Jeddah navigate and move using cars. About 66% of the respondents move inside districts by car. Therefore, car paths (roads) are the most important elements in movement. In contrast, there is no mention of either pedestrian paths or cycle tracks in the new districts.

Table 9.1: Respondents move inside districts by cars

District	Al-Balad	Kandarah	Karantina	Ruwais	Al-Waziriya	Al-Salamah	Al-Shati
Inside	26%	60%	40%	73%	80%	93%	93%

Source: The author

Movement by car inside the district has increased in the new districts in contrast with the older districts. This is due to the straight and wide streets in the modern districts when compared to the spontaneous winding and narrower streets that still dominate (where not demolished) some sections of the old quarters – as discussed in previous chapters.

In the Al-Balad district, commercial streets are considered the most important and the following were most often mentioned: Al-Dhahab Street (100%), Al-Alwai (80%), Qabel (73%) and Al-Jami Street (80%). Similarly, in the Ruwais, Kandarrah and Karantina districts the importance of traditional commercial streets was highlighted by the respondents. This was especially true in the Karantina district where the streets have become known as the names of activities associated with them, such as Car Washing street (80%), “*Al Koro*” street (86%) or Coal Street (60%). A system of colloquially referring to streets that, in days gone by, was notable in old western cities – with Fish Lane, Bakers Alley, and Fletcher Gate, all being profession-related names given to streets in UK cities such as Nottingham and Liverpool. In contrast, public streets (major roads) that connect districts with the city or the entrances to neighbourhoods are considered the most important in new areas such as Hira (60%), Sari (73%), Prince Nayef (60%), Al-Shati, Al-Yamamah (73%), Muhammad Ibrahim Masoud (66%), Quraish (66%) and Saqr Quraish (46%) streets in the Al-Salamah district.

Paths in the Al-Balad district have changed. They are still used as trade routes but whereas in the past the transportation used was camel caravans, today automobiles are more common. An older man in Al Balad district stated that:

The trade routes in Al-Balad used camel caravans as a means of transport and movement of goods and pilgrims coming from the port to the Gate of Makkah. Most famous of these roads is Al Alawi Street, but everything changed at the present time; camel caravans replaced by modern cars (Informal interview, 2014, translated from Arabic).

After removing the wall of the city, the roads were expanded to allow the freer movement of cars in streets such as Al-Dhahab street, while other streets remained paths for pedestrians such as Al-Alawi, Qabel and Al-Jami streets.

Paths in the older neighbourhoods are characterized as winding and narrow while they are straight and wider in the more modern districts. Entrances and exits of the paths are clearer in the older neighbourhoods than in the modern districts. Paths are divided into several types:

major arteries, minor roads and streets serving inner neighbourhoods. The arterial paths in Jeddah are characterized by organized grid planning.

According to de Jonge (1962), orientation can be difficult in areas with irregular patterned roads. Irregular patterned streets may be difficult for strangers to negotiate but not for local people. From the analysis of the case study, it was found that people in the old districts can easily move about through the winding streets. It may be difficult to do so by car. However, respondents drew roads in straight lines, even if they were not like that in reality.



Figure 9.2: Path network in old district (Al Balad) Source: Google Earth



Figure 9.3: Path network in new district (Al Salamah) Source: Google Earth

Activities along the sides of the path give it a strong image and make it memorable. Most paths in the older districts are known for their margin activities, such as Al Dhahab (Gold) Street and Al Alawi Street, where Al Alawi's market is located. The Al Balad district is more legible in its image. The path is clear, due to the existence of activities and markets standing on either side. The important paths in the old district are where activities are held.

Older districts have a clear urban form and structure for their image, for instance, the paths in Al Balad district are very clear and most of the residents recognized them. This is due to a small number of main streets that are similar in width. The large number of similar streets in width reduced the importance of individual roads in people's perception, although Al Salamah district has a gridiron planning with regular patterned roads. Mental maps of the residents were different in paths as the result of there being many streets that can be used.

- **Edge:**

In Jeddah edges are of two types:

Natural edges: This type of edge is limited to the sea on the western side and the mountains on the eastern side, which have contributed to the elongation of the city. These edges are considered clear, especially for districts overlooking the sea like Al Shati and Al Karantina.

The other type of edge is "man-made" edges: These include formal administrative borders, in addition to other edges such as roads and bridges. The main roads and bridges are considered the edges that define the districts for local people. Administrative boundaries may vary and are not clear, especially in a district such as Al-Waziriya where the technical academic and official boundary is different to the lived-lives reality of residents. This indicates the importance of taking the views of residents and the importance of cooperation between officials and residents in the forming of administrative boundaries and units.

The main roads identify the majority of districts, in addition to the bridges that are more clearly marked than the roads. Al-Balad district is surrounded by major routes such as King Abdul Aziz Road, the Old Makkah Road, Banaja and Al Matehaf Street. These roads lead to the eastern part of the district which is between Makkah Road and the site of the old city wall. Similarly, other districts such as the Al Kandarrah neighbourhood are surrounded by main roads such as King Fahd, King Khalid and Old Airport Road, in addition to Old Makkah Road. The Al Salamah district also is a clear boundary. Al Shati is bounded by King Abdul Aziz, the Corniche Road and Al Salam Street, as well as the Red Sea.

The Al Waziriya neighbourhood has clear boundaries but is interrupted by the Al Falah Bridge and has contributed to making the southern boundary unclear to the residents. Residents of Al Karantina also perceived the Aramco Factory to the west of the district as an edge. Al Andalus Road in the west of Al Ruwais district separates the area.

- **District:**

Districts differ in terms of importance among the neighbourhoods in the city. While they were very important to the residents of older neighbourhoods, they have become less important to the dwellers in the new districts.

In the Al-Balad district, the old quarters are important in residents' relationships with each other and operate as small kingdoms which have heads who are so-called "*Al-Omdah*"

(mayors). These quarters are defined through secondary roads within the district. Al-Dhahab, Al-Al Alawi and Qabel streets define quarters for residents.

In the Al-Kandarah and Al-Karantina districts, quarters have social importance but are not visible in the drawings of residents' mental maps. These quarters may be determined by small alleyways or buildings according to the relationships among the residents. The Al-Ruwais district is similar to them but slightly different, for it contains popular areas and other modern areas, as well as the Al-Waziriya district, which has the Al Daqik quarter which is a popular and modern area, in addition to a vacant area and car maintenance area.

On the other hand, districts in modern neighbourhoods are considered unimportant in spite of the diversity of urban character in these areas. In the Al-Shati district, Prince Naif Park and the Palace of the Prince Naif may be the most prominent as both a district and landmark. In the Al-Salamah district, the Educational Zone is considered the most important by about 70% of the residents and in the Al-Salamah popular district by 20%.

Older districts are characterized by organic tissue and urban slums, while the new areas are notable for their modern buildings and grid planning. The Al-Balad district has a unique character in its urban and architectural aspects. Historical buildings reflect local identity, in addition to the interdependence of neighbourhood parts as a single bloc.

- **Nodes:**

Nodes are the gathering points for residents or intersections in the districts of Jeddah. Roundabouts and squares are considered the most prominent nodes referred to by residents. In addition, there are parks, open spaces and parking. Markets represent nodes where the meeting places for residents are very important in the old districts.

In the Al-Balad district, Allegiance Square, the Al-Jami marketplace (*Suq*) and Al-Alawi marketplace, in addition to the intersection of Al-Alawi Street with Al-Dhahab Street, are the most highlighted nodes. Open spaces among residential buildings are important places for residents to gather. This was similar to the views and habits of people in the Al Karantina district, where the marketplaces were important to them, such as the Friday Marketplace, in addition to playgrounds, while intersections are less important.

In the Kandarah district, intersections that are considered more important include the Plane Square, which intersects with the old airport road and with King Fahd Road, and the old Makkah Road with King Fahd Road. Similarly, in the Al-Ruwais district the main crossroads

are considered more important, such as Flagpole Square. In the neighbourhoods of Waziriya, Al-Salamah and Al-Shati, intersections are of great importance, particularly in Al-Shati district in which there is a roundabout; their imagery is enhanced by the open air and sculptures upon them. Nodes in the Al Shati district were very legible for residents. For instance, Al Nawras roundabout was especially clear for its art sculpture – part of the larger cultural significance of roundabouts noted above

- **Landmark:**

Landmarks can be divided into two parts in Jeddah city; the religious and other. Landmarks also vary in terms of historical significance, economic position or shape. Landmarks are distributed and spread around the axes and main roads. Landmarks are associated with nodes. This relationship was found in the historical area where the mosques become part of the markets. These landmarks give reference points and signs which work as guides for movement within the district.

A mosque is of great importance as a landmark at the neighbourhood level, though as noted the extent of the landmark importance may be affected by the size of the mosque. Indeed, the importance of the mosque rises, according to its history, size or unique shape. In the Al-Balad district, the Shafei, Al-Meamar and Akash mosques are considered the most prominent mosques in accordance with their historical importance. Schools, towers, markets and hospitals are considered the most prominent other landmarks in a number of other districts. At the micro level, local shops, small mosques and restaurants may be considered as landmarks such as Al-Baik restaurant in which people in Al Kandarrah district recognised it very well.

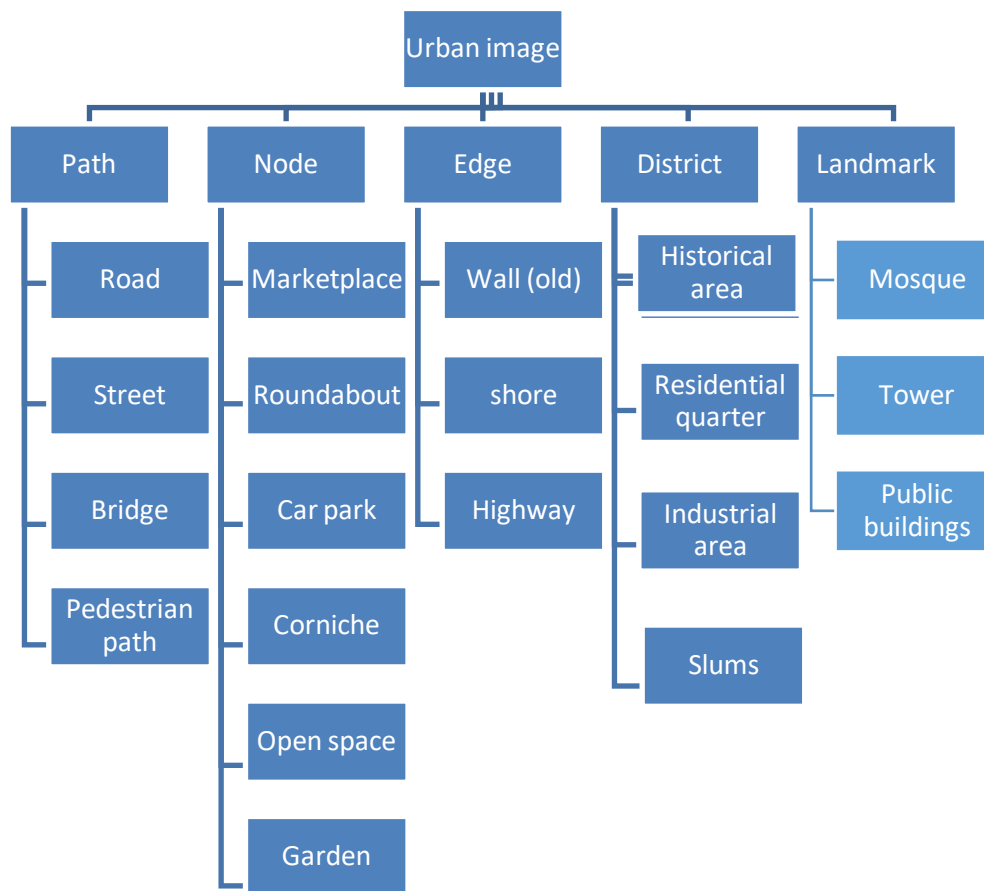


Figure 9. 4: Visual elements of Jeddah image, Source: The author

Ways that determine the city's image:

Based on the analysis of the case studies and residents' opinions, there are several ways to identify the elements of the city's image. These keys ways are as follows:

- **Form:**

The form and the shape of the city's image elements play a large role in the case of the perception element as the distinctive shape of the element contributes to storing that image in the mind of the population, especially landmarks, nodes and districts. Many residents at their choice of places that they feel represent distinctiveness and the urban image of the city focused on external shapes, architectural character and styles. The strange form which distinguished the buildings increased the chances of perception. For instance, one respondent had recorded "Mobily data centre" and referred his choice of this building to the beautiful shape and unique and strange design. another respondent chose "City Max", and he described the shape of the building as a beautiful design and linked this building as a distinct because it is similar to the

White House in the USA. Architectural details increase people's perception to the elements and also make them more memorable.

