# THE IDENTITY OF THE MEDINA, TRIPOLI, LIBYA: CONSERVATION AND URBAN PLANNING FROM THE NINETEENTH CENTURY TO THE PRESENT

By

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As members of the Dissertation Committee, we certify that we have read the dissertation prepared by Fuzia Taher Elkekli titled "The Identity of the Medina, Tripoli, Libya: Conservation and Urban Planning from the Nineteenth Century to the Present" and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

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**DEDICATION**

In the name of Allah, the Beneficent, the Merciful!

"(Moses) said: My Lord! Relieve my mind

And ease my task for me;

And loose a knot from my tongue,

That they may understand my saying."

Koran: Ta Ha 20:25-28

Almighty God.

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## LIST OF ACRONYMS

| | |
|---|---|
| BARA | Bureau of Applied Research Anthropology |
| COS | collective opinion surfaces |
| ECO | Engineering Counsel Office |
| GIS | Geographic Information System |
| MHC | Management of Historical Cities |
| SDI | spatial data infrastructures |
| RCC | Revolutionary Command Council |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |

## LIST OF ARABIC WORDS

| | |
|---|---|
| hammam | public bath |
| jdmi' suq | mosque-market |
| kan | traditional hotel |
| madrasa | school |
| qibla | sacred direction to Mecca |
| shari’a | Islamic law |
| suq | market |
| wali | governor |
| waqf | religiously endowed property |
| zanga | alley |
| zawaya | workshop |

## ABSTRACT

The Medina of Tripoli, Libya, is a very ancient walled city that has a history of change, development, deterioration, conservation, and preservation to its fabric. Influenced by various foreign groups (Phoenicians, Greeks, Romans, Muslims, Spanish, Ottomans, Karamanlis), its architectural styles include ancient and traditional structures, as well as modern Western style or acculturation architecture. The purpose of the Medina as a place of habitation has changed over the years because of many factors including residents moving out of the Medina, fluctuating preservation, the changes in government policy when each new ruling entity had its particular laws and regulations, and some distortion of the economy due to the oil revenues. The place has no long-term plan or vision applied to it—either from within or from without. This study, the first of its kind in North Africa to collect information by using surveys and mental maps, convert the information into geographic information system (GIS) data, and come to definite conclusions about the Medina's situation. The entire research focused on four areas (the Islamic buildings, common routes of transportation, areas of deterioration, and population densities within Tripoli's Medina), but this document focused on the deterioration in the city while analyzing its urban informality, the residents' rights to live in the city, and property categories. This study helped to clarify the current situation and provide input to planners in post-uprising Libya.



Key words: Medina, geographic information system (GIS), urban informality, conservation, urban planning.

# CHAPTER 1

# INTRODUCTION TO THE RESEARCH

## The Deterioration Problem in the Medina

The focus of the study in the Medina (Old City), Tripoli, Libya, North Africa, was on the relationship and interaction between the people and the place and how that interaction, influenced by politics and economics, affected conservation and urban planning which in turn contributed to the deterioration of the Medina's buildings. The residents, both Libyan and immigrants, made changes to the urban planning of the Medina through their motivation to survive and obtain a more suitable life for themselves and their families by constructing new buildings, living in deteriorating and condemned houses, or "squatting" in other owners' properties.

During the four decades from the 1970s to 2010, people became confused about the Medina's identity and valuation as to whether it was a historic, Islamic, or mixed architectural city. The residents tried to survive rather than give their attention to preserving and conserving the historical fabric for the next generations. This researcher's study started with a survey, introduced the concept of mental maps to 150 residents, engineers, planners, and groups interested in the preservation of the Medina, and used Geographic Information System (GIS) tools to analyze the spatial results; these tools were designed to understand what these 150 informants thought about the Medina compared with its reality. The study also involved analyzing the six ownership arrangements (owner occupied, *waqf* [religiously endowed property], city contract, unoccupied, squatter, and condemned properties) of the Medina to see to what degree these types of property ownership affected the Medina's urban fabric.

My mother had a deep insight into the deterioration of the Medina. She had not returned to her birthplace, the Medina, for many years after her last aunt died. Later, in

2006, when my mother was ill, she asked us to take her to the Medina where her remaining relatives lived. We went to the Bab Bahar quarter and as she was walking inside the area, she was moving her hand back and forth showing that this was not the Medina she remembered. “What happened? It’s a mess; garbage is everywhere. I can’t smell the incense coming from the houses like before. I can see the houses crying—so—take me back to the car.”

## Site Description

Before the Medina (Old City) was formally founded by the Phoenicians during the seventh century B.C., local tribes had occupied the area, especially the Berbers (Villard 1956, 11), and it has been continuously inhabited since that time. It is in the capital city of Tripoli, Libya, and was selected as the place for this study. The Medina is located at 32°54′8″N 13°11′9″E in the northwest section of Tripoli, Libya, North Africa. The Mediterranean Sea is the border on the north and northeast; the wall surrounding the Medina is the border on the south and southwest. The site chosen for the study, as well as the buildings and surrounding walls, forty-two hectares (104 acres) in extent, was affected in form and style by various foreign groups (Phoenicians, Greeks, Romans, Muslims, Spanish, Ottomans, and Italians) who had fought and lived there. In addition, the Jewish, Christian, and Islamic cultures and religions had a great impact on the architecture. Moreover, Tripoli’s location in the central part of the North African coast and central to the Mediterranean Sea has long been a focus of interest, especially as a transshipment point for goods out of central Africa carried along the caravan routes and on to Europe.

## The Islamic City

The concept of the "Islamic city" is largely a myth, though traditional cities in the Muslim world display many physical characteristics that reflect Islamic social and cultural values (Woodberry 1988). The plan of the Islamic city caused some confusion where it was described as just a labyrinth of twisting alleyways (Radoine 2011, 527). According to various sources such as Villard (1956), Ahmida (1994), Khoja (1969), and Alsorey (2005), Etropolis or the Medina in Tripoli, Libya, is considered one of the oldest cities in the Middle East and has been rooted in history since the days of the Phoenicians.

Most of the studies (French, Italian, and Arabic) of Islamic cities have dealt with the siting of these cities more as an urban space than as a cultural spatial structure. For instance, according to Bonine (1990), the slight variations in the direction of the *qibla* (direction toward Mecca for daily prayers) influenced the foundation of the buildings' axes. The selection of a city site and its orientation are not only important for study by architectural historians, but the basic orientation of a city's street plan can affect and shape the quality of life there if in no other way than the very primary one of how light and shade falls and changes through the cycle of the year. Bonine (1979) states that the concept of a true Islamic city is still under study, but the description of it as a maze of twisting streets is accepted by many geographers, even if this description is misleading as it implies a chaotic condition, which is not actually the case. Some type of planning existed, but it is not clear whether it was urban planning or planning because of the need for irrigation for agricultural systems or other reasons (Bonine 1979).

For an Islamic city perhaps it is not so much its physical geography that matters as its implicit religious character interacting with a deep past. For Lapidus "the pre-Islamic

past was the foundation of Muslim city experience. Millennia-old experiences in the organization of urban societies and the cultural and religious appreciation of cities underlay the Muslim experience" (Lapidus 1967, 52). In addition, Bianca (2000) assigns the traditional Muslim philosophy of life as the basis for the Islamic environment. He wishes "to explore the inner motivations behind visual structures as the main source of pre-formal shaping forces and morphological structuring principles" (Bianca 2000, 9).

The Marcais brothers (1958) and von Grunebaum (1955) as referenced in Bonine (1987) described Islamic cities as a result of urban religious influence, but they accepted the *zanga* (alleyway) as part of that urban Islamic city structure. Lawless (1980) asserted that the historical fabric of Middle Eastern cities, despite the efforts to redevelop and restore them, continued to be destroyed. The integration of Islamic structural elements (physical, religious, social, economic, and political) made a unique structure from the beginning. Abu-Lughod (1987) states that:

> Marcais [1958] introduces several characteristic elements of the physical city, but again tied to religion. Citing Ibn Khaldun, Arab geographers and legal doctrines, he reaches a definition of the Islamic city, which he contends is quintessential: a city must have a congregational Friday mosque and it must have a market/chief bazaar nearby. Thus far, therefore, we have only a very modestly etched idea of the Islamic city, one which poorly distinguishes it from cities in other religious/cultural contexts and one which has as yet no topography. (16)

Lapidus (1967, 30) stated that the early medinas were, in principle, administrative capitals, rather than cities, and were places with political and usually religious jurisdictional supremacy. Also, Muslim cities were started by either migration, collapse, or the founding of empires driven by religious and political ideas and economic growth which all gave form to the cityscape, city society, and city culture. He further stated that cultural traditions were of great importance to religion in urban society (Lapidus 1967).

The movement from seventh century pre-Islamic styles to Islamic ones became the main basis for contemporary urban planning for Islamic cities. As an example of that, Bonine (1987) states:

> religious endowments, called waqf in Arabic, were and are one of the fundamental social and economic institutions of the Islamic Middle Eastern city. They support mainly religious structures, but also were and are a means of sustaining other public works and to provide for the needy—and even for one's own family. (183)

Most of waqf uses were for the public buildings like bazaars, schools, or other public space. The waqf is regarded as a compound key in the social structure model. The combination of the waqf and social activities creates another dimension of city identification (Sait 2005). Looking at the Islamic city in its modern context and state of evolution, the issues regarding definition only become more complex. In 1973, Lapidus asserted that "Muslim settlements formed geographical and ecological, as well as social composites including territories and populations which were neither exclusively urban nor exclusively rural, but a combination of the two" (Lapidus 1973, 73). Costello (1980) in Blake and Lawless (1980) contends that most of the cities appear to be a mixture of ancient, traditional elements, of modern elements of a purely Western pattern, of Western acculturation taking place in some respects, and a re-Orientalising process taking place in others.

Bonine (as quoted in Blake and Lawless 1980) concluded that, "the traditional Middle Eastern city is still being explained in clichés and stereotypes" (1). Drakakis-Smith (1980) from the same source noted that residential overcrowding has overwhelmed the activity of commerce and industry within the Medina. Zancheti and Jokilehto (1997), as quoted in Sedky (2009), specified two types of values in historic areas: physical aspects and intangible heritage.

No matter what the actual character of an Islamic city might be, when that character begins to fade, such cities are seen in terms of preservation. Sedky (2009), in a new assessment of the preservation of historical areas of Middle Eastern cities, investigated the reasons behind the vulnerability of historical Cairo by exploring and comparing regional and international case studies. He determined the criteria for assessing area preservation in the Arabic-Islamic context and how and what to conserve. Wright (1991) contended that modernity was defined by varied commercial activities, cultural traditions, and industrial conditions. Moreover, some of the monuments from the Greeks, Romans, and other civilizations have been preserved due to the Islamic sense of history and architecture.

In the local case of Libya, Rghei, and Nelson (1994) pointed out that little work has been undertaken on the heritage and urban planning of Libya even though its great variety of buildings has a distinct and significant value for their skilled workmanship, uniqueness, style, and design. If religious institutions and their structures are a strong defining characteristic of an Islamic city, the Medina, Tripoli is rich in them. Within its modest area of forty-two hectares (104 acres) and six quarters (neighborhoods) are a total of thirty-six mosques of various sizes and three *zawayas* (Sufi workshops), *madrasas* (religious schools), and public baths. Also considered as part of the Islamic character of the Medina are the traditional *suqs* (markets) that are in association with a mosque from the Ottoman period: the Ahmed Basha mosque. Given this strong presence there is a need for the Medina of Tripoli—pentagonal in form and encased by solid masonry walls—to be restored rather than demolished for modern design. Indeed, during the 1980s the government recognized this need and initiated the Medina Project of 1984, but this effort

while preserving and stabilizing religious and other public and historic buildings, largely neglected addressing the needs of the deteriorating housing in the Medina. Because the Medina has such important historical, cultural, and heritage resources, it needs immediate and strategic planning to secure proper preservation for its entire fabric (Rghei and Nelson 1994).

## General History of the Medina and Its Deterioration

Because of the paucity of media sources available about Libya due to the lack of communication with the outside world during Gadaffi's rigid government (1969-2011), many reliable sources are older in origin. However, especially since the 2011 uprising, more material in all media types has become available in both Arabic and English.

From much time spent in her childhood and youth at the homes of family members in the Medina, this researcher remembers well the complexity of some parts of the street plans that promoted a simultaneous sense of privacy and intimate contact. She understands the need for conservation to preserve the Old City as a witness to its historic and cultural place in society and also to preserve it as a milestone historic marketplace district. During the development of its history, the Medina passed through several stages and changes as a space that was influenced by social, political, cultural, and economic factors, and that entire area still reflects the impact and vision, or lack thereof, for the city. In addition, the population, economics, and growth of urbanism in recent decades determined the significant influences that affected the characteristics of the Medina's space—a primary one being migration of new populations into the Medina. This research showed that the residents, a mixture of Libyans and immigrants, first tried to make

themselves comfortable with the space in their environment and then dealt with the social, political, cultural, and economic factors.

The Medina, although having distinct boundaries, is tied to the larger urban area of Tripoli and even though the Medina is known as a historical place, the function and activities of the Medina still make it one of the focal areas in Tripoli because of its downtown location and proximity to transportation, religious institutions, and market facilities. The structure of the place and its context are a mix of economic, social, political, cultural, religious, and ethnic influences; it is this mixture that has made the difference in the texture of life there. However, this distinctive urban character of the Medina has been affected by rapid population growth in the last four decades from 1969-2014, during which the Medina's population has expanded beyond 10,000 (Census 2006).

This population includes an enormous variety of residents: both majority and minority groups. The first group of residents consists of Libyans who are originally from Libya and have inherited their places in the Medina from their ancestors. The second group of Libyan residents comprises those considered Libyans by Libyan law and the revolutionary political decisions after 1969, especially Law Number 4 (Congress 1978) when agreements were made, especially between the Libyan government and other African countries, to promote immigration to Libya; these people are largely documented and undocumented immigrants from Africa and the Middle East. The third category of residents includes the documented immigrants who have lived in Libya and particularly in the Medina for more than thirty years. The fourth group encompasses owners of usually residential buildings, including those who own buildings in the Medina that were inherited from their ancestors or owners who have been deprived of them under Law

Number 4 (Congress 1978) which dictated eviction and expropriation in the name of public interest.

The law states in Article 1, “The ownership of residence is regarded as sacred and should not be stripped for public use.” However, in Article 3, it states, “In all circumstances, [those buildings stripped for public use] will pass to the state’s ownership regardless of the owners of these real estates except that which is owned by public figures and the public authorities which serves the public’s interest or owned by the foreign embassies.” Article 4, the crucial and most radically disruptive part of the law states, “No citizen [man or woman] is allowed to own more than one house, or one piece of land suitable for residence, even if a man is married to more than one wife” (Congress 1978). This law changed building ownership and classification, giving title to some buildings to those who lived or worked in them without compensation to the owners. The law of September 1952 may be a descendent of measures by Gamal Abdul Nasser in Egypt of agricultural land reform, known as the Agrarian Reform Laws that took land from rich landowners and divided it among their workers (Congress 1985).

Both laws were attempts at property and wealth redistribution. In Libya, the ownership of these buildings was directly manipulated by the government for political and ideological ends—to win the support of some sectors of the population, often immigrants. Though many in the group of longtime property owners are no longer residents in their buildings in the Medina, they are deeply invested in the fate of the Medina, spend much time there, and are in many ways indistinguishable from the groups of longtime residents who still live in the Medina. In most cases, they, their family, or family members once lived in the Medina and often some family members still do. All

the resident and non-resident owners participate in the space in different ways proportionate to their ability and perceived sense of having the right to do so. Most of the residents, even if native Libyans, come to the Medina with a citizenship classification, so one crucial question is whether these citizens created by Libyan law believe they have the same right to carry on their lives in their own fashion as longtime residents do.

## Migration and Its Effect on the Medina

From their beginnings, human beings have migrated on journeys ranging from a few miles to heroic travels across huge areas. Some people have moved because of natural disasters and forced migration; others sought adventure, power, new lands, and challenging opportunities (Adepoju 1995). Some migration started when the stability of the common lifestyle changed; most of the changes were in the basic components of political, social, economic, ethnic, and religious circumstances. Migration can be divided between the optional and mandatory; part of the challenge in understanding the circumstances and historiography of the groups of migrants was following their paths of travel from one location to another and determining why they chose that particular place. Another view by Bayat (2004) is that immigration is "driven by the force of necessity…people set about such ventures individually, often organized only around kinship and friendship ties…[they] embark on long migratory journeys, scattering to remote and often alien environs, acquiring work, shelter, land, and living amenities" (Bayat 2004, 91). This researcher has determined that when analyzing the backgrounds of the immigrants, it is easier to determine from their interviews whether or not their migration was optional or compulsory.

Ravenstein (1885), an English geographer regarded as the earliest migration theorist, developed the "Laws of Migration." He determined that migration was governed by a "push-pull" process where unfavorable conditions in one place (limited economic opportunities, heavy taxation, and oppressive laws) "push" people out, and favorable political, economic, social, religious, or ethnic situations "pull" them toward an attracting country. The dominant theories in contemporary scholarship are essentially variations of Ravenstein's conclusions. Lee (1966) updated Ravenstein's theory to emphasize internal "push" factors. Lee also outlined the impact and influence that intervening obstacles and variables (age, gender, social class, education, distance, dependents, and physical and political barriers) have on the migration process. Yet many scholars point to a more complex set of factors affecting migration and address it in terms of broader forces, such as economic, political, cultural, structural, social, or environmentally-based factors while others argue that the reality is much more complex (Özden 2007).

It is necessary to understand the circumstances and historiography of the groups of migrants from following their paths of traveling from one location to another and determining why they chose one place over another. Step migration is considered a target point of migrants to obtain their resources in one place and then move to another site on their journey to a final destination. These migrants move from one location to another to escape the conditions of negative economic, social, political, ethnic, or religious situations while taking advantage of their natural right as humans to have a suitable life; these rights have become more obvious as population has increased so significantly throughout the world. "Over one-third of world migration is from developing countries to developed countries; only about a quarter is between developing countries, and a sixth is

between developed countries...Africa accounts for 8 percent of Western Europe's migration and much less of migration to other rich regions" (Özden 2007, 19). Castles and Miller (2009) state that African people are global people because every human being can track genetic roots to the African contintent (Castles and Miller 2009). They also describe migration as "a collective action, arising out of social change and affecting the whole society in both sending and receiving areas. Moreover, the experience of migration and of living in another country often leads to modification of the original plans" (Castles and Miller 2009, 21).

There is no question that migration can transform landscapes and cultures, especially urban landscapes and cultures. Tobler (1995) quotes Lucas (1981): "Migration is comparable to a flow of water or electricity—an adjustment flow responding to pressure differentials at opposite ends of a pipeline" (Lucas 1981, 85). The positive and negative aspects of migration are discussed by Bozanovic (2008) who addresses how migration has a demonstrable impact on the communities of destination. Waldinger (1989) asserts that the challenge is to explore the relationship between new immigration and the changing economic and ecological characteristics of the cities in which immigrants have settled. This researcher was able to see firsthand the effects of the positive and negative aspects of immigration in the Medina. The views of the 150 people she surveyed, interviewed, and had draw mental maps of their concept of the Medina reflect their opinions on migration. Researchers who have analyzed the receiving and home countries of immigrants have studied what has influenced individuals and groups in their immigration and preference of lifestyle.

Castles and Miller (2009) realized that governments and people face real dilemmas when they try to respond to the challenges of globalization factors in an increasingly mobile world. Sassen (1988) argues that international migration follows directly from the globalization of the market economy. Current patterns of international migration tend to be from the countries in the developing nations extending to developed nations because industrial development in the First World initiated structural economic problems and thus "push" factors in the Third World (Massey 1990). "Migration, both within and beyond borders, is a prominent theme in domestic and international debates" (Development 2009).

Most scholars like Adepoju (1995), Ravenstein (1885), Lee (1966), Sassen (1988), and Özden (2007) worked with the idea of places of leaving and receiving countries; their immigrants' stories gave information to this researcher on the background behind their migration. Moreover, these scholars' theories in some documents centered on the general push-and-pull theories and in other sources concentrated on the tiny details to analyze why individual immigrants chose one place and ignored others even if they were in the same region. This researcher heard many immigrants' stories of how push-and-pull had acted on their life choices.

To understand more clearly the importance of Libya in the migration issue, the following facts give the background. The second time that the name of Libya was officially used was in 1911 when Italy conquered Libya. The first time was in Roman times and then the name returns again later during the First Ottoman Empire (1551-1711) and Second Ottoman Empire (1835-1911). Libya was returned its name by a United Nations decree on December 24, 1951; in the meantime, it had been known as three

states: Tripolitania, Cyrenaica, and Fezzan. The Tripolitania area in which the Medina was located was distinguished by its strategic location on the Mediterranean Sea. Even though the name of Libya appeared and disappeared over the centuries, the region was considered a migration target destination for centuries. The political and economic power represented by the tribal relations and regional economies was the consequence of the location and the size of Libya. Libya and Tripoli, in particular, are located in a strategic position central to the northern African shore of the Mediterranean Sea and Tripoli is the closest port in the region to Europe; it is also the terminus of a network of trade and caravan routes out of central and east Africa.

Politically, the Second Ottoman government dominated the coastal cities more than the strong tribes inside the region even though the government collected taxes from all three regions of Tripolitania, Cyrenaica, and Fezzan. The tribes associated with the Ottoman Empire formed alliances with other tribes; this had a strong effect on political structure, family ties and relationships, and their economic environment. On the one hand, until the nineteenth century, the borders of Tripolitania were connected with Tunisia, Cyrenaica with Darfour and the west of Egypt, and Fezzan was connected with Sudan (Haneda 1994). This connection between the three states and their neighbors enabled the people of Africa to value the caravan routes, to become acquainted with the known areas and routes of trade and travel, and helped to establish regional economies. On the other hand, intertribal relations spread throughout the area. Tribes in the vast expanses of the central Sahara infiltrated the borders of the regions and states, and this triggered the merger between the tribes of the interior; it also secured the caravan routes.

The tribes built their financial structure, became independent economically, and did not need to be under the Ottoman Empire's control.

This concept influenced others outside the area who wanted to do business or find a more suitable economic environment. The position of the Tripolitania state and the Mediterranean Sea trade markets in North Africa were connected with Tunisia from the west and others from the southern part of Africa. When the Africans and other countries' residents were under "push" circumstances from poverty, racism, and ethnic massacres, people used these known places as target destinations to escape their tragic conditions and move to more promising places. These significant situations made the complete region of Tripolitania, including the Medina, the urban trade destination of the caravan routes and of immigrants who followed these routes out of east central Africa. In this context, waves of immigrants were encouraged during the nineteenth and twentieth centuries to choose the Medina as a final stop or one of the stops toward further migration destinations in Europe.

Libya has definitely been a transit country for people who want to better their situation in life, but in the late twentieth century, Libyan authorities began to face the situation that an increasing number of immigrants had been allowed to come into the country without any control or regulation by any governmental or non-governmental agency; this lack of supervision did not provide protection for either the immigrants or residents. As a result, immigrants could be victims or could bring criminal activity and diseases, such as HIV/AIDS (Parker 2007).

Migration in either the optional or mandatory form emerges as a solution and means of survival for millions of people. The waves of migration from the nineteenth century to

the present, caused by natural or human situations or disasters, exposed the urgent need for human survival and safer and more respectable living situations. The traditional push-and-pull theory as well as recent theories demonstrates the complexity of migration. Most migrants go directly to the receiving country, but some chose step migration to shorten their trip before heading on to their final destination. Migrants moving from sub-Saharan African countries into the Medina have had both positive (they lived in homes that were empty and revived the city) and, as viewed by some, negative (they changed the function and design of some parts of the city) influences.

Libya emerged as an attractive place for migrants either as a step migration site or for settlement, and all of these circumstances factored into the changes, for better or for worse, in the Medina, Tripoli, Libya. Successive waves of migration caused many problems in the Medina because the migrants did not know the area or the culture, had no historical memory of the Medina, and their living situations created important issues needing examination.

## The Conceptual Frameworks

The framework of the entire study focused on the identity of the Medina in Tripoli, Libya, by concentrating on the production of space, the right to the city, urban informality, mental maps, and GIS.

### Production of Space

The tools of sociology, economics, geography, and other social sciences are used to study city life, government, and services and also examine the processes that produced certain patterns of human settlement, such as the metropolis and countryside, city and suburb, and municipality and region. Even though urbanism is not the only factor

responsible for changes to society and urban planning itself, most people move from one place to another for better lives and opportunities; that happened under urbanization as the result of the development of a city where the migrants could move; and it also happened between countries (Torrance 1995). In an urban studies framework, the dynamic of the interaction between people and space is an attempt to achieve justice; balance occurs among three components: 1) power, 2) interest, and 3) space (Lefebvre 1991, 139). The power of governmental positions, agencies, owners, and organizations can affect the lower-ranked people's rights and the structure of society and cities by exerting negative and unequal influence on space, the people's sense of equality, and their sense of receiving an equitable share of the rewards of urban life. The second component, interest, can include all people who are interested in the place and have a strong relationship with the place either through culture, inheritance, political influence, and/or economic investment. Space, the third part, exists when the first two masses are connected and is the stage for operations that are related to society, politics, economics, and other activities.

Focusing particularly on old cities, Haneda (1994) asserted that in the Islamic world urban studies should be given "a new framework and methodological direction" (Haneda 1994, 9). Agnew, Mercer, and Sopher (1984) illustrate the consequences that urban settlements had on the conduct of urban life. They state that the concept of the city is a problem and that our approach is often from the point of culture.

Libya is a rich example of this mixture in which urban planning, both ad hoc and deliberate, progressed gradually and often sporadically from underdevelopment as a poor country, to development with the discovery of oil, to overdevelopment through rapid

population growth and the lack of strategic planning which increased the random construction of buildings from 1951 to 2010 (Haneda 1994). The mixture of the lifestyle of the residents' backgrounds and the effect of culture can produce special characteristics of communication between spaces and people. Teriba (1976) clarifies this issue when he writes that development in a national context involves institutions, organizations, social rules, customary usages, and attitudes being transformed by society. In agreement, Taylor (1998) states that "urban planning is a form of social action, or a social practice; it is about intervening in the world to protect or change it in some way…[it] draws on both aesthetic and scientific understanding…that is about how best to plan the environments we inhabit" (Taylor 1998, 167).

It is the responsibility, therefore, of urban studies and urban planning to promote that "aesthetic and scientific understanding" by engaging the perceptions of all stakeholders, not just those with the greatest power over the space, but those with the most intimate interest in the space and its inhabitants (Taylor 1998). The lack of social organization and adequate infrastructure is made worse when the country is developing and has a large influx of population. According to Gottdiener and Budd (2005), social and economic urban development must be accomplished with the preservation and protection of the earth's resources for present and future generations.

Even though most of the old cities in Libya, including the Tripoli Medina, were established in different eras before and after the time of early Islam, these cities have been continuously shaped by the culture and the normal activities of the residents. It has long been the view that the growth of older urban spaces from villages to larger units has been random and unplanned, not just in the Islamic world. Although older cities in

general, and the Medina in particular, might have diverse cultural backgrounds, significant communication has always existed between the ideology of the residents' practice of their lifestyles and urban planning that shaped these spaces to meet the inhabitants' needs.

Urban planning is defined here as the aggregate of the activities of people who live in a space, and who shape, "plan," and produce a space but without necessarily the concept of projecting into the future a preconceived vision that "planning" implies (Lefebvre 1991). Over time the accumulated palimpsest of their perceptions, beliefs, and activities creates a space and an experience of space unique to that place. Lefebvre uses the metaphor of the seashell and the animal that inhabits it and creates it to capture the sense of his own home place, the city of Navarrenx in the foothills of the Pyrenees in France. That city has been "shaping its shell, building and rebuilding it, modifying it again and again and again according to its needs" (Merrifield 2006, 116). The change in cities is usually a reflection of how much people understand the society, and, as a result, work to establish balance between what they have and what they need. Those who have lived in a place for a period of time know the place and that becomes part of their personal memory and even when that place becomes "old" and has no valuation for a new generation, they still have some attachment to their childhood; on the other hand, for the new immigrants everything looks old so they cannot distinguish between old and new because it is not in their personal memory and has no attachment to their childhood, family, friends, or a part of their lives. What conservation has occurred comes out of an ideology of heritage or an idea of the inherent value of historical buildings or spaces as souvenirs from the past for future generations. According to Radoine (2008), the history

of places like the Medina is not fully explored as a dynamic process of transmission of urban synergies, but rather is framed into a new invented term: heritage site, which, however, as Roy and AlSayyad (2004) make clear, is a questionable fate for a living city as it almost inevitably leads to gentrification and consequent displacement of the people who have worked to produce that space.

## Right to the City

In focusing on the views of the residents and other interested stakeholders to help understand the situation of the Medina and provide insights for the ongoing discussion of the future of the Medina, this study is in part grounded in the conceptual framework of the "right to the city." In most cities, the diversity of the inhabitants emerged according to their ethnicity, race, and other terms of difference which can create a variety of hopes and interests. The power of property rights can easily affect the political arena that, as a consequence, can have an impact on decision-makers. The connection between power, politics, and economics can best represent place, space, and location as multiple faces. The right to the city adds a new perspective: all the people associated with a city have the right to influence its shape and to experience being in a city.

Lefebvre (1968), with whom the concept of the right to the city is most closely associated, stated that an existing space may outlive its original purpose and *raison d'etre* which determined its forms, functions, and structures; it may thus, in a sense, become vacant and susceptible to being diverted, reappropriated, and used in a quite different form than its initial one. Mitchell (1996) stated that the right to the city theory accepts urban space as the stage of society, politics, and the place of decision-makers. Expression of the right to the city can influence social growth, but that expression can also be harmed

by power elements, tradition, laws, and customs. He also argues that location, space, and place are not just the stand upon which any right is contested, but are actively produced by struggles over rights. Later Harvey (2003) spoke about derivative and fundamental rights and argues that:

> derivative rights (like the right to be treated with dignity) should become fundamental and fundamental rights (of private property and of profit) should become derivative. But new rights can also be defined: like the right to the city which is not merely a right of access to what the property speculators and state planners define, but an active right to make the city different, to shape it more in accord with our heart's desires, and to re-make ourselves thereby in a different image. (941)

Foucault (1994) showed the influence of the government under high population and the correlation between population growth and urbanization of cities within an economic framework. When space values appeared, the interaction of those elements seemed to lead government into a different role. The question may be asked as to which has more impact on urbanization—government or population growth—and how that impact would influence the government system (Foucault 1994).

In Lefebvre's (1968) view and in building his concept of the right to the city, he saw this right as an inclusive right that develops from the very right to life and the right to change the city and the circumstances of life, not just as a result dictated by population growth or as wrought by changes in, and policies of, political and ideological systems. "For those people or social groups who are marginalized finding a space to be seen or heard, or simply to be is vital to their ability to develop a political subjectivity and a sense of worth (Staeheli and Mitchell 2007, 809). People can practice in the city to introduce space equal to their interests and for the social and political practices that shape themselves. This concept is much like what Bourdieu (1990) defined as *habitus*, "a

system of structured, structuring (unconscious) dispositions constituted in practice and based on past experience which perpetuates itself into the future" (Bourdieu 1990, 56). He uses habitus as a concept for understanding society and the process of social change which can produce and reproduce social structures (Bourdieu 1990).

The right to the city does not have a specific mechanism; it is more a stance or perspective that would allow, encourage, and mobilize ethnic, racial, religious, and minority groups—all groups—to have freedom to change the city both in its physical fabric and the ways in which it is used and experienced. "The right to the city cannot be conceived of as a simple visiting right or as a return to traditional cities. It can only be formulated as a transformed and renewed right to urban life" (Lefebvre 1968, 158). Lefebvre's ideology would rebuild the power relations that are considered as urban space and would spread the authority from the central urban spaces into the areas of urban inhabitants.

## Urban Informality

One way of conceptualizing what has happened in the Medina is to look at it through the framework of "urban informality." Roy and AlSayyad (2004) explained that informal settlements and habitation around city cores in the Third World is nothing new but since the last decades of the twentieth century it has changed, driven largely by economic forces—namely globalization—and its scale has expanded. Yiftachel and Yakobi (2004) define informal development as "spatial dynamics that are not shaped, controlled, or sanctioned by the state [and]…recognized as a major component of urbanizing regions" even if, in fact, they constitute a significant portion of new urban growth (Yiftachel and Yakobi 2004, 209). Unlike in other situations around the world

where informal settlement most frequently occurs on cheap land at the fringe of a city and involves new construction (Roy and AlSayyad 2004; Gilbert 2004; and Hasan 2003), the Medina is a case of the core of a city being transformed from formal to informal space as a result of ineffectual law and government policy as well as radical measures to redistribute wealth and property. As it has become more informal, the once clear identity of the Medina as a historic character has faded and become difficult to find. The question addressed here is how did the Medina arrive at this state?

## Mental Maps

Mental maps were the chosen method of research for the people of Tripoli who had some association with the Medina. Gould (1975) as quoted in Goodey (1974) defines a mental map as one which can be described as an image derived from the real world that people carry as a guide to their spatial activities. Goodey (1974) states that, "research into these perceived images of space and into mental maps is advancing rapidly and associated with it is a growing interest in the role of personal and mass communications in shaping these maps" (Goodey 1974, 24). One of the purposes of the mental maps used in this research was to determine areas of perceived deterioration in the Medina based on the informants' beliefs and opinions about the changes and deterioration of the Medina over the last four decades. The maps helped the informants reflect about the old buildings that surrounded them and distinguish their changes and deterioration.

Creating images of lived-in space, whether in the mind or in recorded formats, has been common throughout human history. Geographers such as Gulliver (1908) and Trowbridge (1913) studied how people have graphically represented their surroundings. Tolman (1948) used the term "mental maps" in the field of cognitive psychology to

describe how people navigate through space, especially familiar space, and the term has been adopted for the imaginary maps people carry in their minds as they move in geographic space (Dalton and Bafna 2003; Graham 1976).

Most people can learn to navigate in their surroundings or even in unknown territory, but sometimes with much effort and indecision. For the researcher, acting from individual mental maps involves moving through space and finding places which have been grounded on an individual's known sense of direction. "The mental map is essentially structured by the spatial elements, which then may be elaborated, or fine-tuned by the addition of visual elements" (Dalton and Bafna 2003, 3). Mental maps contain information not just on physical space but often on its more ephemeral qualities. Gould (1975) stated that:

> one of the shared areas of scholarly and practical interests to emerge…has been the broad subject of environmental perception and cognition…behavior frequently appears to reflect the images…of the social and physical environment around them, rather than the 'true' environment—whatever that might be, and however it might be defined and measured. (13)

Matei, Miller, Arns, Rauh, Hartman, and Bruno (2007) assume that geo and temporally contextualized information was of much more value than information without contexts. They claim that society benefits from the variety of situations and contexts that are used to arrive at proper knowledge and understanding by processing information spatially and temporally. They (Matei et al. 2007) describe mental processing and further state that information in context is easier to remember and can affect the manner in which we acquire knowledge:

> We learn, process and store information that is spatially-located more easily than information that is divorced from specific locales or temporal frameworks. We are able to retrieve vast amounts of information, meaning, feeling and experience from

> our real world…because we store a good deal of that information using spatial referencing as a main indexing mechanism. (47)

For this reason, all people use mental maps, or a visual display inside their heads, that shows what the person knows about the location and the uniqueness of a place (Graham 1976). This indicates how people receive the information from their environment and how they use their senses to image the world around them. A particular visual quality is that of the apparent clarity or "legibility" of the cityscape (Lynch 1960, 2). Lynch further stated that the image of the city was the result of "[the] process between the observer and his environment. The environment suggests distinction and relation, and the observer—with great adaptability and in the light of his own purposes selects, organizes, and endows with meaning what he sees" (Lynch 1960, 6). Lynch concluded, "The image of a given reality may vary significantly between different observers" (Lynch 1960, 6). This researcher argues that even though people can use their images to structure the city, there are some factors that can affect their mental images: education, age, size of the city, economic situation, and society. Mercer (1971) stresses that, "the notion that such factors as place of residence, mobility, socio-economic status and personality influence the variable perception of the structure of large urban areas is now almost regarded as a *sine qua non* of studies of the spatial aspects of consumer behavior or residence change" (Mercer 1971, 133).

**Geographic Information Systems (GIS)**

GIS, an integrated collection of software and data used to view and manage information about places and analyze their relationships and model spatial processes, is one of the mixed methods and tools which play an important role in analyzing populations (Borruso 2009). Pamuk (2004), in his case study of San Francisco, shows

how ethnic clusters are identified using GIS and the United States Census. He identifies the two main forms of ethnic clusters: ethnic enclaves and ethnic communities. Massey presents theories and origins of international migration and asserts that the understanding of migration theories helps to absorb the waves of immigrants throughout time (Massey 1990).

Bishop, Escobar, Karuppannan, Williamson, and Yates (2000) state that new and innovative solutions are continuously being explored for cities in developing countries. GIS and the underlying spatial data infrastructures appear to offer significant potential to assist in managing human settlement in developing countries. "Cities in developing countries have embraced GIS and the supporting spatial data infrastructures (SDI)…in contrast, for most cites of the developing world such spatial information related activities are undertaken manually if at all" (Bishop et al. 2000, 86).