- Function:

Function also play an important role in determining the elements of the city's image through association with the relationship between people and place. Elements of the important use in everyday life are easy to remember and perceive among their users. People associated elements through use of their functions. For example, one respondent recorded "Island amusement" and describe it as a special place. He pointed out the reason for the function where he explained: "*most young people like it because it is the only place where snow games and skating*". This also shows the singularity in its function, which makes it a landmark.

- Location:

Some elements and places help identify locations, especially those with a strategic location in the city. The location is important in the design of the elements and selection the appropriate location of the elements; in particular landmarks lead to strengthen the urban image. Most respondents mentioned the position of the elements when they did their recordings. For instance, one respondent chose "International Medical Centre" and he comment that, "*The centre is located on Hail Street and features a design form inspired by the traditional architecture in Jeddah in a modern shape*". Another respondent recorded "Haifa Mall", and he stated that, "*This [is] Haifa Mall which is characterized by [a] distinctive location on Palestine Street and Medina Road Highway*". Site selection for urban image elements must be taken into account to enhance the image.

- Landscape:

A distinctive landscape and view give importance to the place and the elements which contribute to the ease of perception and knowledge among the population.

- Scale:

Scale and space are one of the factors that distinguish places. Large landmarks are often remembered by people, in addition to the neighbourhoods of the wider area.

9.2.2 Non-Visual elements:

The image of Jeddah is comprised not just of visual elements; there are other elements that also play an essential role in shaping its image such as social and environmental issues.

- **Social (culture, activities):**

Social elements are one of the most important elements in shaping the image of a city and they are of no lesser importance than physical elements. This research also studied social relations in the formation of the urban image. Since the environment is composed of physical and social elements, this was an appropriate approach to adopt and has assisted in this thesis by making a unique contribution to the furtherance of existing academic knowledge and understanding as to both urban imagery in general and how it relates in practice to the city of Jeddah in particular. The image of a city can be derived from these relationships, whether the relationship be to man or to the urban environment through the activities that mankind embarks upon, or through their relations with other people and how these take place (for instance in open spaces). These are also reflected in the composition of the urban image with religion and culture being social elements that give meaning to the spaces and places in a city. For instance, most people in Jeddah's district perceived mosques as possessing a quantifiable religious value. They noted that the mosques were landmarks in each district.

Social integration:

Social cohesion is an essential non-visual element which helps to form an overall urban image of a place. Most people in Jeddah identify social integration as an important social element in the city's image. The inhabitants in the city of Jeddah linked social-orientated neighbours and residents of the same district as being an important factor in giving neighbourhoods a special position among its residents. Older districts are more socially cohesive, while this is not as true in the newer districts. This is due to the planning of these areas where the grid urban fabric may reduce social cohesion.

Privacy:

Privacy is another social element which has been extensively commented upon within the confines of this thesis with reference to how it is found, and alters, amongst different Arab cities. This element can also be perceived as an element of gender separation. The traditional buildings in the Al Balad district achieve privacy through the use of the Mashrabiyya. In the

new districts, the privacy required for decency in human life is achieved through the use of additional materials such as curtains.

Social activity:

Social activities deepen the relationship between man and place, and also between different people. Residents in the districts pointed to places where activities take place and included in their comments structures such as mosques and markets. The social activity in Jeddah can be seen most strongly in the older districts. The mosque is the most important element regarding the social activities where most people come to pray and communicate with each other.

Meaning:

The city has special meanings for its residents. Jeddah residents associate with their city intimately and feel very strongly a sense of belonging and attachment to it. Through the analysis of the questionnaires used to collate the primary data analysed in this thesis, it was found that most residents refer to the social meaning. Despite the ethnic diversity of the city, the population's relationship with the city is reflected in the public image of the city. The historic meanings attached to the city are also very important with most of the respondents mentioning the Al Balad district as one being in possession of historical value.

- **Environmental issues:**

Environmental issues are one of the invisible elements which contribute to determine the mental image of the city in terms of noisy places or pollution. Residents feel uncomfortable in places where there is noise. In addition to that, pollution makes the city unhealthy. These issues give a bad impression and a negative image in people's perception.

- **Economic:**

Jeddah has an economic importance as it is the economic centre and many jobs are available that attract people to live there. The location is an economic element that forms the urban image. It is a non-visual element but it has an impact on physical elements. The locations of buildings and landmarks on main streets give these elements more legibility. The study also found that the economic value added greater importance to the elements, for example, the rich neighborhoods are perceived more among people.

Factors affecting the urban image:

- Urban development:

Urban image and identity have changed over time. There is a difference between the pre-demolition districts within the historic city walls and the modern neighbourhoods. The traditional identity associated with the city began to gradually disappear with the demolition of the wall and is far less strong in the neighbourhoods that have recently been established compared to the older ones. Urban image varies from district to district and this diversity is based on the economic and educational status in the society.

In addition, the urban image of the city and some specific elements associated with it differ between people who come to the city in Hajj and Umrah seasons compared to those who are residents year-round. Such seasonal visitors place pressure on the city and on its roads. They also have a temporary effect on the functionality and business of open spaces in the city.

- Social characteristics:

The Urban image varies by age; with older people it is linked to the past, while the young link it with their lifestyle. Social characteristics have an impact on the urban form and shape the spaces inside it. For example, residents in new districts tend to prefer isolation, while in old districts, they seek social meetings inside the neighbourhoods.

- Planning regulations:

Planning and design regulations help to keep identity and the distinctive urban image of the city, as well as contribute to their development. The lack of legislation to curb the removal of urban identity in the city has led to the loss of parts of the city's history. There is also a lack of understanding of city image principles.

Challenges and obstacles that affect the urban image of Jeddah:

The urban image in the city of Jeddah, as is the case for most Arab cities, suffers from some of the problems that adversely affect the appearance and the positive image of the city.

- The loss of local identity

Lack of local identity within the urban fabric for most places in the city is one of the problems that distort the original distinctive image of the city of Jeddah, which would strengthen its clarity. Most of the urban and architectural patterns are often subject to the desires of the people and this shows significant disparity in the economic situations.

- Building materials inappropriate for the environment

The use of modern materials such as glass covering facades of buildings is one of the factors that affect the city's image not only in terms of loss of identity, but also the impact on the environment, especially in warm cities.

- Slums and vacant area

Slums, unplanned buildings and roads in accordance with the standards and inappropriate for their functions are one of the most important problems in most third world countries and the Arab cities are not without of them, in spite of trying to eliminate them, as well as the collision of official bodies with these dwelling places.

- Poor infrastructure of roads

Road problems are one of the most important factors affecting the image of the city, where the population is suffering from these problems in their movements in addition to not being able to keep up with population growth and increasing traffic density with the width of roads.

9.3. Implications of findings:

The findings of this research have implications for urban planning and design in Jeddah city and may also have implications for other cities in Saudi Arabia or the Arab world.

The need for cooperation with the residents is important in order to understand their perception of the city and the places where they settle. This study found the importance of involvement of people in the urban planning and design and that may help in the development of the urban image in terms of understanding their needs, especially as the city is their home. The need is to have policies and guidelines related to urban image in urban planning

regulations. From the findings of the interviews, it is clear that there is no specific policy of guidelines to improve the urban image and protect the local identity.

Another implication is to address the current urban image. The research showed some of the main problems that affected the city image and loss of identity such as slums and vacant areas, poor infrastructure of roads and building materials that are non-compatible with the local environment. These problems should be addressed in order to develop the quality of the image and enhance the identity.

This study also found that the non-visual elements are very important in residents' perceptions. Therefore, these elements must be considered in the planning process. Social activities are important to people

9.4. Conclusion:

This chapter has reviewed various aspects of the findings of the thesis as well as the relationship between individual residents and their districts. In conclusion, it is suggested that there is a proportional relationship between people and the city based on their closeness to the historic heart of the city. The old neighbourhood has the richest history and the most deep-rooted identity, while the trend towards modernity makes residential areas further away from the traditional ones lack the intensity of the core's identity and image.

The Al-Balad district is the oldest area of the city of Jeddah. It represents the local identity and urban image for historical Islamic Arab cities. It still maintains the traditional urban fabric and architectural formation that one would expect to find; it is inspired by Islamic principles and takes these into consideration with regards to issues of planning in spite of contemporary changes.

The districts of the second period had lost some of the traditional architectural vocabulary as a result of economic aspects and the rapid speed of construction, while the urban fabric remains largely organic with meandering streets in the inner quarters. Al Kandarrah district is considered an extension of the Al-Balad area which has some similar characteristics in terms of the urban fabric. In addition, the Ruwais district is similar to the Kandarrah district in terms of organic fabric and the abstraction of the vocabulary of architecture, while the Quarantina district compromises predominantly slum buildings. Modern residential districts

such as Al-Waziriya, Al-Salamah and Al-Shati are dominated by Western styles and do not possess a belonging to the traditional local identity.

These findings should help the planners and urban designers to understand the key elements of the urban image of the city. It is not only the visual aspect but also the social aspect that contributes to the formation of the public image of the city. The study of Jeddah's image shows that there are weak and strong points. For example, the loss of identity of the city, which has significant value, is a negative factor and the challenge needs to be addressed. On the other side, the appropriate public areas and social activities are considered a positive point.

Chapter 10

Conclusions and Recommendations:

10.1 Introduction:

The study of the urban image in Arab cities and the Middle East through Kevin Lynch's methodology is the main title and focus of this research. In doing so, this research has discussed the development and improvement of the urban image and the extent to which this has enhanced local identity, in addition to finding evaluation criteria to assess the current image. At the outset, this chapter provides a brief review of how the research deals with the objectives and research questions and notes how they were addressed. Secondly, the methodology is reviewed and a summary of findings proffered. Thereafter, the chapter notes the unique contribution to the furtherance of academic knowledge that this thesis has addressed as well as referring to general recommendations and areas of future post-doctoral research that could build upon the findings made in this work.

This research focused on the concept of the urban image, particularly in the Middle East and the Arab world, through the study and application of Kevin Lynch's methodology to determine its suitability. The aim of the research was *“to develop and improve the urban image by building and designing a conceptual framework which can help to assess the urban image of the city and enhance the identity”*. This has been achieved by a thorough review of the work of Lynch, a review of the urban imagery in Jeddah and the production of a model. In order to achieve this aim, the research focused upon four key objectives. These objectives are presented as follows:

- **To critically review the concept of the urban image, especially Kevin Lynch's methodology and his concepts to understand the elements, key issues and the importance of the urban image and how it is related to identity**

This objective was met in Chapters Two and Three which reviewed the concept of urban image and discussed different resources in the area of urban image and identity. This was done in order to discover and identify the components and elements of the urban image that help build a conceptual framework through the selection of a number of evaluation criteria. This study reviewed the legality and imageability of the urban image and in so doing also discussed other components related to the urban image such as meaning and identity. In addition, this thesis has:

- **Investigated international applications of Lynch’s methodology in order to see how they have worked and whether or not they have succeeded in order to develop a conceptual framework for successful urban image-making in the future**

The study developed a conceptual framework related to the urban image and identity through investigation of other international studies that had applied Lynch’s methodology and used them to develop a conceptual framework. Several examples were reviewed from the developed and developing countries in Chapter Three.

In addressing the third aspect of the study:

- **To review the Middle East context and evaluate the current Saudi case study by using the conceptual framework to determine its suitability for the Saudi context and how the people in the Middle East preserve their cities**

This research reviewed the Middle East and Arab context to understand the historical context and identify the major challenges and problems that affect the urban image and local identity. This approach also allowed the study to isolate common elements and features that are shared among Arab cities. Moreover, the study also evaluated and investigated the Saudi case study through a variety of environmental contexts. It analysed the case study and in so doing found that this framework was suitable with some modifications in the invisible elements – adjustments that were needed to make it appropriate to the local environment.

- **To design an appropriate conceptual framework to develop and enhance the image of the city in the Middle East and preserve its identity**

This research identified the various elements that form the urban image in the Middle East and how consideration of these enable one to identify those elements and to assess how the urban image has altered over time.

Summary of research:

The research started with an introduction that addresses the general background of the main subject. It defined the geographical setting of the research which was the Middle East and Arab countries. Jeddah city was chosen for several reasons; Jeddah combines tradition with modernity and ethnic diversity whilst also being blessed with a large urban area, and proposed mega projects and rapid development which affect its developing image and identity. The rapid

development and urban growth in the globalisation era is one of the most important factors affecting the urban area in developing countries and this has led to changes in image and a loss of local identity.

The main aim of the research was ***“to develop the urban image in the Middle East and Arab World by building a conceptual framework based on Kevin Lynch’s methodology and his associated concepts, to assess the urban image of the city and enhance the identity”***.

Chapter One also presented the objectives and research questions and the general framework of the research methodology which was divided into three main parts; the international framework, the Middle East framework, and the proposed framework which combined aspects of the first two frameworks.

Chapters Two, Three, and Four focused on reviewing existent literature. In Chapter Two, a thorough and broad review of literature related to the urban image was presented, which provided an overall understanding of urban image concepts and related concepts such as identity and meaning. In addition, the chapter discussed the meaning of the image and how this factor affects people’s perception (as well as factors such as such as past experience and knowledge). Thereafter, the concept of urban image was discussed along with the theories and components that enable one to analyse the urban image, structure, identity and meaning. Section 2.4 discussed the relation between the urban image and identity and found that there is a strong relation between them. Chapter Three focussed on Kevin Lynch’s methodology and international applications related to his methodology. Lynch’s methodology aimed to study and understand the relationship between people and their environment based on field observation, interviews and drawing maps. He focussed on the visual quality of the city and found five key elements that were common among his small sample. The chapter reviewed the criticism of his methodology and it was highlighted that the main criticism of his work – advanced by academics (Downs and Stea, 1973, pp.80-81; Carmona, et al., 2003, p.92) - was on the little variation of his sample which affected the results as seen in the study of Italian cities in section 3.4. Some examples of international application were presented and reviewed in order to understand how the methodology worked and the main finding to link with this study. The chapter also developed the conceptual framework based on the five physical elements and non-visual elements obtained from the international application of Lynch’s work in addition to the factors that affected the urban image and people’s perception. This was important to the wider thesis because it helped to compare Arab cities with others and after

studying the characteristics of Arab society and Saudi specifically, it found that the social elements and meaning often influenced them.

Chapter Four reviewed and presented the urban context of Middle Eastern and Arab cities. In addition to discussing the most important factor; the influence of the Islamic religion and environmental conditions, including both terrain and climate, and how these impact upon urban identity and image were discussed. This was followed by a discussion of social and political organizations with the chapter presenting an historical background focused on the impact of Islamic religion on shaping the cities. Thereafter Chapter 3 discussed the urban character, structure, identity and urban image with examples of Arab cities being analysed in terms of urban and architecture character. This was done to uncover the main elements that formed the urban form and image of the city and these were discussed along with physical and social elements.

Chapter Four also reviewed the contemporary situation of Arab cities and the Middle East and noted how these cities were the product of numerous factors in their historical context as well as the wider impacts of globalisation and rapid development. This resulted in the chapter also discussing the problems and challenges facing Arab cities. The urban image has changed slightly in some areas, and differed greatly in other areas, which has led to the loss of the identity of the original image of the cities. Technology, modern transportation, rapid development and urbanization were frequently the reasons cited for these changes. The lack of regulations and standards for the urban image in urban planning and design and the impact of Western planning ideals are all problems that have changed the image and led to the neglect of traditional identity. These problems are joined by municipalities overtly focusing on the economic aspects of development without taking into account other criteria related to the environment, identity and social aspects.

Chapter Five presented the research methodology, data collection and analysis. The chapter rationalised the choice of the methodology, and noted how it was adapted and moulded to suit the specifics of the case study strategy.

Chapter Six gave an introduction to the case study in the context of Saudi Arabia. The chapter reviewed the context of Saudi cities in terms of the natural environment and urban fabric. In doing so, the thesis showed that the urban character of the cities of Saudi Arabia is similar but that there are also some differences and these are primarily a consequence of topography. It was also found that Saudi cities have suffered from a loss of their traditional

identity and imagery. Jeddah city was focused upon within key aspects of the chapter and this provided an in-depth overview of the changing dynamics of the city from the past to the present. The chapter also reviewed the social composition of the population and offered a detailed critique of the individual districts within the city; Al-Balad, Al-Kandarah, Al-Ruwais, Al-Waziriya, Al-Salamah and Al-Shati.

Chapter Seven analysed the case study and its districts. It also evaluated the historical part of the city using the conceptual framework that was built based on Lynch's study. It was found that the historical district is more legible and the chapter analysed the visual element of all districts through mental maps. It was found that Al-Dhahab Street was dominant amongst the paths within the historical district, and that in the commercial areas this honour belonged to streets such as Al-Alawi and Al-Jami. The district was very much understood by local people. The edge was not clear after the removal of the city wall in 1947. The main mosques were considered as landmarks while the marketplaces' "suq" were noted as nodes. These elements were similar to other districts, especially the older districts, and it was also noted how non-visual elements such as social integration, privacy, social activity, meaning and identity impacted upon feelings of identity and belonging within the older districts of the city. Indeed, these elements were very important for residents. In contrast it was found that the social activity and integration become less important inside the modern districts. The latter half of the chapter also analysed the video recordings and found that landmarks and nodes were the most important elements in the third dimension.

Chapter Eight analysed the main factors that affected the urban image. These were thoroughly discussed and included aspects such as urban character, building style, urban fabric and art sculptures. It was also noted how the transportation infrastructure has affected paths and its function whilst the quality of paths has been impacted upon by traffic congestion and car parking. Factors that affected non-visual elements of the city were analysed and contextualised within the parameters of the wider study. Planning policies and investment projects also affect the urban image and these factors were similarly discussed.

Chapter Nine focussed on the findings. It discussed the variety of urban image elements in all districts of Jeddah and made comparisons between them. The key finding was that social associations with the elements made them more legible.

Finally, Chapter Ten presented a summary of the thesis, answered the specific research questions, made a series of recommendations and also proffered aspects of further post-doctoral level research that should be considered in light of the findings presented in this thesis.

10.2 Summary of the research findings:

This research investigated the seven districts in the city of Jeddah in different historical, environmental and socio-economic characteristics. At the district level, restaurants, local shops and small mosques are considered landmarks. Internal streets are considered paths while the main roads are described as edges. Quarters are perceived as districts, while the roundabouts and open spaces within the districts are considered as nodes. The socio-economic activities play an essential role in paths' legibility. The historical districts are more legible both physically and socially than the modern districts. The non-visual elements were found to be more important than visual elements. The different ages of the residents lead to different images. A path is an important element in the drawing map, while landmarks and nodes are more important in the recorded videos and questionnaire.

As the main aim was achieved through developing the conceptual framework, the research found a combination between visual and social elements with a new method in the field of the urban image. These elements are important to people in Middle Eastern and Arab cities.

10.3 Research contributions:

This research extends the discussion about the urban image and has made a contribution to the furtherance of international research on the subject area. The evaluation of the urban image was argued in terms of its concentration on physical elements and neglect of social aspects. The research suggested a methodology for evaluating the urban image that could be used to evaluate a variety of aspects related to the urban image. This research also suggests using a video technique as a tool for collecting data in urban imagery. In addition to improving the theoretical understanding of the urban image, the thesis has also enhanced academic understanding of the Arab city image through focusing on non-visual elements in parallel with visual elements.

10.4 Recommendations:

The importance of the urban image in this research was emphasized as it has become an especially important tool in urban design and planning for the delivery of residents' opinions with regard to their vision of the places to the professionals in the field of urban planning and design. This study showed the importance of that through the empirical study. Residents are affected by the urban image and the legibility of elements is an important consideration when seeking to satisfy inhabitants. Moreover, local identity is an integral part of the urban image for residents, and this is ignored by planners and associated professionals and leads to a separation between the physical and the social aspects of the city's image. This finding was shown to be particularly prevalent within the modern districts of Jeddah. Indeed, it was further suggested that today's young people are no longer interested in identity and belonging to a place, unlike previous generations, and that this is due to the transition in the urban image from localisation to globalisation through the delivery of a variety of mega-projects that have been developed over the past few decades.

Based upon such findings, this research proffers a range of recommendations by which urban image and identity could be improved and enhanced: The recommendations, separated into two distinct fields and bulleted for ease of reference, are:

With regard to visual elements:

- Paths should provide their function in the highest quality. The function of streets as paths for movement should enhance providing all necessary services to improve their qualities and strengthen their identity and image. For this reason, people feel dissatisfied and draw a bad image that leads them to stay away from these roads.
- Reducing the branches of roads emphasised the hierarchy of roads. New districts' streets are clear, however the multiplicity of these routes reduces the importance.
- Edges are clear in some districts but the highway roads within the districts lead to separate areas like in Al Waziriya and Al Ruwais districts. Therefore, it is important to choose the right place for public streets within districts so as not to divide the urban fabric.
- Address the slums within the districts so that there is no disharmony in the form of the urban image.

With regard to non-visual elements:

- The planning policy is a non-visual element that shapes the city and its image. Structure of urban form's elements and distribution of the land use in an apocopate setting can enhance the legibility.
- There are many vacant spaces within districts that cause many problems in the urban image. There is no regulation to arrange the building process which allows after a period of time, the appearance of strange buildings that do not belong to the same time period as the old buildings. Therefore, these vacant areas should be addressed through the planning policy.
- The inclusion of special policies for the urban image in the form of regulations and legislation in urban planning.
- Preservation of urban and architectural character increases the quality of the urban image and enhances local identity.
- Enhance the concept of identity through the promotion of projects. Implement regulations by which local identity is taken into account in the design of projects

10.5 Further research:

This includes a study on the enlargement of the parameters of the study by focusing upon the largest urban area such as the Jeddah or Riyadh Metropolitan area .

In addition, there could also be the application of the conceptual framework to other cities in Saudi Arabia such as Riyadh and a comparison of the findings found there and within Jeddah. Lastly, there is also the application of the technique of the video combined with Kevin Lynch's methodology to other cities.