According to Xie, Chenglin, Huang, Claramunt and Chandramouli (2005), "Geographical Information Systems (GIS) can be employed to model urban growth with a higher level of spatial accuracy" (1). They reached the conclusion that no single model "appears to perform consistently well when applied to different geographical locations" (Xie et al. 2005, 9).

In the work of Carver, Abad, Echeverria, Da Casa, and Celis (2001), GIS is, as referenced by Stillwell et al. (1999), a decision support tool which is widely used in the field of environmental planning. They recognize that a lack of familiarity with technology can hinder progress in this field and that those issues still need to be addressed. Xiao, Shen, Ge, Tateishi, Tang, Liang and Huang (2006) used GIS and remote sensing in their study of urban needs in China. Urban expansion from 1934 to 2001 had

both fast and slow growth stages according to the temporal and spatial characteristics. In their project in northwest China, Dai, Lee and Zhang (2001) realized that "urban land-use planning often requires a large amount of spatial information" (257). They show that GIS methodology functions well for geo-environmental assessment.

Lopez and Lukinbeal (2010) in their study of crime in Phoenix, Arizona used a mixed-methods approach combining mental mapping with GIS, first-hand observation of the community, and interviews. The implications of their research on future endeavors in crime, mental mapping, and qualitative GIS can show how comparative analysis can be deployed to help mediate perceptual differences.

Stevens, Dragicevic and Rothley (2007) proposed a tool, iCity—Irregular City, for the predictive modeling of urban growth. The tool was developed "as an embedded model within a common desktop geographic information system 'GIS' to control modeling operations for urban land-use change" (Stevens et al. 2007, 762). They are convinced that incorporating iCity with municipal GIS will permit both "planners and other city officials to more easily use the benefits of predicting dynamic urban models and integrate them in collaborative spatial decision making processes" (Stevens et al. 2007, 772).

## Methodology

The study was originally initiated to explain the differences in the physical character of the Medina according to the informants' opinions, observations, understandings, and the intellectual conceptions of the residents, both Libyans and immigrants. In this study, urban theories, urban methodologies, and Islamic studies have provided the resources to advance the analytical approach of identifying and quantifying

one characteristic—the deterioration of the Medina. Also, for the purpose of helping the informants to draw their complete mental map images, the researcher asked them about four fields: Islamic buildings, daily trip paths, areas of high density population, and deterioration areas; all this was in the interest of analyzing areas of significant deterioration.

## Use of Mental Maps

A map sheet was used by informants to draw their responses to the mental map questions. The map sheet included important details of the Medina's six quarters' borders, location, main streets, and historical names and landmarks of the famous buildings. The base map developed by the researcher was divided into the six traditional quarters: 1) Bab Bahar, 2) Homat Elbaldia, 3) Koshet Alsafar, 4) Alhara Elkebera, 5) Alhara Elsegera, and 6) Homat Gerian.

The informants for this research were from a variety of backgrounds and consisted of 150 females and males over eighteen years of age who were divided into four groups: seventy were a mix of the Medina residents, both owners and renters who lived inside the Medina; twenty were former residents who owned houses inside the Medina but lived outside the Medina; forty were from the Management of Historical Cities (MHC) staff; and twenty were from the Engineering Counsel Office (ECO) staff. The MHC and ECO staff opinions were important because all were decision-makers who had a store of knowledge about the details of planning changes and history from the time of the monarchy and were familiar with the Medina's quarters and streets.

The informants' mental maps resulted from responses to twelve questions divided into three questions for each of the four fields. The first step relied on dialogue between

the interviewer and the informants to explain the mental map questions; for the second step, the informants used four different colored pens to draw polygons or lines to identify their choices: *magenta for Islamic buildings, green for daily trip paths, orange for high density population, and yellow for areas of deterioration.* Each informant determined the size and shape of the polygons and lines they drew. Those colored polygons and lines represented the interviewees' opinions, conceptions, and ways of thinking and became the basis for the GIS mental map layers. These hand-drawn features were then digitized using a large format tablet to create a digital version for use in GIS.

GIS processing began with the creation of a geodatabase in ArcGIS 10.1 (ArcGIS 2014). The digitized features from the informants' mental maps were stored in this database as vector feature classes. These vectors were then converted to rasters in preparation for map algebra. The map algebra summed the rasters to create collective opinion surfaces (COS).

Another important data source was a survey of property in the Medina by the MHC. In 2010, the MHC surveyed every building in the Medina, classified them into six categories to facilitate Libyan urban planning. The researcher used the MHC map as a source for documentation of condemned properties. The researcher digitized every building in the MHC property classification map for comparison to the informants' COS maps.

**Survey**

As noted for the mental maps, the informants for this research came from a variety of backgrounds and consisted of 46 females and 104 males over eighteen years of age who were divided into four groups: seventy were residents of the Medina, both property

owners and renters; twenty were former residents who owned houses inside but lived outside the Medina; forty were THE MHC staff; and twenty were ECO staff. All informants were familiar with the Medina's quarters and streets. The residents, both Libyan and foreign-born immigrants, had either lived in the Medina more than five years or owned their properties for more than two generations and were considered Medina inhabitants. The former residents were important because they had once lived in the Medina; some were from families who had lived there for more than one hundred years. The forty MHC staff had worked for a considerable time in projects for urban planning of the Medina; they were accepted as decision-makers. The twenty ECO staff worked in the Medina as part of the whole project of the new Tripoli and Libya. The opinions of both THE MHC and ECO staff members were important because all were decision-makers who had a store of knowledge of the details of planning changes and history from the time of the monarchy to the present.

Some problematic obstacles affected the work because the period of the interviews came after the 2011 uprising had just settled down in Libya. The researcher had informed the informants that this study of urban planning was a private enterprise endeavor from the University of Arizona in Tucson, Arizona, and had no relation to the Libyan government's objectives. Even with this information, all residents were sometimes confused by the questions as well as the new political situation in Libya; thus, they had to be reassured that the research was independent from the government. Despite these reassurances, some interviewees took more time to interview than others because they used the interview as an opportunity to complain about their lives and the poor state of the Medina's infrastructure and tried to pass on their demands to the government through

the researcher. Moreover, it was necessary to explain the questions to some of the informants because they were not able to read and speak Arabic.

## Summary

The first article used the GIS tools, survey questions for the mental maps, and mental map sheets; the methodology of the second and third articles was based on the survey instrument questions including the map. The following section includes the introductory summaries of the three articles that compose the body of this work.

The following three articles have been, or will be, submitted for publication in professional journals.

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# CHAPTER 2

# SUMMARY OF APPENDICES A, B, AND C

# APPENDIX A

Appendix A incorporates the responses from the mental maps to represent the accumulated views from a variety of stakeholders and interested parties about the Islamic buildings, common routes of transportation, areas of deterioration, and population densities; however, Appendix A focuses only on the areas of deterioration and analyzes the informants' opinions as qualitative data on the areas of deterioration as they depicted them on their mental maps in contrast to the quantitative data in the MHC map of condemned buildings. Use of the GIS methods helped to conduct spatial analysis of the study area's results.

The core findings represented in Appendix A are these: 1) all informants were in basic agreement that there are really two Medinas—one consisting of Islamic and public buildings which are in much better condition than the second, the residential areas of the Medina; 2) informants were also in basic agreement that the area of greatest deterioration was in the western half of the Medina where there is the highest concentration of housing. Although their views differed somewhat given their different responsibilities, both the MHC and ECO staff members had a much finer grained understanding of the areas of deterioration as compared to other informants—the MHC staff had the most detailed perception of all. The methodology (mental maps, survey, and GIS tools) used for this research enabled the informants to more easily understand the purpose and process and allowed the researcher the data needed for the GIS analysis; for more accurate results, the Kolmogorov-Smirnov (K-S) test was used.

## APPENDIX B

Appendix B first reviews the various agents of change/decay that have influenced the urban fabric of the Medina over the last century, especially in the last forty years. Those agents brought it to the state it is in today, a place that has received some preservation and conservation attention, but a place that has no long-term plan or vision applied to it—either from within or from without. The change agents include governments, both domestic and colonial and their laws and regulations, various planning efforts in different periods, acknowledgment of population growth and economic development and the influence of the residents for what Lefebvre calls their "right to the city." The article's main focus is a review and analysis of survey data from the residents of the Medina, both Libyan and immigrants, an examination of responses to a range of questions as to their perception of their quality of life living in the Old City, and the degree to which they believe they can influence their living circumstances in an urban informality setting.

The basic findings are these: 1) residents attempted to find their satisfaction in their living situation and that caused an effect on the infrastructure of the Old City. As a result, the condition of buildings under the urban planning umbrella has fluctuated between the need for the maintenance of the residents' life and conserving the historic buildings; 2) the residents were not able to distinguish between their needs and satisfaction very clearly and also between individual and community needs. People were acting according to their political and economic situations of the moment. Moreover, some minorities and majorities believed that it was their right to obtain what they wanted regardless of any consideration for others. Most residents reflected that urban planning and conservation

ideas were simply general imitation or blind imitation of others' ideas; and 3) it is unclear what will change in urban planning for the area of the Medina if the residents do not have better access to appropriate benefits and a real voice in the process. Some believed they had such a voice, but under the Gadaffi regime, that was largely an illusion.

## APPENDIX C

Appendix C focuses on the environmental effects in the Tripoli Medina of Libya which have been accepted as a productive field for study in recent times. Because of neglect in the overall planning of the Medina, the city may lose its identity due to the lack of linkage between the residents and a historical perspective. The Medina has such important historic, cultural, and heritage resources and needs immediate and strategic planning to secure proper conservation. Some of the monuments from the Greeks, Romans, and other civilizations have been preserved because of the Islamic sense of history and architecture, but more attention needs to be addressed to the fabric of the Medina.

In part, this paper looks at what has happened in the Medina through the framework of "urban informality." Roy and AlSayyad (2004) make clear that informal settlements and habitation around city cores in the Third World is nothing new but since the last decades of the twentieth century it has changed, driven largely by economic forces—namely globalization—and its scale has expanded. Yiftachel and Yakobi (2004) define informal development as "spatial dynamics that are not shaped, controlled, or sanctioned by the state [and]…recognized as a major component of urbanizing regions" even if, in fact, they constitute a significant portion of new urban growth (Yiftachel and Yakobi 2004, 209). Unlike other situations around the world where informal settlement most

frequently occurs on cheap land at the fringe of a city and involves new construction (Roy and AlSayyad 2004; Gilbert 2004; Hasan 2003), the Medina is a case of the core of a city being transformed from a formal to informal space with the tacit approval of the government as a result of ineffectual law and government policy as well as radical measures to redistribute wealth and property. As it has become more informal, the once clear character of the Medina's identity as a historic city has faded and become difficult to find.

By analyzing the property categories' characteristics and percentages, the impact of, or lack of, conservation of the Medina could be closely examined together with relevant responses of informants as to this issue. Especially useful was finding the percentage of the area for each category; this helped to determine the properties according to their original historic *shari'a* (Islamic law) and Libyan law.

The basic findings were these: 1) most residents' concerns about their economic situation and the condition of the buildings were more closely related to their daily lives than any concern about the Medina's conservation, its historical valuation, or the city's plans; 2) it was surprising to find how widespread the number of squatter properties was and even more surprising how evenly they were distributed throughout almost all quarters of the Medina; the researcher, by managing the MHC data using GIS tools, found that areas of condemned buildings and squatter occupancies interpenetrated nearly all quarters of the Medina, even those with the greatest concentration of Islamic and public structures; 3) by-in-large waqf properties were maintained despite the dissolution of the ministry responsible for their administration. Those properties did not fall into the squatter category; nor were waqf buildings modified in their function; and 4) when

buildings became empty in the Medina because people left, such as happened in the Jewish quarters or when Libyan owners no longer had family members to occupy the buildings, these properties came under the control of the MHC, became known as city contract buildings, and received little maintenance. What has happened is that the Medina that at one time was formal in its structure and maintained under long-standing social norms and legal arrangements has been transformed into a checkerboard of formal and informal spaces.

# CHAPTER 3

# CONCLUSION

# CONCLUSION

The Medina (the Old City) in Tripoli, Libya, one of the oldest cities in the Arabic world, faces challenges in urban planning for its sustainability, preservation, and conservation. One concern was how the buildings in the new developments which surround the Medina could affect the city's future and another was the conservation of the physical structures which were affected by residents' activities. The Medina was a fertile place to study and this research, using a traditional survey instrument, along with mental maps and GIS methods, converted social information to GIS data and helped to ascertain the challenges of maintaining and preserving the Old City as a place of historical worth. Using mental maps and converting the results to GIS data was needed to understand the social concepts while the current status of the city required studying the residents and interested consultants' responses to indicate possible directions for the Medina's future. This work helped to create GIS data consisting of spatial data and demographic data, and also, to understand the relationship between the Medina and the people by studying their efforts in urban planning and conservation of the Medina.

The method of classification of mental maps' questions about Islamic buildings, paths for daily trips, areas of deterioration, and areas of high population density made the information clearer and more organized for the informants to participate through the mental map study. Moreover, by this way of categorizing the ideas, the responses covered the most important information about determining the historic data of the Medina. Also, this data concentrated on the ideas from the mix of multiple residents, engineers, and planners while attempting to understand their way of organizing their priorities. Even though the mental map responses were based on the informants' observations, the situation of the structures, the size of the Medina, and the transportation type that

dominates—walking—helped informants generate their concepts and draw their opinions; the informants' opinions indicated that they considered the most condemned areas as residential areas, but the MHC's map of condemned buildings shows, that in reality, the most condemned areas were in two quarters: Alhara Elkebera and Alhara Elsegera.

The residents vacillated between the three masses of power, interest, and place that manipulated their desires in the Medina. Most of the cities' formal urban planning efforts have been projected by governmental or non-governmental organizations. The study tried to make suggestions about the need to change urban planning from just a focus on the buildings to creating a balance between what the residents need and what they have in reality. The various agents of change/decay brought the Medina to the state it is in today, especially in the last forty years, a place that has received some preservation and conservation attention, but a place that has no long-term plan or vision applied to it—either from within or from without. The change agents include governments, both domestic and colonial, and their laws and regulations, various planning efforts in different periods, acknowledgment of population growth and economic development, and the influence of the residents expressing what Lefebvre calls their "right to the city."

By analyzing the property categories' characteristics and percentages, the impact of, or lack of, conservation of the Medina could be closely examined together with relevant responses of informants as to this issue. Especially useful was finding the percentage of the area for each category, which helped to determine the properties according to the shari'a (Islamic law) and Libyan law. The basic findings were these: 1) most residents' concerns about their economic situation and the condition of the buildings were more

closely related to their daily life than any concern about the Medina's conservation, its historic value, or the city's plans; 2) even though the squatters received support from Law Number 4, some properties, usually the waqf properties, were not affected by squatters; 3) it was surprising to find how much area was designated as squatter property and even more surprising was how evenly they were distributed throughout all the quarters of the Medina; and 4) the GIS results will provide a foundation for the MHC and ECO plans for rehabilitating, conserving, and preserving the area of study. In addition, by organizing the research in this way, it was possible to make a statement from the social side to obtain information and build the GIS data that would combine with other data, like that from the MHC's existing documents and from expert engineers. This researcher hopes that the methods used and conclusions gained from this study will open a new vista for urban planners to create neighborhoods so that residents could experience their right to the city and will also be useful to other cities with similar challenges to help them plan a framework for their efforts to preserve their cities.

# APPENDIX A

## Incorporating Public Perception in Preservation Planning for Historic Cities: a methodology using GIS and mental maps in the Medina of Tripoli, Libya

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## ABSTRACT

Incorporating the opinions of stakeholders is a challenge for urban planners, particularly when neighborhoods and buildings are important to the history of an entire country. This is the case with the Medina (the Old City) in Tripoli, Libya. The methodology proposed here takes a participatory approach (collecting and analyzing the opinions of a variety of people about deterioration in the Medina) and compares these to a survey of condemned buildings carried out by the Management of Historical Cities (MHC), an agency of the Libyan government. The findings of this research are helping to form a viable strategy for residents, former residents, interested people, planners, and developers to understand how people's perceptions can affect the conservation efforts for historical cities. The use of geographic information system (GIS) technology provided results depicting the similarities and differences between the informants' opinions and the survey of condemned properties carried out by the MHC.



Key words: Medina, Islamic city, deterioration, identity, geographic information system (GIS)

## Incorporating Public Perception in Preservation Planning for Historic Cities: a methodology using GIS and mental-maps in the Medina of Tripoli, Libya

### Introduction

Incorporating the opinions of stakeholders is a challenge for urban planners, particularly when neighborhoods and buildings are important to the history of an entire country. Compounding this challenge is that everybody seems to have different opinions about the current state of affairs and how best to conserve their city. In this paper, the researcher is presenting a methodology for capturing the collective opinion of population groups by using a survey, gathering data from mental maps' data, and using geographic information system (GIS) technology to combine and manage them. The aim is to develop a methodology that is useful for urban planning and in particular for conservation in the Medina of Tripoli, Libya which has undergone a long period of unplanned change and deterioration.

The Tripoli Medina has been the focus of many studies but this is the first geographic study to collect mental maps and use them in a GIS database for analysis. The purpose of mental maps in this particular study was to identify areas in the Medina that informants believed were deteriorated.

The Tripoli Medina was selected for many significant reasons: first and foremost are its multiple historical and cultural attributes which exhibit a variety of historically and archaeologically significant sites and styles from many previous cultures; another factor is that the Medina is still an active city constantly receiving residents, immigrants, and tourists. Previous studies of the Medina were by engineers who focused on the buildings and the constructed fabric of the Medina and by social researchers who concentrated only

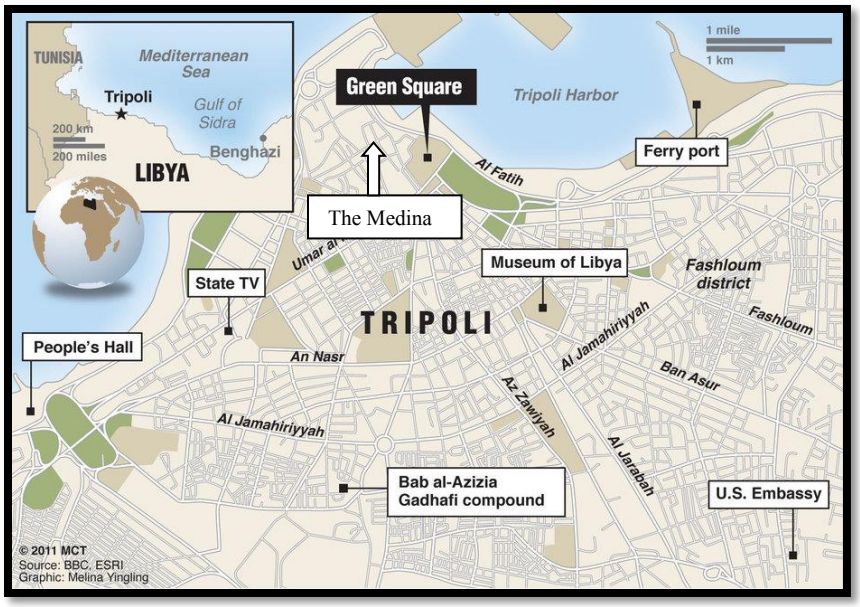
on people and their problems; this study, by a geographer using mental maps and GIS analysis tools, concentrated on the connection between the place and the people, how economics affected the buildings, and how the people related to the buildings and the cityscape.

The Tripoli Medina was chosen because it has not been under strict United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site protection. UNESCO (1972) has a mission in the contemporary world to promote the maintenance and development of the cultural and social values of each nation. In 2011, at a UNESCO international meeting of experts on the cultural heritage of Libya, those professionals agreed that a strategy was needed for assisting the Libyan authorities in ensuring the conservation and management of their cultural heritage. The political changes from the time of Ottoman and Karamanli rule (1551-1911) to the Gadaffi era (1969-2011) and more recently in the transition after the 2011 uprising have affected the state of the Medina, and the new political climate makes possible urban planning efforts for preservation and conservation.

Most old Middle Eastern cities have a mixture of architectural styles including ancient and traditional structures with the inclusion of modern Western style or Western acculturation architecture. Many of the cities have a walled older city, called the madina or medina, surrounded by more recent urban development; this is true in Fez, Morocco; Cairo, Egypt; Aleppo, Syria; and Tripoli, Libya, and any other cities in North Africa.

The city of Tripoli was founded by the Phoenicians during the seventh century B.C. and has been continuously inhabited since that time. The Medina, the old original city, was affected in form and style by various foreign groups: Phoenicians, Greeks, Romans,

Muslims, Spanish, Ottomans, and Karamanlis (1711-1835), the descendants of an Ottoman governor, Ahmad Karamanli. An Italian influence from the early twentieth century is evident in some later buildings, such as schools, churches, and the Bank of Rome. In addition, the Jewish, Christian, and Islamic cultures and religions had a great impact on the architecture.




Source: BBC, ESRI, 2011.

Figure 1. Tripoli including the Old City of the Medina.

Beginning in the nineteenth century, the population of Tripoli began to increase and has done so dramatically to the present; the result is a large urban center surrounding the Medina. Currently, the city of Tripoli has a population over 1.5 million while the population of the much smaller Medina is around 10,000 (Census 2006). The site chosen for the study, the Medina, as well as its buildings and surrounding walls, is forty-two hectares (104 acres) in extent. Formal urban planning for the Medina began during the Second Ottoman Empire (1835-1911). A sequence of Ottoman Sultans undertook extensive building patronage in the city of Tripoli that resulted in complexes of buildings,

streets, and open spaces that combined a central mosque with various religious, educational, funerary, and market institutions.

During the Second Ottoman period, important businesses and other buildings in the larger Libyan cities were improved; telegraph and telephone lines were installed between Tripoli and Benghazi in Libya and districts of the city outside the Medina were divided into areas of study. In 1909, the *wali* (governor) decided to destroy the southeast section of the old wall from the Elmenshia "gate" on the southeast side of the Medina and this extended and created a new Tripoli.

This study used informants who were either residents or who had a close association with the Medina, all stakeholders in some way. Having informants draw mental maps was the chosen method of data gathering in order to determine their perceptions about the changes and deterioration of the Medina that had occurred over the last four decades. Although this paper concentrates on deterioration in the Medina, the survey also included questions about Islamic buildings and areas, the most widely used streets, and high population areas. This paper will compare data about the condition of buildings in the Medina that was collected in a survey by a Libyan government agency, the Management of Historical Cities (MHC), and the informants' perceptions regarding areas of deterioration that were identified in their mental maps. In 2010, the MHC surveyed every lot in the Medina, dividing them into six classes: city contract, unoccupied, owner occupied, squatter, condemned, and *waqf* (religiously endowed property).

The working hypothesis of this study was that there would be some difference in the documented deterioration and condemned buildings in the Medina and the

perceptions of that deterioration by the informants. This researcher hypothesized that this difference would exist but not be large.

## Theoretical Framework: Mental Maps and GIS

The theoretical and methodological framework for this study is founded in a fusion of mental maps and GIS technology. Combining multiple mental maps with GIS technology allows the construction of collective opinion surfaces (COS); that is, surfaces that reflect the collective opinion of multiple informants. The following paragraphs discuss mental maps, GIS technology, and their combination for this study.

### Mental Maps

Creating images of lived-in space, whether in the mind or in recorded formats, has been common throughout human history. Geographers such as Gulliver (1908) and Trowbridge (1913) studied how people have graphically represented their surroundings. Tolman (1948) used the term "mental maps" in the field of cognitive psychology to describe how people navigate through space, especially familiar space, and the term has been adopted for the imaginary maps people carry in their minds as they move in geographic space (Dalton and Bafna 2003; Graham, 1976).

Further development of the concept of mental maps as a geographic tool was done by Lynch (1960) who determined that the technique of sketching was an innovative methodology that could help represent urban space. He also stressed that "there is more than the eye can see, more than the ear can hear, a setting or a view waiting to be explored" (Lynch 1960, 1). Further implementation analyzed the process and other researchers, including de Alba (2011) and Matei, Miller, Arns, Rauh, Hartman, and Bruno (2007), stated that geo and temporally contextualized information is of much more

value than information without context because in geographic studies, contextualization is essential. They claimed that society benefits from the variety of situations and contexts that are used to arrive at proper knowledge and understanding by processing information spatially and temporally; they further stated that information in context is easier to remember and can affect the manner in which we acquire knowledge (Matei et al. 2007).

Most people learn to navigate in their surroundings or even in unknown territory, but sometimes with much effort and indecision. For the researcher, acting from individual mental maps involves moving through space and finding places which have been grounded in an individual's known sense of direction and place. “The mental map is essentially structured by the spatial elements, which then may be elaborated, or fine-tuned by the addition of visual elements” (Dalton and Bafna 2003, 3). Mental maps contain information not just on physical space but often on its more ephemeral qualities. Necessarily, these connotative qualities are a function of the individual psychology of the observer.

Thus, a mental map is not a static object but a system of relations between individuals and the space they inhabit. All people use mental maps or a “visual display” inside their heads that shows what the people—in their own way—know about the location and the uniqueness of a place (Graham 1976). A mental map is a way of conceptualizing how people receive information from their environment and how they use their senses to construct an image of the world around them. Concerning the urban context, a particular visual quality is that of the apparent clarity or "legibility" of the cityscape because it is, in particular, enriched with information about social relations. Lynch further stated that the image of the city was the result of the “process between the

observer and his environment. The environment suggests distinction and relation, and the observer—with great adaptability and in the light of his own purposes—selects, organizes, and endows with meaning what he sees" (Lynch 1960, 6). Lynch concludes: "The image of a given reality may vary significantly between different observers" (Lynch 1960, 6). In a sense then, the internal image held by individuals is a dialogue between themselves and their environment; where and how individuals see themselves fitting into their social environment is a crucial factor in shaping their mental map. Gould (1975) stated that:

> one of the shared areas of scholarly and practical interests to emerge…has been the broad subject of environmental perception and cognition…behavior frequently appears to reflect the images…of the social and physical environment around them, rather than the 'true' environment—whatever that might be, and however it might be defined and measured. (13)

Thus, there are numerous factors inherent in individual observers that can affect their mental images: education, age, size of the city, economic situation, society, and their social position in particular. Mercer (1971) stresses that "the notion that such factors as place of residence, mobility, socio-economic status and personality influence the variable perception of the structure of large urban areas is now almost regarded as a *sine qua non* of studies of the spatial aspects of consumer behavior or residence change" (Mercer 1971, 133). Indeed, some studies of mental maps have attempted to reconstruct the process of their formation and have emphasized the observations of individuals that have built their image of the environment (Tolman 1948; Graham 1976; Matei et al. 2007). Matei et al. (2007) describe mental processing as:

> we learn, process and store information that is spatially-located more easily than information that is divorced from specific locales or temporal frameworks. We are able to retrieve vast amounts of information, meaning, feeling and experience from

> our real world…because we store a good deal of that information using spatial referencing as a main indexing mechanism. (47)

In just this way, people living in certain places or walking spontaneously in significant streets for periods of time are able to make mental maps and most of the time they use that information automatically. The work here is based on the assumption that even though observation is the basis of the individual's mental maps, the person's background is responsible for drawing a unique image that has a link between the person's observation and the situation's reality. Thus, this study was designed to explore the intersection of primary contexts: the context of social and temporal perceptions, the mental maps of individual informants, and the concrete spatial context of the Tripoli Medina in Libya as recorded by the MHC.

**Geographic Information Systems (GIS)**

GIS technology is an integrated collection of software, data, and applications used to view and manage information about places and analyze and model spatial relationships and processes. It provides methods and tools that play an important role in analyzing populations (Borruso 2009, 301). Lopez and Lukinbeal (2010) used a mixed-methods approach combining mental mapping with GIS, first-hand observation of the community, and interviews. The implications of their research on future endeavors in crime, mental mapping, and qualitative GIS show how comparative analysis can be deployed to help mediate perceptual differences. Haque (2001) states that GIS is particularly useful for engineers and planners as a tool for management of built environments, and the system has a vast listing of possible uses.

Related in some ways to the present study of the Tripoli Medina that looks at deterioration, how it clusters, and its relation to the COS, Pamuk (2004), in his case study

of San Francisco, shows how ethnic clusters are identified using GIS and the United States Census. Massey (1985) presents theories and origins of international migration and asserts that the understanding of migration theories helps to absorb the waves of immigrants throughout time.

Bishop, Escobar, Karuppannan, Williamson, and Yates (2000) state that new and innovative solutions are continuously being explored for cities in developing countries. GIS and the underlying spatial data infrastructures appear to offer significant potential to assist in managing human settlement in developing countries. "Cities in developing countries have embraced GIS and the supporting spatial data infrastructures (SDI)…in contrast, for most cities of the developing world such spatial information related activities are undertaken manually if at all" (Bishop et al. 2000, 86). According to Xie, Chenglin, Huang, Claramunt and Chandramouli (2005), "Geographical Information Systems (GIS) can be employed to model urban growth with a higher level of spatial accuracy" (Xie et al. 2005, 1). They reached the conclusion that no single model "appears to perform consistently well when applied to different geographical locations" (Xie et al. 2005, 9).

In the work of Carver, Abad, Echeverria, Da Casa and Celis (2001), GIS is, as referenced by Stillwell et al. (1999), a decision support tool which is widely used in the field of environmental planning and that a lack of familiarity with technology can hinder progress in this field. Xiao, Shen, Ge, Tateishi, Tang, Liang and Huang (2006) used GIS and remote sensing in their study of urban needs in China. Urban expansion from 1934 to 2001 had both fast and slow growth stages according to the temporal and spatial characteristics. In their project in northwest China, Dai, Lee and Zhang (2001) realized that "urban land-use planning often requires a large amount of spatial information" (Dai

et al. 2001, 257). They show that GIS methodology functions well for geo-environmental assessment.

Stevens, Dragicevic and Rothley (2007) proposed a tool, iCity—Irregular City, for the predictive modeling of urban growth. The tool was developed "as an embedded model within a common desktop geographic information system 'GIS' to control modeling operations for urban land-use change" (762). They seem convinced that incorporating iCity with municipal GIS will permit both "planners and other city officials to more easily use the benefits of predicting dynamic urban models and integrate them in collaborative spatial decision making processes" (Stevens et al. 2007, 772).

**Combining Mental Maps with GIS**

Combining mental maps with GIS presents some special problems, primarily because this requires the incorporation of non-cartographic data (mental maps) within a GIS environment that is explicitly cartographic in nature. The idea of using mental maps emerged in literature because of the realization of how people observe and make conclusions about their environment and do so in different ways, even for an environment they share. GIS allows the information from mental map sketches of all the informants to be collated and displayed both in digital and visual formats in a variety of aggregations. Also, once the mental map data were digitized and converted to GIS format, comparison and analysis could be made of the mental map data and perceptions of the informants to these data. This work uses ideas from Lynch (1960) in terms of using sketch maps to record mental map features and from Lopez and Lukinbeal (2010) who used GIS mapping of crime patterns to compare to perceptions of crime from residents and law enforcement.

What the present study does is to convert social information to GIS formats to aid in comparative analysis. Austin et al. (1998) in their study of transportation of low level radioactive waste material through Native American lands state, "like other social scientists, the researchers and American Indian partners who designed and conducted this study focus on public perceptions and framed the discussions in terms of locally defined values and concerns" (Austin et al. 1998, ix). Those who agreed to participate in Austin's study were interviewed individually, and each of them was shown the maps and given the photographs to make sure that they knew the location where those maps and photographs were made; the Native Americans were asked to mark the roads that their immediate family used for travel in a typical year; also those used for hunting, gathering, fishing, and trapping. They were shown the proposed transportation routes for the radioactive waste and were asked what the positive and negative impacts were from the trucks carrying radioactive waste along those routes.

The similarities of Austin's study and the Medina's case is that the opinions of the public are very important to the creation of a comprehensive plan based on the opinions the residents have about the place where they live. Austin et al. realized that the variety of beliefs of the Native Americans "range from a traditional view to more modern, western scientific understandings. In between, many individuals hold mixed views which combine aspects of the traditional Indian perspective with those of modern western science" (Austin et al. 1998, 181). The process of the Bureau of Applied Research Anthropology (BARA) in Phase One involved data collection and analysis using ArcInfo and ArcView and GIS technology; they created maps which depicted the landmarks that identified the places with the local names; and each informant received a fresh map; in

Phase Two, to ensure that informants were aware of the focus of the study, a notebook of photographs and maps of the general locality was shown to each informant; in Phase 3, more detailed photographs were taken every ten miles in four directions; maps showing the approved routes were compiled and given to each informant; and in Phase 4, the interview questions were pilot tested, then revised, and pilot tested again with individuals not familiar with the study.

The importance of having the public involved in strategic planning processes was stressed by Morehouse, O'Brien, Christopherson, and Johnson (2010) in their study using cognitive maps and a survey to study the human values and perceptions of their respondents concerning wild land fire risk and strategic planning in four mountain ranges in the American Southwest. They indicated that "incorporation of both spatial and non-spatial data allowed for comparison of values and perceptions within and among different user groups and across the four study areas" (Morehouse et al. 2010, 126). They further stated that by using the digitized map-based responses they were "not only able to capture geospatial information…but also to make comparisons both across individual maps and between groups of maps to attain a better understanding of individual and group perceptions and values in each of the study areas" (Morehouse et al. 2010, 127).

**The Tripoli Medina, the Islamic City, and the Preservation of the Islamic City**

The Tripoli Medina is, at its heart, an Islamic city. Because of this, preservation of the Medina requires a certain sensitivity to, and acceptance of, the Islamic nature of the Medina's past, present, and future. The following sections introduce the Tripoli Medina, the nature of Islamic cities, and preservation of historic cities in the Islamic world.

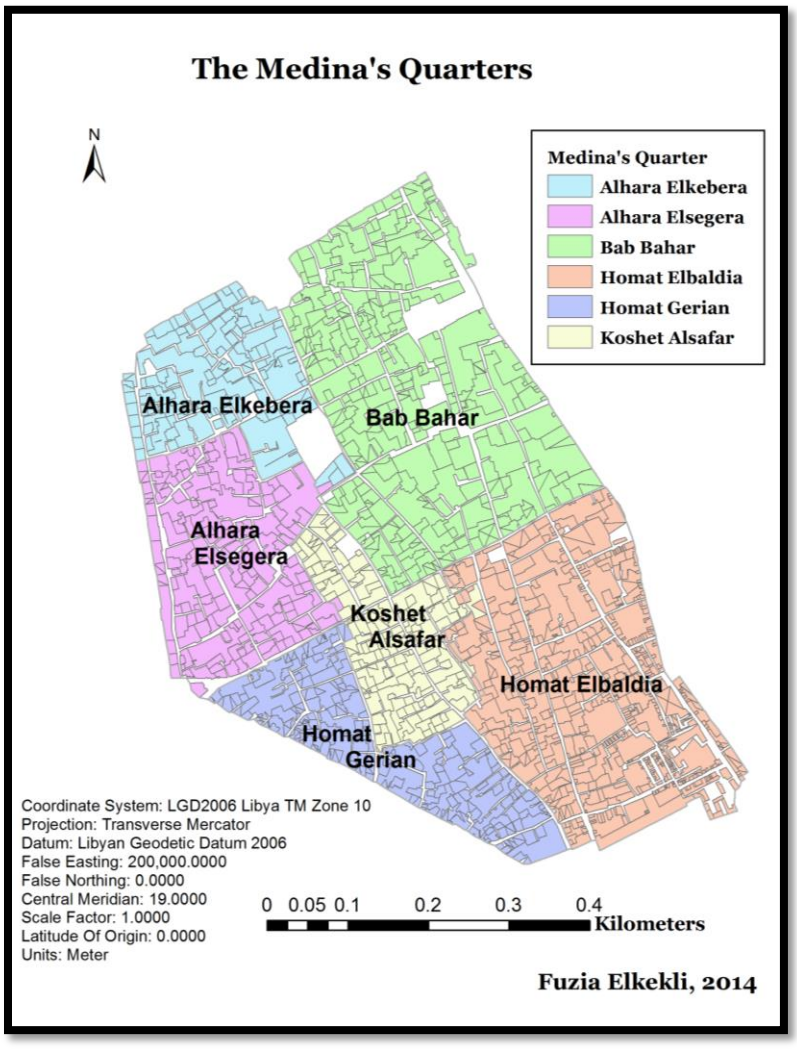

Source: Magellan Geographic, 1996.

Figure 2. Map of Tripoli indicating the area of the Medina (Old City).

The Medina (labeled as Old City in Figure 2) is located at 32°54′8″N 13°11′9″E in the northwest section of Tripoli, Libya, North Africa. The Mediterranean Sea is the border on the north and northeast; the wall surrounding the Medina is the border on the south and southwest. The area gradually descends from the north to the south; the highest elevation of the Medina is nineteen meters above sea level, and it descends down to the lowest point of six meters in the southeast corner of the Medina.