References:

- Abdu, M. and Salagoor, J. and Al-Harigi, F. (2002), Jeddah urban growth and development process: the underlying factors, *Scientific Journal of King Faisal University*, Vo.3 No.1, KSA
- Abdel-Hadi, A., El-Nachar, E. and Safiieldin, H. (2009), *Pedestrian Street Life in Historic Cairo Authenticity and Counterfeit*, Proceedings, International IAPS-CSBE & HOUSING
- Abdelmonem, M. (2015), *The Architecture of Home in Cairo: Socio-Spatial Practice of the Hawari's Everyday Life*, Ashgate Publishing, Ltd.
- Abdelbaseer, M. (2012), *Evaluating Way-Finding Ability Within Urban Environment*, Eighth International Space Syntax Symposium, Santiago de Chile: PUC
- Abdulac, S. (1986), *Technical review of Jeddah Old Town Conservation*, The Aga Khan Award for Architecture
- Abdulghani, K. (1993), *Jeddah: A study of Metropolitan Change*, Cities, February 1993. Butterworth - Heinemann Ltd. Washington, D.C.
- Abada, G. (2012), *A New Life for Old Jeddah: Learning from Regional Experiences*, “Architecture & Design Days Jeddah” Conference, AIA Middle East.
- Abedi, M. and Soltanzadeh, H. (2014), *The Interaction between Tradition and Modernity in Contemporary Architecture of Persian Gulf States: Case Study of United Arab Emirates*, *International Journal of Research in Humanities and Social Sciences* 1 (1), 24-34.
- Abu-Ghazzeah, T. (1994), *Built form and religion: underlying structures of jeddah al qademah*, TDSR Vol. V No. II pp.49-55
- Abu-Lughod, J. (1984), *Culture, Modes of Production, and the Changing Nature of Cities in the Arab World*, in J. Agnew, J. Mercer, and D. Sopher (eds.), *Cities in Cultural Context*, Winchester, MA, and London: Unwin Hyman
- Abu-Lughod, J. (1987), “*The Islamic city: Historic myth, Islamic essence and contemporary relevance*”, *International Journal of Middle Eastern Studies*, Vol. 19, N° 2., pp. 155-176.
- Ajaj, A. and Pugnaroni, F. (2014), *Re-Thinking Traditional Arab Architecture: A Traditional Approach to Contemporary Living*, IACSIT International Journal of Engineering and Technology, Vol. 6, No. 4,
- Al-Abed, I., Vine, P. and Hellyer, P. (2006), *United Arab Emirates Yearbook 2006*, Ministry of Information and Culture, Trident Press, London.
- AL-DOSARY, A. and MIR SHAHID, M. (2014), *Principles for the rejuvenation of an islamic city in the modern context: The Case of Medina of Tunis*, EDUCatt - Ente per il diritto allo studio universitario dell'Università Cattolica

- Alharbi, T. (1989), The development of housing in Jeddah: changes in built form from the traditional to the modern, Ph.D. thesis, Newcastle University
- AL Haidary, A., (2009),” Vanishing point: the abatement of tradition and new architectural development in Baghdad’s historic centers over the past century”, *Contemporary Arab affairs*, 2:1,38-66.
- Al-Hathloul, S. (1981), Tradition, Continuity And Change In The Physical Environment: The Arab-Muslim'city, PhD thesis, Massachusetts Institute of Technology.
- Alhathloul, S. & Edadan, N. (1993), Evolution of Settlement Pattern in Saudi Arabia: A Historical Analysis, *HABITATINTL*. Vol. 17. No. 4, pp. 31-44,
- Alhathloul, S. & Edadan, N. (1995), Urban development in Saudi Arabia, the challenges and opportunities, Dar Alsahan, Riyadh, KSA
- Al-Hathloul, S. and Mughal, M. (1991), CITY PROFILE, Jeddah, Cities, Volume 8, Issue 4, Pages 267-273 253
- Al-Hasani, K. (2012), Urban Space Transformation in Old City of Baghdad – Integration and Management,
- Al-Hathloul, S. A. (1981). Tradition, continuity and change in the physical environment: the Arab-Muslim city. PhD Thesis, Massachusetts Institute of Technology, USA
- Al-Hemaidi, W. (2001), The metamorphosis of the urban fabric in Arab-Muslim city: Riyadh, Saudi Arabia, *Journal of Housing and the Built Environment*, Springer, pp. 179-201
- Al-Ibrabim, M. (2003). The Criticism of Modern Architecture in Saudi Arabia, King Saud University. vol. 2, *Architecture and Planning* pp.63-80, Riyadh
- Ali, S. (2010): Dubai: Gilded Cage. New Haven: Yale University Press.
- ALITANY, A. REDONDO, E. and Adas, A. (2013), the 3d documentation of projected wooden windows (the roshans) in the old city of jeddah (saudi arabia) using image-based techniques, *SPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume II-5/W1, 2013 XXIV International CIPA Symposium, 2 – 6 September 2013, Strasbourg, France
- Al-Mazrou, Y., Khan, M., Aziz, K. and Farid S. (1995), Factors associated with Diarrhoea prevalence in Saudi Arabia. *Journal of Family & Community Medicine*; 2:27-34
- Al-Saleh, S. and Hannam, K. (2010), Chapter 16 Tourism shopping in Jeddah, in Noel Scott, Jafar Jafari (ed.) *Tourism in the Muslim World (Bridging Tourism Theory and Practice, Volume 2)* Emerald Group Publishing Limited, pp.253 – 264.
- AlSayyad, N. (1992), Modeling Traditional Islamic Cities. In *Mimar*, No. 43, pp. 26-33

- Al-Sayyed, N. (1981), Streets of Islamic Cairo: a configuration of urban themes and patterns, Master thesis, MIT
- Alsayed, W. (2002), Positive and negative between Arab architecture and Western architecture in urban design, article in the Middle East Newspaper, NO. 8479.
- AlSheshtawy, Y. (2004), Planning Middle Eastern Cities: An Urban Kaleidoscope in a Globalizing World
- Alshahrani, A. (1996). Migration from rural to urban and its impact on social adjustment. A case study on migrants from a small village in Asir to the city of Jeddah. Unpublished Master's thesis. King AbdulAziz University. Saudi Arabia,
- Altman, I. and Chemers, M. (1984). Culture and Environment. New York: Cambridge University Press
- Al-Lyaly, S. (1990), The Traditional House Of Jeddah: A Study Of The Interaction Between Climate, Form And Living Patterns, Ph.D. Thesis, University Of Edinburgh
- Almabbadi, M. (1993), Jeddah Islamic Port during the second Ottoman rule, King Abdul-Aziz University, Jeddah, KSA 254
- Al-Mahdy, O. (2013), Medina: Reviving Place Identity through Public Space, Master thesis, University of Waterloo, Ontario, Canada
- Al-Thahab, A. (2013), The Absence of a Local Pattern in Iraqi Architecture, urnal of Babylon University/Engineering Sciences/ No.(3)/ Vol.(21), pp. 927-938
- Al-Turki,S. (1995), water resources in saudi arabia with particular refence to Tihama Asir province, Durham thesis, Durham University
- Al-Zubaidi, M. & Shahin, B. (2008), Sustainability Principals of Traditional Architecture in the Islamic Perception, Iraqi Arch Magazine /issues12-13
- Andersson, T. and Djeflat, A. (2013), The Real Issues of the Middle East and the Arab Spring, Springer.
- Appleyard, D. (1970), Styles and Methods of Structuring a City, Environment and Behavior, 2, 100-117.
- Appleyard, D. (1978) 'The major published works of Kevin Lynch: an appraisal', Town Planning Review, 49: 551-7
- Arbak, S. (2005), an analysis on the transformation of urban identity: case study of Bodrum, Middle East Technical University
- B, S. Swamy, C. (2012), Policy Measures for Improving the Imageability in the City of Mysore, International Journal of Modern Engineering Research (IJMER), Vol.2, Issue.2, Mar-Apr 2012 pp-134-138

- Arthur, P. & Passini, R. (1992), *Wayfinding: people, signs, and architecture*, McGraw-Hill Book Co, USA
- BAHAYDAR, M. (2013), *URBAN SPRAWL AND ITS NEGATIVE EFFECTS ON JEDDAH*, MASTER thesis, BALL STATE UNIVERSITY MUNCIE, INDIANA
- Banerjee, T. Sideris, A. (2011), *Companion to Urban Design*, Routledge
- Barakat, L. (2004), *Beirut – A city with so many faces*, *Dela* 21, pp.485-493.
- Basha, A.(1988), "Migration and urbanization in Saudi Arabia: The case of Jeddah and Riyadh" . Ph.D, University of Pennsylvania
- Behnke, A. (2005), *Syria in Pictures*, Twenty-First Century Books
- Babbie, E. (2011), *The Basics of Social Research*, Cengage Learning
- Bădiță, A & Popescu, L. (2012), *Urban Image Analysis Through Visual Surveys. Craiova City (Romania) as a Case Study*, *Forum geografic. Studii și cercetări de geografie și protecția mediului*, Volume XI, Issue 2 December 2012, pp. 223-228
- Boradcar, P. (2011), *Visual Research Methods in the Design Process in (The SAGE Handbook Visual Research Methods)* Ed. Margolis, E. & Pauwels, L, SAGE
- Bear, G. (1970), *The City in Lutfiyya*, A. (ed.) et al., *Readings in Arab Middle Eastern Societies and Cultures*, Walter de Gruyter, The Netherlands 255
- Bell, G. & Dourish, P. (2004). *Getting out of the city: meaning and structure in everyday encounters with space*. Ubiquitous Computing Workshop on the Urban Frontier at Ubicomp. Nottingham, UK.
- Bell, P., Greene, T., Fisher, J. and Baum, A. (2005), *Environmental Psychology*, Routledge, Fifth edition.
- Benton-Short, Lisa, and Lewis, N. (2012), *Cities of the United States and Canada*. In *Cities of the World: World Regional Urban Development*, 5th Edition, ed. Brunn, S., Hays-Mitchell, M. and Lanham, D. MD: Rowman & Littlefield, pp.51–99.
- Bianca, S. (1987), *Conservation of the Old City of Damascus*, UNESCO , France
- Bianca, S. (2000) *Urban Form in the Arab World: Past and Present* London: Thames & Hudson
- Bogdan, R. and Biklen, S. (1998). *Qualitative research for Education: an introduction to theory and methods*, Allyn and Bacon.
- Bokhari, A. (1983), *Conservation in the Historic District of Jeddah*. In *Adaptive Reuse: Integrating Traditional Areas into the Modern Urban Fabric*. Margaret Bentley Sevckenko, (ed). Cambridge, Mass: MIT Laboratory of Architecture and Planning.
- Bonine, M. (1977) *From Uruk to Casablanca: Perspectives on the Urban Experience of the Middle East*, *Journal of Urban History* Vol 3 No 2 p 141-180

- Bosworth, C. (2007), *Historic Cities of the Islamic World*, BRILL, Boston
- Boulding, K. (1956), *The Image*, Ann Arbor: University of Michigan, pp.3-18
- Broadbent, G., Bunt, R., and Liorens, T. (Eds.), 1980, *Meaning and behaviour in the built environment*, Michigan, J. Wiley & Sons. Ltd
- Bukhash, R. (2003), *Architectural Heritage of Dubai*, Architectural Heritage Society, Dubai Municipality
- Burns, R. (2005) *Damascus: A History*, Routledge, London
- Calame, et al., (2011), *Divided Cities: Belfast, Beirut, Jerusalem, Mostar, and Nicosia*, University of Pennsylvania Press
- Caner, G. & Bölen, F. (2012), urban consequences of division in ‘divided Cities’: a comparative perspective, AESOP 26th Annual Congress, METU, Ankara
- Carmona, M., Tim, H., Oc, O., and Tiesdell, S. (2003). *Public Places - Urban Spaces: The Dimensions of Urban Design*. Oxford: Architectural Press.
- Cleveland, W. and Bunton, M. (2009), *A HISTORY OF THE Modern Middle East, FOURTH EDITION*, Westview Press, USA
- Crisman, Ph. (2006). *Outside the Frame: a Critical Analysis of Urban Image Surveys*, *Places*, v.18, n.3, pp. 38-43
- Cercetări practice si teoretice în Managementul Urban, Anul 3, Nr. 9, 2008 ISSN: 1842-5712
- Cetin, M. (2010), *Trends of the Transformation of Urban Form in Arab Cities with Specific Reference to Al-Khobar*, *Journal of Civil Engineering and Architecture*, David Publishing, USA
- Chadchan, J. and Shankar, R. (2009), *Emerging Urban Development Issues in the Context of Globalization*, *Institute of Town Planners, India Journal* 6 - 2, 78-85
- Choueiri, Y. (2008), *a companion to the history of the Middle East*, 256
- Cleveland, W. and Bunton, M. (2009). *A history of the modern Middle East*. Boulder, Colo.: Westview Press.
- Comerford-Morris, R. (2015), *An Investigation of the Processes of Urban Image Construction in Dublin, Ireland*. Annual Conference of the IGU Urban Commission.
- Costa, F. and Noble, A. (1986). *Planning Arabic towns*. *Geographical review: the journal of the American Geographical Society*, 76(2)
- Crane, D. A. (1961), *Reviews*, *Journal of the American Institute of Planners*, 27(2): 151-156,
- Cullen, G. (1961), *Concise Townscape*, Taylor & Francis Ltd, Oxford, UK.
- Daghistani, A. (1993), *a case study in planning implementation Jeddah, Saudi Arabia*, *Electronic Working Paper No 5*, Centre for Research in European Urban Environments Department of Town and Country Planning University of Newcastle upon Tyne