The Medina of Tripoli contains six quarters (neighborhoods) connected by *zangas* (alleys) with no clear borders or gates between those neighborhoods. The types of buildings include many mosques: the Al Naqah Mosque (the oldest mosque), the Karamanli Mosque (the largest mosque), along with other historic mosques; additionally, *zawayas* (Sufi workshops), main banks, traditional hotels, agencies, museums, traditional cafes, archeological sites, sport clubs, huge historic houses used as libraries, traditional

*suqs* (marketplaces), suqs selling modern goods, open markets, houses, diplomatic buildings, service, and residential areas, the famous Roman Citadel, and multiple museums occupy the space; nonetheless, the majority of buildings are residential. In general, the pattern of narrow streets dates from the Roman era and major circulation occurs in typical traditional transportation (mostly walking) patterns both at the outer edge of the district and by some of the interior streets. Public and individual vehicular transportation is rather difficult inside the Medina because of the narrow streets built according to Islamic tradition, and for this reason, most residents and visitors walk.




Source: Work of Researcher Elkekli, 2013-2014.

Figure 3. The Medina's quarters.

Even though the area is considered a historic place, it has modern buildings distributed throughout the traditional fabric. In addition, some of the buildings have changed because of the introduction of modern infrastructure (plumbing, electricity) and because of residents' attempts to conserve and remodel their homes. Like people around the world, they have adapted their buildings to function in a more modern setting and style and to improve their economic status.

In spite of these building and infrastructure updates, the Medina of Tripoli is quite different from cities to which modern urban planning methods are customarily applied; it is not only regarded as an Islamic city, but also has been the subject of a particular political situation over the last half century. As the aim of this study is to support urban preservation/conservation efforts, this study details those contexts in some depth. Due to the paucity of sources available about Libya over the last four decades, primarily because of the lack of communication with the outside world during Gadaffi's strict regime (1969-2011), many reliable sources are older in origin. However, especially since the 2011 uprising, more material in all media types has become available in both Arabic and English.

**Defining the Islamic City**

What defines an Islamic city is a continuing matter of debate. Bonine (1976) stated that the concept of a true Islamic city was still under study, but the description of it as a maze of twisting streets has been accepted by many geographers. Lawless (1980) asserted that the historical fabric of Middle Eastern cities, despite the efforts to redevelop and restore them, continued to be destroyed. The integration of Islamic elements (physical, religious, social, economic, and political) had made a unique structure from the

beginning. Haneda (1994) asserted that in the Islamic world urban studies should be given "a new framework and methodological direction" (Haneda 1994, 9). Abu-Lughod (1987) states that:

> Marcais [1958] introduces several characteristic elements of the physical city. Citing Ibn Khaldun, Arab geographers and legal doctrines, he reaches a definition of the Islamic city which he contends is quintessential: a city must have a congregational Friday mosque and it must have a market/chief bazaar nearby. Associated with the jdmi' suq (mosque-market) complex was a third physical feature of Islamic cities, the public bath (hammam), of functional significance to prepare believers for the Friday prayer. Paraphrasing Renan [a French philologist and historian], however, we might note that when the church was also the temporal power, medieval European cities were also defined by the presence of the cathedral and the marketplace in front of it. Thus far, therefore, we have only a very modestly etched idea of the Islamic city, one which poorly distinguishes it from cities in other religious/cultural contexts and one which has as yet no topography. (16)

Lapidus (1967) stated that the early medinas were, in principle, administrative capitals, rather than cities, and were places with political and usually religious jurisdictional supremacy. Also, Muslim cities were started by either migration, collapse of older polities, or the founding of empires driven by religious and political ideas and economic growth which all gave form to the cityscape, city society, and city culture. He further stated that cultural traditions were of great importance to religion in urban society.

Bonine (1976), Abu-Lughod (1987), and Lapidus (1967) stressed the idea of the Islamic cities' structure as the footprint of religious influence. Bonine's viewpoint is that the study of Islamic cities needs more time, especially to obtain the proper framework and outlines that will help in the debate over the characteristics of Islamic cities. This researcher believes that the debate should be more about when the Islamic cities were established rather than about analyzing the cultural impacts that shape them. The views of those like Marcais (1958) focus on elements that interact with the Medina as a fabric

related with religion only. Abu-Lughod and Marcais have adopted the theory of Ibn Khaldun, a fourteenth century historian and political theorist, whose idea of the city, inspired by Islam, must be judged by his understanding of civilization, royal authority and dynasty. Rosenthal (1958) has the following view:

> furthermore, towns and cities with their monuments, vast constructions, and large buildings, are set up for the masses and not for the few. Therefore, united effort and much co-operation are needed for them. They are not among the things that are necessary matters of general concern to human beings, in the sense that all human beings desire them or feel compelled to have them. As a matter of fact, [human beings] must be forced and driven to [build cities]. The stick of royal authority is what compels them, or they may be stimulated by promise of reward and compensation. (433)

Concerned about the natural environment and defense, Khaldun urged planners and builders to care about the setting for buildings and to be aware of "water for drinking; irrigation and cleanliness purposes; pastures for the livestock of the inhabitants; fields suitable for cultivation; forests for the supply of firewood and building material; and the sea to facilitate the import and export of goods (Rosenthal 1958, 433).

Indeed, most studies argue that structuring an Islamic city, a medina, started with establishment of the mosque in the first settlements (Hakim 1986; Abu-Lughod 1987; Lapidus 1967). This researcher disagrees with that limited explanation because some medinas are structured in much more complex and heterogeneous ways. For example, churches and synagogues have long been present in the Medina of Tripoli; some of these institutions predated the establishment of mosques. Although these religious buildings did not, and do not, function as a central point or focus for the majority of the population, they were or are so sufficiently important that they ruled out the designation of the Tripoli Medina as a so-called fundamental Islamic city—even though it is both Islamic and one of the oldest cities in the world.

**Preservation of Islamic Cities**

Sedky (2009), in a new assessment of the preservation of historical areas of Middle Eastern cities, investigated the reasons behind the vulnerability of historical Cairo by exploring and comparing regional and international case studies. He determined the criteria for assessing area preservation in the Arabic-Islamic context and how and what to conserve. Wright (1991) contended that modernity was defined from varied commercial activities, cultural traditions, and industrial conditions. Some of the monuments from the Greeks, Romans, and other civilizations have been preserved due to the characteristic Islamic respect for and interest in history and architecture. Sedky's (2009) writings compared the Islamic cities with conservation of other civilizations' buildings. This researcher's results determined that preservation has not been carried out by converting the old buildings to the Islamic structure but by keeping older civilizations' buildings as witnesses to older times. That explains how residents of the Medina have changed some historic buildings according to their interest and immediate needs, but have still left them, at least to some extent, as recognizably historic and Islamic.

As in all urban conservation efforts, planning must confront stereotypes of what was or should be conserved. Bonine, as quoted in Blake and Lawless (1980), concluded that, "the traditional Middle Eastern city is still being explained in clichés and stereotypes" (Blake and Lawless 1980, 183). Bonine guided the debate into the reality of the stereotypes in order to find the reality of conservation. This idea is tied strongly with the idea of studying the residents' mental maps. Under all these influences, complex and interwoven, the testimony of life lived in such a place perhaps can shed light on what are the true outcomes of these influences for the present and future of such a city.

Concerning the specific Libyan context, Rghei and Nelson (1994) pointed out that little work has been undertaken on the heritage and urban planning of Libya even though a variety of buildings has a distinct and significant value for their skilled workmanship, uniqueness, style, and design. They saw the need for the Tripoli Medina—pentagonal in form and encased by solid masonry walls—to be restored rather than demolished and replaced by modern design. Because the Medina has such important historical, cultural, and heritage resources, it needs immediate and strategic planning to secure proper preservation (Rghei and Nelson 1994).

## The Libyan Political, Legal, and Social Context

Libyan life has changed significantly since the revolution in 2011 and it is important to briefly discuss that change within the context of Libya under the rule of Moammar Gaddafi (1969-2011).

### Politics after 1969 that Affected the Medina

A military coup on September 1, 1969, under Moammar Gaddafi ended the monarchy under King Idris and began the first phase of political changes under the Libyan Arab Republic that lasted until 2011. Gadaffi ruled according to the Third Universal Theory, a system of governance of his own invention that he believed reflected Libya's diverse cultural heritage. A Constitutional Proclamation on December 11, 1969, designated the Revolutionary Command Council (RCC) as the supreme executive and legislative authority in the post-monarchical regime. The RCC issued a decree identifying *shari'a* (Islamic law) as the principal source of all legislation and examined all existing legislation in order to make it consistent with shari'a principles. Concerning urban planning, these principles included provision for places of privacy, height of the walls

between houses, placement of windows, the right of walking outside, rights of residential areas, and the width of the streets. Simpkins (2008) states that such jurisdiction under shari'a was typical for early Islamic cities like Mecca, Medina, Basra, and Kufa.

Law Number 5 of 1969 was enacted by the RCC so that city planning would protect the health, safety, and general welfare of the people. This law contained eleven chapters along with maps covering all the country. These maps included land use, the length and width of the streets, the size of houses, all kinds of buildings, sewers, and industrial areas (Management 2006). Law Number 5 honored the practices of Muslim religion and customs, privacy, water rights, and the right of people to work, to walk in the streets, and to have a safe city. It also decreed punishment for those who broke urban planning laws. All these were considered the Islamic law of the cities and accepted by the RCC (Census 2006).

In 1969 the RCC became the basic group in Libya to oversee planning for the development of Libya along with waqf ministries. Many changes were made in the administration of the districts including reducing the number of municipalities. In Law Number 58 of 1983, the High General Ministry decided to establish a technical staff to organize and manage the Medina Project of 1984. In accordance with the provisions of this resolution, the expropriation of property of historical and cultural value was permitted (Census 2006).

**Migration Out, Migration In**

These laws, along with the influence of the exploitation of Libyan oil reserves on the country's economy, caused a number of changes in the Medina, most notably migration, both out of and into the Old City. Many longtime residents of the Medina left

in the 1970s because of the increasing income from oil revenues that enabled them to enjoy an improved financial status and the political change in 1969 when King Idris's rule was succeeded by a revolutionary group led by Gadaffi. Additionally, the purpose of the Medina as a place of habitation changed because each new ruling entity modified government policy, laws, and regulations. These political and legal fluctuations had a significant impact on residents and the preservation of the Medina's fabric. People moved to the newer neighborhoods of Tripoli because they were attracted by improved living conditions and wanted to leave the older infrastructure and neglected areas of the Medina behind. Into this vacuum others came.

The new residents brought with them considerable structural change to the Medina. As a consequence of these changes, the Medina had a more mixed environment than ever before. So new residents' mental impressions and perceptions of the Medina's structure are different from those of older or former residents' memories of the Medina. Most people who have known the Medina for a considerable amount of time can easily recognize the difference between the current situation and the old Medina.

Much of this difference can be attributed to the arrival of new immigrants. According to Woodberry's (1988) analysis, the Medinas in Arabic countries have recently become a destination for immigrants; this is also true for the Tripoli Medina. Migrants from rural areas and other cities and countries have brought their rural lifestyle to the Medina and changed public spaces by constructing new buildings for their work, living, storage, and other purposes (Woodberry 1988). Beginning in the 1980s, some Asian, Arabic, and sub-Saharan Africans settled in the Medina; the immigrant population continued to increase in the 1990s; and migrants continued to move into the area in the

early twenty-first century. Despite continuing deterioration of the infrastructure, these migrants were beneficial to the Medina because they lived in the homes, maintained the property, raised their families, and returned life to the empty buildings after the local residents left their houses, but this also led to continuous deterioration of the built environment because not all the buildings were maintained by the new residents. If a place contains structures or areas that serve no purpose, the area falls into neglect or attracts unwanted activities or people (Sedky 2009).

Sedky (2009) spoke in detail of the international charters and separate Arab charters which have had great influence on the preservation of parts of old cities. First, some buildings in the Medina have had detailed documentation of the specific period of time of their construction and/or occupancy; other more modern buildings are nineteenth and twentieth century in design; and while many buildings have been conserved, others have been ignored. Second, regardless of the conservation that has occurred, no official plan was made for the entire Medina and many individual attempts at conservation have caused random disruptions inside the historic fabric. The third factor keeping the area from receiving the attention it deserved was a lack of understanding of the Medina's characteristics and features as an ancient city. This confusion has been exacerbated by the great variety of religious, lifestyle, cultural, economic, and social relationships that have existed and continue to exist in the Medina.

Given that the core issue here is how to approach the conservation and preservation of an ancient historic city of great cultural value that is in the midst of a complex process of change and stress, this paper so far has reviewed the historical context, the many cultures that have gone to shape the Medina, especially in their religious aspects, and

particularly the Medina as an Islamic city with the urban models and particular characteristics that implies. This paper has also reviewed political, economic, and human factors, especially migration, that has stressed both the fabric of the Medina and its residents. The following section shows how GIS enabled the display and comparison of spatial and social data from Medina stakeholders. The assumption of this study is that finding a way to encounter and deal with the Medina's problems must necessarily take into account the perspectives of all who are associated with this place; it is the combined use of a non-spatial survey, mental maps, and GIS data processing and displays that moves the analysis forward toward potential solutions.

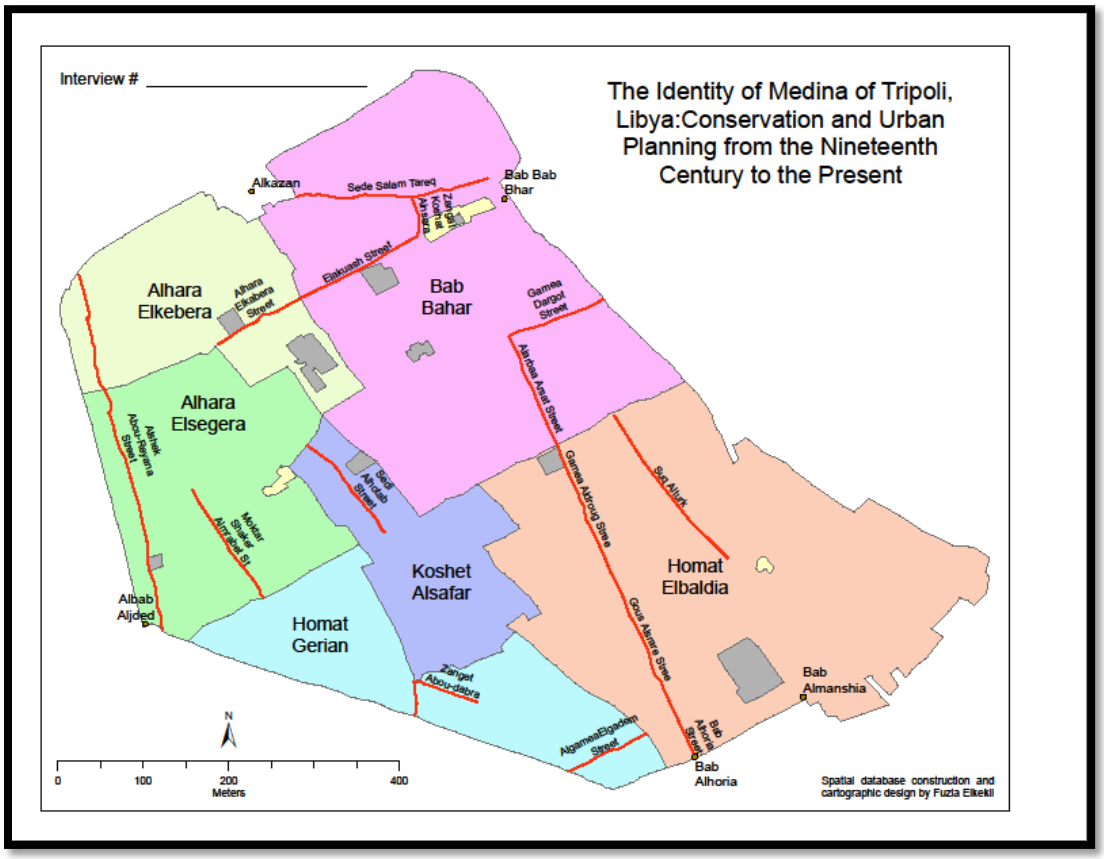
## Methodology

The study was initiated to develop a methodology using mental maps to capture informant opinions about deterioration in the Tripoli Medina. This methodology compared the informant opinions about deterioration to quantified levels of deterioration mapped by the MHC. This part of the paper describes the methodology used to capture informant opinions, transfer these opinions to GIS data, create cumulative opinion surfaces (COS), and compare these to the MHC maps of condemned buildings.

### Mental Maps

Spatial opinions were collected by asking informants to answer location-based questions by drawing shapes on a basemap of the Tripoli Medina. This base-map was created using ArcGIS 10.1 (ArcGIS 2014) software and a satellite image of the Medina. It included an outline of the Medina with locations for the city gates as well as divisions indicating the six quarters, important buildings, and main streets. All spatial data used a Libyan Transverse Mercator Zone 10 projection. The map sheet also had space for an

interview number that would allow it to be connected to the non-spatial components of the survey without identifying the informant (Figure 4).




Source: Work of Researcher Elkekli, 2011.

Figure 4. Map of study area for mental maps.

The six quarters are named based either on their physical location or their social impact. The six quarters are: 1) the *Bab Bahar* quarter (the *Sea Gate)*; 2) the *Homat Elbaldia* quarter, the area of *services and markets*; 3) the *Koshet Alsafar* quarter*,* the *residential neighborhood* because it has more residents than services; 4) the *Alhara Elkebera* and 5) the *Alhara Elsegera* quarters, which are the *largest* and *smallest* neighborhoods, respectively, that were used by the Libyan Jewish people who once lived there; and 6) the *Homat Gerian* quarter, the place of *residents who emigrated from the mountains* and other areas of Libya.

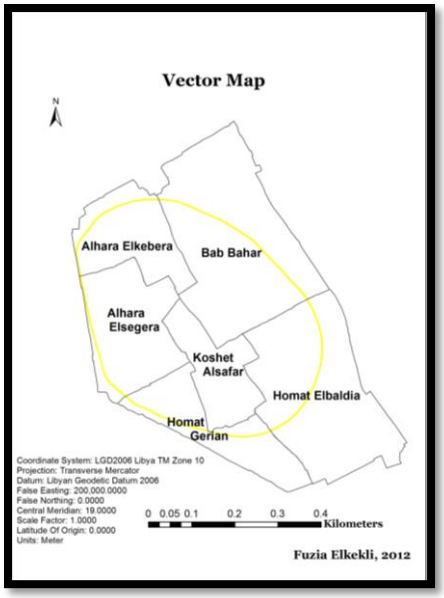
**Survey**

The informants for this research came from a variety of backgrounds and consisted of 46 females and 104 males over eighteen years of age who were distributed in four groups: seventy were residents of the Medina, both property owners and renters; twenty were former residents who owned houses inside but lived outside the Medina; forty were the MHC staff; and twenty were Engineering Counsel Office (ECO) staff. All informants were familiar with the Medina's quarters and streets. The uneven distribution of females and males in the survey is a product of local traditions. Property is traditionally owned by men, and men are traditionally the spokespersons for their families. Consequently, when the researcher approached residents of the Medina, it was usually the men who were willing to be interviewed. Still, the women interviewed did represent a cross-section of residents and non-residents. Some women were engineers in the MHC and ECO staffs; some were property owners, while others were selling items in the streets.

The residents, both Libyan and foreign-born immigrants, had lived in the Medina more than five years or owned their properties for more than two generations and were considered Medina inhabitants. The former residents were important because they had once lived in the Medina; some were from families who had lived there for more than one hundred years. The forty MHC staff had worked for a long time in projects for urban planning of the Medina; they were accepted as decision-makers. The twenty ECO staff worked in the Medina as part of the whole project of the new Tripoli and Libya. The opinions of both the MHC and ECO staff members were important because all were decision-makers who had a store of knowledge of the details of planning changes and history from the time of the monarchy to the present.

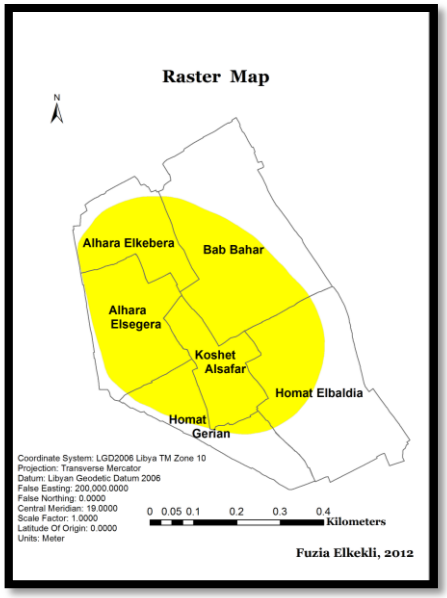
Some problematic obstacles affected the work because the period of the interviews came after the 2011 uprising had just settled down in Libya. The researcher had informed the informants that this study of urban planning was a private enterprise endeavor from the University of Arizona in Tucson, Arizona, and had no relation to the Libyan government's objectives. Even with this information, the foreign residents were sometimes confused by the questions as well as the new political situation in Libya; thus, they had to be reassured that the research was independent from the government. Despite these reassurances, some informants took more time to interview than others because they used the interview as an opportunity to complain about their lives and the poor state of the Medina's infrastructure and tried to pass on their demands to the government through the researcher. Moreover, it was necessary to explain the questions to some of the informants because they were not able to read or write Arabic.

The informants' mental maps resulted from responses to twelve questions divided into four groups with three questions each for: Islamic buildings, daily trips, density of population and high deterioration areas. The first step in the process relied on dialogue between the interviewer and the informants to explain the mental map questions; for the second step, the informants used four different colored pens to draw polygons or lines to identify their choices: *magenta for Islamic buildings, green for daily trip paths, orange for high density population, and yellow for areas of deterioration.* Those colored polygons and lines represented the informants' opinions, conceptions, and ways of thinking and became the basis for the GIS mental map layers.



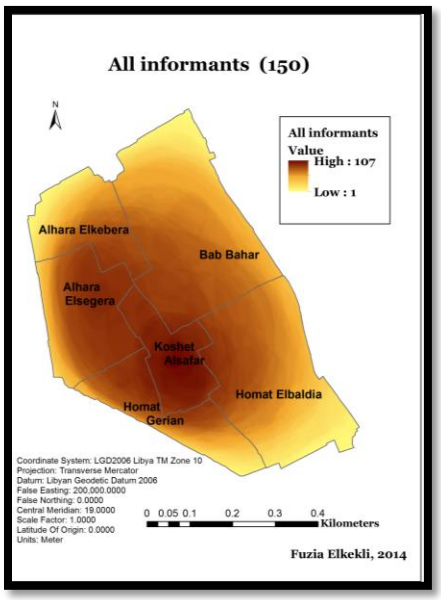

Source: Work of Researcher Elkekli, 2013-2014.

Figure 5A. Vector data based on mental maps.




Source: Work of Researcher Elkekli, 2013-2014.

Figure 5B. Raster map of deterioration derived from vector maps.




Source: Work of Researcher Elkekli, 2013-2014.

Figure 5C. Cumulative opinion surfaces (COS) of deterioration for all 150 informants.

**Converting the Mental Maps to Digital Data in GIS**

In order to use GIS to analyze the informants' responses, the lines and polygons the informants created in response to the survey were digitized using a large format, digitizing tablet. For this paper that means that the areas they identified as deteriorated were digitized as vectors (Figure 5A). These vectors were then converted to rasters with a cell resolution of one meter. These rasters represented the informants' polygons with *ones,* and the areas outside of their polygons with *zeroes.* For this paper, the areas identified as deteriorated by an informant would be represented in the rasters by cells containing a value of one, and those not identified as deteriorated by cells containing a value of zero (Figure 5B).This process of digitizing and rasterization was carried out for each of the 150 mental maps created by the informants, providing the researcher with 150 raster surfaces identifying each informant's opinion about deterioration in the Medina. Because these opinions are represented by *ones* and *zeroes* in a series of georeferenced rasters, it was possible to sum the rasters to create COS. In these COS, a raster cell with a ten in it represents a location that ten informants identified as deteriorated, and one with a zero represents an area that no informant identified as deteriorated. Figure 5C represents the COS of deterioration for all 150 informants. In this map, the low value is one and the high value is 107. High values in this map represent high numbers of informants and low values indicate low numbers of informants identifying a particular area as deteriorated.

**The MHC Survey of Property Categories in the Tripoli Medina**

In 2010, the MHC surveyed every lot in the Medina, dividing them into six classes (owner occupied, city contract, waqf, condemned, squatter, and unoccupied) to show the

status of each property. This property survey is seen later in the map in Figure 6. Descriptions of these property classes are defined in the following paragraphs.

Owner Occupied

Many of the buildings, and in particular, the houses that date from the Second Ottoman period (1835-1911) have remained in continuous ownership and control of specific families and are known as owner occupied. According to Islamic law, properties are inherited not by individuals but by all descendants of a family (unless they withdrew from ownership), making it possible for scores of people to have an ownership interest in a building. For this reason, many owners rent their buildings to others rather than live in them themselves.

Waqf

Another type of property owner is the waqf; in Islamic terms, it refers to a permanent, voluntary, irrevocable religious endowment, and its disbursement is for shari'a-compliant projects (mosques, religious schools, houses, stores, and land). A waqf property, once created, can never be donated as a gift, inherited, or sold, but it may be rented and the proceeds used for charity (Bonine 1987, 183).

City Contract

A third ownership arrangement, city contract, emerged by decree, as Gadaffi's Law Number 4 (Congress 1978) which dictated eviction and expropriation in the name of the public interest property that was uninhabited, unused, or rented. According to that law, anyone could own a house and obtain proof of ownership just on the basis of residency. Since 1978, this law has caused much resentment, bitterness, and blackmailing of the actual owners (Congress 1978).

Condemned

This fourth category of condemned buildings, often the result of the implementation of Law Number 4 making a change in owner and building classification, resulted in disuse, neglect, deterioration, or collapse of many properties. These buildings officially could not be considered habitable. Although officially classified as uninhabitable, some residents preferred to take over these condemned buildings, especially residential houses, and live in them in spite of the dangers involved.

Squatter

Many properties were abandoned for a number of reasons and were occupied by squatters. For example, at certain points in the Medina's history, pressure, as well as encouragement, was applied especially to non-Muslims to leave Libya. Some were forced to give up their properties; this was especially true of Jewish and Christian families. Their properties remained empty for a long time, but were under their neighbors' protection. So, on one hand, this saved the buildings from deliberate vandalism but, on the other hand, the empty houses, with little or no conservation, deteriorated or collapsed.

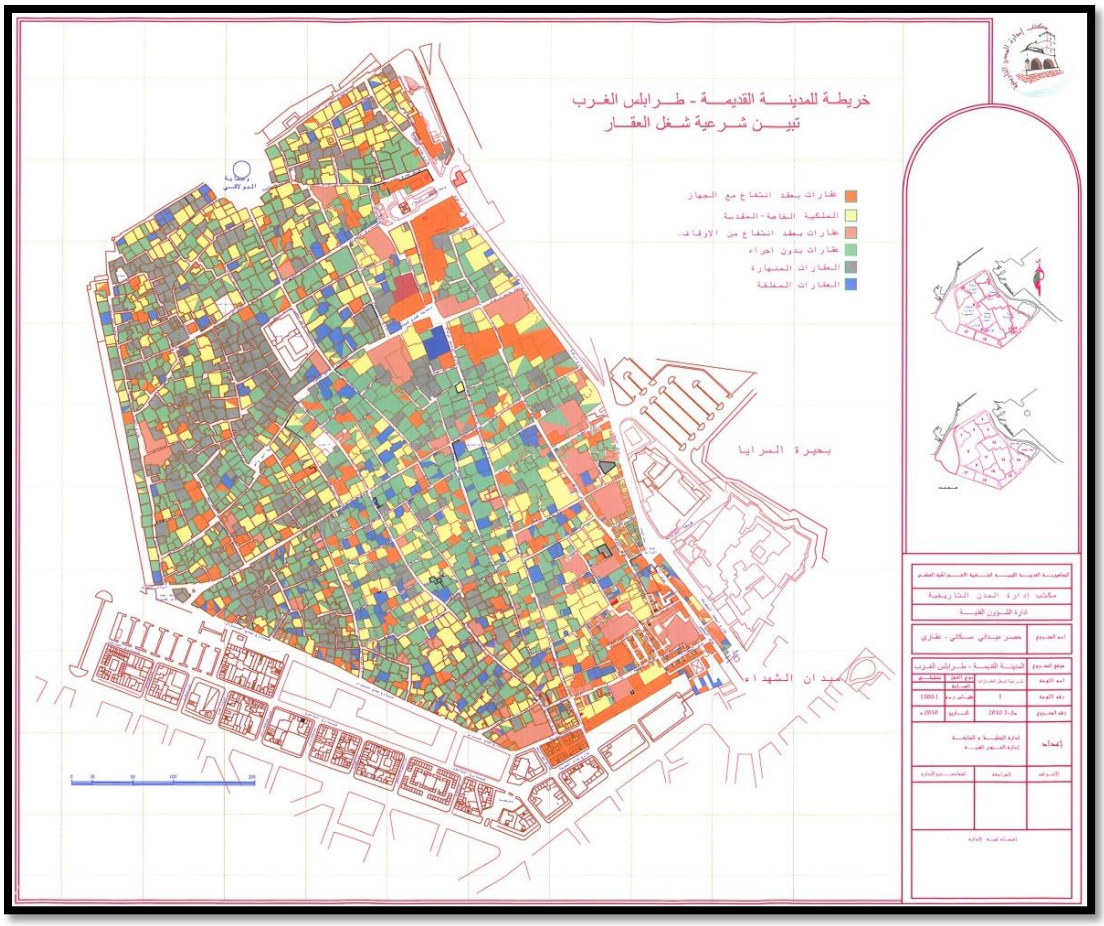
Unoccupied

Finally, there are properties that fit none of the above categories, but still remain unoccupied.

**The MHC Scanning Map of Property Categories**

Because this study is examining the opinions of survey informants about areas of deterioration, this paper is most concerned with the 436 properties designated as condemned. According to the MHC, a condemned property, usually residential, is one slated for demolition but the property belongs to either a private owner, the waqf

foundation, or is under city contract control. Figure 6 shows a digital scan of the MHC map. In this map, the dark orange represents buildings under city contract with the MHC; yellow shows owner occupied properties, light orange is waqf property; green depicts squatters (properties lived in without papers); gray shows condemned buildings; and blue indicates unoccupied buildings.




Source: MHC, 2010.

Figure 6. The MHC scanning map of property categories.

The researcher used the MHC map as a source for quantifying condemned properties. This map was scanned and georeferenced to match the spatial domain of the project geodatabase. Properties from the map were then digitized from the computer monitor and each polygon was given the attribute of the MHC property class. Polygons

representing condemned properties were extracted as a separate feature class in the geodatabase. These buildings represented a quantitative measure of deterioration that will be compared to the qualitative measure represented by the COS based on the informants' mental maps.

## Analysis

The comparison of qualitative and quantitative measures of deterioration in the Tripoli Medina took the form of a series of spatial analytical examinations of these data. First, summary statistics identified the relative deterioration of the different quarters in the Tripoli Medina based on the COS and the counts of condemned properties. These statistics were used to rank the different neighborhoods. These rankings were then compared to identify differences between the MHC map and the COS maps. Second, visual comparisons of the COS and a density map of the condemned properties were undertaken. Third, a series of Kolmogorov-Smirnov (K-S) tests determined whether or not differences in the preceding analyses were statistically significant. Finally, cumulative proportion graphs demonstrated the nature of the differences between the COS and the location of condemned properties based on the MHC map.

### Summary Statistics

Summary statistics based on both the COS and the MHC maps were created for each quarter of the Tripoli Medina. Statistics for the COS were created for each informant category; residents, former residents, the MHC and ECO employees, and all informants are listed in Table 1. In this table, the quarters are ranked for each category, with number one representing the quarter with the highest perceived level of deterioration

Source: Work of Researcher Elkekli, 2014.

Table 1. Differences and similarities between the qualitative and quantitative measures.

| Neighborhood | Min | Max | Mean | Standard Deviation | Quarter Rank |
|---|---|---|---|---|---|
| **Bab Bahar** | | | | | |
| Residents | 0 | 60 | 39.85 | 16.48 | 3 |
| Former Residents | 0 | 18 | 9.94 | 4.29 | 6 |
| MHC | 1 | 13 | 7.82 | 2.12 | 5 |
| ECO | 0 | 17 | 6.64 | 4.30 | 6 |
| All Informants | 1 | 108 | 64.27 | 26.45 | 4 |
| **Homat Elbaldia** | | | | | |
| Residents | 2 | 60 | 35.97 | 17.40 | 5 |
| Former Residents | 0 | 18 | 10.97 | 4.45 | 4 |
| MHC | 1 | 13 | 8.52 | 1.90 | 4 |
| ECO | 0 | 17 | 7.24 | 4.59 | 5 |
| All Informants | 3 | 108 | 62.72 | 27.44 | 5 |
| **Homat Gerian** | | | | | |
| Residents | 1 | 61 | 39.51 | 16.72 | 4 |
| Former Residents | 1 | 18 | 13.43 | 4.35 | 3 |
| MHC | 3 | 16 | 10.60 | 2.93 | 3 |
| ECO | 0 | 18 | 11.13 | 5.69 | 3 |
| All Informants | 6 | 113 | 74.68 | 28.54 | 3 |
| **Alhara Elsegera** | | | | | |
| Residents | 7 | 60 | 50.25 | 13.35 | 2 |
| Former Residents | 0 | 18 | 14.21 | 4.88 | 2 |
| MHC | 5 | 14 | 10.65 | 1.65 | 2 |
| ECO | 1 | 18 | 12.60 | 5.65 | 2 |
| All Informants | 13 | 110 | 87.73 | 25.04 | 2 |
| **Alhara Elkebera** | | | | | |
| Residents | 1 | 60 | 35.76 | 18.76 | 6 |
| Former Residents | 0 | 18 | 10.33 | 5.14 | 5 |
| MHC | 3 | 12 | 7.58 | 2.38 | 6 |
| ECO | 0 | 18 | 7.71 | 5.62 | 4 |
| All Informants | 4 | 106 | 61.38 | 31.39 | 6 |
| **Koshet Alsafar** | | | | | |
| Residents | 50 | 61 | 59.54 | 1.07 | 1 |
| Former Residents | 16 | 18 | 17.02 | 0.73 | 1 |
| MHC | 10 | 15 | 12.47 | 1.027 | 1 |
| ECO | 13 | 18 | 16.62 | 0.82 | 1 |
| All Informants | 95 | 110 | 105.58 | 2.28 | 1 |

based on the mean of all raster cell values in that quarter, and six the lowest perceived level of deterioration. These rankings are not completely consistent among the different informant categories, but are close enough to inspire confidence that they do represent opinions across the spectrum of informants in the survey. Note particularly that Homat Elbaldia, Homat Gerian, Alhara Elsegera, and Koshet Alsafar have differences between informant categories that are no greater than one rank. Only Bab Bahar and Alhara Elkebera have rank differences greater than one.

Table 2 shows the percent of total area for each quarter that was designated as condemned by the MHC, along with the rank for each quarter. Rank 1 represents the quarter with the largest area by percentage of condemned properties and Rank 6 that with the smallest area by percentage of condemned properties.

Source: Work of Researcher Elkekli, 2014.

Table 2. Condemned properties per quarter by percent of area based on the MHC map.

| Quarter | Percent Condemned | Rank |
|---|---|---|
| **Bab Bahar** | 11.05 | 4 |
| **Homat Elbaldia** | 3.08 | 6 |
| **Homat Gerian** | 13.20 | 3 |
| **Alhara Elsegera** | 30.19 | 2 |
| **Alhara Elkebera** | 32.57 | 1 |
| **Koshet Alsafar** | 9.91 | 5 |

Because the metrics for the COS and the MHC summary statistics are different, they do not lend themselves to direct comparison, but the rankings can be compared. Table 3 compares the rankings for the six quarters for the COS for all informants to the

ranking based on area by percentage of condemned properties. Significant differences are readily apparent.

Source: Work of Researcher Elkekli, 2014.

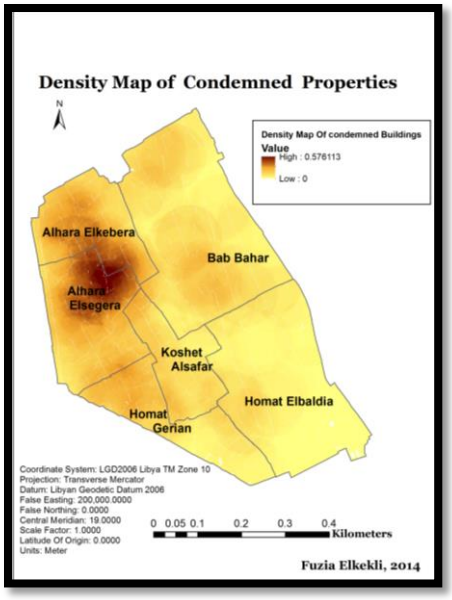
Table 3. Comparison of COS (based on all informants) and the MHC Rank.

| Neighborhood | COS Rank | MHC Rank |
|---|---|---|
| Koshet Alsafar | 1 | 5 |
| Alhara Elsegera | 2 | 2 |
| Homat Gerian | 3 | 3 |
| Bab Bahar | 4 | 4 |
| Homat Elbaldia | 5 | 6 |
| Alhara Elkebera | 6 | 1 |

**Visual Comparison of COS and the MHC Density Surfaces**

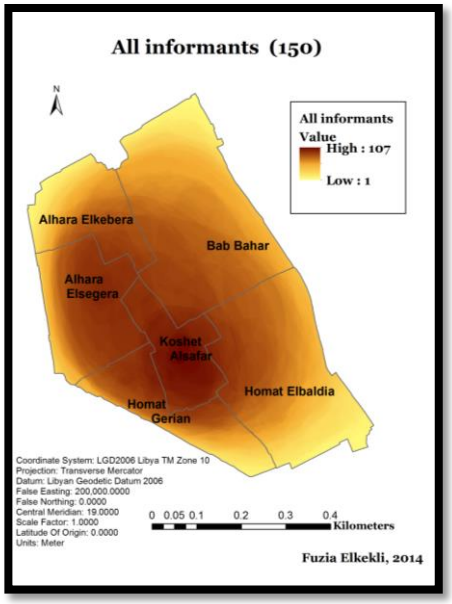
Figures 7A shows the density surface based on the MHC data while Figures 7B to 7F show the COS of each informant category. The dark areas were identified in the COS as those areas believed by informants as having the highest level of condemned buildings while the light areas were seen as areas with little deterioration.

Even a cursory examination indicates differences between the MHC map and the COS maps. A comparison between the MHC map with the COS shows that in the MHC map, the condemned buildings are concentrated in Alhara Elkebera and Alhara Elsegera and part of Homat Gerian, but the COS shows that Koshet Alsafar is perceived as the main quarter for condemned buildings even though the MHC survey and map indicate that it has relatively few condemned buildings.



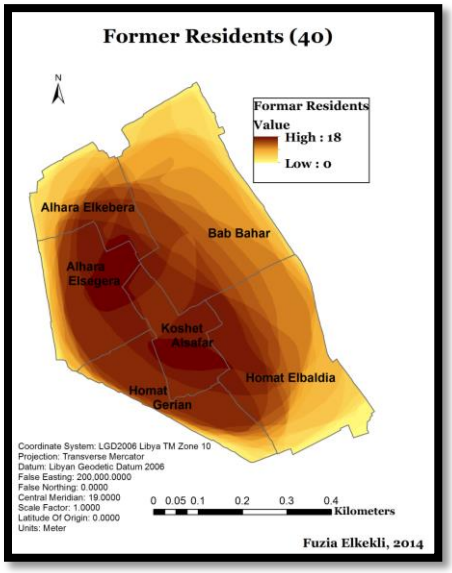

Source: Work of Researcher Elkekli, 2013-2014.

Figure 7A. Density surface based on the MHC identified condemned properties.



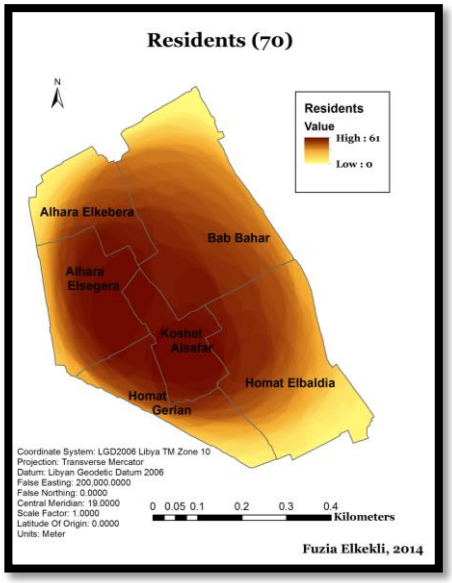

Source: Work of Researcher Elkekli, 2013-2014.

Figure 7B. COS based on mental maps from all 150 informants.



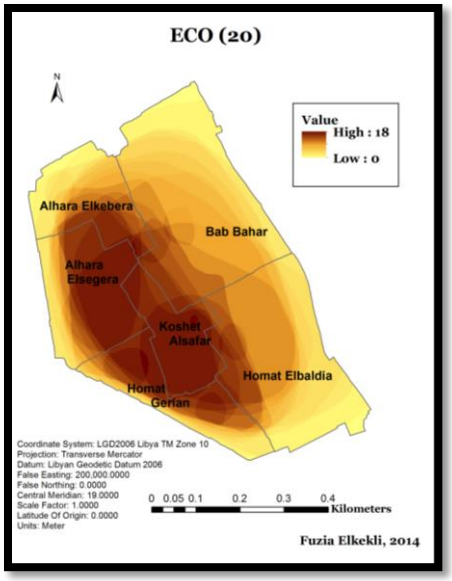

Source: Work of Researcher Elkekli, 2013-2014.

Figure 7C. COS based on mental maps from former residents.



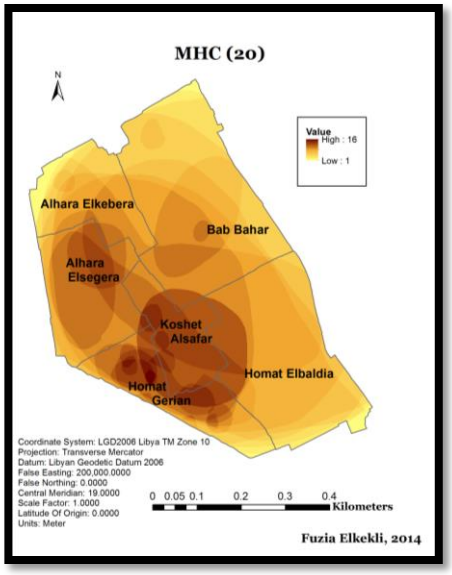

Source: Work of Researcher Elkekli, 2013-2014.

Figure 7D. COS based on mental maps from residents.




Source: Work of Researcher Elkekli, 2013-2014.

Figure 7E. COS based on ECO mental maps.



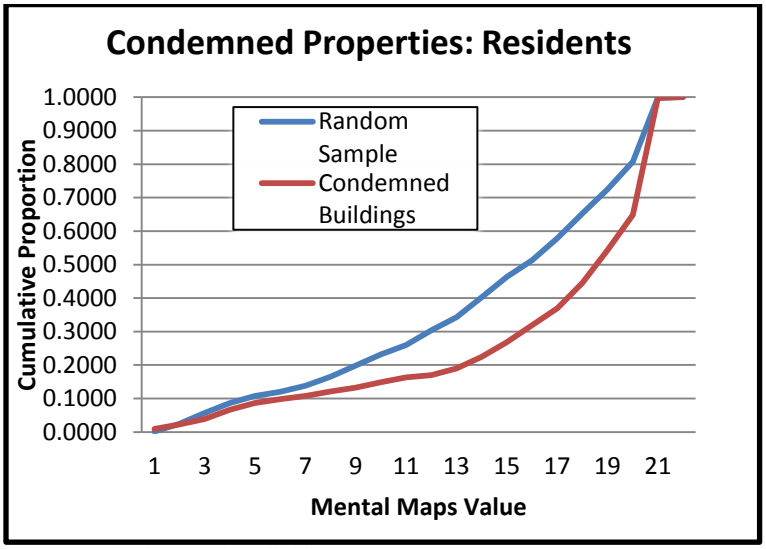

Source: Work of Researcher Elkekli, 2013-2014.

Figure 7F. COS based on the MHC mental maps.

**Kolmogorov-Smirnov Test (K-S Test): A Test for Statistical Significance**

The examination of both summary statistics and maps showed that there are differences between the formal (MHC) and informal (COS) measures of deterioration in the Tripoli Medina. Beyond this, the K-S test was used to determine if the location of condemned properties was spatially correlated to the COS maps (Smirnov 1948; Sinard and L'Ecuyer 2011). The K-S test is a nonparametric test for the equality of continuous, one-dimensional probability distributions that can be used to compare a sample with a reference probability distribution (one-sample K–S test), or to compare two samples (two-sample K–S test). The K-S test tries to determine if two datasets differ significantly and it has the advantage of making no assumption about the distribution of data. The two-sample K-S test is considered one of the most useful methods for comparing two samples because it is sensitive to differences in both location and shape of the empirical cumulative distribution functions of the two samples (Benedict 2014).

As its name suggests, the two-sample K-S test requires two samples (one a study sample and the other a control sample) along with values for a common variable connected to each sample. For this study, the common variable values were supplied by the COS of the various groupings of survey informants. The study sample was the geometric centroid of each of the 436 condemned properties from the MHC maps. For the control sample, the researcher created 1000 random point locations.




Source: Work of Researcher Elkekli, 2014.

Figure 8. The study and control samples with the residents' COS.

COS values were sampled at the locations of the condemned properties and the random sample. The results were subjected to a K-S test using the Statistic Software *SPSS*. For this test, the values of the two samples are arranged into cumulative proportions (Figure 8) and then the point at which the two samples are farthest apart is located. It then subtracts the lesser proportion from the greater proportion and returns this number as the test statistic (Smirnov 1948; Sinard and L'Ecuyer 2011). The significance of this statistic is determined if the difference between samples is greater than critical values. These values vary depending on the size of n. The smaller the sample size, the larger the difference needs to be before significance is reached. The critical values are

generally calculated by statistic software, but they can also be found in a table of values for K-S test. Calculations and critical values may vary from software application to software application, but usually not enough to negatively impact results.

In Table 4, the final column contains the K-S statistic (the largest difference between samples) and the probability that this difference occurred randomly. Note that the probability in all cases is smaller than 0.000 percent. This indicates that there is virtually no chance that the distribution is random, and that the difference between the MHC condemned properties and the random sample is statistically significant.

Source: Work of Researcher Elkekli, 2014.

Table 4. Summary and two-sample K-S statistics for the study sample and the random sample in the Tripoli Medina.

| Variable | Mean | Median | Standard Deviation | K/S Statistic & Probability |
|---|---|---|---|---|
| **Residents' COS** | | | | |
| Random Sample | 40.539 | 45 | 17.18173 | 0.211 |
| Condemned Properties | 46.6009 | 53 | 16.3732 | 0.000 |
| **Former Residents' COS** | | | | |
| Random Sample | 11.565 | 12 | 5.009078 | 0.219 |
| MHC Condemned Properties | 13.5596 | 16 | 4.5807 | 0.000 |
| **MHC Employees' COS** | | | | |
| Random Sample | 8.9700 | 9 | 0.021 | 0.259 |
| MHC Condemned Properties | 9.9977 | 11 | 2.644012 | 0.000 |
| **ECO Employees' COS** | | | | |
| Random Sample | 8.87 | 9 | 5.746836 | 0.243 |
| MHC Condemned Properties | 11.548 | 14 | 5.709 | 0.000 |
| **All Informants' COS** | | | | |
| Random Sample | 69.9440 | 75 | 29.37035 | 0.235 |
| MHC Condemned Properties | 81.7041 | 94 | 28.46231 | 0.000 |

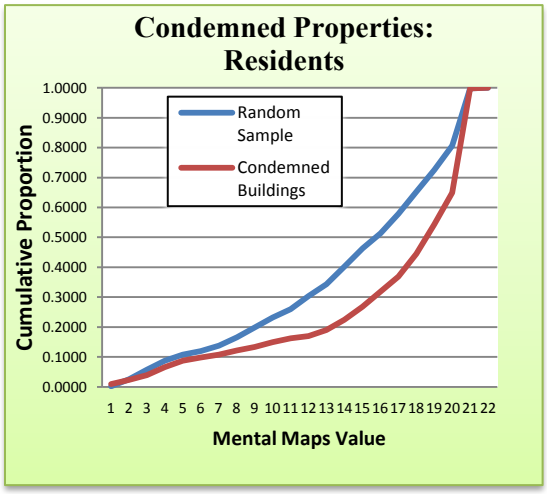
**Cumulative Proportion Graphs**

Because the K-S test is based on cumulative proportions, it is helpful to make graphs of these data for a better understanding. In Figure 9A, it is possible to see a cumulative proportion graph for the residents' COS which gives details about the type of

differences between the two sample sizes.

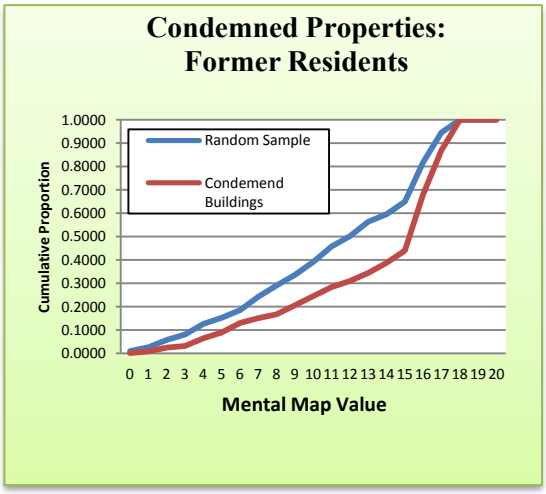
In this case, the cumulative proportion of condemned properties is to the right of the random sample, indicating that the values are higher than expected given a random distribution of COS values. In Figure 9A for the residents, it is clear that condemned properties were found in areas of greater than expected COS values. This indicates that even with the visual differences between the quantitative and qualitative maps, the informants were better at predicting areas of deterioration than the random sample was.

In the graphs in Figures 9A to 9E, one can see that in all cases the condemned property sample is found to the right of the control sample. This indicates that each of the COS maps is statistically significant in the same way. They consistently create a surface with higher than expected values of deterioration at the location of the condemned properties.



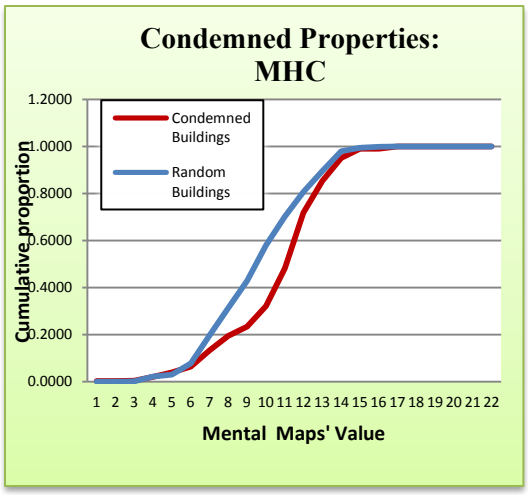

Source: Work of Researcher Elkekli, 2014.

Figure 9A. Cumulative proportion graph of study and control samples for residents' COS.



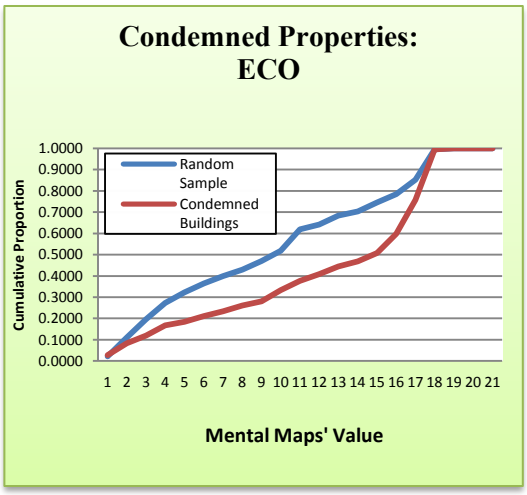

Source: Work of Researcher Elkekli, 2014.

Figure 9 B. Cumulative proportion graph of study and control samples for former residents' COS.



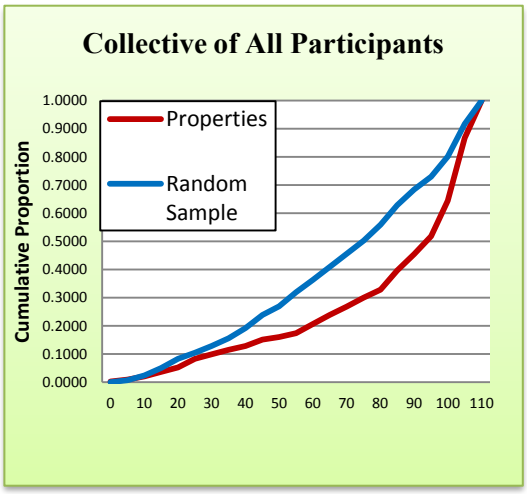

Source: Work of Researcher Elkekli, 2014.

Figure 9C. Cumulative proportion graph of study and control samples for the MHC employees' COS




Source: Work of Researcher Elkekli, 2014.

Figure 9D. Cumulative proportion graph of study and control samples for ECO employees' COS.




Source: Work of Researcher Elkekli, 2014.

Figure 9E. Cumulative proportion graph of study and control samples for all informants' COS.

Even though there are visual and statistical differences between the MHC and COS, the cumulative proportion graphs indicate that there is general, if not specific agreement about the location of condemned properties.

## Results

The objective of this paper has been to present a methodology for using mental maps to incorporate stakeholder opinion in the planning process. This section of the paper summarizes results from the preceding analytical section, finding areas of agreement and disagreement between the COS and THE MHC surveys and maps. It will discuss these analyses in the context of using mental maps to create space for dialogue between urban planners and stakeholders.

### Summary Statistics

Summary statistics were used to identify and compare perceived deterioration of the different quarters in the Tripoli Medina based on the COS against the percent of total area for condemned properties in each quarter based on the MHC map. These statistics were used to rank the different neighborhoods. These rankings were not completely consistent among the different informant groups, but were close enough to inspire confidence that they did represent similar opinions across a spectrum of informants in the survey.

This consistency makes it possible to say that across all groups of informants significant differences existed between the rankings based on the COS and THE MHC maps. In the MHC map, Alhara Elkebera is the neighborhood with the most condemned properties, but the COS consistently ranked that neighborhood as having the least condemned properties. At the same time, COS maps consistently ranked Koshet Alsafar as the quarter with the highest level of deterioration, while the MHC map revealed that only 10 percent of this quarter was condemned—second lowest of the six quarters. Of particular interest is that the MHC employees, the agency that carried out the survey and made the MHC map, were just as wrong as everybody else about these quarters. This

indicates that there are deep-seated perceptions about the condition of the different quarters in the Medina, perceptions that are often at odds with the actual distribution of condemned properties within the neighborhoods.

**Kolmogorov/Smirnov (K-S) Test and Cumulative Proportion Graphs**

This study used a K-S test to determine whether the location of condemned properties was spatially correlated to the COS maps. This test compared the values of the COS maps at the locations of the condemned properties to values at random locations throughout the Medina. For each COS map the difference between the two samples was statistically significant. This indicated that there was spatial correlation between the COS maps and the condemned properties.

Because the K-S test is based on cumulative proportions, graphs of these proportions were created. In every case, the cumulative proportion of condemned properties was to the right of the random sample, indicating that the COS values for condemned properties were higher than would be expected if they were randomly distributed. This indicates that despite visual differences (Figures 7A – 7E, 9A – 9E) and differences between summary statistics (Tables 1, 2, and 3), there are statistically significant similarities between the condemned properties from the MHC map and the values in the COS maps. These results indicate that perceived deterioration in the Medina is more complex than simple summary statistics indicated—with both agreement and disagreement between qualitative and quantitative data for condemned properties.

The methodology followed in this study, using mental maps and COS, allows planners to integrate both similarities and differences between the MHC and COS maps. These differences and similarities are not necessarily contradictory but likely represent

the difference between lower resolution (the Medina and K-S test) and higher resolution (the quarters and the summary statistics) data and analyses. At lower resolution, the K-S test indicates a positive correlation between higher levels of perceived deterioration and the larger number of condemned properties within the western portion of the Medina. When *zooming in* to view these data at a neighborhood scale, significant differences are readily apparent between perceived deterioration and counts of condemned properties.

These different results, between high and low-resolution data, highlighted by the statistical summaries and the K-S test, show the importance of involving stakeholders in the planning process. They underscore areas of agreement and disagreement between the local planners (MHC) and local inhabitants (COS) providing a structure for directed discussions about strategies for restoring the Medina.

Although largely successful as a methodology, there are a couple of areas of concern. First, the lack of precision with which informants marked the maps meant that the COS were better at identifying general (low resolution) trends than specific (high resolution) issues. This may have been due to the small scale of the map sheets. The A4 sized sheet left little room for making fine distinctions within or between neighborhoods. Landmark buildings, gates, and roads were included in the maps to help informants orient themselves, but they did not seem to have any real effect on the issue of precision. Polygons encompassing multiple neighborhoods were more common than small, intra-neighborhood polygons.

Another drawback to this approach relates to the time necessary to conduct the map interviews. Organizing and conducting interviews was helped by several factors: the surveys were carried out following the 2011 revolution and most residents thought that

the survey was part of the new government's work to conserve the Medina and to improve the residents' economic life. Eager to help, many people volunteered themselves and their neighbors to participate. In addition, the researcher received help from the planning agencies that allowed group interviews at their offices. Finally, the Former Residents Society worked to provide contacts among their members and the researcher. Still, the interview process represents a significant amount of time. In this study the researcher worked seven hours a day, six days a week, for two months to organize and conduct the 150 interviews.

## Conclusion

Incorporating the opinions of stakeholders is a challenge for urban planners, particularly when neighborhoods and buildings are important to the history of an entire country. Neglected areas need to be conserved not only for historic reasons but also in order for people to continue living there in a healthy and safe way. It is important to find a method to incorporate public opinion in the planning process. Instead of making plans without the residents' opinions, the planners' work must be informed by public attitudes and perceptions. This research was an attempt to develop a methodology to measure consensus and provide a structure for incorporating stakeholder opinion in the planning process. It used the Medina in Tripoli, Libya, as its test case, comparing cumulative opinion about urban decay to a quantitative survey of condemned properties.

Other researchers have studied the Medina from historical and architectural points of view but this work is the first time that geospatial technology has been applied to the Tripoli Medina. The creation of cumulative opinion surfaces, visual examination of spatial data, along with neighborhood-based summary statistics and the K-S statistical

test will enable Libyan planners to better understand stakeholder perceptions of the Medina and to work with them as they begin restoring the deteriorated areas of the Medina. To understand the physical aspects of the city, it is necessary to understand what people think about it. This researcher hopes that the methods used and the conclusions gained from this study will also be useful to other cities with similar challenges to help them build a framework for including stakeholders in their efforts to preserve their cities.

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# APPENDIX B

## Urban Planning in the Medina of Tripoli, Libya:

## Perceptions of Residents in a Historic but Unstable Urban Space

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**Abstract**

The Medina of Tripoli, Libya, has always been a site of change, development, and even decay driven by a number of interlocking forces. Although the Medina is very ancient, it is not a museum fixed in time; it continues to evolve. The purpose of this article is to review the various agents of change/decay that have influenced the urban fabric of the Medina over the last century, especially in the last forty years. Those agents brought it to the state it is in today, a place that has received some preservation and conservation attention, but a place that has no long-term plan or vision applied to it—either from within or from without. These agents include: 1) governments, both domestic and colonial, and their laws and regulations as well as influence from Islamic models of urban planning; 2) various planning efforts applied in different periods; 3) the pressures of population growth and economic development; and 4) the influence of the people of the Medina as they have attempted to express what Lefebvre calls their "right to the city" and whatever has either promoted or stood in the way of such expression. By the results of the research, planners will be able to understand the social affect in the Medina, how people act to have a comfortable life, and how best to conserve the historical character of the Medina. The researcher determined that the predicament in the Medina has been how to conserve and support cultural sites in the face of the needs of the inhabitants in the context of their and other conflicting interests.

Key words: the Medina, right to the city, change, structure, identity

**Urban Planning in the Medina of Tripoli, Libya:**

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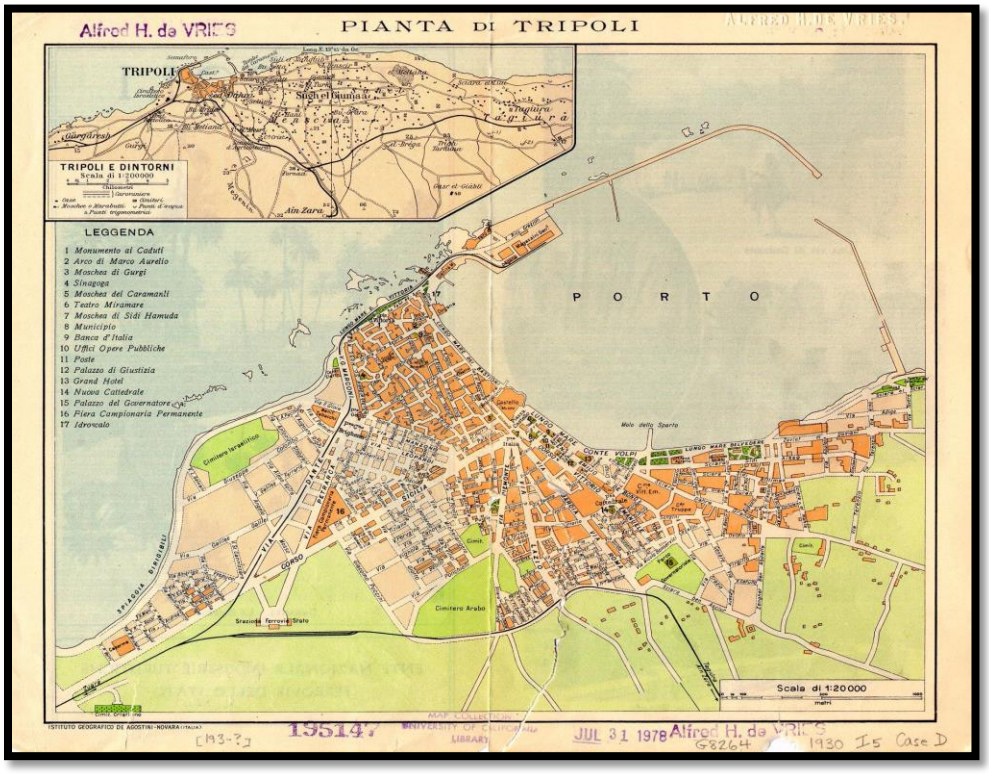
## Introduction




Source: Instituto Geografico de Agostini- Novara, Italia.

Figure 1. Historical map of the Medina and greater Tripoli according to Italian cartographers - circa 1930.

The Medina of Tripoli, Libya, is unique in the sense that although it is a very old and historic city, actually a district within a larger more modern city, it has received only moderate planning attention and even that in a largely uncoordinated way. The Tripoli Medina is still a living city but also one with extensive deterioration in some of its internal districts. It has a mixed population of local people and immigrant residents who are attempting to find a way to live together in a space that is in many senses quite unstable. Because the Medina has these characteristics, the "right to the city" lens can

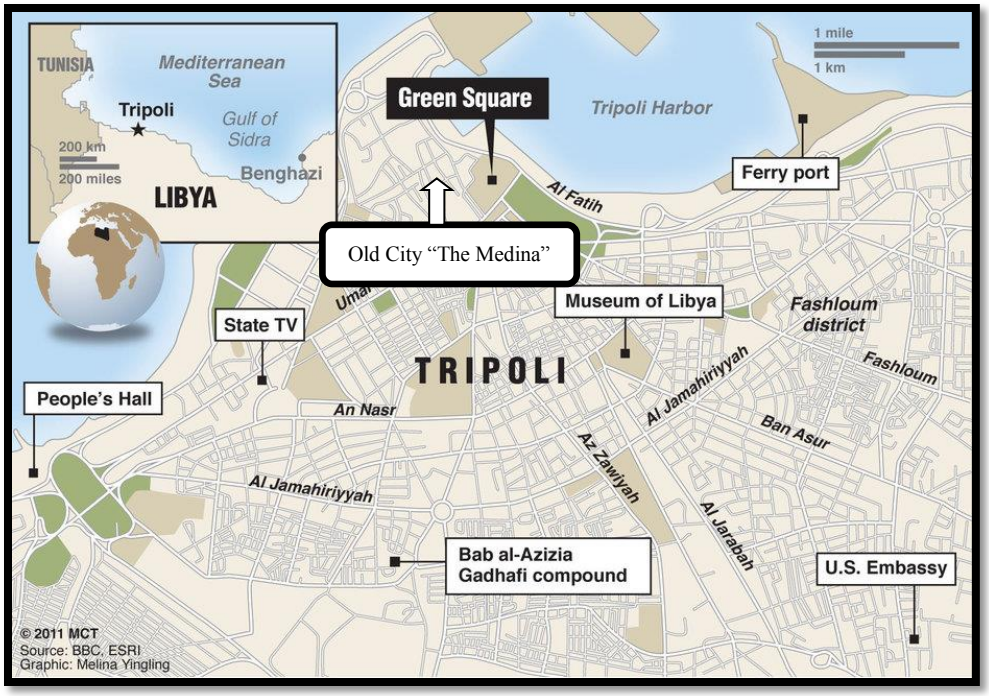
afford a way toward understanding the positions and experiences of the people, particularly its inhabitants, who have a stake in the Medina. The Medina is unlike many other historic areas in other Arabic cities; some of those historic cities are still a living city, even though some of those cities have extensive deterioration. One of the problems that have affected the Medina is changing some the building functions to accommodate the increasing population and to create comfortable places. Because of the effect of planning and its interaction with high-density population, the different neighborhoods have become much more unified in terms of their populations than they once were. As a result, those cities have become informal areas and with less direct state control.

The movement of people entering and exiting the Medina and the changes in the city's physical structure are a result of the push-and-pull of economic, political, and demographic forces. Most of the changes in the city's fabric have come not from planning but from generalized forces of urbanism and from residents attempting to meet their everyday needs. The inhabitants of the Medina are a mixture of groups, both Libyans and immigrants, and their experience of living in the place has also been affected by a series of political fluctuations that have acted on the inhabitants but in which they have largely been passive, not informant actors.

The Medina is located at 32°54′8″N 13°11′9″E in the northwest section of Tripoli, Libya, North Africa. The Mediterranean Sea is the border on the north and northeast; the wall surrounding the Medina is the border on the south and southwest. The area gradually descends from the north to the south; the highest area, nineteen meters above sea level, descends down to the lowest point of six meters on the southeast side of the Medina.

Under the assumption that a city is not just its physical manifestation but is the lives of its inhabitants and their perceptions of their lives, understanding those perceptions is crucial to comprehending the relation between the residents and the city. This paper, a presentation of part of a larger study by the researcher of the Tripoli Medina in Libya, presents the findings from surveys of the residents of the Medina concerning: 1) why they chose to live in the Medina, 2) their satisfaction with the quality of life there, 3) their loyalty to the Medina as a place, 4) their ability to have a voice that will affect change, and 5) the degree to which they and others are treated equally and have an equitable share in the life of the Medina. Those findings will first be framed by a discussion of relevant issues in urban studies, then an overview of how the physical fabric and life of the Medina has been shaped by its long and varied history, and finally a review of the sporadic attempts at urban planning that have been applied to both Libya and the Medina in more recent eras—consideration of those two spatial extents being here inseparable due to political and ideological factors in a colonial/postcolonial context.

The Medina was long ago divided into six quarters (Bab Bahar, Koshet Alsafar, Alhara Elkebera, Alhara Elsegera, Homat Elbaldia, and Homat Gerian) although not all boundaries of these are self-evident to a non-resident; each quarter has different functions according to its density of population and transportation patterns (Census 2006). Some quarters contain government buildings and numerous mosques both large and small; however, businesses and shops are largely dispersed along the edge of the Medina in some places along the area where the ancient wall once stood.




Source: BBC, ESRI.

Figure 2. Tripoli including the Old City of the Medina.

The building styles extant in the Medina are a result of successive invasions and occupations by the Romans, Ottomans, and Italians. Those building styles are distinguished by the particular design of structures and the allocation of space as conditioned by historical periods and their duration which influenced the characteristics of the buildings. For instance, the quite long Ottoman period (1551-1911) had a large influence, whereas the Karamanli period (1711-1835), which interrupted the period of direct Ottoman control, was short and its expression as a building style is much less identifiable. Some influences left a greater mark over a relatively short period of time. For the Medina, this was especially true not only during the Italian occupation and development (1911-1943) but also for the duration of Muammar Gadaffi's dictatorship (1969-2011).

The Medina has been a womb for different styles; in each street the blend is very evident. Also, it is hard to find and classify the styles by their historical period because the residents' personal tastes and activities have over time changed the appearance of the buildings. The residents from the long history of the Medina have been a mixture of different nationalities and religions although today most residents are Muslims. The Medina, because of its location in North Africa and connection to sub-Saharan countries, was, and constantly has been, a target destination of immigrants. In recent times at the end of the 1960s and the beginning of 1970s, the Medina was an area under the influence of oil revenue and development. As a result, most of the second and third generation Libyan families, their wealth increasing, left the Medina looking for more modern places to live with more up-to-date amenities. In that time, the Medina's structures were less conserved and preserved and had been the victim of multiple planning obstacles that motivated people to leave the place. Into this changing environment of the Medina came immigrants both from rural Libya and later from sub-Saharan Africa.

One of the purposes of this study was to examine people's feelings about their rights for living in the Old City and participating in making decisions. The results of this research will help to understand people's interaction with urban space, their right to have an agreeable lifestyle in a welcoming environment, and an improvement of their economic situation that will benefit their lives and maintain the Medina as a historic city. Some of the questions addressed in the survey were: "Do people choose to live in the Medina and also in the unfavorable conditions of the buildings there? Do they have the opportunity to participate in political change in the Medina? Are they, especially the

immigrants, provided adequate treatment and opportunities? Are they satisfied with their lives and happy with their space?

## Literature Review

The review in this section focuses on the following two issues: 1) power, interest, and space and 2) change in planning understanding. The tools (survey, mental maps) the informants used reflected their opinions in answer to the questions posed; these different opinions provided the data needed for analysis of the research. Each issue shows how power, interest, and space combine together and affect the city and its residents, and also, how to connect with the planning understanding by analyzing the theories to find forces that will explain the ambiguity.

### Power, Interest, and Space

Urban studies use the tools of sociology, economics, and other social sciences to study city life, government, and services. It also examines the processes that produced certain patterns of human migration and settlement and other areas shaped by urbanization, such as the metropolis and the countryside, city and suburb, and municipality and region. Even though urbanism is not the only factor responsible for changes to society and urban planning itself, migration has had a major impact because most people move from one place to another for better lives and opportunities; that has happened under urbanization as the result of the development of cities to which the migrants could move; and it also has happened between countries (Torrance 1995). The result encouraged poor people to immigrate to cities and get new opportunities for life; the relationship between poverty and mobile populations will continue as a result of economic and political situations. Moreover, North Africans and sub-Saharan Africans

have moved around the entire continent or to other continents because of violence and wars in their own countries (Torrance 1995).

Both urban geography and urbanism are comprehensive concepts related to urban studies and planning. Urban studies is the understanding of life in urban areas in terms of an emphasis on all the voices that create the city, including its inhabitants—often excluded by economic and political interests. In an urban studies framework, dynamic interaction between people and space in any attempt to achieve justice and balance occurs between three components: 1) power, 2) interest, and 3) space. The power of governmental positions, agencies, owners, and organizations can affect the rights of the excluded and the structure of society and cities by exerting negative and unequal influence on space, the people's sense of equality, and their sense of receiving an equitable share of the rewards of urban life. The second component, interest, can include all people who are interested in the place and have a strong relationship with the place either through culture, inheritance, political influence, and/or economic investment. Space, the third part, exists when the first two masses are connected and is the stage for operations that are related to society, politics, economics, and other activities (Lefebvre 1991, 139).

Some urban studies have focused on historical, medina-like districts, whole modern cities, and urban areas as a distinctive entity. These studies explore the meaning and function of urbanism in the larger society, specifically, how residents in old places that are considered deteriorating areas can live there and make changes to the buildings' function to have a suitable life. When focusing particularly on old cities, this understanding and dealing with those issues pose a particular challenge to urban studies,

as concerns around the creation of livable spaces for residents interacts with issues of conservation and historical value (Bayat 2004).

**Change in Planning Understanding**

Urban planning within the urban studies framework is seen as an activity not just of professional planners but also, in a much larger sense, as an activity that characterizes the organization of societies. The question that faces anyone directly involved in urban planning is represented in the various elements of the multiple histories, traditions, policies, religions, cultures, access to appropriate privacy, and permanency that manifest themselves. Libya is a rich example of this mixture in which urban planning, both ad hoc and deliberate, progressed gradually and often sporadically from underdevelopment as a poor country, to development with the discovery of oil, to overdevelopment through rapid population growth and the lack of strategic planning during different periods of time. The mixture of the lifestyle of the residents' backgrounds and the effect of culture can produce special characteristics of interaction between urban spaces and people. Teriba (1976) clarifies this issue when he writes that development in a national context involves its institutions, organizations, social rules, customary usages, and attitudes being transformed by society. In agreement, Taylor (1998) states that "urban planning is a form of social action, or a social practice; it is about intervening in the world to protect or change it in some way…[it] draws on both aesthetic and scientific understanding…that is about how best to plan the environments we inhabit" (Taylor 1998, 167). It is the responsibility, therefore, of urban studies and urban planning to promote that "aesthetic and scientific understanding" by engaging the perceptions of all stakeholders, not just of those with the greatest power over the space, but those with the most intimate interest in

the space and its inhabitants (Taylor 1998). A lack of social organization and adequate infrastructure is made worse when a country is developing and has a large influx of population. Social and economic urban development of infrastructure and immigration control must be undertaken with the preservation and protection of earth's resources for present and future generations (Gottdiener and Budd 2005).