- Dalton, R. and Bafna, S. (2003), The syntactical image of the city: a reciprocal definition of spatial elements and spatial syntaxes. Presented at: 4th International Space Syntax Symposium.
- de Jonge, D. (1962) Images of Urban Areas Their Structure and Psychological Foundations, *Journal of the American Institute of Planners*, 28:4, 266-276, DOI:
- Denzin. N. and Lincoln Y.,(eds). (1994), Introduction: Entering the field of qualitative research, In *Handbook of Qualitative Research*, pp. 1-17. London: Sage.
- De Pint, S. (2005), Discovering Old Jeddah: An Enchanting Jewel on the Red Sea, date access (16/8/2013), <http://www.saudicaves.com/saudi/oldjeddah.html>
- Dockerill, R. (2013), Local Government, Urban Expansion, and Identity: Nottingham and Derby 1945-1968', PhD Thesis, University of Leicester.
- Downs, R. and Stea, D. (1973), *IMAGE AND ENVIRONMENT*, Arnold.
- Downs, R. and Stea, D. (eds.). (1977). *Maps in Minds*, New York: Harper and Row
- Eden, C. (1992), On the nature of cognitive maps. *Journal of Management Studies*, 29, 261–265
- Eben Saleh, M. (2002). A vision for directing future planning efforts: the case of villages of southwestern Saudi Arabia. *Habitat International*, 26, pp. 51-72.
- El-shakhs, S. and Hooshang, A. (2012), *Urban Development in the Muslim World*,
- El-Kahlout, M. (2010), Read assessment of the city and the foundations of Islamic planning, Department of Architecture - Islamic University, Gaza
- Elsheshtawy, Y. (2008), *The Evolving Arab City: Tradition, Modernity and Urban Development*. London: Routledge
- Eyuca, A. (2012), Interdependence of Traditional House Form and Settlement Pattern, *Intercultural Understanding*, volume 2, pages 17-24
- Ewing, R., and Handy, S. (2009). Measuring the unmeasurable: Urban design qualities related to walkability. *Journal of Urban Design*, 14(1), 65-84. DOI: 10.1080/13574800802451155
- Fachrudin, H. & Ali, K. (2012), Integration of Urban Design and Industrial Estate Planning, a Case Study: Medan Industrial Estate, Indonesia, *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*. Volume 3 No.4 ISSN 2228-9860 eISSN 1906-9642. Online Available at <http://TuEngr.com/V03/423-437.pdf>.
- Facey, W. (2005), Queen of The India Trade, *Saudi Aramco World*, pp.10-16
- Faleh, M. (2013), Urban metamorphosis and Islamic Architecture in the time of globalization: Utopian realities and challenges, *A Z: ITU Journal of Faculty of Architecture*, 10(1), pp.128–137.
- Fattahi, K. (2009), City Imaging after Kevin Lynch, *Computer Science and Information Engineering*, 2009 WRI World Congress on Los Angeles, CA, Volume:1 (2009-01-01) pp. 283 – 287 257

- Fara, M. and Alhesi, S. (2013), Cities planning between Islamic content and modern content (comparative study), *IUG Journal of Natural and Engineering Studies*, Vol.21, No.1, pp 123-159
- Fawaz, M. & Peillen, I. (2013), Urban Slums Reports: The case of Beirut, Lebanon, UNDERSTANDING SLUMS: Case Studies for the Global Report on Human Settlements 2003
- Fernea, E. and Fernea, R. (2011), *The Arab World*, Random House LLC
- Flood, F. (2001), *The Great Mosque of Damascus: Studies on the Makings of an Ummayyad Visual Culture*, BRILL, The Netherlands
- Franciscato, D. and Mebane, W. (1973) How citizens view two great cities: Milan and Rome, in: R. Downs and D.Stea (Eds) *Image and Environment: Cognitive Mapping and Spatial Behavior*, pp. 182–220 (London: Edward Arnold).
- Friedman, S. (2006), *A History of the Middle East*, McFarland
- Fidel, R. (1984), *The Case Study Method: A Case Study*, Library & Information Science Research (LISR).
- Ganis, M. (2015), *Planning Urban Places: Self-Organising Places with People in Mind*, Routledge.
- Garrett, B. (2010), Videographic geographies: Using digital video for geographic research, *Progress in Human Geography* 1–21,
- Gagnon, Y. (2010), *The Case Study as Research Method: A Practical Handbook*, PUQ, Canada
- Gehl, J. (1987) *Life Between Buildings—Using Public Space* (New York: Van Nostrand Reinhold)
- Gerring, J. (2007), *Case Study Research: Principles and Practices*, Cambridge University Press.
- Gould, P and White, R. (1974), *Mental maps*. Harmondsworth: Penguin Books
- Gospodini A. (2004), Urban morphology and place identity in European cities: built heritage and innovative design. *Journal of Urban Design*; 9(2) 225-248.
- Germeraad, P.W., 1993. Islamic traditions and contemporary open space design in Arab-Muslim settlements in the Middle East. *Landscape Urban Plann.*, 23: 97-106.
- Gillham, B. (2000), *Case Study Research Methods*, Continuum, London.
- Galotti, K. (2008), *Cognitive Psychology In and Out of the Laboratory: In and Out of the Laboratory*, Cengage Learning
- Gulick, J. (1963) Images of an Arab City, *Journal of the American Institute of Planners*, 29:3, 179-198, DOI: 10.1080/01944366308978063
- Gulick, J. (1976), "Baghdad: Portrait of a city in physical and cultural change". *Journal of the American Institute of Planners*, pp.246-255
- Grabar, O. (1987), *The Formation of Islamic*, Yale University Press,
- Groat, L. and Wang, D. (2002). *Architectural research methods*. New York: J. Wiley.

- Haddad, E. (2008), Learning from Beirut: From Modernism to Contemporary Architecture, ARCC Journal / Volume 5 Issue 1
- Hakim, B. (2013), Arabic Islamic Cities, Building and planning Principles, Routledge.
- Haile, J. (2003), Analysis of Data, Macatea Productions, USA 258
- Haggag, M. & Rashed, A. (2003), Urban Conservation in Practice: Evidence from the United Arab Emirates, Alexandria University Publications.
- Hobbs, J. (2008), World Regional Geography, Cengage Learning, USA
- Hough, M. (1990) Out of Place: Restoring Identity to the Regional Landscape. Yale University Press
- Hoyland, R. (2001), Arabia and The Arabs, From the Bronze Age to the coming of Islam, New York: Routledge
- Ibn Al-mujawer, Y. (1996), sifat bilad alyaman wa makkat wabed Alhijaz: Almsmat tareekh almustabsar, [Yemen country, Makkah and some of the Hijaz features: Named history of the viewer], Religious culture Library, Cairo.
- Ibrahim, A. (1982), Rooting the civilizational values in contemporary Islamic city building, CPAC
- Ismail, H. (2005), Historical Introduction to Islamic Architecture in Old Cairo. Museum International, 57: 111–119. doi: 10.1111/j.1468-0033.2005.00519.x
- Jacobs, J. (1961), the death and life of great American cities, Vintage Books, USA
- Jadon, S. (2007), Basic concepts of urban design - a research review, ITPI journal
- Janin, H. & Besheer, M. (2003), Saudi Arabia, Marshall Cavendish, New York
- Jeddah Municipality (2005), Jeddah structure Plan. Jeddah Municipality, Saudi Arabia.
- Jeddah Municipality (2006), Jeddah Local Plan. Jeddah Municipality, Saudi Arabia.
- Jeddah Municipality, (2009), City of Global Taibat , the depth of civilization and the advent of culture, Jeddah magazine, Vo.3 No.27, Jeddah Municipality, KSA
- Jehl, D. (1997), Under Beirut's Rubble, Remnants of 5,000 Years of Civilization, The New York Times
- Joe Nasr, Eric Verdeil. The reconstructions of Beirut. Salma K. Jayyusi, Renata Holod, Attilio Petruccioli and Andr e Raymond. The City in the Islamic World, Brill, pp.1116-1141, 2008, Handbook of Oriental Studies
- Johansson, L , et al. (1999), Questions and answers about participatory video Forests, Trees and People Newsletter 40/41 35–40
- Kanna, A. (2011), Dubai, the City as Corporation
- Kassir, S. (2010), Beirut, University of California Press
- Kenzari, B. and Elshestawy, Y. 2003, The ambiguous veil: On transparency, the Mashrabi'y'a, and architecture. Journal of Architectural Education, 56(4), pp. 17–25.

- Kepes, G. (1995), *Language of vision*, Courier Dover Publications
- Kennedy, H. (1985) *From Polis to Madina: Urban Change in Late Antiquity and Early Islamic Syria Past and Present* No 105 p 3-27
- Khalil, R. and Shaaban, K. (2012), *Rebuilding Old Downtowns: The Case of Doha, Qatar*, REAL CORP
- Khattab, O. (2001), *In search for a Local Image in the Arab City: The Case of Kuwait City*. In: L. Beadle, ed. *Tall Buildings and Urban Habitat*, CRC Press, pp.379-3p
- Kindon, S. (2003) *Participatory video in geographicresearch: A feminist practice of looking?* *Area* 35:142–153.
- Kiet, A. (2010), *Arab Culture and urban form*, Faculty and student work.
- Konash, M. et al (1984), *The Planning of Jeddah, Saudi Arabia*, King Fahd University of Petroleum and Minerals, Dammam.
- Kotler, P.; Haider, D. and Rein, I. (1993): *Marketing Places*. New York: The Free Press. Kotapish, D. (2000), *Daily Life in Ancient and Modern Baghdad*, Lerner Publications, USA
- Koseoglu, E. & Onder, D. (2011), *Subjective and objective dimensions of spatial legibility*, *Procedia - Social and Behavioral Sciences* 30, pp.1191 – 1195 259
- Kumar, P. (2007), *The Value of Design a Study of Pedestrian Perception in New Delhi, India*, Master thesis, Queen's University, Ca
- Kusuro, N. (1983), *Safarnama*, translated in Arabic, Dar the new book, Beirut, Lebanon
- Lapidus, I. (1969) *'Middle Eastern Cities'*, University of California Press, Berkeley and Los Angeles, USA.
- Lapidus, I. (1973) *'The Evolution of Muslim Urban Society'*, *In Comparative Studies in Society and Mstory*, vol. 15, pp.21-50.
- Lingawi, W. (1988), *Modernization and preservation of the Islamic urban heritage*, Ph.D. thesis, The Claremont Graduate University
- Luque-Martínez, T., Del Barrio-García, S., Ibáñez-Zapata, J., & Rodríguez Molina, M. (2007). *Modeling a city's image: The case of Granada*. *Cities*, 24(5), 335–352.
- Lynch, K. (1960). *The image of the city*. Cambridge, Mass.: MIT Press.
- Lynch, K., Banerjee, T. and Southworth, M. (1995). *City sense and city design*. Cambridge, Mass.: MIT Press.
- Madbouly, M. (2009), *Revisiting Urban Planning in the Middle East North Africa Region*, Regional study prepared for *Revisiting Urban Planning: Global Report on Human Settlements*, UN-Habitat