Most of the old cities in Libya, including the Tripoli Medina, were established in different eras, and these cities have been continuously shaped by the culture and normal activities of the residents. Different activities took place in different periods of development of the society with the result that the extent of the people's expression fluctuated between their desire to see the city as a space for them to shape and the limitations of the formal urban planning structure existing at any given time. It has long been the view that the growth of older urban spaces from villages to larger units has been random and unplanned, and not just in the Islamic world (Bonine 1979). Although older cities in general, and the Medina in particular, might have diverse cultural backgrounds, significant communication has always existed between the ideology of the residents' practice of their lifestyles and urban planning that shaped these spaces to meet the inhabitants' needs. The aggregate of the activities of people who live in a space shape and "plan" a space but without necessarily the concept of projecting into the future a preconceived vision that "planning" implies (Lefebvre 1991).

Over time the accumulated palimpsest of their perceptions, beliefs, and activities creates a space and an experience of space unique to that place. Lefebvre uses the metaphor of the seashell and the animal that inhabits and creates it to capture the sense of his own home place, the city of Navarrenx in the foothills of the Pyrenees in France. That

city has been "shaping its shell, building and rebuilding it, modifying it again and again and again according to its needs" (Merrifield 2006, 116). The change in the cities is usually the reflection of how people understand the society and progress to make a balance between what they have and what they need.

Although all cities have been subject to episodes of planning during their history, reordering the street plan, or building a city wall, very old cities have accreted so much activity, both planned and unplanned, that the distinction between those two terms dissolves to reveal the importance of the activities of the generations of inhabitants and not just of those in power. This effect is visible today in Islamic cities of the Middle East in changes to what is regarded as the face of their traditional urban fabric. This face has been mixed with and altered by recent urban renewal in response to prior failures in conservation. What conservation has occurred came out of an ideology of heritage or an idea of the inherent value of historic buildings or spaces as souvenirs from the past for future generations. According to Radoine (2008), the history of places like the Medina is not fully explored as a dynamic process of transmission of urban synergies, but rather is framed into a new invented term: heritage site. This categorization has included the Medina, a living city in the realm of archeological conservation, but it has likewise hindered its sustainability and development. Also, there are some new urban spots in the Medina's fabric. These new spots are evidence of some groups in the Medina acting to express themselves and their needs even though these artifacts of modernity do not match the historic city.

**Right to the City**

In focusing on the views of the residents and other interested stakeholders to help understand the situation of the Medina and provide insights for the ongoing discussion of the future of the Medina, this study is in part grounded in the conceptual framework of the "right to the city." In most cities, the diversity of the inhabitants emerged according to their ethnicity, race, and other terms of difference which can create a variety of hopes and interests. The power of property rights can easily affect the political arena that, as a consequence, can have an impact on decision-makers. The connection between power, politics, and economics can best represent place, space, and location as multiple faces. The right to the city adds a new perspective—all the people associated with a city have the right to influence its shape and to experience being in a city (Lefebvre 1968).

Lefebvre (1968) stated that "an existing space may outlive its original purpose and raison d'etre that determined its forms, functions, and structures; it may thus, in a sense, become vacant and susceptible to being diverted, reappropriated, and used in a quite different form than its initial one" (Lefebvre 1968, 167). Mitchell (1996) asserts that the right to the city theory accepts urban space as the stage of society, politics, and the place of decision-makers. The right to the city can influence social growth, but it can also be harmed by power elements, tradition, laws, and customs. He also argues that location, space, and place are not just the stand upon which any right is contested, but are actively produced by struggles over rights. Later Harvey (2003) refers to derivative and fundamental rights:

> Derivative rights (like the right to be treated with dignity) should become fundamental and fundamental rights (of private property and the profit rate) should become derivative. But new rights can also be defined: like the right to the city which is not merely a right of access to

> what the property speculators and state planners define, but an active right to make the city different, to shape it more in accord with our heart's desire, and to re-make ourselves thereby in a different image. (941)

Foucault (1994) examined the role of government in a country with high population and the correlation between population growth and urbanization. When the space valued by people is available, the interaction of population growth and urbanization seemed to lead the government to take on new roles. The question he asked was which had a greater impact on urbanization—government or population growth—and how would that impact the government system (Foucault 1994). This is clearly connected with the situation of the Medina, where the increasing population (local and immigrant residents) and the state authority did not react or plan to conserve the old city. Instead, Medina residents were left to tend to their daily needs with little to no government support for conservation or planning. This urbanization has engaged with new characters of buildings, renovations, and additions established by new residents, many of whom were recently arrived immigrants. So as an effect of urban life and the daily needs of residents, the old character and details of buildings have changed.

In Lefebvre's (1968) view and in building his concept of the right to the city, he saw this right as an inclusive right that develops from the very right to life, the right to change the city, and the circumstances of life not just as a result dictated by population growth or as wrought by changes in, and policies of, political and ideological systems. People can practice in the city to introduce space equal to their interests and for the social and political practices that shape themselves. This concept is much like what Bourdieu (1990) defined as "habitus"—a concept for understanding society and the process of

social change which can produce and reproduce social structures. He further described it as a "system of structured, structuring (unconscious) dispositions constituted in practice and based on past experience which perpetuates itself into the future" (Bourdieu 1990, 56).

The right to the city does not have a specific mechanism; it is more a stance or perspective that would allow, encourage, and mobilize ethnic, racial, religious, and minority groups—all groups—to have freedom to change the city both in its physical fabric and the ways in which it is used and experienced. "The right to the city cannot be conceived of as a simple visiting right or as a return to traditional cities. It can only be formulated as a transformed and renewed right to urban life" (Lefebvre 1968, 158). Lefebvre's ideology would rebuild the power relations that are considered urban space and would spread the authority from the central urban spaces into the areas of urban inhabitants.

**The Medina's Background**

The Medina, although having distinct boundaries, is tied to the larger urban area of Tripoli and connected to it on the east, south, and west; this location gives meaning to it as a center and continues to make it an active economic area. Even though the Medina is known as a historic place, the function and activities of the Medina make it one of the focal areas in Tripoli because of its downtown location, religious institutions, marketing facilities, and proximity to transportation. The structure of the place and its context are a mix of economic, social, political, cultural, religious, and ethnic factors; it is this mixture that has made the difference in the texture of life there. However, this distinctive urban

character of the Medina has been affected by rapid population growth in the last four decades from 1969-2014.

This population includes an enormous variety of majority and minority group residents. The first group of residents consists of Libyans who are originally from Libya and have inherited their places in the Medina from their ancestors. The second group of Libyan residents comprises those considered Libyans by Libyan law and the revolutionary political decisions after 1969, especially Law Number 4 (Congress 1978) which dictated eviction and expropriation in the name of public interest. Following this law, agreements were made, especially between the Libyan government and other African countries, to allow both documented and undocumented immigrants to enter Libya from Africa and the Middle East. The third category of residents includes the documented immigrants who have lived in Libya and particularly in the Medina for more than thirty years. The fourth group encompasses owners of residential buildings, including those who own buildings in the Medina that were inherited from their ancestors or who have been deprived of them under Law Number 4 (Congress 1978).

The law states in Article 1, "The ownership of residence is regarded as sacred and should not be stripped for public use." However, in Article 3, it states, "In all circumstances, [those buildings] will pass to the state's ownership regardless of the owners of these real estates except that which is owned by public figures and the public authorities which serves the public's interest or owned by the foreign embassies." Article 4, the most radical, states, "No citizen is allowed to own more than one house, or one piece of land suitable for residence, even if he is married to more than one wife" (Congress 1978). This article changed building ownership and classification and gave

title to some buildings to those who live or work in them without compensation to the owners. The ownership of these buildings was directly manipulated by the government for political and ideological ends—to win the support of some sectors of the population, often immigrants. Though many in the group of longtime property owners are no longer residents, they are deeply invested in the fate of the Medina, spend much time there, and are in many ways indistinguishable from the groups of longtime residents who still live in the Medina. In most cases, they or their family or members of their family once lived in the Medina; often some family members still do. All the residents and non-resident owners participate in the space in different ways proportionate to their ability and perceived sense of having the right to do so.

## History

In the Tripoli Medina, the Romans passed on their style of classical architecture in public buildings and monuments; however, virtually nothing is left of the Roman period except for the Arch of Marcus Aurelius near the Sea Gate, the Citadel in the southeast quarter, and some streets that betray their Roman origins in their greater width in contrast to the narrow Muslim requirements. The Ottomans contributed a significant number of both residential and commercial buildings, as well as some of the most important mosques. Moreover, the old cities that belonged to, or were affected by, the Islamic era had a special urban planning design. According to Hakim (1986), from 622 A.D. when the Prophet Mohammed moved from Mecca to Medina, the essence and spirit of Islam influenced the basic principles and guidelines of Muslim architecture; those principles concentrated on housing, access, and the basic human rights of people in the cities, especially privacy and minority rights.

The Italian influence is seen in residential and religious buildings in general and is concentrated in the southern part of the larger city of Tripoli and appears as service buildings inside the Medina as well as a Christian church complex and a public school. In addition to those three broad building styles, the Medina is characterized by a number of other stylistic features: 1) a mixed pattern that combines one or more styles; 2) a local Libyan style that appears in many of the residential buildings in the Medina and especially the Mosque Al-Naqah, the oldest of the existing mosques; and 3) a modern, post-Italian style that was built randomly throughout the Medina in some areas and found in some residential buildings.

Source: Work of Researcher Elkekli, February, 2012.
Figure 3. Roman arch, Ottoman clock tower, and Ottoman door.

A main characteristic of Ottoman style is how it copied and adapted stylistic features from other civilizations. In general, this building style was heavily influenced by the Roman, Byzantine, and Muslim cultures in the Middle East, and the Ottomans often decorated their buildings with geometric designs and detailed calligraphy (Khoja 1969). A succession of Ottoman Sultans undertook extensive building patronage in the Medina, concentrating on extensive complexes that combined a central mosque with various religious, educational, funerary, and market institutions. During its long reign the

powerful and wealthy Ottoman Empire had the same characteristics in all Arabic countries that were under the Empire's authority. Unfortunately, this building style has not been the focus of a comprehensive study despite its importance in particular localities like the Medina (Ahmida 1994).

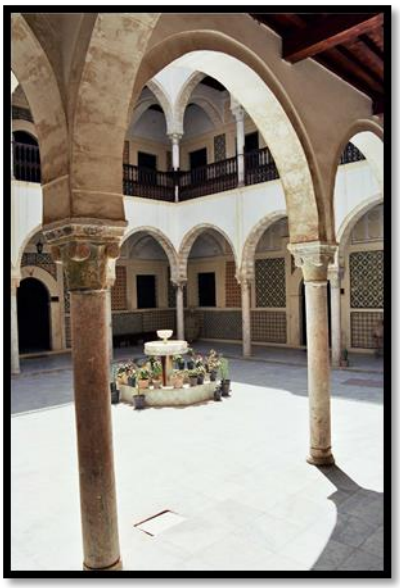
**Urban Structure from Ottoman Era to the Present**

The introduction of the Ottoman style in the late 1500s was the first step in urban planning after the Spanish destroyed most of the Islamic Medina in the early 1500s (Baroni 1952). In the first part of the Ottoman era (1551-1711), the Ottoman Turks conquered the entire country as a part of their empire. All urban maps prepared by the Ottoman army at that time were considered military secrets and were not available to succeeding planners.

Source: Management of Historic Cities, Tripoli, 2010.
Figure 4. Ahmed Basha Mosque.

The Karamanlis ruled Tripoli almost independently of the Sublime Porte (the Ottoman Court in Constantinople) during the late eighteenth and early nineteenth century (1711-1835). The Ottoman Empire imposed heavy taxes on those who lived in the Medina and, for this reason, many people emigrated from Tripoli to other Libyan areas

and, as a result, planning for the Medina was halted; this especially affected the influence of local design by the Libyan people. In the second part of the Ottoman Empire from 1835-1911, important businesses and other buildings in the larger Libyan cities were improved; telegraph and telephone lines were installed between Tripoli and Benghazi (Amora 1997).



Source: Historical Cities Administration, Tripoli, Libya.
Figure 5. The Karamanlis' house.

The Second Ottoman Empire divided the area outside the Medina into districts, and in 1881, the walls of the Medina were extended in all directions. In 1909, the *wali* (governor) decided to destroy the old wall from the Elmenshia "gate" on the southeast side of the Medina; this action extended and created a new Tripoli (Alsorey 2005).

**Italian Influence**

After the Italian conquest of Libya in 1911, Italian naval engineers in 1912 took the first step in reorganizing Libya and planning the new Tripoli. In 1918, they numbered the houses, surveyed the land, and prepared maps that identified the main streets. In addition,

they identified land use, especially for the central area of some tall buildings, and designed a plan according to the Italian model in Rome that continued to have influence throughout the era of Italian occupation (Ahmida 1994).

Source: Work of Researcher Elkekli, February, 2012.
Figure 6. Italian designed arches in Tripoli outside the Medina.

The Italian plan adopted the primary style established in Italy more than combining the style of the local Libyan culture with its own. Doing so made clear that Libya was an Italian colony, yet it still retained the influence of local culture, custom, and the restrictive narrowness of many streets in older residential areas. In the new areas of Tripoli, three-story buildings (a new height for Libya) and the wide main street, West Street, later named Omar Almuktar Street after Italy left in 1943, are good examples of Italian planning (Amora 1997).

By a decree from the United Nations, Libya officially gained independence on December 24, 1951, and under its first king, Idris al-Sanusi, the monarchy established after World War II extended from 1951 to 1969. King Idris tried to continue with the

Italian urban plan and also initiate economic planning. His government created new planning studies in consultation with foreign engineers in 1964 (for the economy) and 1966 (for planning); these studies led to the plan that was later known as the first generation of urban planning in recent Libyan history. In the last years of the monarchy, improvements were made: the Old City reservoir was established, some roads were paved, and a coastal road was set up between Al Saraya al Hamra castle (Red Castle) and the port (Amora 1997).

**New Libyan Arab Republic Authority**

A military coup under Muammar Gadaffi on September 1, 1969, ended the monarchy, and the Libyan Arab Republic was established. Gadaffi ruled according to the Third Universal Theory, a system of governance of his own invention that he believed reflected Libya's diverse cultural heritage. A Constitutional Proclamation on December 11, 1969, designated the Revolutionary Command Council (RCC) as the supreme executive and legislative authority in the post-monarchical regime. The RCC issued a decree identifying *shari'a* (Islamic law) as the principal source of all legislation and examined all existing legislation in order to make it consistent with shari'a principles. In regard to urban planning, these principles included provision for places of privacy, height of the walls between houses, placement of inside windows, the right of walking outside, right of residential areas, and the width of the streets. Simpkins (2008) notes that such jurisdiction under shari'a was typical for early Islamic cities like Mecca, Medina, Basra, and Kufa.

Law Number 5 of 1969 was enacted by the RCC so that city planning would protect the health, safety, and general welfare of the people (Department 2006). This law

contained eleven chapters to cover all the land use of the country by using maps. These maps included the division of land use, the length and width of the streets, the length of houses, the components of the sewers, all kinds of buildings, and industrial areas. It also decreed punishment for those who broke the urban planning laws. All these were considered the Islamic law of the cities and accepted by the RCC (Department 2006).

In 1969 the RCC became the primary group in Libya to oversee planning for the development of Libya and even over the *waqf* (religiously endowed property), and many changes were made in the administration of the districts including reducing the number of municipalities (Department 2006). In Law Number 58 of 1983, the High General Ministry decided in 1984 to establish a technical staff to organize and manage a Medina Project. In accordance with the provisions of this resolution, the expropriation of property of historical and cultural value was permitted. This project led to conservation of public and religious buildings mostly in the eastern quarters of the Medina with virtually no attention to the state of housing, especially in the densely inhabited quarters in the western half of the Old City (Department 2006).

**Understanding the Urban Planning Authority of the Medina**

In the early 1960s, a group of people interested in the Old City raised their voices to conserve the Medina as a historic valued city. In 1969, the Standing Committee to Preserve the Ancient City was established but did not specify a particular authority to belong to it; in addition, its responsibility was limited to historic monuments and the preparation of maps and graphics. Because of a lack of financial resources, that committee did not complete its work. In 1983, the government under Resolution Number 58 established a technical authority for the Organization and Management of the Ancient

City followed by a facilities management for the Municipality of Tripoli, but it, too, failed to achieve its goal because the Medina was classified under the municipality of Tripoli as an underdeveloped area not as an urban historic city. Between 1983 and 1985, the Division of Culture created a new structure for the ancient city to actually maintain the city, but that was without the allocation of funds to implement it (Alkoja 2012).

Another effort was made in 1985 when a division called the Project Organization and Management of the Old City was decreed to develop and maintain the historical city and the decree was based on the Medina's resources to accomplish the conservation. The main problem was not as much to have an administration to conserve the historical city as to finding funding to maintain the city. After that, the Medina became part of a company, known as the Recreational Games Company which was under the Social Security authority. Then the Medina came to be under the leadership of the General People's Committee which is like the Libyan Congress before 2011. Later, the Medina was shifted in succession under municipal utilities, media, culture, and tourism. In 1984, the executive committee of the Medina Project called for the creation of a special administration for the Medina with its own reliable funding resources from the government; however, the decision in 2006 came twelve years after Law Number 125, and, unfortunately, the funding issue was disregarded and that challenge for proper funding continued with the Medina's conservation. Because the various groups/committees failed to act and complete their projects, the Medina has remained without consistent effort for preservation. As a result, most of the characterization of the Medina, its people, their attitudes, and interaction with the larger frameworks of those in power is based on the researcher's study (Alkoja 2012).

**Challenges and Obstacles to the Preservation of the Medina**

This tradition of changing regimes, stylistic influences, and fluctuating attention by the government has continued over the past forty years. Some challenges and obstacles to the preservation of the Medina have been the enacting of contradictory legislation and various economic reforms, changing of policies and municipality borders, defining the shape and features of the city, considering planning as complicated work, and accounting for, or failing to account for, increases in population by immigration or natural growth that made the various planning regimes overlap. It seemed to the researcher that Libyan urban planning lost part of its identity as a specific style as the years progressed, especially in comparison to the old cities that still existed in other Islamic countries. From the history of the Medina and with the passing of time and neglect, the historical, cultural, and economic valuation of the city has become controversial and a significant variable in Libyan urban planning.

A lack of coordination of ideas between decision-makers and planners, a lack of value assigned to historic cities, and the misunderstanding of the "Islamic city" structure seems to have had a long history. Lapidus (1967) states that near-eastern cities have a definite and logical pattern in their organization, despite the apparent shapelessness of these cities with their narrow lanes and an apparent jumble of patterns that seem to indicate a lack of planning. As Radoine (2008) makes clear, without some degree of planning, cities of the medina type could not have functioned:

> The sustainability of the current madina, despite its physical decay reveals hidden dynamic urban mechanisms that have proved its reliability... arguably, without a sense of order and planning, the sewer would flood its alleys, potable water would never reach its fountains, and one would never escape its twisty roads. It would be absurd to view [the] madina as being totally random, and to assume that it did not generate a level of a pre-meditated planning, Any human settlement, regardless of

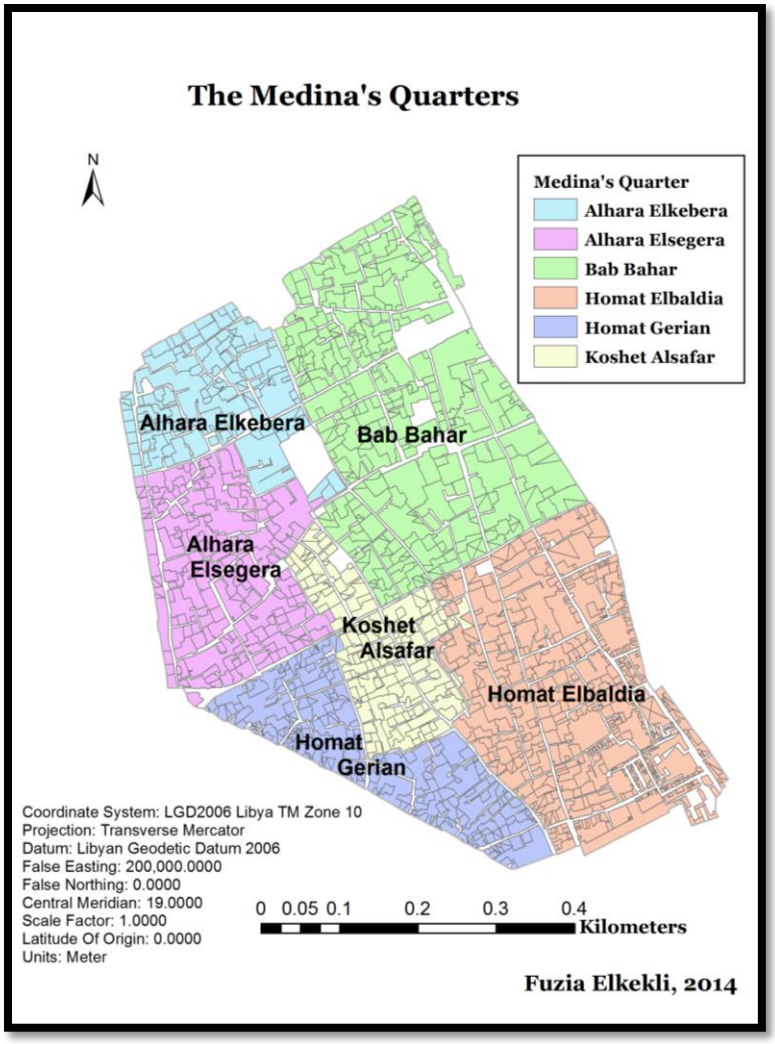
> its level of randomness, was governed by a typical social and ideological pattern. To describe the madina as a sheer labyrinth or maze is thus not a sound criterion to canonize any urban model for the complexity of human settlements. (527)

Comparing this to the time when Libya was under the control of Italy from 1911 to 1943, the Italians made planning designs for the main cities including Tripoli. This initiated a massive expansion of the city outside the Medina but largely under the guidance of Italian and European architectural and planning models.

**Living in the Medina**

The relative stability of the Medina's residence patterns, as indicated in the results of this researcher's survey, helped people build their communities in the context of the six quarters. The differing population density in the different quarters demonstrated that the residents have exercised their right to choose the area where they live. Culturally, most immigrants from rural areas and other countries coming into the city since the late 1970s preferred to gather in the same quarter with those from their own locality to support each other. Their communication was facilitated by walking, the most common form of transportation inside the Medina, because of the narrowness of the streets that seem designed to facilitate frequent encounters between residents.

Cultivating a new closer level of communication and relationship with their neighbors was challenging for many new immigrants who had not experienced urban life before. The lack of barriers separating the quarters or other limitations also has facilitated communication in the neighborhoods. From a cultural and circulation point of view, the Medina seemed to have very active communication which added to the residents' quality of life in that the constant intimate contact promoted a sense of equality because it broke down some stereotypes that different groups might have about one another.




Source: Work of Researcher Elkekli, February, 2012.

Figure 7. The Medina's quarters.

Some of the questions used to elicit the informants' opinions about the physical and human condition of the Medina were: Do the residents, new and long-standing, feel that they have the right to make specific relationships and interactions in the space they inhabit? Do the longtime residents constrain their communication especially with the newer immigrants? Such questions opened issues of fairness that were intimately involved with the discussion and development of the concept of the right to the city; as a result, the informants' opinions became part of the analysis.

Source: Work of Researcher Elkekli, February, 2012.
Figure 8. Zanga (Alley).

Source: Work of Researcher Elkekli, February, 2012.
Figure 9. Homes and suqs of residents.

## Methodology

In order to explain the issue and obtain a valid result according to the objectives of the study, data were collected through multiple sources; the Management of Historical Cities (MHC) had a 2010 survey for the Medina to collect physical and social information. This data was used to support some of the researcher's data. The methodology in this study connected the larger question of the research with the possibilities for projects for the planners.

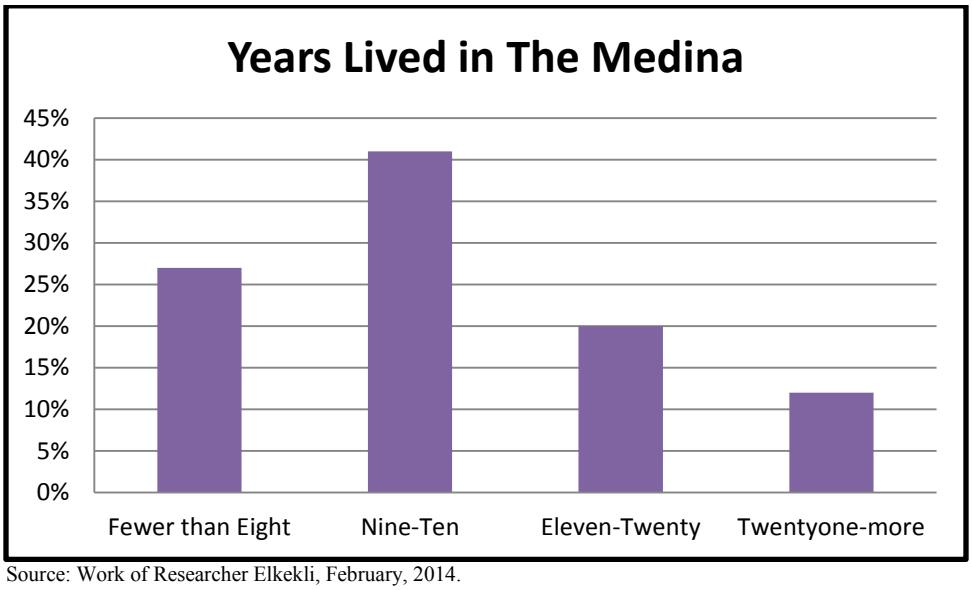
For this study, the researcher used a main survey of thirty questions which all informants were required to answer. The researcher interviewed 150 persons from different groups including former and current residents (local and immigrants), engineers, decision-makers, and workers in the MHC and Engineering Counsel Office (ECO) who worked in the urban planning projects. The questions used in the survey are included in Appendix B1 and the results of these survey questions were used for the analysis. Appendix B2 contains a copy of the questions and the mental map sheet.

One aim of this researcher's study was to analyze how people think about the Medina as an area in which to live, their homes, and the quality of communication with each other. Other sources of the data were interviews of the residents who were not able to read the survey pages because they could not read or write Arabic. The study also used general maps of the Medina and simplified Medina maps that identified the six historical quarters. These maps helped the informants determine the places and landmarks that were pointed out in the study.

## Results

Having completed this brief review of the planning history of the Medina, the researcher determined that the predicament in the Medina has been how to conserve and support cultural sites in the face of the needs of the inhabitants in the context of their and other conflicting interests. It is noted that Islamic law itself guarantees to some degree the rights of the people to live in urban space, stressing the importance of privacy and communal living. This treatment now turns to how the residents of the Medina perceive themselves in relation to their city.

**Length of Time Lived in the Medina**




Source: Work of Researcher Elkekli, February, 2014.

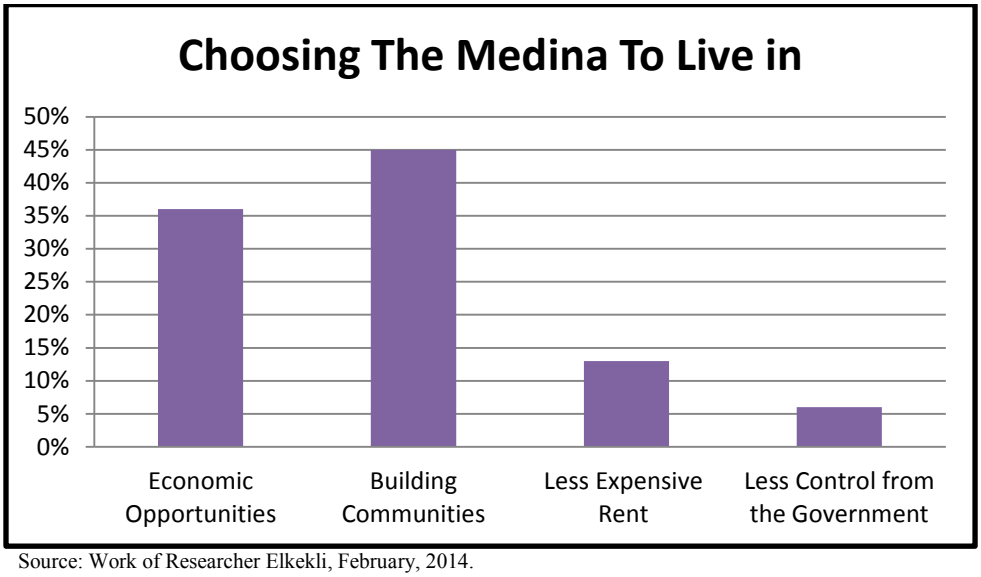
Figure 10. Years lived in the Medina.

In response to the question of how long residents had lived in the Medina, twenty percent had lived there fewer than eight years; thirty-one percent nine to ten years; thirty-six percent from eleven to twenty years, and thirteen percent twenty-one years or more (Figure 10). This last percentage as more than twenty years of living in the Medina demonstrates the force of attraction of the Medina as a place to build a life and conduct business; so social network development created a kind of special environment for people to live there. Over time, people came to like the environment of the Medina and the place, and it became a part of them. Despite strong social networks, the survey results on the economic side from the 2010 census of the Medina depict it as a low-income area (Census 2010).

**Choice to Live in the Medina**

A related question was, "Why did you choose the Medina as a place to live?" Figure 11 shows that thirteen percent of the informants' responses indicated that they chose the Medina because it was less expensive. Forty-five percent grouped themselves

by their national communities, and although they live in the city, indicated that they would prefer to live in the suburbs rather than in the Old City. Thirty-six percent chose it for economic opportunities while six percent felt that they had less control from the government. The pattern of these responses shows, especially for immigrants, that reconstructing their lives, at least partially, the same way they lived them in their home countries was also important.




Source: Work of Researcher Elkekli, February, 2014.

Figure 11. Choosing the Medina to live in.

The motivations for their choices seem to indicate that people do sense they can look for the best place to live. However, it is also clear that economic, cultural, and political considerations constrain the choices of many immigrants. Comparing the buildings' rent prices in the Medina's quarters with those in the rest of Tripoli, it is recognized that, in greater Tripoli, rents are more expensive because of the greater availability of infrastructure, public services, and a variety of desirable locations.

Some quarters of the Medina are considered deteriorating or deteriorated areas; in spite of this, the Medina is a goal for settlement for some immigrants. The diversity of the

residents choosing the Medina is stressed because of the importance of building various neighborhoods and community groups.

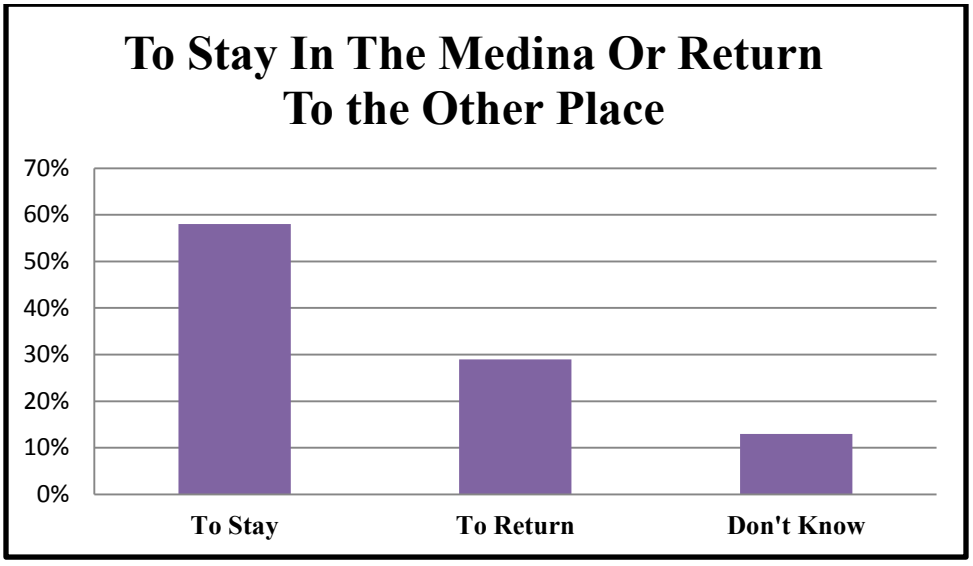
Source: Work of Researcher Elkekli, February, 2012.
Figure 12. Deteriorating buildings as garbage dump inside the Medina's quarters.

The answers to this question of why people chose to live in the Medina offer some very interesting clues as to how residents of the same nationality moved to the same quarters of the Medina to build their communities. The researcher observed that in order to support themselves and their families, some residents switched the function of their buildings from residential to commercial. Often this occurred in buildings that were deteriorating or had deteriorated and whose rental costs had thus declined, therefore decreasing the expense of starting a small business, especially retail shops specializing in clothing and food from the immigrants' home countries in other parts of Africa.

**To Stay in the Medina, To Return Home, or Move to New Place**

Many new residents of the Medina came from areas of war, poverty, and racism so the Medina was a good destination for them to avoid poverty, find business opportunities, and provide an improved lifestyle for themselves and future generations. Concerning this issue, one question was, "Do you intend to return to your native country?"

The survey indicated in Figure 13 that fifty-eight percent of residents (immigrants and local Libyans) preferred to stay in the Medina while twenty-nine percent were about to return to their own countries or other areas of Libya. Most of these responses came from documented workers (immigrants, local Libyans who belonged to suburban areas, and workers from other Arabic countries) who being documented had a sense of greater mobility. Thirteen percent of the informants did not know what kind of decision they would make, whether to stay or return.

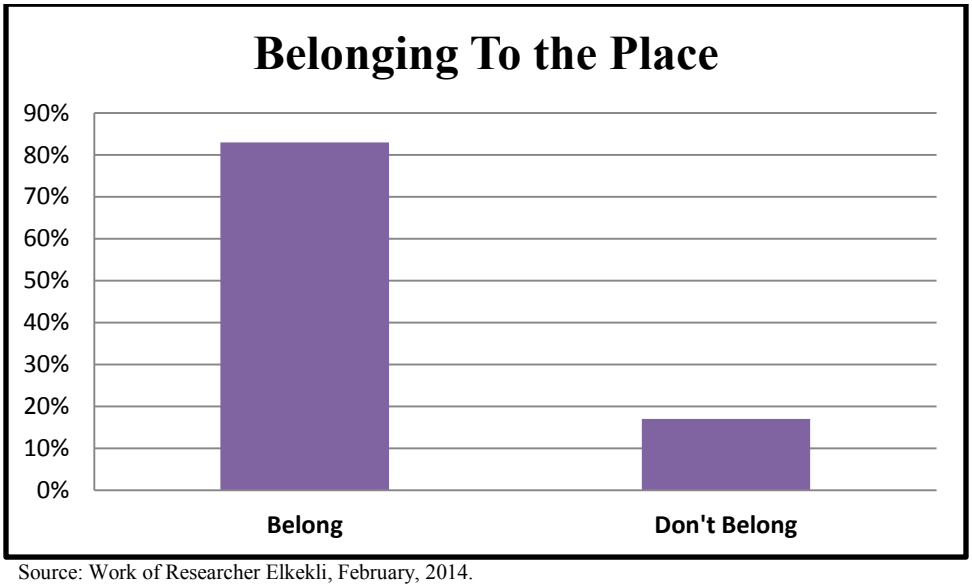



Source: Work of Researcher Elkekli, February, 2014.
Figure 13. To stay in the Medina, to return home, or move to new place.

Specifically, some of them were thinking about emigrating to Europe for better opportunities. Moreover, from the economic side, some informants had the opportunity to better their financial situation so they were tempted to stay in Libya permanently or earn enough money to migrate legally to Europe. The survey was made in late 2011 and early 2012 during the unstable time after the uprising and the Libyan change of government. Because of this, some residents had no idea or plan for their future.

**Belonging to the Place**

To the question "How strongly do you feel you belong to your immediate neighborhood?" the survey results (Figure 14) indicate that eighty-three percent of the residents felt that they belonged to the city as a place where they can practice their rights to society and a place, confirming the sense that they felt that communities could be built there. However, seventeen percent, a small but significant number, responded that they do not feel that they belonged to the place.