- Mahdi, N. (2006), Population growth and urban development (for a number of contemporary Arab cities), Baghdad University, Iraq
- Mahgoub, Y. (1995), The impact of modern urban development on the architectural heritage in the UAE, Seminar in preservation the architectural heritage in the UAE, Dubai
- Makhlof, A. (1985), *Al-Darasat Al-Mraniah Al-Shamilah Li-Madinat Jeddah 1387-1383*, (The Comprehensive Urban Studies for Jeddah City, from 1368 to 1383, (1959-1963). A report prepared for the ministry of Municipalities and Rural Affairs, Jeddah Municipality, Vol. II.
- Mandilawi, A. (2012), Effect of Daylight Application on The Thermal Performa Iraqi Traditional Vernacula Resedential Buildings, Master Thesis, The University of Arizona
- Mandeli, K. (2011), Public Spaces in a Contemporary Urban Environment: Multi-dimensional Urban Design Approach for Saudi Cities, P.hD Thesis, University of Newcastle upon Tyne
- Maqdisi, M. (1991), *Ahsan Al-Taqaseem fe Ma'rifat Al-Aqaleem*, [The Best Divisions for Knowledge of the Regions], Madbouly Library, Cairo.
- Mecci, M. (1975), Aspects of the urban geography of Medina, Saudi Arabia, Durham thesis, Durham university, UK
- Meeda, B. et al., (2006), Graphics for Urban Design, Thomas Telford Publishing, London, UK
- Mirgholami, M. (2011), Evaluating the effects of globalization on Tehran's Urban Form, paper presented to Khavaran Higher-education Institute, Mashhad, Iran. May 12-14.
- Mitchell, K. (2008), "Killing Time — Speculations on the Future Promise of Architecture in Dubai," in A. Khanna, ed., *The Superlative City: Dubai and the Urban Condition in the Early Twenty-First Century*. Cambridge, MA: Harvard University Press.
- Mohamed, N. and Ali, W. (2014), Traditional Residential Architecture in Cairo from a Green Architecture Perspective , Arts and Design Studies www.iiste.org ISSN 2224-6061 (Paper) ISSN 2225-059X (Online) Vol.16
- Mohammed, S. (2012), Financing Management of Rehabilitation projects of Historical Areas: The Case Study of Historical Cairo, CPAS
- Mohareb, N. (2012), ARAB WALLED CITIES: investigating peripheral patterns in historic Cairo, Damascus, Alexandria, and Tripoli, Eighth International Space Syntax Symposium. Santiago, PUC.
- Montgomery, J. (1998) Making a city: Urbanity, vitality and urban design, *Journal of Urban Design*, 3:1, 93-116, DOI: 10.1080/13574809808724418 260
- Moore, A. (1978), *The Neolithic of the Levant*, PhD thesis at Oxford University
- Morris, A. (1994), *History of Urban Form Before the Industrial Revolution*, Third edition, Longman Scientific & Technical, London

- Mostafa, S. (1987), *Historic Cairo: Causes of Deterioration and Suggestions for Preservation*, Old Cultures in the New Worlds, 8th General Assembly- Washington, ICOMOS
- Mortada, H. (2003), *Traditional Islamic Principles of Built Environment*, Routledge Curzon, London
- Moustapha, A., Costa, F. and Noble, A. (1985), *Urban development in Saudi Arabia: Building and subdivision codes* Cities Volume 2, Issue 2, Pages 140–148
- Nasif, H. (1930), *Hijaz past and present*, Khudair Library Press, Cairo, Egypt
- Nasar, J. (1987) The effect of sign complexity and coherence on the perceived quality of retail scenes, *Journal of the American Planning Association*, 53, pp. 499–509.
- Nasar, J. (1997). "New developments in aesthetics for urban design." *Advances in environment, behavior, and design* 4: 149-193
- Nasar, J., (1998). *The evaluative image of the city*. Thousand Oaks, CA: Sage Publications
- Neacsu, M. (2009), *The City Image and The Local Public Administration: A Working Tool In Urban Planning*, *Transylvanian Review of Administrative Sciences*, pp. 172-188
- Neisser, U. (1972), "Changing Conceptions of Imagery", in Sheenan, P.W.(Ed.) *The Function and Nature Of Imagery*, Academic Press, New York
- Negoita, A. (2011), *The City of Mansur the Builder. Baghdad Between the Caliph's, Will and Shari'ah Norms*, *International Relations, Pol. Sc. Int. Rel.*, VIII, 2, p. 111–126, Bucharest
- Neisser, U. (1976), *Cognition and Reality: Principles and Implications of Cognitive Psychology*, W. H. Freeman, San Francisco
- Nelessen, A. (1994), *Vision for a New American Dream: Process, Principles and an Ordinance to Plan and Design Small Communities*, American Planning Association, Chicago
- Nesbitt, K. (1996), *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory 1965 - 1995*, Princeton Architectural Press, New York, US
- Niebuhr, C. (1792), *Travels through Arabia and other countries in the East*, Edinburgh: Printed for R. Morison and Son, Perth, etc.
- Nigel Taylor (2009) *Legibility and Aesthetics in Urban Design*, *Journal of Urban Design*, 14:2, 189-202
- O'Callaghan, C. (2008), *Object Perception: Vision and Audition*. *Philosophy Compass*, 3: 803–829. doi:10.1111/j.1747-9991.2008.00145.x
- O'Keefe, J. and Nadal, L. (1978), *The Hippocampus as a Cognitive Map*, Clarendon Press, Oxford
- Omer, I., Goldblatt, R. and Or, U. (2005), *Virtual City Design Based on Urban Image Theory*, *The Cartographic Journal*, Volume 42, 2005 - Issue 1, pp.15-26
- Oppenheim, A. (2000), *Questionnaire Design, Interviewing and Attitude Measurement*, Bloomsbury Publishing, London

- Othman, z. and Anderson, J. (2006), *The Kingdom of Saudi Arabia*, Stacey International, London
- Özalp, O. (2011), *Where is the Middle East? The Definition and Classification Problem of the Middle East as a Regional Subsystem in International Relations*, *TJP Turkish Journal of Politics* Vol. 2 No. 2
- Patton, M. (2002), *Qualitative Research & Evaluation Methods*, SAGE. 261
- Park, C. (2004) *Religion and geography*. Chapter 17 in Hinnells, J. (ed) *Routledge Companion to the Study of Religion*. London: Routledge
- Perring, D. and Mikati, R. (2006) *From Metropolis to Ribat: Some recent work on Beirut at the end of Antiquity*. *Archaeology and History in Lebanon*, 23 pp. 42-55
- Pieri, C. (2008), "Urbanism in Baghdad before the planning: a codification between the fates of the Arbitrary and urgent needs (1920-1950)", exhibition of Baghdad architecture in Barcelona and Madriids, 20 June 2008, Barcelona, pp. 266-271.
- Pratt, A. (1998), *Information of the Image*, Greenwood Publishing Group, London.
- Prawesthi, D. and Prasadha, N. (2013), *Planning Model of Religious Cultural Heritage Buildings as a Concept to Intensify the Image of the Region*, *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*.
- Punch, K. (2000). *Introduction to social research. Quantitative and qualitative approaches*. Sage: London
- Rab, S. (2010), *DUBAI: Architecture and heritage in service of globalization*, Boulanger and Pouyat (eds), *Espaces Urbains À L'aube Du Xxie Siècle. Patrimoine Et Héritages Culturels*,
- Rabbat, N. (2008), *Egypt: Modernity and Identity, Architecture and urbanism in the Middle East in The Middle East*, Washington: Middle East Institute
- Rabbat, N. (2010). *The Courtyard House: From Cultural Reference to Universal Relevance*: Ashgate Publishing Limited
- Ragette, F. (2003), *Traditional Domestic Architecture of the Arab Region*, Edition Axel Menges
- Ramos, S. (2009), *The Blueprint: A History of Dubai's Spatial Development Through Oil Discovery*, Belfer Center for Science and International Affairs, Harvard University
- Rapoport, A. (1977), *Human Aspects of Urban Form: Towards a Man—Environment Approach to Urban Form and Design*, Elsevier
- Raymond, A. (2000), *Cairo*, Cambridge, MA, Harvard University Press
- Reed, S. (2012), *Cognition: Theories and Applications*, Cengage Learning, USA
- Relph, E. (1976), *Place and placelessness*, Pion Limited, London
- Reshef, Z. (1982), *Spatial Organization of Traditional Middle Eastern Desert Cities: With an Emphasis on Residential Sectors*, McGill University

- Richards, J. (1994), *facadism*, Routledge, London, UK
- Ribeiro, G. (1990), *Perception And Design In The Urban Environment: Towards An Ecological Approach*, D.Phil Thesis, Institute of Advanced Architectural Studies
- Robbins, S. (2009), *organisational behaviour in Southern Africa*, 2nd edition, Pearson South Africa 262
- Rooijendijk, C. (2005), *That City is Mine!: Urban Ideal Images in Public Debates and City Plans*
- Roudi, F. (2011), *Youth Population and Employment in The Middle East and North Africa: Opportunity Or Challenge?* UNITED NATIONS, New York
- Saini, B. (1980). *Building in Hot Dry Climates*, John Wiley & Sons, Chichester
- Saleh, M. (1998), *Place identity: The visual image of Saudi Arabian cities*, *Habitat International* Volume: 22 Issue: 2: 0197-3975
- Saliba, R. (2013), *Historicizing Early Modernity Decolonizing Heritage: Conservation Design Strategies in Postwar Beirut*, *TDSR* 25.1
- Saliba, R. (2004) *The Genesis of Modern Architecture in Beirut, 1840-1940*. In *Architecture Re-introduced: New Projects in Societies in Change*. Jamal Abed (ed). Geneva: The Aga Khan Award for Architecture.
- Salma K. Jayyusi, Renata Holod, Attilio Petruccioli and Andr e R. (2008), *The City in the Islamic World*, Brill,
- Salamandra, C. (1994), *A New Old Damascus: Authenticity and Distinction in Urban Syria*,
- Saoud, R. (2002). *Introduction to the Islamic City*, FSTC Limited
- Sartre, M. (2005), *The Middle East Under Rome*, Harvard University Press
- Sartain, A., North, A., Strange, J. & Chapman, H., (1958), *Psychology: understanding human behavior*. McGraw-Hill Book Company, New York, USA
- Sert Jackson International/Saudi Consult (SJI/SC), (1980) *Jeddah Master Directive Plan 1980-2000*. An update Master Plan Reports, Ministry of Municipal and Rural Affairs.
- Shaikh, H. (2009), *Old Jeddah architecture enchants Summer Festival visitors*, article in *Saudi Gazette news*, KSA, date access (21/8/2013), <http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentID=20090724445> 98 39
- Sher, H. and Aldosari, A. (2012), *Overview on the ecological and geographical appraisal of important medicinal and aromatic plants: An endangered component in the flora of Saudi Arabia*, *Scientific Research and Essays* Vol. 7(16), pp. 1639-1646
- Sheriff, A. (2009), *the Roshans, looking to the world by eyes of art*, *Jeddah magazine*, Vo.3 No.27, Jeddah Municipality, KSA