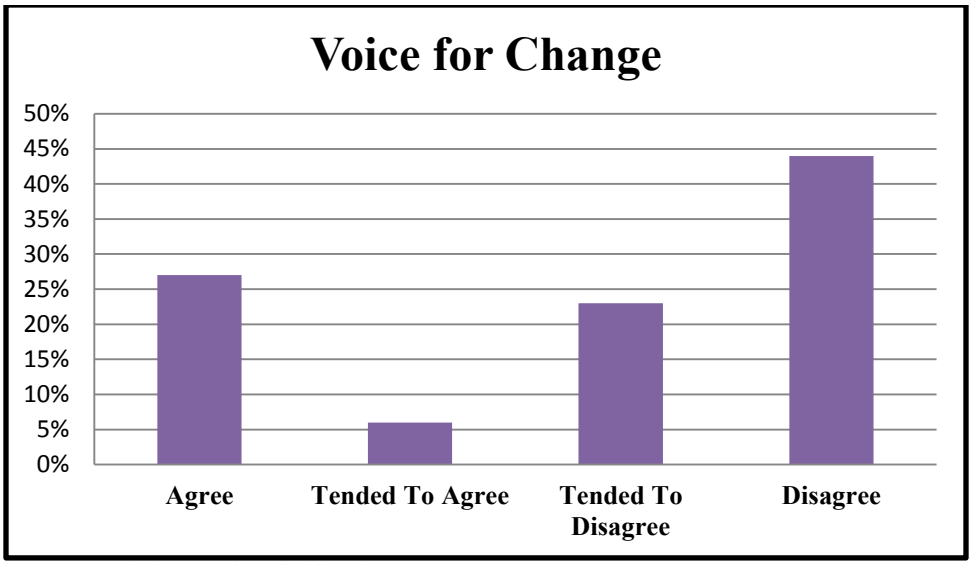

Source: Work of Researcher Elkekli, February, 2014.

Figure 14. Belonging to the place.

The results raised red flags for the researcher because those residents, feeling that way, could not then feel free to fully engage in the life of the Medina. During the interviews, they gave the reasons why they did not belong. Some saw the Medina as a stopover in their migration as they continued their movement to European destinations. Others were not happy with their neighborhood because of the lack of business infrastructure. Some were forced to live in the Old City because of their economic situation. A small number were single divorced mothers who lived there with their children.

**Voice for Change**

"Do you agree or disagree that you have a voice in decisions affecting your local area?" In asking the residents whether they felt they had some voice in shaping the Medina, there was a significant spread in the responses. Although some felt they had a voice, a large majority felt they did not.




Source: Work of Researcher Elkekli, February, 2014.

Figure 15. Voice for change.

The Medina is known as a neglected area; most residents have some difficulties facing their everyday lives and raising their voices in pursuit of full expression of life. According to the survey results shown in Figure 15, twenty-seven percent agreed that they have a voice and can reach their government and decision-makers. Also, six percent tended to agree rather than completely agree that they have a voice; twenty-three percent tended to disagree that their voice could be heard beyond the Medina's quarters. Forty-four percent definitely disagreed that they had a choice in changing their environment and developing the area by participating in making decisions. When combining the categories expressing disagreement, it is clear that sixty-seven percent of the informants

felt that perception of their voices was limited. The informants raised their voices for more adequate public safety, a political voice, an equitable repair of environmental hazards, and other concerns.

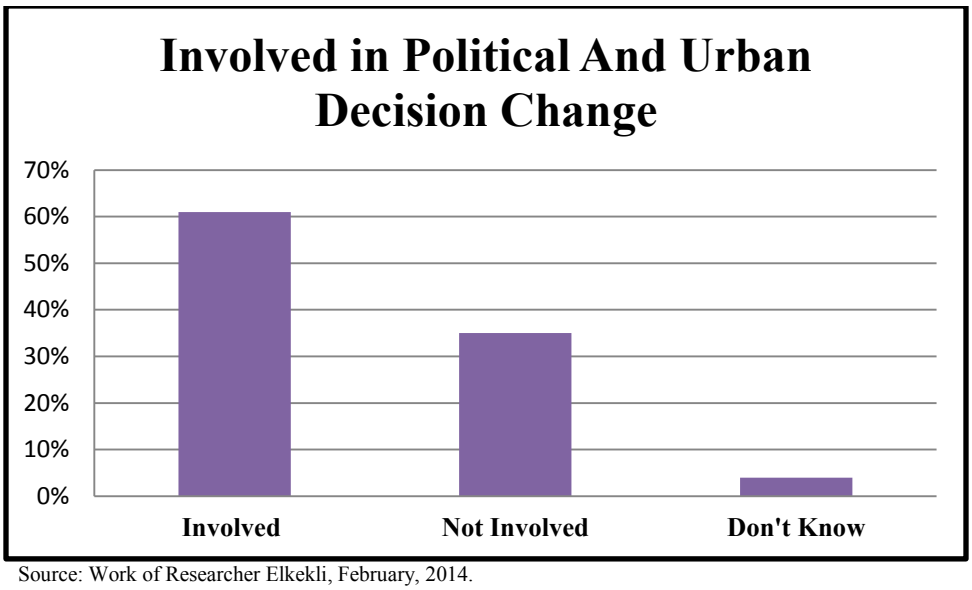
In the Medina, there is no effective governance structure through which residents, especially those with little power or wealth, can influence decisions affecting the Medina. In the Gadaffi era (1969-2011), control and governance were centralized in the RCC and no democratic institutions existed. City councils known as "public committees" did exist, but their function was only advisory and few if any of their recommendations were accepted at higher levels (Department 2006). Even though the survey was conducted at the end of 2011 and the beginning of 2012 after the fall of Gadaffi's regime, the new transitional government had not yet instituted any significant reforms to give residents a voice in governance of the cities. Even though elections had occurred, a parliament had not yet been seated (by the end of 2012), and to date (Spring 2014), a new constitution has not yet been written or ratified. Consequently, the residents and migrants, especially those from other countries which had little democratic tradition, do not have much experience or perhaps faith in self-governance.

**Involved in Political and Urban Decisions for Change**

Because of politics some informants were afraid to speak the truth. Cities in general, aside from justice under the law and basic human rights, are often far from offering equitable conditions and opportunities to their residents, which is no small matter of concern. Seeking to further clarify the residents' sense of having a voice, the researcher asked them, "Generally speaking, would you like to be more involved in the decisions that affect your local area?"

Despite the finding of the study that sixty-one percent of people expressed interest in being involved in decisions about the Medina, thirty-five percent of the informants thought that they do not have the right to participate and get involved in decision-making while four percent of the informants avoided answering the question.

As also reflected in the response (Figure 16) to the voice question, some of them disagreed with the idea of their having any involvement in political or urban change. The desire for greater involvement was somewhat correlated with whether or not the respondents had a longtime history in the Medina. From the interviews, the researcher observed that the informants believed that if one has lived in a place for a long time, that person became part of society and would be able to be involved in politics and change.




Source: Work of Researcher Elkekli, February, 2014.

Figure 16. Involved in political and urban decisions for change.

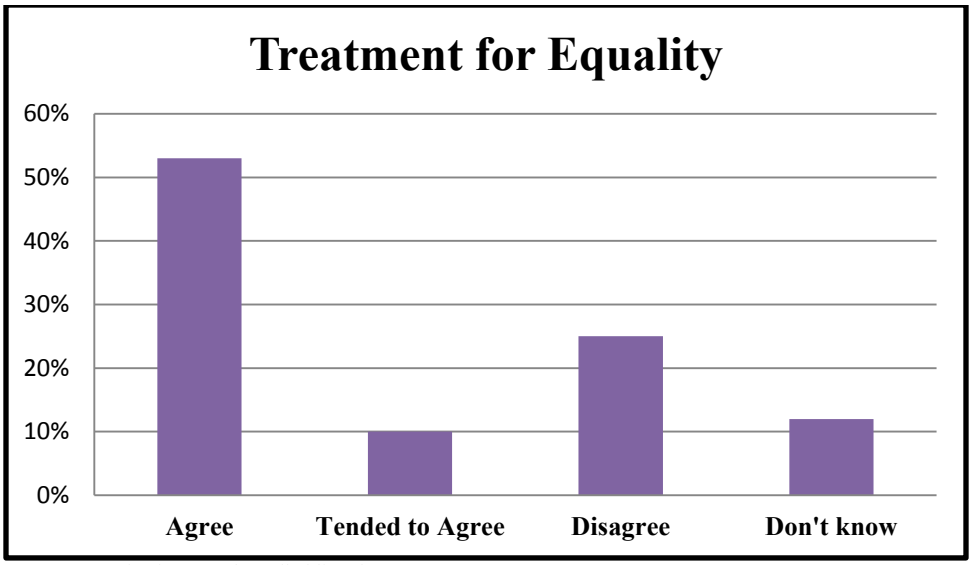
Some other factors included the information that many people, no matter what their status, had lived under a regime of repression for so long that they claimed having a sense of involvement even when they did not because it was a safer response while others may have had a role in institutions like the public committees that gave them a sense of

importance, but whose activities made no real difference. The concept of having a right to involvement in self-governance does not have a place in the ideology of a significant number of the people in the Medina as much as the power embodied in individual government statutes. Thus, not all people understood their rights in the same way.

**Treatment for Equality**

"Do you feel that people in your local area treat each other with respect and consideration?" Fifty-three percent of the Medina's residents responded that they strongly agreed that they are treated well in their individual areas. Also, ten percent tended to agree that there is equality among the residents. A similarly sized group of twelve percent was not sure which side they favor, whether or not there is equality. However, twenty-five percent definitely disagreed, feeling that in that ancient area they are not treated equally with the rest of the residents (Figure 17).

In large measure, this difference in perception of equality was distributed along the spectrum of new immigrants, to those immigrants who have lived there for some time, and to native Libyans. Those who felt that they were not equally treated tended to be the newer immigrants, not just because of their often lower economic status but because they are identifiable through their speech patterns, often a total lack of the Arabic language, their dress styles native to their home cultures, their facial features, and the relative darkness of their skin. Moreover, they tend to live in close proximity to fellow immigrants, especially in the Koshet Alsafar quarter.




Source: Work of Researcher Elkekli, February, 2014.

Figure 17. Treatment for equality.

As discussed earlier, what has not occurred yet in the Medina is the democratization of access to planning decisions and public services open to all residents. Creating ethnic communities inside the Medina where people are practicing their original culture and lifestyle is a key to understanding and creating a more equitable city. The most difficult part of the desire for fulfillment is that there are no official policies and laws that promote either equality or institutional means by which people can exercise their voices. People's individual perception of equality depends on their interest in and sense of ownership.

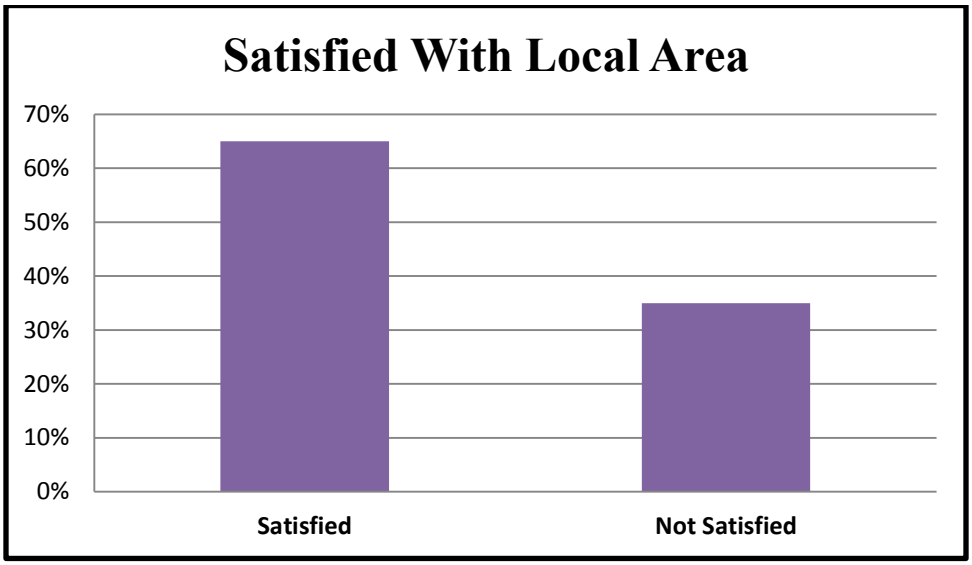
**Satisfaction with Local Area**

"Are you satisfied with your local area as a place to live?" The survey results demonstrate that sixty-five percent of the informants were satisfied with the local areas as places to live; the other thirty-five percent were dissatisfied with living in the Medina (Figure 18).

The residents' reasoning about participating in political and urban planning is that some of these informants believe that they are satisfied with their lives, but there are contradictions in their concept of satisfaction. The conflict was in how people think about

their general and specific needs. Political participation appears not to have been one of their priorities; their concern was about their immediate needs of place, infrastructure, safety, and planning. The informants explained that the Medina should get more conservation and preservation to maintain it properly. Also, most of the informants voiced complaints about the condition of their places of residence.

The southeast and southwest sections (Homat Elbadia, Homat Gerian) of the Medina have active businesses and open suqs; this fact encouraged residents, including immigrants, to improve their financial status by establishing small businesses, like selling their ethnic food and goods. This positive point supported the level of satisfaction of both immigrants and Libyans who chose the Medina as a place to live and conduct their businesses.

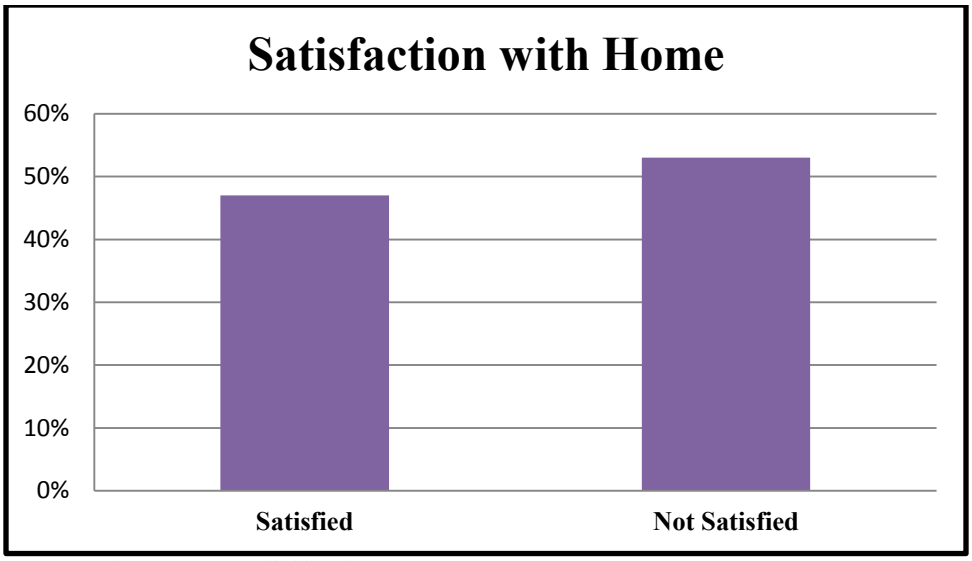



Source: Work of Researcher Elkekli, February, 2014.

Figure 18. Satisfaction with local area.

**Satisfaction with Home as a Place to Live**

"Are you satisfied or dissatisfied with your home as a place to live?" This question dug deeply into the residents' feelings and satisfaction with that specific place they lived and felt comfortable.

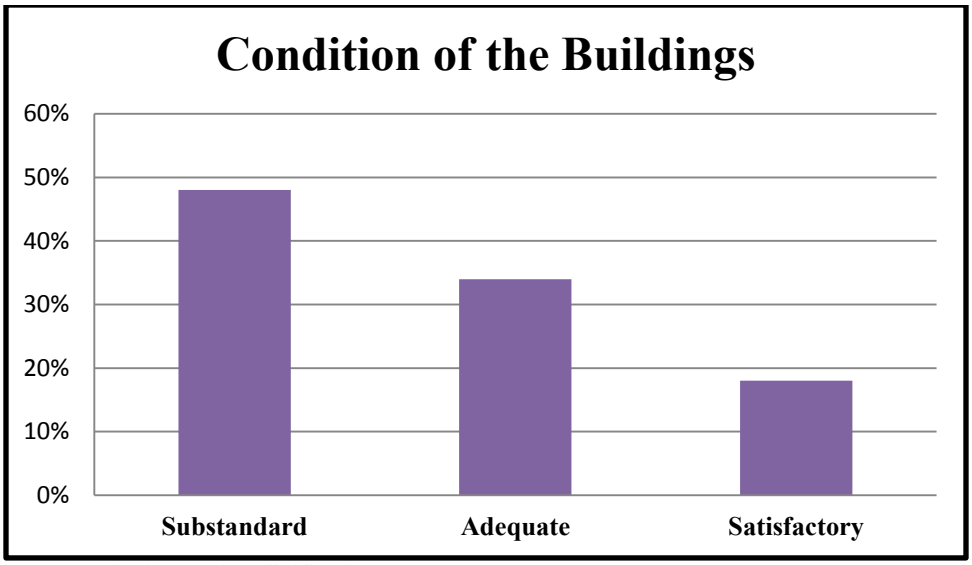


Source: Work of Researcher Elkekli, February, 2014.
Figure 19. Satisfaction with home as place to live.

Figure 19 shows that forty-seven percent of the residents were satisfied with their homes while fifty-three percent were not satisfied; from the researcher's observation most of the satisfaction came from a number of reasons: 1) these residents lived in houses in good condition; 2) they also belonged to the city's history; and 3) they still had their memories of the city and their former neighbors, friends, and their attachments to the history of the Medina.

**Condition of the Buildings**

Some residents described their life as having been in crisis when looking for houses with inexpensive rent before they moved into the Medina. Moreover, some residents were satisfied because they built new houses in the deteriorating areas and had a more agreeable living situation. Others, because of their economic situation, were selling items in the open suqs at the edges of the Medina and believed that by living in the Medina they could save time going to and from their businesses.




Source: Work of Researcher Elkekli, February, 2014.

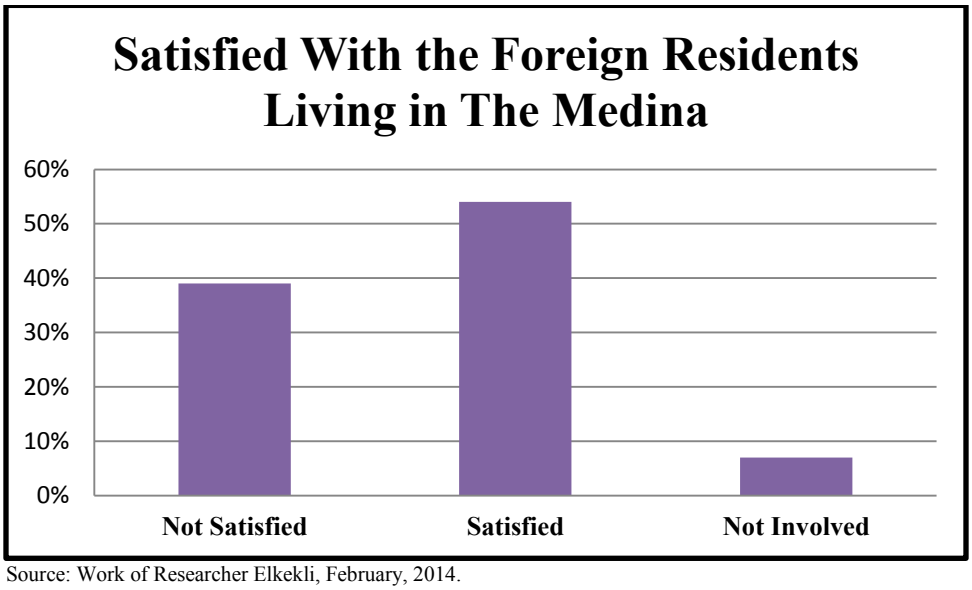
Figure 20. Condition of the buildings.

Answers to this question indicate that most of the buildings in the historical city are in substandard condition (Figure 20), and that this can cause health and ecological issues that impact the residents' level of satisfaction. With only eighteen percent regarding the buildings as satisfactory, it is obvious that much needs to be done to bring the other eighty-two percent up to such a condition.

**Satisfaction with Foreign Residents in the Medina**

"Are you satisfied with the foreign residents living in the Medina?" Thirty-nine percent of Libyan residents were not happy with foreign residents (Figure 21); most of these people explained that they are not satisfied with the foreign lifestyle that immigrants brought to the Medina. Others explained that new phenomena are attached to the immigrants coming to the Medina; as a result, some places became a hotbed of social and moral corruption, drug trafficking, counterfeiting, and other problems because of the lack of government control.

In addition, the researcher found that the immigrants' groups were different in their opinions; new immigrant residents felt that some local people were not welcoming them; and other groups who have spent more than ten years there believed that it takes an extensive period of time to build a good relationship with local residents.




Source: Work of Researcher Elkekli, February, 2014.

Figure 21. Satisfaction with foreign residents in the Medina.

In Figure 21, the number of local Libyan residents who said they were welcoming the foreigners into the Medina is fifty-four percent; they believed that they were all struggling the same for a better life in a poor environment. Seven percent of the residents from both sides answered that they do not know if they are satisfied with the immigrants (Figure 21). The local residents after the 2011 uprising and the political change under the transition government are waiting for the new government's policies regarding the city and immigrants. Some groups of immigrants were not happy with the political change, were concerned about their future, and thinking to leave Libya after they lost the former government's support, even though they had been part of the fighters during the 2011 uprising.

The local residents thought those new inhabitants helped the Medina to survive after it became a semi-empty city. Mohamed, a second-generation Libyan man, age thirty-two, approached the researcher in 2012 on his own and pointed to a group of young men and said:

> We don't care if their parents are from Chad, Egypt, Mali, Sudan, or Morocco. We are friends growing up together, we went to elementary school together, we know the details about our city, and we love it together. They are Libyan, it doesn't matter if they have their documents or not. They were born here and because we know that when you care about the place where you live that means you are Libyan and the nationality issue was the government's game before 2011; the former government gave citizenship to new immigrant residents who did not deserve it. But we are friends.

Mohamed shows how the two groups, local and immigrant, belong to each other and how the new generation thinks about the city. Most of the change in attitude toward immigrants has happened with the passage of time; the satisfaction with and even pride in the Medina's heterogeneity became more common over time.

## Discussion

The movement of people entering and exiting the Medina and the changes in the city's physical structure are a result of the push-and-pull of economic, political, and demographic forces. Most of the changes in the city's fabric have come not from planning but from generalized forces of urbanism and from residents attempting to meet their everyday needs. The inhabitants of the Medina are a mixture of groups, both Libyans and immigrants, and their experience of living in the place has also been affected by a series of political fluctuations that have acted on the inhabitants but in which they have largely been passive, not informant actors.

The Medina, as an ancient historical city, is organized into six quarters for residential, commercial, and service areas; the highest density of population is

concentrated in the center quarter, Koshet Alsafar, which is connected to the other five quarters. The commercial areas were built on the edges of the Old City because of historical traditions and the placement of the open suqs. From the 1980s on, the immigrants coming into the Tripoli Medina had a great impact on the environment, conservation (or lack thereof), and culture of the area. The Medina's location encouraged a number of informants in this study to settle there and build their businesses. These and other circumstances greatly influenced the informants' responses to the questions of the survey and their markings on the mental maps. The following section discusses the findings according to the graphs found in Figures 10 through 21 which show the results of the research. Under the assumption that a city is not just its physical manifestation but is the lives of its inhabitants and their perceptions of their lives, understanding those perceptions is crucial to comprehending the relation between the residents and the city. This paper, a presentation of part of a larger study by the researcher of the Tripoli Medina in Libya, presents the findings from surveys of the residents of the Medina concerning: 1) why they chose to live in the Medina, 2) their satisfaction with their quality of life there, 3) their loyalty to the Medina as a place, 4) their ability to have a voice that will affect change, and 5) the degree to which they and others are treated equally and have an equitable share in the life of the Medina. Those findings will first be framed by a discussion of relevant issues in urban studies, then an overview of how the physical fabric and life of the Medina has been shaped by its long and varied history, and finally a review of the sporadic attempts at urban planning that have been applied to both Libya and the Medina in more recent eras—consideration of those two spatial extents being here inseparable due to political and ideological factors in a colonial/postcolonial context.

In focusing on the choice of a place to live, the residents, both Libyans and immigrants, faced some issues that most people have when they move to new places. The transition to a new place involves establishing new communities. Before 2011, the government encouraged people to immigrate into Libya; many agreements were signed in particular to allow Africans to immigrate. However, the government did not calculate how the large numbers of immigrants would affect the ancient city, the infrastructure, people's living conditions, access to housing, and other services.

In answer to the concern about their choice of place to live and satisfaction with their homes and areas places to live, in general, the study found that most residents were satisfied. Also, when facing the choice of remaining or moving on, most residents were unsure of their future because of the changes after the 2011 uprising. Regarding the question of whether or not the residents feel they belong, one measurement of involvement and belonging is how people understand and value the place where they live. Urban planning in the Medina has had multiple obstacles that have inhibited the development, conservation, and maintenance of the area; despite this, a plurality (eighty-three percent) felt that they belonged and could exercise their rights. Some informants responded that they chose the Medina because of the freedom gained for living a better life.

To the question of whether or not the residents feel they have the opportunity to participate in political activities, the study results confirmed that people were more concerned about the immediate basic needs of their families than any political or government action or inaction. Given the political situation before the 2011 uprising, it was not surprising that the residents' idea of justice without any policy input on their part

was almost nonexistent and they had little voice for change; in addition, some groups preferred to live in areas with less security and control from the government.

Residents had different concepts of being treated equally; the new residents from other countries felt they were not treated equally because of their unfamiliarity with the culture and customs of those who had lived there for a longer time. Every human being seeks comfort and the basic things of life, and compared to their previous lifestyle, some migrant Africans found the Medina a more attractive place to live, a locale to start businesses, and a more reliable opportunity for safety. Most informants were satisfied with living in the Medina and practicing their social, economic, religious, and educational necessities of life while establishing communities.

However, people who live in an undesirable situation cannot think about historical conservation when their focus has to be on survival. Eighty-two percent of the residents regarded the buildings as unsatisfactory/substandard and they were concerned about health and ecological problems even though some residents were living in those buildings. A large portion of informants were satisfied with the foreign immigrants who came into the Medina. Some residents were welcoming and others felt that it takes an extensive period of time to build a good relationship. Some thought that the new inhabitants helped the Medina to survive after it became a semi-empty city.

The previous discussion demonstrates the different points of view that were the results of the survey and mental maps. The significance of the results was determined by further analysis.

## Conclusion

The Medina as the area of study is sustained by its historical context. The different civilizations left a legacy as witness from ancient times even though the Medina's physical characteristics are predominantly in Islamic buildings, like mosques and suqs. The multiple features of the buildings in the Medina indicate there is no standard for urban planning and design; also, because this is an ancient city there are difficulties in associating exact urban theory to find the absolute model for the city. According to the sequence of the area's history, the Medina had different types of planning over different periods of time.

The Medina's residents are a mixture of nationalities; some have lived there for more than four generations while others are recent immigrants from different neighboring countries in Africa and Asia. One of the aims of the study was to understand how people act in space as part of their right from a positive point of view; also how this interaction was reflected in the structure of the city. By this understanding, the researcher offered the basic framework for building a conservation plan for the future. The study attempted to illuminate how residents fulfilled their needs and made changes in their social, economic, and political situations as a significant way to understand how they considered the historic valuation of the Old City and their obligation to it. The residents fluctuated between the three emphases of power, interest, and place that framed their hopes and desires in the Medina.

Most of the cities' formal urban planning efforts have been projected by government or non-government organizations. The study tried to make suggestions about the need to change urban planning from just a focus on the buildings to creating a balance

between what the residents need and what they have in reality. Some respondents were raising their political voices to reach their aims.

Even though the study was concerned with social and political aspects of city life, it brought to light many important points; for example, can this type of study provide an answer in a given city as to whether people can change the space to develop their lives? Do the residents carry their desires for justice and equality from their home country as a background of their valuation of historic cities to which they immigrate? Those ideas are in continuous and controversial debate in this area of study.

The first finding of the study was that the attempt of people to find satisfaction in their living situation caused an effect on the infrastructure of the Old City. The condition of buildings under urban planning has fluctuated between the need for maintenance of the residents' lives and conserving historic buildings. The second finding was that the residents were not able to distinguish between their needs and satisfaction very clearly and also between the individual and communities' needs. People were acting according to their political and economic situations of the moment. Moreover, some minorities and majorities believed that it was their right to obtain what they wanted regardless of any consideration for others. Most residents reflected that urban planning and conservation ideas were simply general imitation or blind imitation of others' ideas. In addition, it is unclear what will change in urban planning for the area of Medina if the residents do have better access to appropriate benefits. Because the residents have different opinions, that will reflect on the planners.

This study verified concern about the future of society from the perspective of environment, justice, and fairness. The study is concerned about people as humans who

need success and reasonable comfort in their lives. By issuing policies that would help people protect themselves, the study makes a broad statement about urban planning and sustainability. The study constitutes a contribution to knowledge in various ways by elaborating new ways of examining historical cities that have only been studied from the perspective of structure and the larger society without making a connection to the people who actually live in those historic cities; it adds new value to the Medina to care about its sustainability and its people; and the outcome of the study can be used in the future to establish policies that protect both the people and the city's deep historical heritage.

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# APPENDIX B.1

# SURVEY INSTRUMENT

## SURVEY QUESTIONS

This researcher will include the three main topics (identity of the city, urban planning, and conservation) in the survey. In the questions, residents inside and outside of the city, the agency workers in Medina and engineering institutions will have various questions including the following.

1. Are you male or female?

   □ Male □ Female

2. What was your age on your last birthday?

   □ 18-25

   □ 26-35

   □ 36-45

   □ 46-60

   □ 60+

3. How long have you lived in Medina? (this would show stability)

   □ Fewer than 5 years

   □ 5 years

   □ 10 years

   □ More than 10 years

4. Why did you choose Medina as a place to live? (this would show economics and security)

   □ Less expensive rent

   □ Community

   □ Economic opportunity

- Freedom

5. In what country were you born?(this would show nationality when they can't speak Arabic even though they have Libyan papers)

   _____

6. What is the situation for your household's living space?

   - Owned outright
   - Under Law # 4
   - Under Medina agency permission
   - Rent from private landlord
   - Open housing (illegal - open empty houses and occupy them without permission or payment)

7. Why did you choose Medina as a place to live? (this would show economics and security)

   - Less expensive rent
   - Community
   - Economic opportunity
   - Freedom

8. In what country were you born? (this would show nationality when they can't speak Arabic even though they have Libyan papers)

   _____

9. How long do you intend to stay in Medina? (this would show conservation and government flexibility)

   - Months

- 1 year
- 2 years
- More than 3 years
- I don't know

10. Do you intend to return to your native country? (this would show consequences of the new Libyan situation)
    - Yes
    - No
11. Have you improved and maintained your place? (this would show conservation)
    - Yes

    If yes, how many times have you done so? (this would show urban planning change)
    - Once a year
    - Twice a year
    - No
12. How much have you changed the place for your comfort? (this would show how they produced the place)
    - Added rooms
    - Changed the function to be stores
    - Changed the function to be manufacturing
13. Do you have to have permission to change the place?
    - Yes
    - No
    - I can change as much as I need to be comfortable.

14. Are you comfortable with the infrastructure? (this would show initiative)

- ☐ Yes
- ☐ No
- ☐ If not, why? _____

15. How to you classify Medina? (Choose only one)

- ☐ An Islamic city
- ☐ A modern city
- ☐ A historical city
- ☐ A mixed city

16. Which things are most important for a decent living place and a respectable situation?

Check only 3.

- ☐ Right to use parks and open spaces
- ☐ Clean streets
- ☐ Road and pavement repairs
- ☐ Shopping facilities
- ☐ Sports and leisure facilities
- ☐ Teenagers' facilities
- ☐ Available community activities
- ☐ Cultural facilities (e.g. libraries, museums).
- ☐ Decent affordable housing
- ☐ Sufficient health services (hospitals, clinics, doctors, nurses, pharmacies)
- ☐ Opportunities for jobs
- ☐ Accessible public transportation

- ☐ Positive minority relationships
- ☐ Adequate wage levels
- ☐ Acceptable local cost of living

17. Which things need the most improvement? Check only 3.

- ☐ Right to use parks and open spaces
- ☐ Clean streets
- ☐ Road and pavement repairs
- ☐ Shopping facilities
- ☐ Sports and leisure facilities
- ☐ Teenagers' facilities
- ☐ Available community activities
- ☐ Cultural facilities (e.g. libraries, museums).
- ☐ Decent affordable housing
- ☐ Sufficient health services (hospitals, clinics, doctors, nurses, pharmacies)
- ☐ Opportunities for jobs
- ☐ Accessible public transportation
- ☐ Positive minority relationships
- ☐ Adequate wage levels
- ☐ Acceptable local cost of living

18. Are you satisfied or dissatisfied with your local area as a place to live?

- ☐ Satisfied
- ☐ Dissatisfied

19. Are you satisfied or dissatisfied with your home as a place to live?

- Satisfied
- Dissatisfied

20. How strongly do you feel you belong to your immediate neighborhood?

- Strongly
- Not strongly

21. Do you think that public services in your local area promote the interests of local residents?

- Very much
- Not much

22. Do you think that public services in your local area act on the interests of local residents?

- Very much
- Not much

23. Do you agree or disagree that you have a voice in decisions affecting your local area?

- Definitely agree
- Tend to agree
- Tend to disagree
- Definitely disagree
- Don't know

24. Generally speaking, would you like to be more involved in the decisions that affect your local area?

- Yes
- No

25. Do you feel that your local area is a place where people from different backgrounds interrelate well?

- Definitely agree
- Tend to agree
- Tend to disagree
- Definitely disagree
- Don't know

26. In your opinion, are older people in your local area able to get the services and support they need to continue to live at home for as long as they want to? (This could include help or support from public, private or voluntary services; or from family, friends and the wider community).

- Yes
- No

27. Do you feel that people in your local area treat each other with respect and consideration?

- Very much
- Not much

28. In recent times, do you feel that you have been treated with respect and consideration by your local public services?

- Very much
- Not much

29. Are you satisfied with the foreign residents living in Medina?

- Yes

- No

30. What is the best approach for the future of Medina?

- Destroy
- Destroy and rebuild
- Conserve only the historical places (mosques, churches, temples, schools, museums, suqs [bazaars], kahns [hotels], etc.)
- Conserve all the Medina

APPENDIX B2

MENTAL MAP SURVEY

## Mental Map Questions

1-Which area has the most Islamic buildings? ؟ااي الـم ناطق الـ تي ت ـ حـ توي عـ لى بـ ناء ا سلامي

2-Which area has the least Islamic buildings?ءانب لق ى اق ل ب ان ء ا سلامي؟

3-Which area has the most damage?؟ماهي المنطقة الاكثر تضرراً

4-Which area has the least damage?يءام؟ المنطقة الاقل تضرراً

5-Which area has the most residents?ا لمنطقة ا لتي تحتوي عل ى ا لكثر سكان؟

6-Which area has fewer residents?ا لمنطقة ا لتي تحتوي عل ى ا لق ل سكان ؟

7-Which way do you use to go to the mosque?يءام ي ا لطريقة ا لتي تسلكها للذهاب للمسجد؟

8-Which way do you use to go to the suq?يءام ي ا لطريق ا لتي تسلكها للذهاب للسوق؟

9-Which way do you use to go to work?يءام ي ا لطريق ا لتي تسلكها للذهاب للعمل؟

10-Which area needs the most renovation/conservation?يءام ي ا لمنطقة ا لتي تحتاج ال ى صـ يانـة اكـ ثر؟

11-Which area needs the least renovation/conservation?يءام ي ا لمنطقة ا لتي تحتاج ال ى ا لق ل صـ يانـة ؟

12-Which area would be better if destroyed?يءام ي ا لمنطقة ا لتي سيكون من ا لاحسن تهديمها؟

13-Which area would be better if rebuilt?يءام ي ا لمنطقة ا لتي من ا لاحسن اعادة بنائها؟

14-Which area would be better if left as is?يءام ي ا لمنطقة ا لتي يكون من ا لاحسن ل و تركت هكذا؟

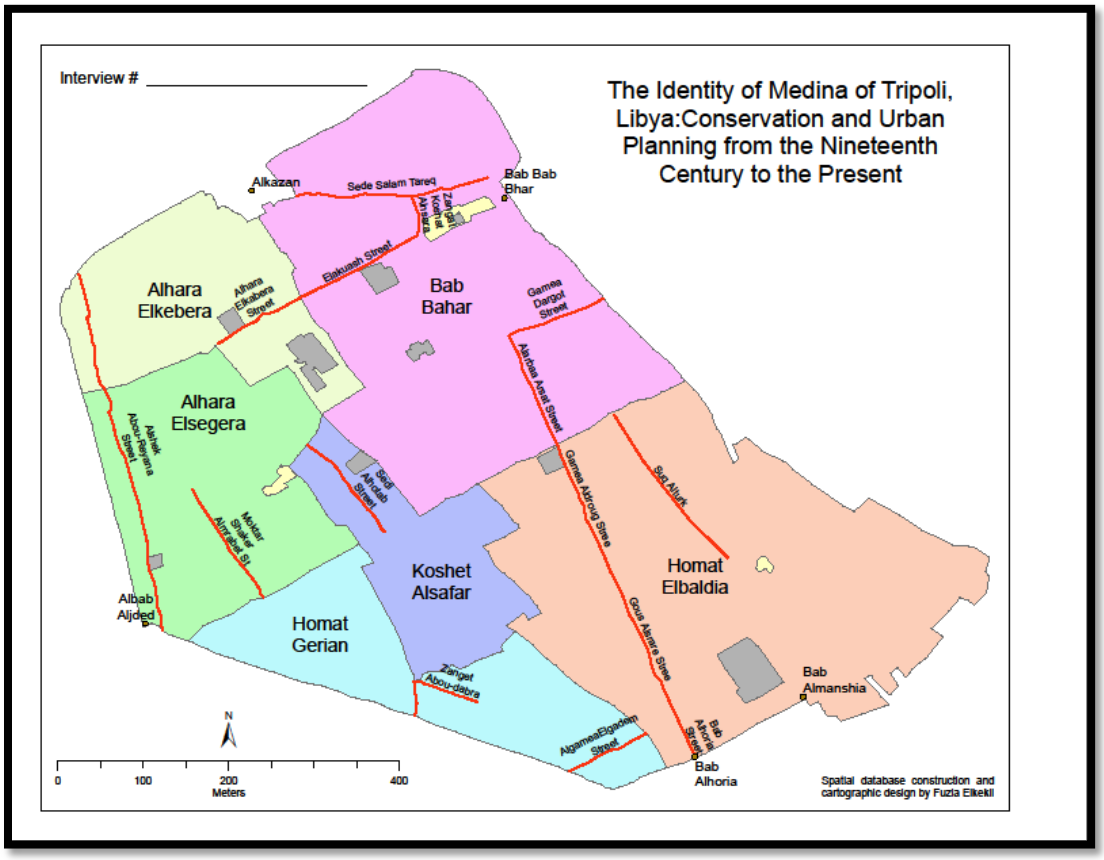
15-Which area has more than Islamic design?ا لمنطقة تحتوي عل ى تصميم ا سلامي اكثر

16-Which area do you think that is not Islamic area?ا ي منطقة تعتقد انها غير ا سلامية ؟

17-Which area do you believe that is eclectic’s area?ا ي منطقة تعتقد انها مزيج معماري حديث وقديم؟

18-When you move inside Medina, where the area is gaving you feeling that you are in Islamic,Local and foreign area?عندما تتجول في المدينة اي منطقة تعطيك شعور بانها

محلية, او غريبة اسلامية ,او




Source: Work of Researcher Elkekli, 2011.