- Sidawi, B. (2013), Understanding the vocabulary of the Islamic architectural heritage, GBER Vol. 8 Issue. 2 pp 26 - 39
- Silver, H. (2010), Divided Cities in the Middle East, City & Community 9:4
- Smyth, M. (1994), Cognition in Action
- Soliman, A. (2008), Diversity of Ethnicity and State Involvement on Urban Informality in Beirut, Theoretical and Empirical Researches in Urban Management, Year 3, Number 9, 2008
- Sothea, P. (2012), Observation Methods, <https://inetcenter.files.wordpress.com>
- Southworth, M. (1969), "The Sonic Environment of Cities." Environment and Behavior Vol 1(1), pp. 49-70.
- Souvatzki, S. and Hadji, A. (2013), Space and Time in Mediterranean Prehistory, Routledge
- Spencer, C. Dixon, J. (1983), "Mapping the development of feelings about the city', a longitudinal study of new residents' affective maps" Transactions of the Institute of British Geographers N.S. 8 373-383
- Spencer, D. (1973), "An Evaluation of Cognitive Mapping in Neighbourhood Perception", Centre for Urban and Regional Studies, Memorandum, Number 23,. University of Birmingham,
- Spreiregen, P. (1965), Urban Design, the Architecture of Towns and Cities, R.E. Krieger Publishing Company 263
- Steck, S. & Mallot, H. (2000), the role of global and local landmarks in virtual environment navigation. Presence, Vol. 9, No. 1, 69–83
- Steinitz, C. (1968), Meaning and the Congruence of Urban Form and Activity, Journal of the American Institute of Planners, Volume 34, Issue 4, pages 233-248
- Stewart, D. (2013), The Middle East Today: Political, Geographical and Cultural Perspectives, Routledge
- Strauss, A. (1961), Images of the American city, Free Press of Glencoe,
- Sudas, I. & Gokten, C. (2012), Cognitive maps of Europe: geographical knowledge of Turkish geography students authors, The European Journal of Geography is published by EUROGEO - the European Association of Geographers
- Suthasupa, S. (2011), The Portrayal of a City's Image by Young People, Journal of ASIAN Behavioural Studies, Volume 1, No. 2, pp.57-68
- Swearingen, W. (2010), Environmental City: People, Place, Politics, and the Meaning of Modern Austin, University of Texas Press
- Thapar, H. & Yannas,S. (2008), Microclimate and Urban Form in Dubai, 25th Conference on Passive and Low Energy Architecture, Dublin

- Tohme, L. (2005), *Out of Antiquity: Umayyad Baths in Context*, PhD thesis, the Massachusetts Institute of Technology.
- Total, F. (2014), *Preserving the Old City of Damascus*, Syracuse University Press,
- Touba, E. (1997), *Conservation in an islamic context case study of Makkah*, Durham thesis, Durham university, UK
- Trancik, R. (1986), *Finding lost space*, New York: Van Nostrand Reinhold.
- Tversky, B. (1992), *Distortions in cognitive maps*, *Geoforum*, Volume 23, Issue 2, May 1992, Pages 131-138
- Uthman, M. (1988), *the Islamic city, The world of knowledge*, Kuwait
- van Zeeland, R. (2014), *Revealing Damascus: A study on the programmatic composition of the Damascene house and cultural setting in the Early Ottoman Times*, Master thesis, University of Delft,
- Wahhabi, S. (2009), *Wall of Jeddah*, Dar Al-Farabi, Beirut, Lebanon
- Ward, M. and Grinstein, G. and Keim, D. (2010), *Interactive Data Visualization: Foundations, Techniques, and Application*, Chapter 3 (Human Perception and Information Processing), pp. 73-128, A K Peters,
- Wardhani, D., Hariyani, S., and Rizaldi, T. (2011), *Imagibility of Kayutangan Historic Area*, *Journal of Basic and Applied Scientific Research*, 1(5)418-426
- Waterman, S. (1980), *Alternative images in an Israeli town*, *Geofonrm*, Vol. 11, pp. 277-287,19
- Weber, S. (2001) National Reports “Syria”, ‘Damascus: A Major Eastern Mediterranean Site at Risk’ in *ICOMOS World Report 2001-2002 on Monuments and sites in danger*, www.international.icomos.
- Weber, S. (1999) 'Ottoman Damascus of the 19th century: Artistic and urban development as an expression of changing times', in *Turkish Art (10th International Congress 17–23 Sep 1995)* Geneva: Fondation Max van Berchem, pp.739-740
- Weisman, J. (1981). *Evaluating Architectural Legibility: Way-finding and the Built Environment*, *Environment and Behavior*, v. 13(2): 189-20
- Wheatley, P. (2001), *The Places Where Men Pray Together: Cities in Islamic Lands, Seventh Through the Tenth Centuries*, University of Chicago Press
- Wieringa, H. & Attia, S. (2005), “Islamic garden in Christian world” “Christian garden in Islamic world” A research paper about cross cultural perspective in the age of global architectural practice, Wageningen University, Department of Environmental Design, School of Landscape Architecture, *Design Theory* Spring 264
- Wood, J. T. (2008). *Communication in our lives* (3th ed.). Belmont, CA: Thomson-Wadsworth

Woodside, A. (2010), Case Study Research: Theory, Methods, Practice, Emerald Group Publishing.

Wynbrandt, J. (2010). A Brief History of Saudi Arabia. Infobase Publishing

Yacobi, H. & Shechter, R. (2005), Rethinking cities in the Middle East: political economy, planning, and the lived space, Journal of Architecture, Taylor & Francis, pp. 499-515

Yeap, W. (1988), Towards a Computational Theory of Cognitive Maps, Artificial Intelligence, Volume 34, Issue 3, April 1988, Pages 297-360

Yilmaz, D. and Ayse, S. (2011), In the Context of Visual Pollution: Effects to Trabzon City Center Silhoutte. Asian Social Science, 7 (5), 98-109.

Yin, R., Case Study Research: Design and Methods, 1984: Newbury Park, Sage Publications

Zcigler el at., (2012), World Urban Development, Rowman 8: Littlefield Publishers, Inc, UK

Zuhur, S. (2011), Saudi Arabia, ABC-CLIO, USA

Zwemer, S. (1900), Arabia: the cradle of Islam, New York; Toronto: F. H. Revell

Websites:

Abuzaid, J. (2012), Architectural identity of cities in danger, Arab News, Available at: <http://m.arabnews.com/content/1346719487612173400/Latest%20News>, [Accessed 20/02/2014].

Aramco World, (2005), Queen of the India trade, Available at: <http://archive.aramcoworld.com/issue/200506/queen.of.the.india.trade.htm>, [Accessed 02/11/2013].

Bakr, T. (2013), Return to the old alleys - Correcting some concepts and information about the history of Jeddah and its landmarks, Available at: Http://Lostopportunitiesandwastedtimes.Blogspot.Co.Uk/2013/07/Blog-Post_28.Html, [Accessed 27/01/2014].

Cardno SPLAT. Company, Bahrs Scrub Landscape and Visual Amenity Assessment, Available at: <http://www.logan.qld.gov.au/planning-and-building/planning/local-plans/bahrs-scrub/?a=9814>, [Accessed 24/08/2013].

CAPMAS, (2014), Central Agency for Public Mobilization and Statistics: The Annual Statistical Book, Egypt, CAPMAS, 332.

Central Organisation for Statistics (COS), Available at: [www. cosit.gov.iq](http://www.cosit.gov.iq), [Accessed 14/06/2013].

Central department of statistics and information of Saudi Arabia. (2010). Population of Saudi Arabia, Available at: <http://www.cdsi.gov.sa/english>, [Accessed 16/07/2013].

Central Bureau of Statistics in Syria, Available at: www.cbssyr.org, [Accessed 15/06/2013].

Jeddah Municipality, (2009), Jeddah without slums, Available at:
<http://www.jeddah.gov.sa/English/index.php>, [Accessed 12/08/2013].

Jeddah Municipality (2013) Available at:
<http://www.jeddah.gov.sa/Business/LocalPlanning/Atlas/index.php> [Accessed 24/09/2013].

Jewish virtual library (n.d.). Maps of the Modern Middle East: The Modern Middle East. [image]
 Available at: <http://www.jewishvirtuallibrary.org/map-of-the-modern-middle-east> [Accessed 06/02/2014].

Local Government Commission, Community Image Survey, A tool for educating and involving community members in planning, Available at: <http://www.lgc.org/whatwedo/cis/index.html>, [Accessed 17/06/2013].

UNESCO, (2011), Ancient City of Damascus, Available at: <http://whc.unesco.org/en/list/20>, [Accessed 15/05/2014].

UNESCO, (2014), Historic Jeddah, the Gate to Makkah, Available at:
<http://whc.unesco.org/en/list/1361>, [Accessed 09/02/2015].

Saudi embassy, Available at: <http://www.saudiembassy.net/about/country-information/government>, [Accessed 19/06/2013].

The Saudi Network, Available at: <http://www.the-saudi.net/saudi-arabia/area.htm>, [Accessed 24/01/2014].

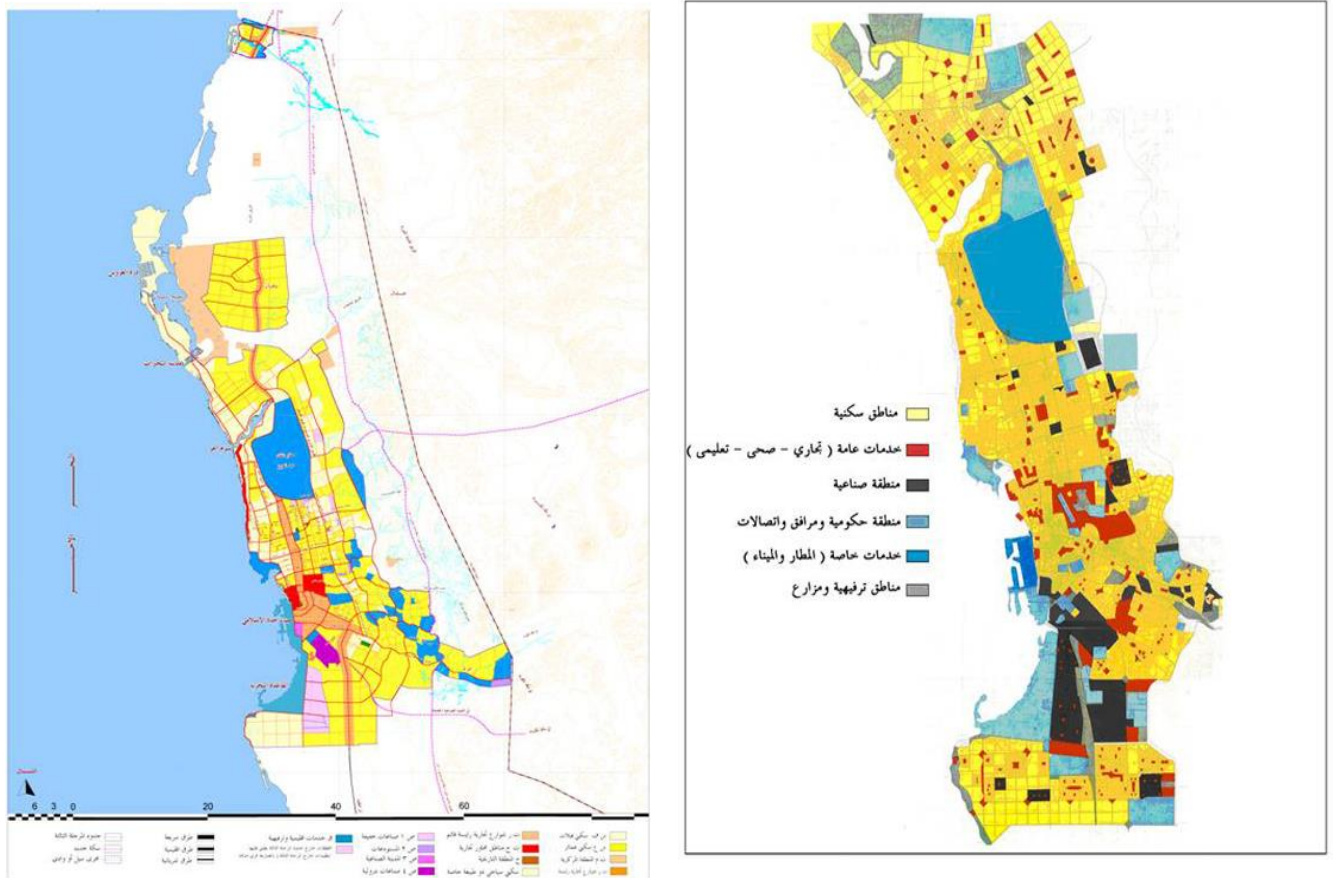
The Central Intelligence Agency (CIA), The World Factbook, Available at:
<https://www.cia.gov/library/publications/the-world-factbook/fields/2212.html> [Accessed 06/02/2013].

Wikipedia, The Free Encyclopedia, Wikimedia Foundation Inc., Jeddah map, Available at:
http://pnb.wikipedia.org/wiki/File:Jeddah_Saudi_Arabia_locator_map.png, [Accessed 17/04/2013].