Map of study area for mental maps.

# APPENDIX C

# WHO OWNS THE CITY: PROPERTY USE IN THE MEDINA, TRIPOLI, LIBYA

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**ABSTRACT**

The Medina (Old City) of Tripoli, Libya, has existed since the time of the Phoenicians in the seventh century B.C. Even though some of the cultural and religious artifacts from the various foreign groups (Phoenicians, Greeks, Romans, Muslims, Spanish, Ottomans, and Karamanlis) who had fought and lived there still exist and have affected the Medina in form and style, the Medina itself has been exhibiting signs of decline evident in its weakened infrastructure and deteriorating and condemned buildings. This study, part of a larger research work, delineates the property categories for the Medina's six quarters as designated by the Management of Historical Cities (MHC) and later revised by the researcher. The revision showed the extent of the decline in the buildings in reality according to the MHC's data and contrasted that reality with the informants' perceptions and opinions gathered through a survey and mental maps. The results indicate a wide variety of opinions from the informants which further demonstrates the need for extended attention and concentration on the property use and conservation of the Medina under the umbrella of urban informality.

Key words: Medina, condemned buildings, deterioration, conservation, urban informality

## Who Owns the City: Property Use in the Medina, Tripoli, Libya

### Introduction

When this researcher made frequent visits to the public library in the Old City of the Medina in Tripoli, Libya to peruse historic documents and references for her study, she sometimes wandered into and around Bab Bahar, one of the six quarters (neighborhoods) in the Medina. She remembered events and circumstances from her childhood visits to her mother's family there in the late 1960s and early 1970s. During those times, she recalled seeing a very organized, active, attractive, and well-maintained city, but during her visits in the early 2000s, she discovered that the area had changed dramatically and new randomly situated buildings and open spaces had been added to the Medina's fabric. New buildings had been scattered about in most of the six quarters of the Old City and deteriorating and collapsing buildings were everywhere. The activity on the main streets depicted the impact that the inhabitants, especially the high number of immigrants, had on the area. The functions of buildings had also changed significantly, and she was perplexed by the variety of new buildings and activities surrounding her.

The strange state in which the researcher found the Medina shows the effect of the survival of a historical city without the support of consistent urban planning and design. Walled historical cities in the Middle East and North Africa retain an important mixture of buildings, especially mosques and old traditional *suqs* (markets) as well as narrow, winding streets that are significant features of an Islamic city; all these are part of the value of the unique character of the Medina wherein the Old City had integrated the functions of residential and service areas to a greater degree that that found in a modern

industrial city. This study aimed to analyze the ownership patterns of properties in the Medina in order to see correlations between ownership, preservation, and deterioration.

The changing of the Medina's space has been studied before from the architectural viewpoint by various researchers who largely concentrated on building features. As discussed above, the change the Medina has undergone over the last forty years has been a consequence of controversies concerning development, planning, policy, and Islamic history and culture (Amora 1997). Those past studies of the Medina also focused on immigrants, development planning, Islamic culture, and environmental effects— all of which have been accepted as a fertile field for research. Despite these previous studies, there has been a neglect of the overall planning of the Medina; therefore, the city may lose its identity due to the lack of linkage between the Libyan and migrant residents and the Medina's history. Because the Medina has such important historical, cultural, and heritage resources, it needs, according to Rghei and Nelson (1994), immediate and strategic planning to secure proper conservation. Some of the monuments from the Greeks, Romans, and other early civilizations have been preserved due to the Islamic sense of history and architecture, but a considerable amount from recent periods has been or is about to be lost.

The Medina is located at 32°54′8″N 13°11′9″E in the northwest section of Tripoli, Libya, North Africa (Figure 1). The Mediterranean Sea is the border on the north and northeast; the wall surrounding the Medina is the border on the south and southwest. The area gradually descends from the north to the south; the highest area, nineteen meters above sea level, descends down to the lowest point of six meters on the southeast side of the Medina. The Medina or Tripolitania or Etropolis was established in the seventh

century B.C.; it has been continuously inhabited since that time and was established primarily to expand the economic activities in the western area of the Mediterranean Sea.

Source: Medina Squire Media, 2014.
Figure 1. The Medina, Tripoli, Libya.

For many centuries the city remained small and restricted until, beginning in the nineteenth century, the population of Tripoli increased dramatically because of immigration; this influx helped create a large urban center. Currently, the entire city of Tripoli has a population of over 1.5 million while the population of the much smaller older city of the Medina is around 10,000 (Census 2006). The two driving factors leading to change in the Medina were emigration and immigration. Some longtime residents left in the early 1970s as revenue from the oil industry fueled the expansion of suburbs and new urban development. Later on, others left because of the lack of conservation and infrastructure maintenance. With long-time residents leaving the Medina, the area became a place where newly arrived immigrants were able to move into an inexpensive rental area close to downtown Tripoli.

All six of the Medina quarters are considered residential areas for both Libyan citizens and immigrants; however, many of the Medina's structures in the two main quarters (Bab Bahar and Homat Elbaldia) and in the vicinity of the surrounding wall and main gates were designed for public service departments and marketing areas. In recent years, some suqs were changed to parking areas, thrift markets, new modern houses, and businesses. In all six quarters, the functions of many buildings have been changed; some houses were converted to restaurants or stores for the sale of traditional African foods, clothes, or coffee. In a historical house in Koshet Alsafar that had been converted into a "restaurant," a worker said to the researcher, "We didn't have permission to change the house's function to sell food, but we pay good rent to the owner and we are doing the same thing that our neighbors did; and by offering our native food for sale, we are able to support our families." It is apparent that changing economic and political factors had forced residents to create new spaces to practice their traditional lifestyles and to fulfill their economic needs. Meanwhile, the government's official role fluctuated between limited conservation, like the Medina conservation project, and complete neglect. That Medina Conservation Project, while neglecting the rest of the city, concentrated on the main quarters (Bab Bahar and Homat Elbaldia), where the conservation included the famous historical buildings like old Ottoman mosques and main streets.

As Soliman (2004) argues, governments have a certain and reasonable responsibility concerning urban planning and maintaining the quality of residential areas. In a historic area like the Medina, conservation is more the government's than the individual's responsibility. Most of the residents are struggling economically to help their families to have a comfortable, safe life. Conservation efforts need a large and

maintained public funding source, as it would be impossible for residents to do it alone. Soliman (2004) says that:

> there are various reasons why a government should become involved in housing. The most common involve humanitarian reasons, functionalism, and control and human rights considerations (176)…every community planner or project organizer is strongly aware of the political system and of the potential of government to serve as a resource for people at the grassroots. (205)

The problem has been that such government involvement in Libya has been, when it has existed, both disorganized and unevenly applied even within small areas like the Medina.

One way of conceptualizing what has happened in the Medina is to look at it through the framework of "urban informality." Roy and AlSayyad (2004) make clear that informal settlements and habitation around city cores in the Third World are nothing new, but since the last decades of the twentieth century it has changed, driven largely by economic forces—namely globalization—and its scale has expanded. Yiftachel and Yakobi (2004) define informal development as "spatial dynamics that are not shaped, controlled, or sanctioned by the state [and]…recognized as a major component of urbanizing regions" (Yiftachel and Yakobi 2004, 209). However, there is tacit state acceptance of this informality because the state decides what areas will be left to the informal sector and what areas may need to be formalized (Roy and AlSayyad 2004). Informal spaces constitute a significant portion of new urban growth globally. However, unlike other situations around the world where informal settlement most frequently occurs on cheap land at the fringe of a city and involves new construction (Roy and AlSayyad 2004; Gilbert, 2004; Hasan, 2003), the Medina is a case of the core of a city being transformed from a formal to an informal space.

This shift is not an accident, but rather the result of state policy that passively allows absorbing arriving immigrants. The migration of some residents out of the Medina when their financial situation improved at the same time the immigrants arrived allowed the government to neglect the area and absorb the immigrant population. As it has become more informal, the once clear character of the Medina's identity as a historic city has faded and become difficult to find. The question addressed is how did the Medina arrive at this state? The researcher asserts that the migration in and out has created an increasingly informal space. The Medina became a space where the government was able to absolve itself of the responsibility to provide services, opportunities, and inclusion for migrants and poor Libyans. Meanwhile, residents and workers tried to make the place more comfortable under the absence of government support and services. For immigrants and some Libyans, the Medina is the place that will help them to achieve their dreams, as it is a space where they can create communities and find housing and informal work opportunities close to downtown Tripoli.

**The First Phase (1969 - the First Half of 1973)**

The Libyan people's habitus and practices can be divided into three phases. The first phase was the welcoming phase after the overthrow of King Idris in 1969 when it was believed that the majority of the Libyan people supported the new system under Gadaffi. Despite the coup, the social structure was stable and grounded in their traditional life, and the new government had not yet presented an ideology that would make a change in their cultural system.

**The Second Phase (1973-1980s)**

The second phase was complicated by a misunderstanding of the revolutionary ideas that came to be presented by Gadaffi's regime. Some Libyan people welcomed what Gadaffi had done because their living conditions (health care, education, and housing) improved, but others did not benefit, especially the building owners, under Law Number 4 (Congress 1978). The law had a number of provisions; the most radical was one that transferred property, both residences and businesses, from owners to residents and did so without compensation. For residents without property rights, Law Number 4 presented an opportunity to gain property and improve their living conditions. However, this created great conflict with the wealthy traditional property owners who lost their legal titles and property rights. Clearly this was a political move to curry favor with the urban poor at the expense of property owners and in time would have major unanticipated effects on the Medina. The social life and residents' cultural systems that were similar because some residents belonged to the same home country together helped some people improve their lifestyle. This was especially true for migrants from the rural regions of Libya who created informal settlements on the fringes of Tripoli. Yet the goals and outcomes of government policy did not always coincide.

The difficulties that the people experienced in their relationship to the new government are similar to what Roy (2009. 84) describes as "urban informality." This was expressed in how the authority created the formal urban style in the Medina when in 1984 they initiated a project to conserve the main streets and buildings in two quarters (Bab Bahar, Homat Elbaldia) while the other four quarters (Koshet Alsafar, Alhara Elkebera, Alhara Elsegera, and Homat Gerian) were somewhat neglected but without

much objection by residents or owners who were wary of the new government. Also, the researcher asserts that flexible and uneven power can explain the contradiction of how the state both chose to act to produce a formal urban convention—such as limited conservation—or to neglect the areas and/or take political advantage of increasing urban informality on the fringes of the larger city. Both actions benefit certain groups: conservation of public spaces promotes the general good, particularly tourism, while informality allows new settlers to form communities. Lack of public investment and government neglect also has the obvious drawbacks of deteriorating buildings and infrastructure that affect urban groups in different ways. Together with other factors to be discussed later, the withdrawal of government care for housing stocks in the Medina from the late 1970s onward set the ground for a new Medina lifestyle practiced by those from rural communities in both Libya and other countries in Africa and gave another face to urban informality. Migrants, especially the Africans who were the most culturally different and were the target of prejudice against immigrants and recent settlements elsewhere in the larger city of Tripoli, formed new informal communities in the Medina.

**The Third Phase (1980- 2012)**

The Cold War, the United States' aggression against Libya, and the economic blockade led to a shift in Libya, as the society became more confined to the local situation and isolation from the outside world. The Gadaffi regime's goal was to replace the traditional social structure with a particular form of socialism. Regardless of Gadaffi's intentions, Harris (2002) claimed that by this period Gadaffi had reduced any significant participation by the people in the political process. It was the aim of the regime's policy that all people must be involved in the decision-making process;

however, the failure to achieve the established goals led most people to avoid participating in politics. Because the government failed to carry out its socialist political experiment and became more and more repressive, the Libyan people became more disillusioned by the lack of policies to protect people's properties and businesses. At the same time, the government supported increasing the population by encouraging immigrants to come to Libya. Also, that time saw the growth of an informal underground economy as a reaction to government control and interference.

By the end of 1980s and continuing into the 1990s, the politics in Libya had changed as a consequence of the international community's isolation of and sanctions against Libya that arose from the revelation of the Libyan government's involvement in the Lockerbie bombing—the downing by terrorist action of an international passenger aircraft over Scotland in 1988. This conflict with the United States and other western nations limited Libya's relations with world powers, drove Gaddafi's government to communicate openly with African countries, and encouraged the movement of their people to Libya. The immigrants' numbers increased and it was difficult for these new foreigners to live in Tripoli's newer formal and also informal residential areas not only because of their initial poverty but also because of the social and cultural differences from Libyans. Illustrating prejudice toward immigrants, three men in the Bab Bahar quarter in front of the Gurji Mosque came to the researcher in 2011 and said:

> We heard that you are interviewing people about the Medina; the Medina needs to be conserved and just be a place for old and former Libyans to live, not for local or African immigrants. Look at the damage those people have done to the Old City; they don't know the value of the city. They have brought drugs, prostitutes, and unhealthy diseases like HIV/AIDS. They get support from the government, but we don't. But look at us, we are in our thirties and can't find work, we just fish during the summer so we only work that season. Look at the former French Embassy Street which is in good condition. Look! This is the way of valuing the city by conserving;

> you will never find anything like it in this condition in Koshet Alsafar, Homat Gerian, Alhara Elkebera and Alhara Elsegera.

They gave the researcher their phone numbers and said she should call them if there was any other project to conserve the Medina. What touched off the remarks of these three Libyans was how, initially because of economic factors, worker immigrants lived in the suburban and neglected urban places, and they did so for more privacy against the attitudes these three displayed. New immigrants faced both economic challenges as well as discrimination within wider Libyan society. As a result, many new immigrants were forced to seek marginalized and informal areas where they could settle, live, and work. This situation is clear in the Medina where African and sub-Saharan African immigrants have, since the 1980s, settled in significant numbers in the Medina's quarters.

For the rural immigrant settlers, both Libyan and African, who came to live in the Medina, living there was a compromise between the unfamiliarity of living in a new urban informal environment as opposed to the rural villages they had left. Also, by forming their own communities in the Medina where Libyans were leaving, they had the opportunity to partially escape the culturally driven prejudice of urban Libyans. As the oil economy had soared and wealth increased for the established population in the previous years, many longtime residents of older areas of the city, those fully part of the formal economy, moved out of those quarters, especially the Medina, into new, more modern homes and planned areas with encouragement and subsidies from the government of both King Idris and later of Gadaffi. This left the Medina as an ideal space for these newly arrived migrants.

Although most of the settlement patterns were designated as formal by the state, informality in housing and employment was the main character of residents' settlement

experiences in the Medina. Gaddafi's government did not embrace these new migrants and attempt to integrate them into Libyan society, but accepted them more out of geopolitical and economic necessity. The Medina was not actively regulated by the state to leave a space for the arriving migrants because the state claimed that all immigrants were citizens even if they did not have the proper documents. This segregated the migrants from the wider population, while in the process precluding any ability to actively regulate and preserve the structure of the Medina. With the fall of Gaddafi's government, the opportunity developed to address both of these historic injustices (the exclusion of immigrant populations and the deterioration of the Medina). While state formalization of the area may have helped address the issue of deterioration, it did so at the expense of the Medina's poorer residents. Instead, the flexibility of informal economics and politics opened new avenues. Because the Libyan residents and African immigrants chose the place where they wanted to live, this choice required isolating themselves from a new culture and society in order to build their own communities.

**Migration Out, Migration In**

Bayat (2004) speaks of the "long processes by which millions of men and women embark on long migratory journeys, scattering to remote and often alien environs… driven by the force of necessity…people set about such ventures individually, often organized only around kinship and friendship ties" (Bayat 2004, 91). There is no question that migration can transform landscapes and cultures, especially urban landscapes and cultures. Tobler (1995) quotes Lucas (1981): "Migration is comparable to a flow of water or electricity – an adjustment flow responding to pressure differentials at opposite ends of a pipeline" (85). Some scholars address migration in terms of broader forces, such as

economic, political, cultural, structural, or social and environmentally-based factors while others argue that the reality is much more complex (Özden 2007). The positive and negative aspects of migration are discussed by Bozanovic (2008) who addresses how migration has a demonstrable impact in the communities of destination. Waldinger (1989) asserts that the challenge is to explore the relationship between new immigration and the changing economic and ecological characteristics of the cities in which immigrants have settled.

Researchers who have analyzed the receiving and sending countries of immigrants have studied what influenced individuals and groups to migrate and what drives their lifestyle preferences. Vertovec (2004) states that, "the country of origin becomes a source of identity and the country of residence becomes their source of right" (Vertovec 2004, 171). The choices for the receiving countries are weak and difficult when migrants are forced by the "push" factor. Sassen (1988) argues that international migration follows directly from globalization of market economies. Current patterns of international migration tend to be from the countries in the developing world (poor nations) to developed nations (rich nations) because industrial development in the First World initiated structural economic problems and thus "push" factors in the Third World (Massey 1990).

In the case of migration into the Tripoli Medina, new residents represented a temporary benefit in that they occupied buildings that would otherwise have been, and in some cases had been, vacant, but it was a benefit that led in time to changes in the character of the Medina as they pursued individual investment in the place independent of any type of planning framework and without a historical memory of the special

character of the Medina. Meanwhile, Gadaffi's regime had created the situation that allowed each Libyan to own only one property. The political and government Law Number 4 (Congress 1978) allowed both indigenous residents and immigrants to take over not just rental and vacant houses but also some of the historic houses from their longtime owners. The urban spaces of the Medina were lost between movements of people, conservation, rectification, and the consequent distortion that invaded the space.

In the 1960s and 1970s, a first wave of immigrants from within Libya and others coming from rural, agricultural, and mountainous areas in sub-Saharan Africa arrived in the undeveloped suburbs of Tripoli attracted by the new oil-driven economy. These people settled mostly on the fringes of the city creating informal urban communities such as Gost Alshaal, Abu Salim, and Al-Hadba Al-Khadra. Elkekli (2002) concluded in her study carried out in one of the unplanned areas in Tripoli that migrants who belonged to one village gradually moved from rural areas to the suburban areas creating an agglomeration of people and buildings contrary to any planning project. These communities followed the pattern of development as outlined in urban informality literature: most with little or no education, some minority of an educated professional class, located at the urban fringe, beyond or ignoring regulation, and subsisting on informal labor (Roy and AlSayyad 2004).

The value of properties and the cost of rents declined in the Medina leading to a vacuum and into this vacuum came not only rural Libyans but also immigrants from North African and sub-Saharan countries that were suffering the consequences of post-colonial economic, political, and cultural instability.

**Urban Informality**

As stated before, informal settlements and habitation around the edges of a city are not new (Roy and AlSayyad 2004). As the Medina became more informal, the once clear identity of the Medina as a historic character faded and became more difficult to find. The question addressed here is how did the Medina arrive at this state?

It might seem that this pattern does not conform to that of urban informality because these settlers did not actually construct the buildings of a community and, as can be easily argued, deterioration of urban cores due to economic factors is not that uncommon, even in the First World. However, it is possible to see from several perspectives the sequence of events in the Medina as a special case of the development of an urban informality settlement. First was the abandonment of buildings that initially occurred during a political, religious conflict when the established Jewish population in the Alhara Elkebera and Alhara Elsegera quarters of the Medina was forced to leave as a consequence of anti-Jewish sentiment. This tension of exclusion began building with the first Arab-Israeli war in 1948 and progressively worsened with each succeeding episode in the conflict, especially the 1967 War between Israel and its Arab neighbors.

The pressure burst when the entire Jewish community was forced to leave due to pressure from the government. Although their buildings were often looked after by sympathetic Muslim neighbors, eventually those properties deteriorated. Together with the departure of many Libyan families that had been longtime residents of the Medina and who had moved to other areas of Tripoli, a general decline of the urban planning began.

Interacting with this decline was the unique phenomenon of Law Number 4 of 1978 which dictated eviction and expropriation of property in the name of public interest. According to that law, anyone could own a house and obtain proof of ownership just on the basis of residency. Since 1978, this law has caused much resentment, bitterness, and blackmailing of the actual owners (Congress 1978). The September 1952 law of agricultural land reform, known as the Agrarian Reform Laws, preceded Law Number 4 which dealt not only with land but also with all types of properties. This may have been a descendant of measures by Gamal Abdul Nasser in Egypt that took land from rich landowners and divided it among their workers (Congress 1985). Both laws were attempts at property and wealth redistribution. Whether intended or not, Law Number 4 effectively made much of the area of the Medina, especially its housing, into a fringe and informal settlement as the conditions of property transfer it set off were not subject to much regulation, planning, or continuing interference from the government. As the new occupants of buildings in the Medina, whether rural Libyans or those from greater Africa, largely came from rural areas outside urban zones, they brought with them their own manner of living. Wirth argued that while the city was the "locus of urbanism" the urban mode of life was no longer confined to cities. Instead, it involved a more general acceptance of social factors which often resulted in social instability and insecurity (Wirth 1938, 1).

When the government began the Medina Project (1984), it established a patchwork of conservation and rehabilitation interspersed with continuing deterioration so that the formal infrastructure was interpenetrated with the informal. The project devoted its conservation energies to the Bab Bahar and Homat Elbaldia neighborhoods and gave

attention primarily to main streets as well as historic, government, and Islamic institutional structures in the interest of attracting tourists. Neglected were most of the other four quarters (Koshet Alsafar, Alhara Elkebera, Alhara Elsegera, and Homat Gerian) and their residential structures.

Moreover, in the 1990s as neglected buildings began to collapse, some of those sites were occupied by new construction in the classic manner of informal communities, without consultation with, or regulation by, the government (Rghei and Nelson 1994). Thus, as time went on, areas of the Medina begin to conform to the informal urban model of empty space, even within existing buildings, and were occupied and developed in an extralegal fashion but with tacit government approval.

## Methodology

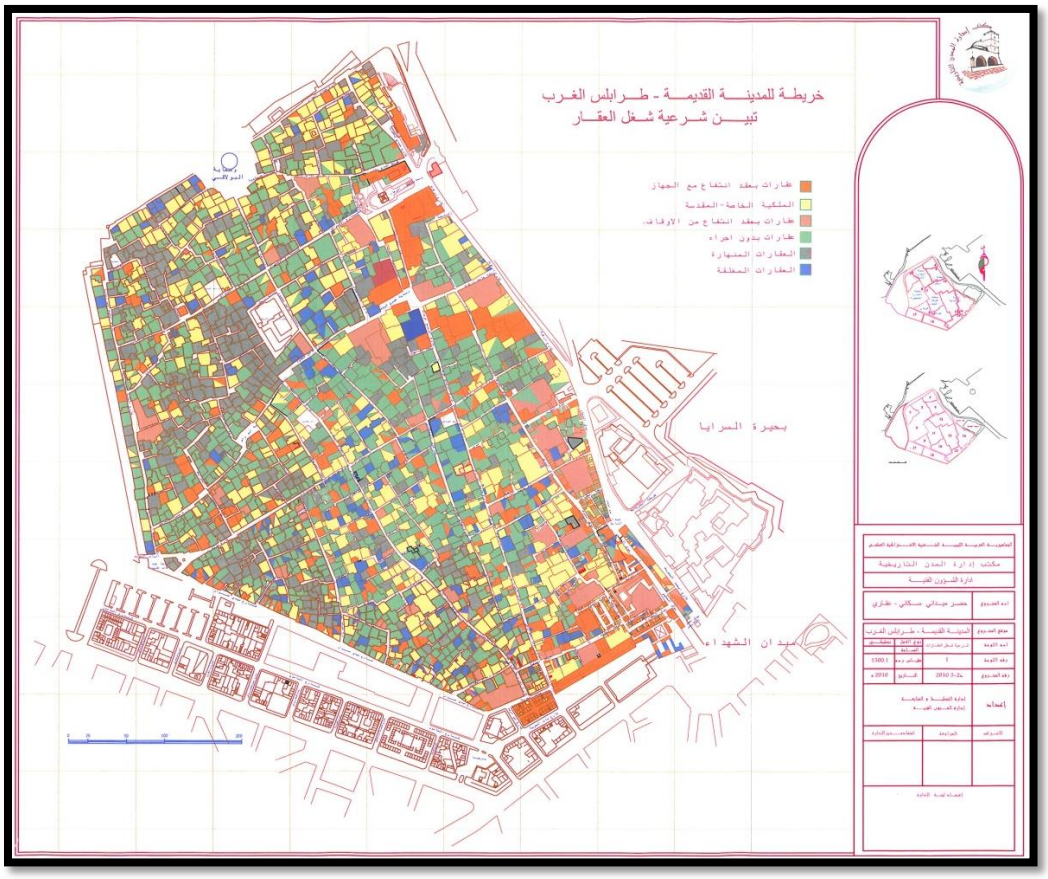
In order to fulfill the objectives of the study, data were collected through multiple sources, primarily from the administration offices of older cities—now known as The Management of Historical Cities (MHC). The main source was a 2010 MHC map (Figure 3) that had six property categories (city contract, condemned, owner occupied, squatter, unoccupied, waqf) distributed throughout the entire Medina and was the base for this researcher's study. Each individual property inside the Medina was included in this map and classified in six colors to indicate different property categories. This map became the main source for the researcher to analyze the property's type, to know who owns the space in the Medina, and how that affected the conservation and identity of the Medina.

By converting this MHC 2010 map to geographic information system (GIS) data and using the property categories as layers, the researcher was able to distinguish the

category of each property to determine its percentage and then compare the six categories with each other.

The materials used for collecting the data and analyzing the results consisted of information from informants' answers to the questions of four surveys and the mental maps with their circles and lines that represented their perceptions and knowledge of a particular area. For the main survey, thirty questions were selected to elicit informants' opinions about the Medina's features, structure, conservation, and changes that had happened to the Medina's fabric, and for residents among the informants, their reasons for choosing the Medina as a place to live.

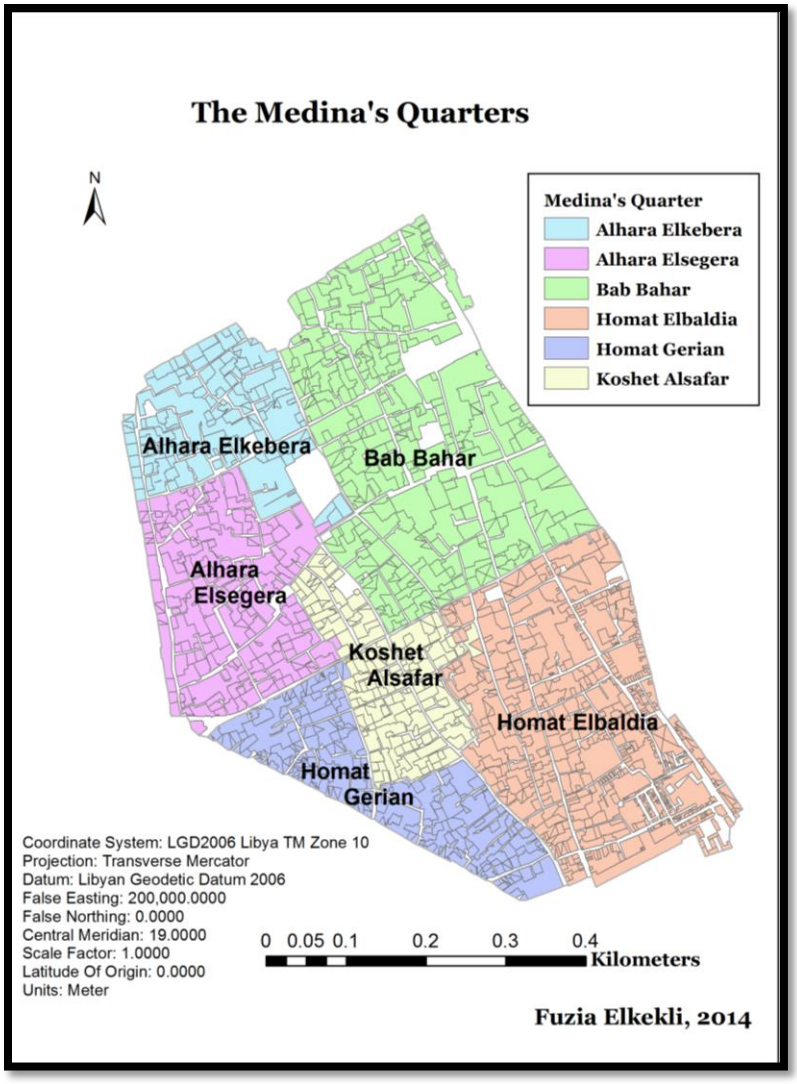
**History of the Medina's Property Categories**




Source: HMC, 2010.

Figure 2. THE MHC scanning map of property categories.

In the MHC map, all Medina properties are classified. The first four categories are based on historical classifications developed as part of *shari'a* (Islamic religious moral law) and Libyan law. Two additional classes were added to accommodate special property issues in the Tripoli Medina. The classes are as follows: 1) owner occupied, which includes all buildings belonging to individuals, or that have been transferred to other family members, or have been inherited from family or relatives; most of these buildings are houses and businesses; 2) waqf, the Islamic system for donating property is controlled by The Ministry of Waqf and Islamic Affairs. Most of these donated buildings in the Medina are public service buildings like *madrasas* (Islamic schools), public baths, stores, mosques, and *kans* (traditional hotels) but also include some residential units. Most of the waqf properties are offered to deserving people for free rent while other income from those properties is used for other services like money for the poor; 3) the condemned properties category contains buildings considered uninhabitable even though some poor people live there; 4) unoccupied buildings were those closed and left unused; 5) the squatter (use of other's property without legal papers); and 6) city contract (empty places related to the MHC control). The squatter and city contract were the two new categories necessitated by the changes brought on by Law Number 4 (Congress 1978).




Source: Work of Researcher Elkekli, 2014.

Figure 3. The Medina's Quarters.

## The Political Effect

According to Roy (2009), informality and the ambiguity of property relations should not be understood as the absence of state power, but rather as a form of "deregulation" or a "territorialized flexibility" allowing the state to manage and plan space through the shifting and differential enforcement of regulation. Informality in the Medina was produced through the uneven and selective enforcement of Law Number 4 and of formal planning and conservation projects. The ambiguity created by Law Number

4 helped to create a flexible space capable of serving the interests of the government, in this case by absorbing squatter and immigrant populations that may otherwise create problems for the state.

In 1978, Law Number 4 "allowed a renter to own properties that they have rented from the legal owners" (Congress 1978). This law added new character to the property categories and caused conflicts between owners and renters because of evictions and expropriations in the name of the public interest. Doshi (2013) concentrating on the politics of the evicted in her work on the slums in Mumbai "explores the complex and contradictory politics of urban transformation" (861) and further notes that "political strategies are thus never fixed but constantly changing" depending on circumstances (Doshi 2013, 862). The ever-changing politics of Law Number 4 in Libya has caused much resentment, bitterness, and blackmailing of the previous owners (Congress 1978) who resented the property title transfers and housing redistribution efforts of the state. These buildings were lost to their original owners and, as a result, the ownership of properties became ambiguous because the government seized the properties and the original owners had no rights to their buildings; that was one reason for the squatter classification. During Gadaffi's time, people obtained homes or businesses because of Law Number 4 of 1978 (Congress 1978) which encouraged evictions and expropriations in the name of public interest. As a result, most original and multiple owners of individual buildings left the buildings empty so the Medina became a place for the poor. The squatters were ordinary Libyan people or immigrants; some had difficulty finding funding for housing and their economic situations or family problems did not allow them to live with their extended families; and because of these circumstances, they needed

privacy and a place to live. As Gilbert (2004) points out, that move costs a government little or nothing and wins political capital with a certain segment of society, usually the less privileged. In the Libyan case, title transfer also antagonized another segment, property owners, by reducing a source of their wealth and therefore power—which had little relevance under a despotic regime—but was one of the numerous irritants that fueled the 2011 uprising.

Over the long term, the categories of property under Law Number 4 created many of the Medina's problems affecting both urban planning and conservation. The owners opposed the state's decision and this increased their dissatisfaction with the regime. While the new Libyan and African immigrants profited from Law Number 4 by finding opportunities for affordable housing, they also suffered a kind of neglect in terms of public social investment. Roy (2009, 84) writes that "it is naïve to designate such processes as extra-legal, for they do not exist outside the law." Within the ambiguity created by Law Number 4, squatters have been simultaneously positioned as within and outside the law—as legal and illegal subjects. The situation was further complicated by shari'a legislation which rejected the law because of the holy property rules in Islamic legislation that dictated that each person could have more than one property. However, this view was not accepted by all. Out of need, some squatters, turning a blind eye to Islamic law, continued their life under Law Number 4.

## Results

The study found that the properties in the Medina's six quarters encompass a total area just over 32 hectares (79.12 acres) of the total 42 hectares (104 acres) of the entire Medina. Table 1 indicates that the Bab Bahar quarter has the highest percentage at 29.43

percent of the total buildings; it is a quarter filled with different types of property categories and has been accepted as the main quarter throughout the Medina's history (Khoja 1969). The second area is the Homat Elbaldia quarter at 25.64 percent which is known as the service area. In two other quarters, Alhara Elkebera at 10.42 percent and Alhara Elsegera at 14.36 percent, the buildings have less conservation which has affected the size of the built-up area; many buildings have collapsed, been condemned, and cleared. Homat Gerian with 11.39 percent and Koshet Alsafar at 8.76 percent have the lowest built-up areas and are a mix of residential and retail businesses. The percentages of buildings include the six types of property categories which are distributed differently from one quarter to another under multiple reasons for occupying the buildings.

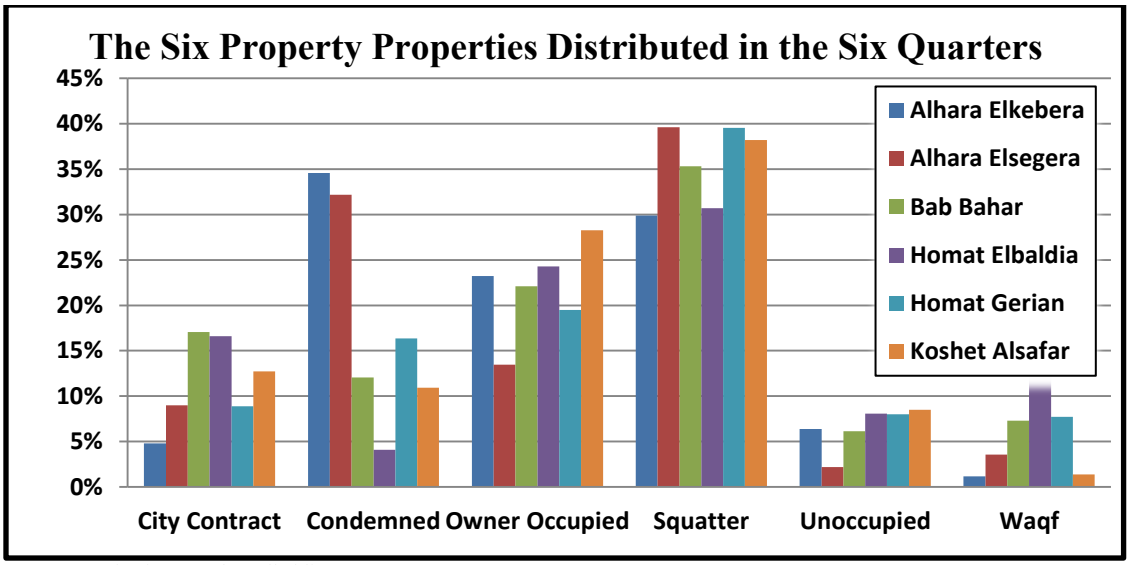
Source: Data from MHC, 2010.

Table 1. The Medina's total areas' percentage.

| Quarter Name | Area in Square Meters | Percentage of Buildings by Area in the Medina |
|---|---|---|
| Alhara Elkebera | 33366.49 | 10.42 |
| Alhara Elsegera | 45965.36 | 14.36 |
| Bab Bahar | 94167.69 | 29.43 |
| Homat Elbaldia | 82153.68 | 25.64 |
| Homat Gerian | 36468.32 | 11.39 |
| Koshet Alsafar | 28051.38 | 8.76 |
| Total | 320172.92 | 100.00 |

Figure 4 shows that the six property categories are found throughout the Medina and are distributed in the six quarters as depicted in the legend in different colors for each quarter. The difference is evident in the percentage of the building categories and in all quarters; for example, the waqf type (Islamic property category) is distributed throughout the entire Medina. Figure 4 also shows that the two quarters, Alhara Elkebera at 1.16 percent and Koshet Alsafar at 1.36 percent, have the lowest percentage of waqf property

among all the quarters even though Alhara Elkebera (former Jewish residential area) has 10.42 percent of the total building percentage in square meters of the entire Medina and Koshet Alsafar (highest residential area) has 8.76 percent of the total as is indicated in Figure 4. The greatest percentage of area for waqf buildings is in Homat Elbaldia because of its many mosques and associated institutions.




Source: Work of Researcher Elkekli, 2014.

Figure 4. The six property Properties distributed in the six quarters.

The purpose of analyzing the property categories was to find the relationship between the properties and conservation and how that has affected the Medina's identity. Figure 4 shows that for most quarters the highest percentage of property area belongs to the squatter class. According to Figure 4, the higher percentages of squatters in most quarters range from a low of 29.90 percent in Alhara Elkebera to the highest of 39.63 percent in Alhara Elsegera. The question is why the Medina has such a high percentage of area in the squatter category?

During the time of Gadaffi, people got support to obtain homes or businesses in a very uncomplicated manner because of Law Number 4 of 1978 (Congress 1978) which

encouraged evictions and expropriations in the name of public interest. Another reason is that when most of the original owners and multiple owners of individual buildings left the buildings empty, the Medina became a place for poor and needy people as a solution for their housing challenges. One of the informants from Homat Gerian appreciated the good results of Law Number 4:

> I don't have a job that will provide enough money to have a good house for my children, but I found people enjoying these condemned houses, so I moved into this one for my family and I live here even though it's not in good condition, but I have my privacy.

Source: Data from MHC, 2010.

Table 2. The Medina's quarters with property types, area's square meters, and percentage.

| Quarter | Property Type | Frequency | Area in Square Meters | Percent Area by Quarter |
|---|---|---|---|---|
| **Alhara Elkebera** | Squatter | 26 | 9973.66 | 29.90 |
| **Alhara Elsegera** | Squatter | 51 | 18218.27 | 39.63 |
| **Bab Bahar** | Squatter | 98 | 33266.42 | 35.33 |
| **Homat Elbaldia** | Squatter | 135 | 25213.91 | 30.69 |
| **Homat Gerian** | Squatter | 58 | 14428.89 | 39.57 |
| **Koshet Alsafar** | Squatter | 49 | 10717.48 | 38.21 |

Moreover, in the late 1970s, the government, Libyan residents, immigrants, and the planners reflected on how the consequences of this law and this property category would affect conservation efforts in the Tripoli Medina. Even though the squatter category has the highest percentage and is distributed throughout the whole area, other property categories are distributed according to the quarter's condition. This result indicates the damage that the buildings in Alhara Elkebera and Alhara Elsegera have undergone and the conservation issue for the city's future (Figure 4).

The squatter properties brought about the loss of the Medina's identity when their residents and users adopted different styles and standards of conservation for the buildings even though the residents are acting and dealing with the Medina as their place of residence. From the end of the 1970s to the uprising in 2011, most legal owners who still owned or inherited buildings from their relatives were unable to protect their property in the Medina and recover them from squatters. The silent violence and the strength of Law Number 4 encouraged concerned people to consider the city as a historic place that needs to be conserved—and perhaps as a means to recover property taken by Law Number 4.

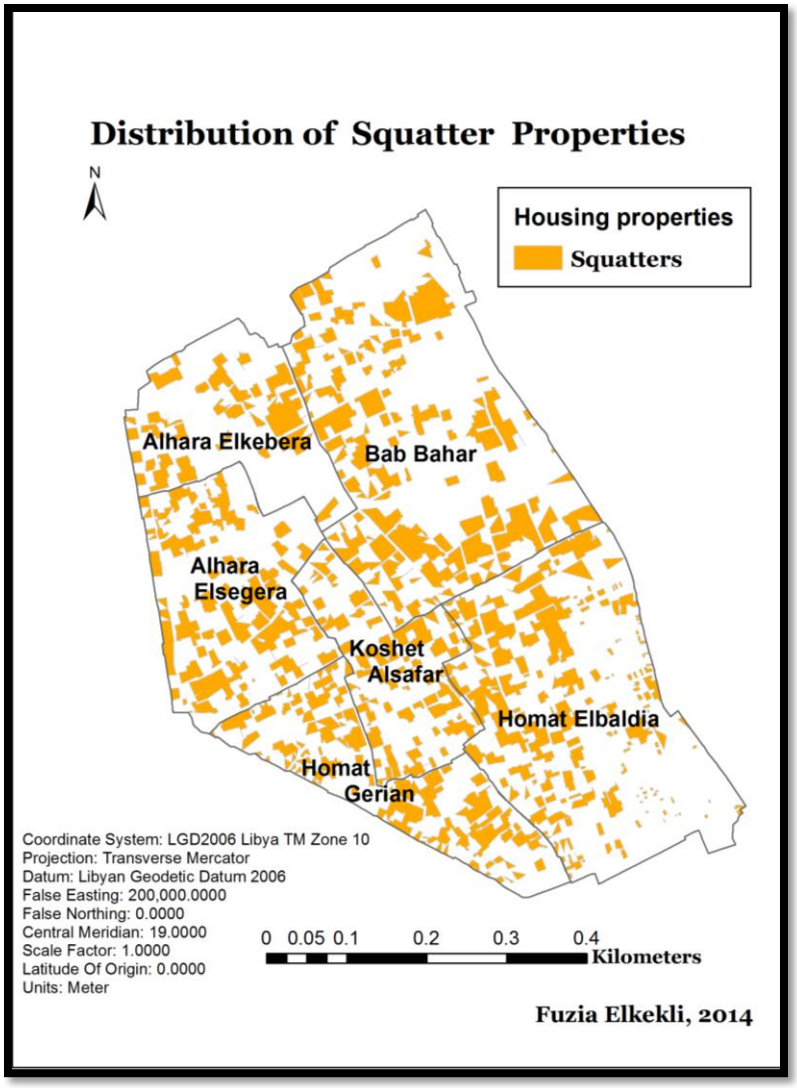
Historically, the Medina is one of the oldest cities in Libya and has some fingerprints from earlier times, like the Marcus Aurelius Arch and the Citadel from Roman times. Also, many of the Ottoman buildings in the Medina have existed from different periods of time and people lived and worked in many of them until recently. Some of those buildings are historic and many people using those buildings have little knowledge or information about their historic value to the identity of the Medina. One argument is that the people's concept was that their perception of the Medina was related to their educational level; the survey data shows that forty-two percent of the interviewees had a college education; twenty-three percent had a high school education; another twenty-three percent had a middle school education; and the remaining twelve percent had elementary level education.

Understanding the valuation of the buildings as historic places was affected by the older buildings' condition; it is hard to distinguish their value. That factor has affected conservation in two ways: first, from a general examination and study of the Medina after

the buildings became empty and people were looking for places to live and second, the fact that the Medina's houses and stores had survived by using these buildings even though the uses to which they were put were not the best. A comparison between condemned properties and squatter properties as a percentage of the total area in Figure 4 shows that squatters represent a high percentage. Observation of squatter properties indicates that the condition of many of these buildings is unsatisfactory. By using the buildings, the mostly poor residents are maintaining them under difficult financial situations. The relationship between poverty and the buildings' condition is seen clearly in Homat Elbaldia, which is relatively affluent, and where the area of squatter buildings is very low, only 4.07 percent of the quarter's total area as shown in Figure 4.

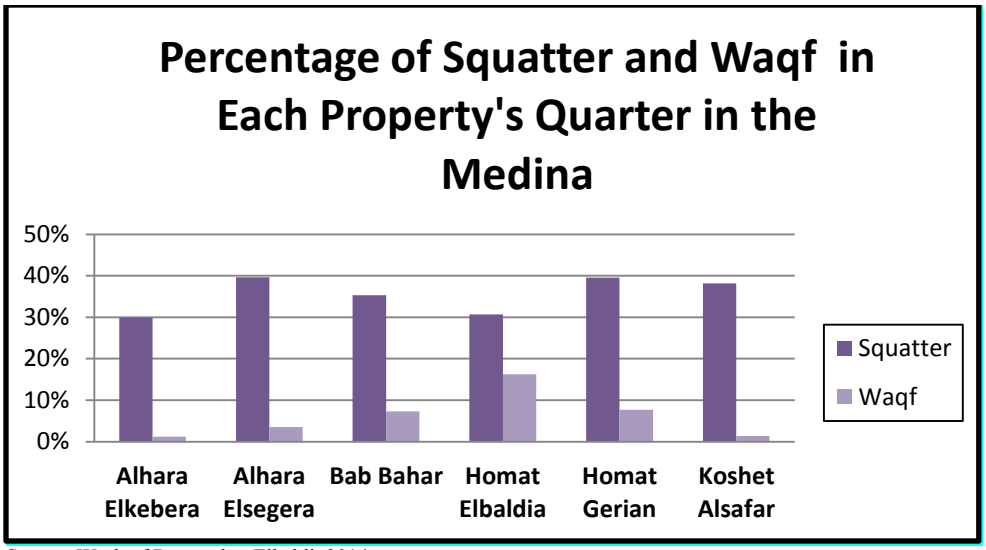
Figure 5 shows the distribution of squatter properties throughout the Medina. From 1978 until the 2011 uprising, the number of squatter properties, transformed from the other property types, was increasing daily for all property types except for waqf (Figure 6). People were connected to waqf properties by their Muslim faith and were concerned about those buildings because some were Islamic buildings and others were used under the authority of The Ministry of Waqf and Islamic Affairs even after those working for this institution were moved to other positions and the Ministry was effectively disbanded by the government.

Much of Homat Elbaldia had been conserved under the 1984 project of Medina conservation, and waqf properties heavily represented in the Homat Elbaldia quarter were mostly mosques, like the Al Naqah mosque, religious institutions, traditional suqs, *hammam* (public bath), and *zawayas* (workshops) that belonged to the Ottoman era and later times.




Source: Work of Researcher Elkekli, 2014.

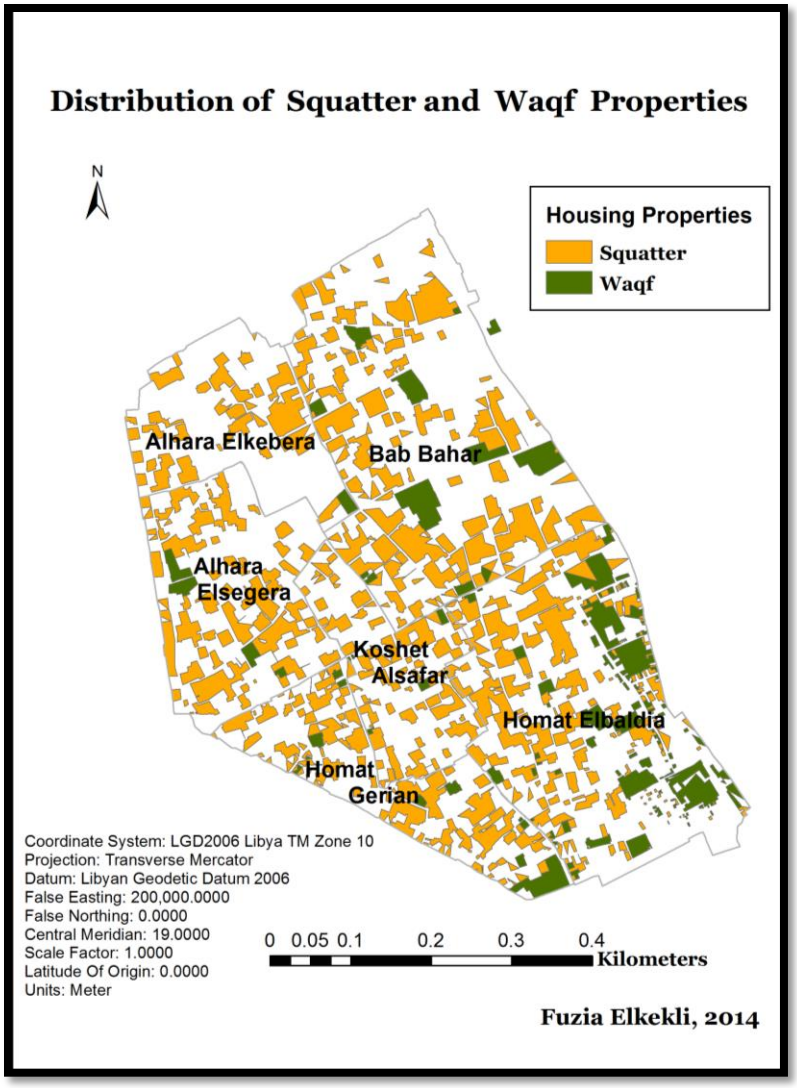
Figure 5. Squatter distribution in the Medina.




Source: Work of Researcher Elkekli, 2014.

Figure 6. Percentage of squatter and Waqf Properties in each Quarter in The Medina.

While Figure 5 shows the distribution of squatter properties, Figure 7 shows the distribution of both squatter and waqf properties. It is clear that the greater number of waqf properties are in Homat Elbaldia while the squatter properties are scattered throughout the Medina.




Source: Work of Researcher Elkekli, 2014.

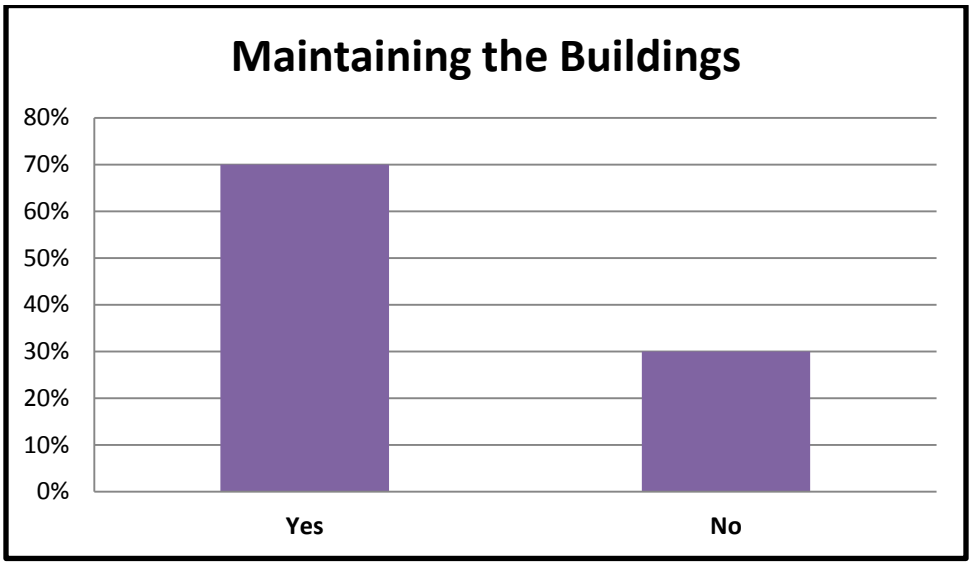
Figure 7. Distribution of squatter and waqf property categories.

**Maintaining the Buildings**

The economic policy of the early 1980s allowed small and family-operated private businesses, not dramatically affected by the new economic system, to sell gold, silk, and traditional goods. In contrast, the economic regulations of the 1980s created great ambiguity in the property rights of residential and larger commercial properties. Due to this, many small commercial properties have been adequately maintained, while residential and larger commercial properties have greatly deteriorated. For this reason,

conservation is aimed more at maintenance of the buildings. Most of the stores are in satisfactory condition because they were allowed to continue operating through the changes in economic regulations under Gaddafi's regime.

According to the results of the survey, seventy percent of the informants were maintaining their buildings individually and thirty percent emphasize that they are not able to do so for various physical and financial reasons (Figure 8). The question is how residents distinguish between maintaining and restoring their buildings to conserve the historical character of the city. The residents' viewpoint about conservation of famous historic and religious buildings is that it should not be their responsibility but that of the MHC and the government to conserve the mosques, the Marcus Aurelius Arch, the Citadel, and other historic places.



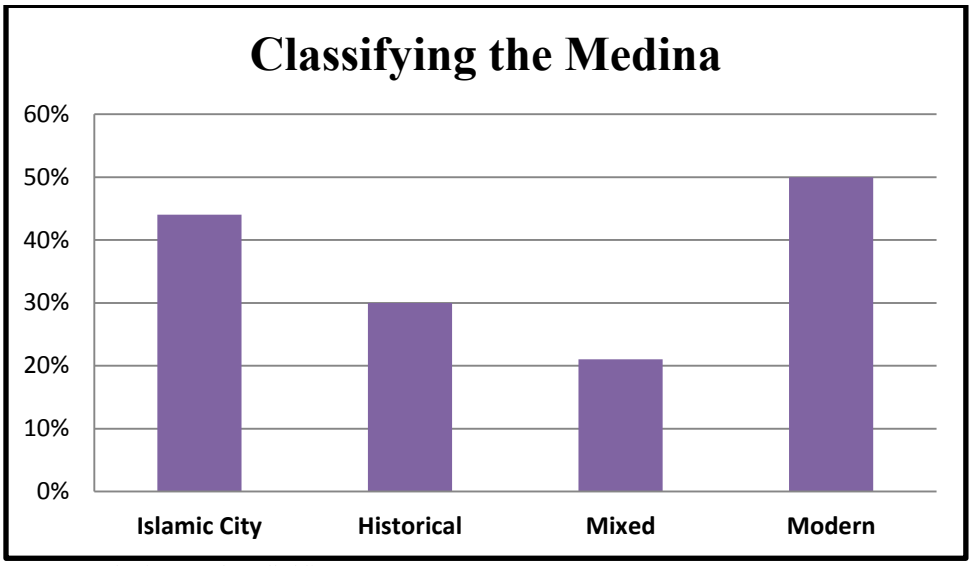

Source: Work of Researcher Elkekli, 2014.

Figure 8. Maintaining the buildings.

**Classifying the Medina**

What kind of city is the Medina? A survey was conducted to gauge resident understanding of the Medina's identity. The four categories on which the survey is based

(historical, Islamic, mixed, and modern) were chosen to represent the different perceptions and understandings of the relation between the city's history and architectural styles. Property types and the residents' economic, social, and ideological circumstances have affected the Medina's conservation; the property categories have affected maintenance; and the Medina's fabric has changed urban planning. This is an important issue because the city is still receiving residents who obtain and occupy the buildings in different categories. Also, some people, often from other countries and cultures, who are not familiar with historical cities and urban fabric, do not or cannot distinguish the identity of the Medina and have no sense of the Medina's history.




Source: Work of Researcher Elkekli, 2014.
Figure 9. Classifying the Medina.

The informants in this survey have mixed views about the nature of the Tripoli Medina. Forty-four percent believe that the Medina is an Islamic city; thirty percent think that it is a historic city and has been influenced from different periods of time, while twenty-one percent think that the Medina is a city of mixed architecture with the fabric of

Islamic historic buildings. The remaining five percent think that it is a modern city (Figure 9).

From the researcher's observation and collection of information, the latter category, five percent of 150 informants, are confused about these categories because many used to dwell in rural villages where there was nothing comparable to the Medina. Others think about the proximity to the modern downtown area and they cannot distinguish between the function of the buildings around the edges of the Medina and downtown Tripoli. Also, what has been done in classifying property, along with information about the need for conservation and maintenance, has complicated the Medina's identity. Finally, new buildings scattered in many areas have replaced some of the condemned buildings and have also affected the Medina's identity.

**Choosing to Live in the Medina**

Does the concept of conservation appeal to the residents of the Medina? Many of the informants responded that they were more concerned about the protection of their families and their buildings from the weather than they were about conservation. Others are concerned about conservation because of their income or lack thereof.

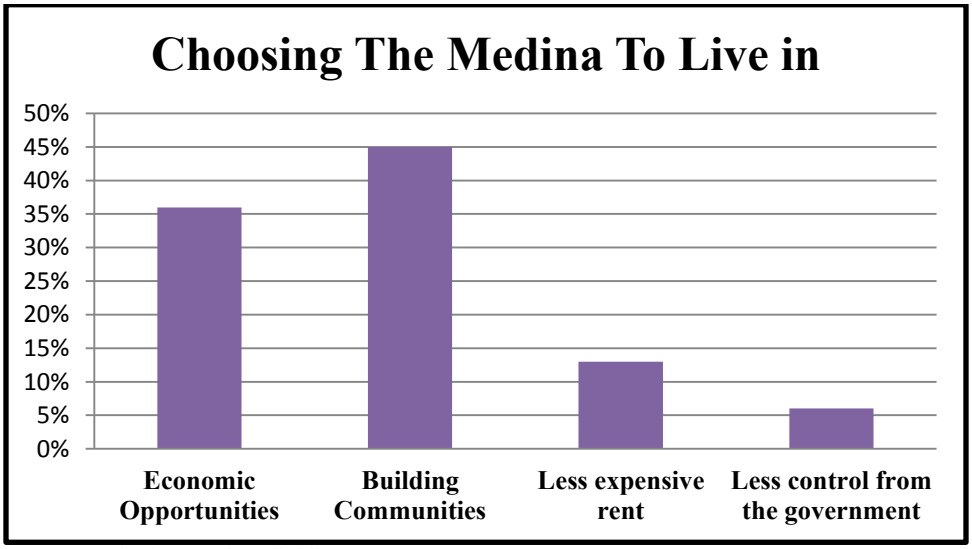
For example, one resident, a 55-year-old Libyan, lives in Homat Gerian in an almost condemned house which he shares with two other Libyan families. He reflects the following to the researcher:

> We work hard to find and earn money to feed our families; I'm sick and I'm receiving Social Security benefits. How can I use the money for maintaining the house? I am just trying to preserve the roof during the winter time. What do you mean by conservation--historical? My house should be destroyed, I can't see any fingerprints of history in this house, and if I had the money I would demolish the building myself and reconstruct it.

Source: Work of Researcher Elkekli, 2012.

Figure 10. Condemned home of 55-year-old in Homat Gerian.

Despite the sense of frustration of some, most residents of the Medina see their lives in a positive light, for if it is assumed that the primary reasons for many people living in urban informal situations are economic, then they can live nowhere else.




Source: Work of Researcher Elkekli, 2014.

Figure 11. Choosing the Medina to live in.

Surprisingly, other parts of the survey data show that some people do not necessarily live there because it is inexpensive or because they feel isolated from the political process; most live in the Medina because they feel they belong to the place.

However, the lack of control (the creation of informal space) opens the opportunities to start informal businesses, build different communities, and have less expensive rent. So the lack of government control does play an important role. Social, political, or economic exclusion also plays an important role. If the residents are excluded from the formal economic sector and from Libyan society at large, then they must seek informal spaces to support themselves economically and segregate themselves in their own communities. Also, as part of the capital of Libya, people living in the Medina can benefit from the closeness to the urban area to meet their needs for education, transportation, health, and economic opporuntities.

Figure 11 shows that most residents chose to live in the Medina because they were able to build communities there. What is surprising is that the factors of less expensive rent and freedom from government oversight were very important for some when choosing to live in the Medina. Even though the the Medina is known for less expensive rent because of the buildings' poor condition, forty-five percent of informants chose the Medina for building communities and this factor helps to explain why Libyan and African immigrants are interested in living inside the Medina. In addition, another thirty-six percent chose to live in the Medina because of the economic opportunities for setting up small and informal businesses. Thirteen percent experienced a lower rent rate and the other six percent were content with their situation. On the one hand, Tripoli has the largest communities in Libya and is a place where people can come to know each other;

however, on the other hand, this established social network is very difficult for immigrants to break into in order to adapt to these local communities, but building their own communities in the Medina allows them to have the economic benefits of the big city while maintaining ties with their immigrant community. This explains the choice of the informal area of the Medina where the immigrants can build their environment easily and where the stability of the new life allows economic opporunities to enrich their lives. One of the residents who came from Gabon told the researcher:

> I'm happy to be here in the Medina. I have good friends and I'm not thinking to emigrate to Europe. I gave the equivalent of 1000 Libyan dinars to the smugglers to come to Libya. I have a good job, and I will stay here, and I don't like the idea of dying in the Mediterranean Sea on the way to Italy.

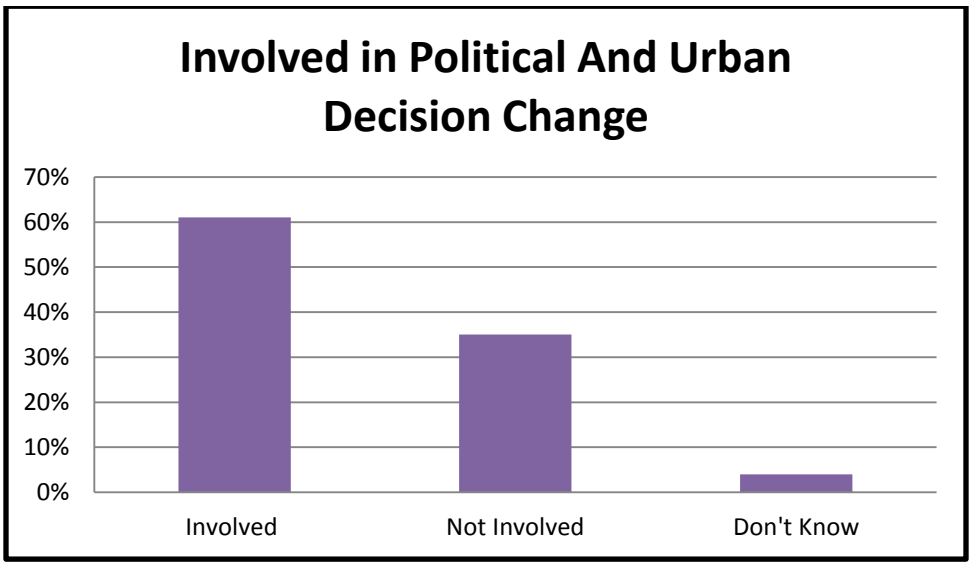
Samie from Egypt said, "Even though I'm a Christian and I'm a handyman worker, when I work in Libyan houses, I always have my lunch with the house owner and by the end of the work mostly we became friends."

**Involved in Political and Urban Decision Change**

In response to the question about particpating in the political system in Libya, the results show that sixty-one percent of the residents believe that they are involved in the Libyan system; thirty-five percent are not involved and four percent are unconcerned.

Since March 2, 1977, the Libyan State under Gadaffi has operated under a different system, named Jamahiriya where, by definition, all people must participate in the decision making process. The Libyan government created in March 1977 basically consists of a multilayered structure with a People's Congress at the top and conferences in each neighborhood or village at the local level. All citizens, age eighteen and older, male and female, periodically come together in meetings called "communes." Each commune

has 100 people who live in the same neighborhood and there are 30,000 communes in all of Libya which has a total population of 6,546,000 (Census 2006).




Source: Work of Researcher Elkekli, 2014.

Figure 12. Involved in political and urban decision change.

At a higher level of organization there are twenty-two popular congresses. The People's Congress is held three times a year: usually the first meeting is devoted to developing a detailed agenda for the next two meetings; the second discusses topics related to the internal domestic agenda; and the third is devoted to both the domestic and international spheres. The members vote on resolutions in public, either by a show of hands or direct voices.

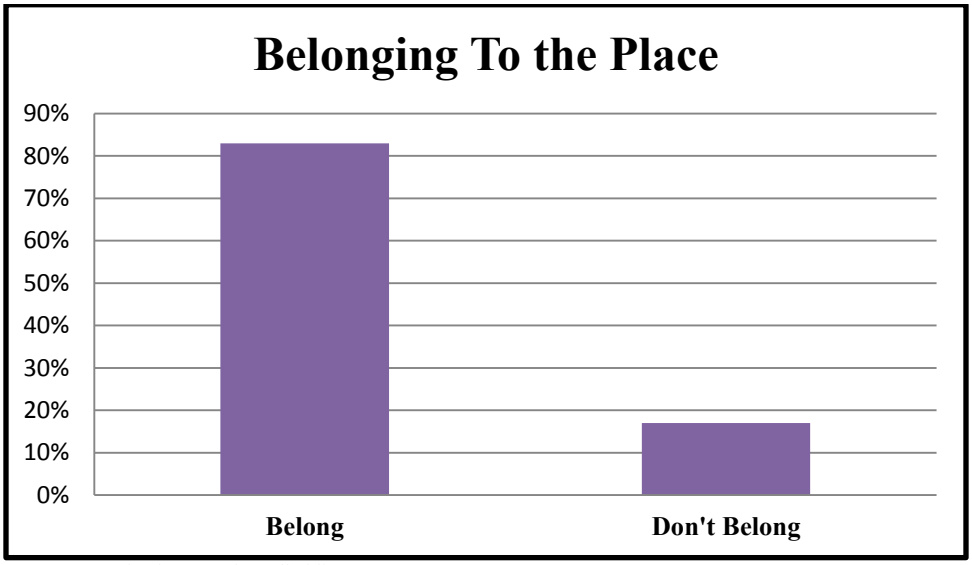
Each Local Council implements the resolutions of the People's Congress at the level of the neighborhood. Members of Congress are elected by universal suffrage for a period of three years through a complex web of conferences and people's committees. Through this system people think that they participate in politics. During thirty years of the Jamahiriya system, some people thought that they were involved simply by attending meetings or congresses. Others thought that the more effective participation was when

the people made decisions and the state carried them out. However, formal politics works by discussing the agenda that had been suggested by the state. The lack of true participation and consensus led to a situation where many simply ignored the laws of the state with which they disagreed.

Because the survey occurred before the end of 2011 and early 2012 after the political change and in the absence of the silent violence that people had lived under from the government for more than three decades, thirty-five percent of the informants now believe that they are not involved. One informant said, "Now after 2011 when we became free, I can tell there wasn't real political participation; there was power at the top controlling the bottom; and we were all slaves. We were white rats for the experiments of the regime [Gadaffi] and his followers." Abas, a Libyan and former resident of the Medina, said to the researcher, "After more than twenty years when we grew up and came to understand the politics in other countries, we knew that here there was no politics that we could participate in; there was one person [Gadaffi] dreaming in the night and having his way in the day." Salah said, "In the beginning of the 1970s there was a political system and we liked it. Others outside Libya just did not understand it." Given the elaborate system, but given also the nature of these responses, it is not clear why so many informants believed they were involved in the political process; this is an issue that requires further investigation. However, in the context of the informality that came to characterize life in the Medina, involvement for these people might mean the ability to make decisions for themselves in a climate of benign neglect.

**Belonging to the Place**

The idea of people belonging or not to a place is demonstrated by their interaction with others and their satisfaction with life in a particular place. Seventeen percent felt that they did not belong to the place. Remembering that the response was from all the residents as an aggregate, not distinguishing them as to origin; nonetheless, it may seem surprising given the deteriorated state of the Medina, especially its housing, a large portion of people, eighty-three percent, feel it is a place to which they belong and by implication to which they feel a sense of loyalty (Figure 13). This is, in fact, a strong indicator that the Medina consists of viable communities of residents, immigrants, and communities composed of both. This disproves the idea that the deterioration of the Medina is the result of a lack of interest on the part of the residents. Instead, the political, social, and economic exclusion of the residents from the rest of Libyan and Tripoli society may offer a more accurate explanation.




Source: Work of Researcher Elkekli, 2014.

Figure 13. Belonging to the place.

Mohamed, a Libyan second-generation man, age thirty-two, approached the researcher on his own and pointed to a group of young men and said:

> We don't care if their parents are from Chad, Egypt, Mali, Sudan, or Morocco. We are friends growing up together, we went to elementary school together, we know the details about our city, and we love it together. They are Libyan, it doesn't matter if they have their documents or not. They were born here and because we know that when you care about the place where you live that means you are Libyan and the nationality issue was the government's game before 2011; the former government gave citizenship to new immigrant residents who did not deserve it. But we are friends.

## Conclusion

This study analyzed six property categories (city contract, condemned, owner occupied, squatter, unoccupied, and waqf) of the buildings in the Tripoli Medina. By analyzing these property categories, the impact, or lack thereof, on the conservation of the Medina could be closely examined. First, finding the percentage of the area for each category helped to determine the properties according to their original historical shari'a and Libyan law. Second, this study found that most people's concerns about their economic situation and the condition of the buildings were more closely related to their daily life than any concern about the Medina's conservation, its historical valuation, or the city's plans. Third, it was surprising to find how large the number of squatter properties was, and even more surprising, how evenly they were distributed throughout almost all the quarters of the Medina. Why this is so deserves further investigation, but a reasonable explanation might go as follows: before Law Number 4 went into effect, a larger number of properties had become rental properties as increasing wealth drew longtime residents out of the Medina. With Law Number 4 these buildings were lost to their original owners and, as a result, the ownership of properties became ambiguous because the properties were seized by the government and the original, legal owners had

no rights to their buildings; this factor helped cause the squatter classification. In any case, once the long-standing residents began to leave, some change was inevitable, and once property redistribution occurred through Law Number 4, unpredictable and corrosive change became a fact.

Fourth, by-in-large waqf properties were maintained despite the dissolution of the ministry responsible for their administration. They did not fall into the squatter category; nor were waqf buildings modified in their function. This result may be attributable to the "Fear of God" factor even though not all waqf buildings directly serve religious functions; people are afraid of offending religious norms in the community. Fifth, when buildings became empty in the Medina because people left, such as happened in the Jewish quarters, or when Libyan owners no longer had family members to occupy the buildings, these properties came under the control of the MHC, became known as city contract buildings, and received little maintenance.

What has happened, therefore, is that the Medina, formerly formal in its structure and maintained under long-standing social norms and legal arrangements, has been transformed into a checkerboard of formal and informal spaces. It could be argued that the ultimate cause rests in the world's ever increasing thirst for energy; here in Libya it was oil that set off an inevitable chain of events. But was the deterioration of the Medina inevitable? The answer is probably not. If certain categories of properties for which the government or other organized institutions such as waqfs and its associated ministry have survived relatively intact and even been the subject of preservation efforts, then why not the other properties? If the government had a well-managed and funded housing authority, such an institution could have caught the trend of decreasing rental values,

neglect, and abandonment and with incentives to owners potentially could have arrested the Medina's fall into its present state. As Roy and AlSayyad (2004) make clear, such an effort would have run the risk of gentrification of the Medina and depriving the immigrant settlers of a place to live. The ideas of choosing the Medina as a place to live were mostly because of economic opportunity and inexpensive rent; also, the immigrants did not need to change their culture or identity to get accepted. The formal work of the government created random poor settlements as resident areas. Mamadoo, a 45-year-old from Chad who has his Libyan papers, told the researcher:

> The government didn't offer good places for us to live in, the Medina is the best for us and we did not have a hard time to be part of all these communities, all the people are my kids' family. I can go out of the Medina to visit some people but to leave this will be new starting and will take our entire attempt. If the government is thinking to move us, it should move all of the communities at one time to the same place. Otherwise, it will be an indirect way of forcing us to immigrate illegally to Europe.

The implication of this study is that using the surveys has helped: 1) to begin to fill the gap in understanding the relation between the physical, historical, and social aspects of the Medina and 2) to be an input into a comprehensive plan for conservation to protect the Medina's identity. Urban informality literature saw deterioration of the Medina as the direct result of the exclusion, or lack of inclusion, of migrant communities. Thus the question of preserving or restoring the Medina's historic buildings and structures would be directly linked to the question of social exclusion. In order to avoid gentrification, these two questions need to be addressed in tandem. In the current post-revolutionary context, what opportunities may exist to empower the Medina residents and preserve the buildings at the same time? Any program of this sort must first clarify and legalize the property rights of current residents in order to assure they are not dispossessed of their

homes. Further, if the preservation of the Medina is seen as a public good, it should be the responsibility of the public at large to fund the preservation and restoration project.

This researcher recommends conserving the Medina by determining and protecting its identity through a national project under government funding and the MHC authority as a follow-up to the political changes after the uprising in 2011. This project should create a framework supported by public funds for participatory planning for the Medina's restoration accompanied by a broader awareness of historic buildings and education about the historical value of the Medina.

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