References of the interviews:

Official No.	Representing	Date of interview
P.J NO.1	Planner in Jeddah Municipality	12/3/2014
P.J NO.2	Planner in Jeddah Municipality	4/3/2014
P.J NO.3	Planner in Jeddah Municipality	4/3/2014
A.J NO.4	Architect in Jeddah Municipality	18/2/2014
A.J NO.5	Architect in Jeddah Municipality	5/2/2014
D.I NO.1	Dar Al-Arkan Real Estate Development Company	6/4/2014
D.I NO.2	Jeddah Development & Urban Regeneration Company	11/3/2014
D.I NO.3	Al-Barakati Group	17/2/2014
D.I NO.4	Ewaan Global residential Co.	8/2/2014
D.I NO.5	Sumou Real States Company	4/2/2014

Appendix:



Some of the previous schemes for the city of Jeddah (Source: Jeddah Municipality)

Questionnaire example:

أراء وتقييم السكان للصورة الحضرية والهوية المحلية لمدينة جدة

هذا الاستبيان خاص وباستخدام البحث العلمي فقط ، وسنكون ممتنين لكم تعاونكم ، واستطلاع جزء من وقتكم الثمين للرد على الاستطلاع التي يحتوي عليها الاستبيان .. ولكم جزيل الشكر على ذلك.

القسم الأول: معلومات عامة:

العمر: ٣٥ سنة
 التعليم: جامعي
 مدة السكن بجدة: ٢٢ سنة
 طريقة التنقل داخل المدينة: سيارة .

القسم الثاني: معلومات عن الصورة الحضرية وهوية المدينة:

ما هو أول ما يتبادر إلى عقلك أو مخيالك عند التفكير في مدينة جدة؟
 ...
 ...
 ...

كيف تصف الصورة الحضرية لجدة من النواحي العمرانية والتخطيطية؟ الجوانب الإيجابية والسلبية؟
 ...
 ...

كيف تميز جدة عن المدن الأخرى؟ (من النواحي التخطيطية والعمرانية)
 ...
 ...

هل لجدة هوية محلية خاصة؟ وهل اختلفت عن الماضي؟ (مقارنة بين جدة بالماضي والحاضر)
 ...
 ...

...
 ...
 ...

القسم الثالث: تحديد الامكان في المدينة:

في هذا القسم سيتم عرض بعض الصور الموجودة في مدينة جدة ، والمطلوب تحديد أن يقع كل مكان من هذه الامكان وماهي الميزات التي ساعدتك على التعرف عليه؟
 هل من الممكن تحديد أين يقع هذا المكان وما هي الميزات أو الطريقة التي ساعدتك على التعرف عليه ؟
 مثال للصور:

بداية جدة الرئيسية
 تقع من ناحية الشمال
 منذ ما كان الظاهرية



باب جدة في الجزء الشمالي للصور القديمة بمنطقة الباك والتعرف عليه من خلال على سبيل المثال تصميمه او العنازل القديمة التاريخية التي خلفه او الشارع وهكذا ...



بحر الأزرق - الميناء الجديد



جاءت الأبنية الحديثة
 التي تحلت محل المسارح القديمة



بيت ناصر شارع الخليج
 ...



بيت ناصر شارع الخليج
 ...

ASA

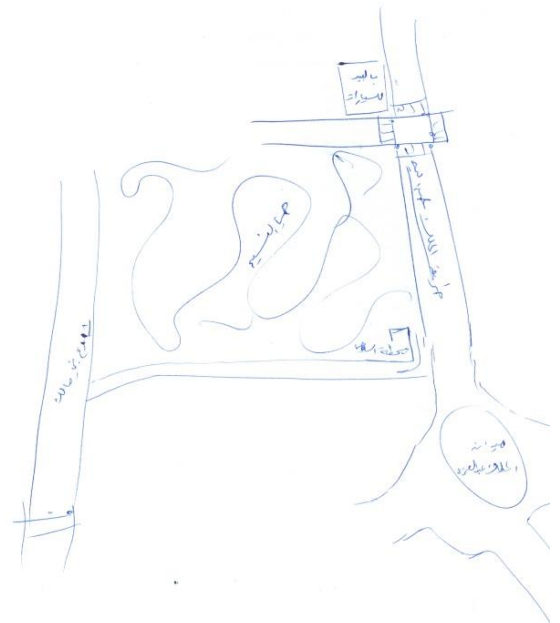
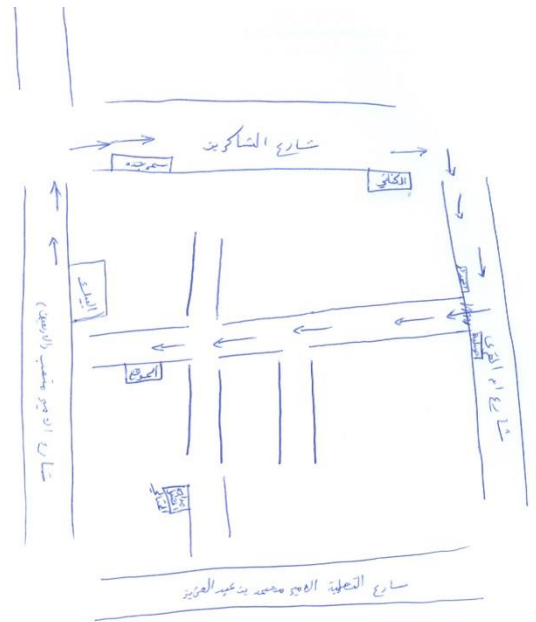
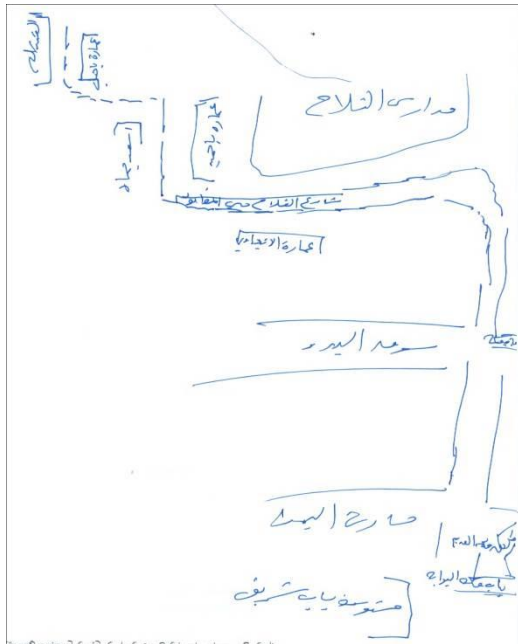
القسم الرابع: تقييم صورة المدينة وهويتها:

إلى أي مدى تقيم صورة المدينة وهويتها ؟

جاءة الشارع
 مجمع بعض الفنادق
 مستشفى الملك سعود
 في الزندل
 تكا في الزمانية مسجد السيدة ناطحة
 أمامها صرح كورنيل
 المبنى
 الرضفة كورنيل المسرح
 الكورنيل الجديد

الجانب	السؤال	أشد	أقل	متوسط	لا أشد	لا أقل
المعماري والحضري	للمدينة طابع معماري وحضري مميز وفريد		✓			
	المدينة لها هوية خاصة ومميزة		✓			
التنقل والمواسلات	النظام المعاشي يعكس الهوية المحلية المميزة للمدينة		✓			
	تحتوي المدينة على معالم ومباني مميزة لها		✓			
التراثي والتاريخي	التسويق الحضري في المدينة واضح ومفروق		✓			
	المدينة لديها خدمة نقل جيدة		✓			
التقني	توفر المدينة بنية تحتية جيدة للنقل		✓			
	هناك عدد كاف من اماكن وقوف السيارات		✓			
الاقتصادي	هناك مشاكل مرورية في المدينة		✓			
	التراث يتم المحافظة عليه بشكل جيد		✓			
التعليمي	ترابط وتكامل المنطقة التاريخية مع اجزاء المدينة الاخرى		✓			
	جدة لديها اختلافات متنوعة ثقافية		✓			
الجمالي	جدة تزرخ بالمتاحف والمعارض الثقافية		✓			
	جدة لديها هوية ثقافية مميزة وحفاظة عليها		✓			
البيئي	هناك تنوع في المحلات التجارية وامكان التسوق		✓			
	هناك العديد من خيارات السكن		✓			
الاجتماعي	اسعار المساكن مرتفعة جدا		✓			
	تحتوي المدينة على مراكز تعليمية متنوعة ذات جودة عالية		✓			
الخدمات	المدينة لها سمعة جيدة في التعليم الجامعي		✓			
	المدينة تحتوي على فراغات حضرية وساحات وامكان مفتوحة ذات جودة عالية		✓			
السياحي	هناك المجمعات الفندقية الممتيزة بالمدينة		✓			
	سلوك وتعامل السكان مع البيئة جيد		✓			
الاجتماعي	تتعامل وتصرف السلطات مع البيئة جيد		✓			
	توجد ضوضاء وازعاج بالمدينة		✓			
الاجتماعي	توجد ثورات بصرية بالمدينة		✓			
	توجد ثورات بالبيئة والمدينة		✓			
الاجتماعي	المدينة صحية ونظيفة		✓			
	المدينة آمنة ولا توجد جرائم		✓			
الاجتماعي	هناك اندماج اجتماعي بين السكان		✓			
	هناك مشاكل مع الهجرة غير الشرعية		✓			
الاجتماعي	الخدمات الصحية ذات جودة عالية		✓			
	الخدمات العامة والحكومية ذات جودة عالية		✓			
الاجتماعي	هناك اماكن سياحية جاذبة بالمدينة		✓			
	توجد بالمدينة اماكن ترفيهيه		✓			
الاجتماعي	سكان المدينة يتكلمون بالسياح ويساعدونهم		✓			
			✓			

Examples of drawing mental map:



Evaluation of the urban image:

To what extent do you agree with these statements?

Aspect	Items	Indicators	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Architectural and urban	Character	The city has a unique architectural and urban character					
	Identity	The city has a distinctive local identity					
	Building styles	The building styles reflect the city and its identity					
	Landmark buildings	The city has its own landmark buildings					
	Urban pattern	The urban pattern in the city is clear and legible					
Transportation aspect	Transport service	The city has a good transport service					
	Traffic problems	There are traffic problems in the city					
	Parking spaces	There are a sufficient number of parking spaces					
	Transport infrastructure	The city provides a good transport infrastructure					
Historical aspect	Historical heritage	The city has an important historical heritage					
	Heritage preservation	The heritage is well-preserved in the city					
	Integrated parts	The historical city is integrated with other parts of the city					
Cultural aspect	Cultural events	The city has a variety of cultural events					
	Museums and exhibitions	The city has many museums and exhibitions					
	Culture identity	The city has its own culture and has preserved it					

Economic aspect	Shopping malls	There is diversity in shops and shopping malls					
	Accommodation options	There are many accommodation options					
	Housing	The housing is expensive in the city					
	Prices	Prices in the city are high					
Educational aspect	Educational centres	There is a range of educational centres					
	Quality of University teaching	The city has a good reputation of a university education					
Aesthetic aspect	Space quality	The city has an urban space quality					
	Open-air art	The city has a good open-air art quality					

Aspect	Items	Indicators	Excellent	Good	Neutral	Poor	Unsatisfactory
Environmental aspect	People's behaviour	People's behaviour towards the environment					
	Authorities' behaviour	Authorities' behaviour towards the environment					
	Noise pollution	Noise pollution in the city					
	Visual contamination	Visual contamination					
	Air pollution	Air pollution in the city					
	Clean city	The city is clean					
Social aspect	Citizen safety	Level of citizen safety					
	Social integration	Social integration among the city's residents					
	Illegal immigration	Problems with illegal immigration					
Services aspect	Health services	The quality of health services					
	Social services	The quality of social services					

	Public services	The quality of public services					
Tourism aspect	Tourism destination	An attractive tourism destination					
	Hospitality	People show a lot of hospitality					
	Local hotels	The quality of service in local hotels					
	Interesting places	Interesting historical and entertainment sites					