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## EMPLOYING SUSTAINABLE DEVELOPMENT CONCEPTS TO REVITALIZE THE HISTORIC URBAN QUARTER OF AL-MUIZZ STREET, CAIRO, EGYPT

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# EMPLOYING SUSTAINABLE DEVELOPMENT CONCEPTS TO REVITALIZE THE HISTORIC URBAN QUARTER OF AL-MUIZZ STREET, CAIRO, EGYPT

## Abstract

Historical preservation helps keep communities beautiful, vibrant and livable, and gives people a stake in their surroundings, for the fact that such historical and valuable places provide a sense of stability and a tangible link with the past (historichawaii.org Feb.2020). Historical places constitute a valuable front for cities with a well-known identity that lasted for centuries. Focusing on developing these places to ensure their sustainability and preserving their history constitutes a mission that has impact not only on the urban environment but also on people using it. Fundamentally, cities bring creative and productive people together helping them to do what they do best: exchange, create and innovate. Culture lies at the heart of urban renewal and innovation.(Culture: urban future: global report on culture for sustainable urban development, Unesco 2016). Al-Muizz Street, an urban space in Cairo, Egypt is the study of this research that aims, first, to assess the current situation of the case study and its physical conditions. Second, to employ new concepts of sustainability in order to revitalize and preserve the cultural heritage of Cairo city, and to propose sustainable design based on the field survey, in order to achieve the best development. Al-Muizz Street constitutes a history that is worth preserving and developing because of its importance in the city life cycle. By being the lifeline of Cairo, restoring life to it, helps ensure an active living and a healthy environment for people.

## Keywords

Al-Muizz Street, Historical preservation, Cultural heritage, Lifeline of Cairo, Active living.

## 1. INTRODUCTION

Each country classifies its structures according to specific physical and spiritual values under the title of heritage buildings. Egypt classifies a building as a historical building after 100 years of construction. Historic Cairo is the core of touristic, political, social, cultural, and economical aspects, which is branched into several quarters, one of which is Al-Muizz Street (UNHCR. 2003). In addition, the values of historical buildings are related to the past and linked to the present and future in all cities, since they maintain a visual and mental relation between the citizens and their past, constituting their identity. Marcus Garvey a Jamaican political leader says that:

“A people without the knowledge of their past history, origin and culture is like a tree without roots”.

This paper is an example of revitalization in historic urban quarters and focuses Al-Muizz Street, Cairo. In order to revitalize historic urban quarters and valuable areas, we must focus and emphasize on attracting new activities. Al-Muizz Street has been a major touristic spine in historical Cairo but it lost its regional importance during time because of lack of touristic and entertaining facilities.

The main research problematic is the lack of preservation of the identity of the historical buildings in Al-Muizz Street, and instead, taking decisions to damage them and therefore leading to a decrease in the touristic and economic aspects.

The research hypothesis is to employ sustainable development concepts to revitalize the historic urban quarter of Al-Muizz Street, and merge between sustainability and cultural heritage to reach a well-designed place that meets the needs of people, such as social interaction.

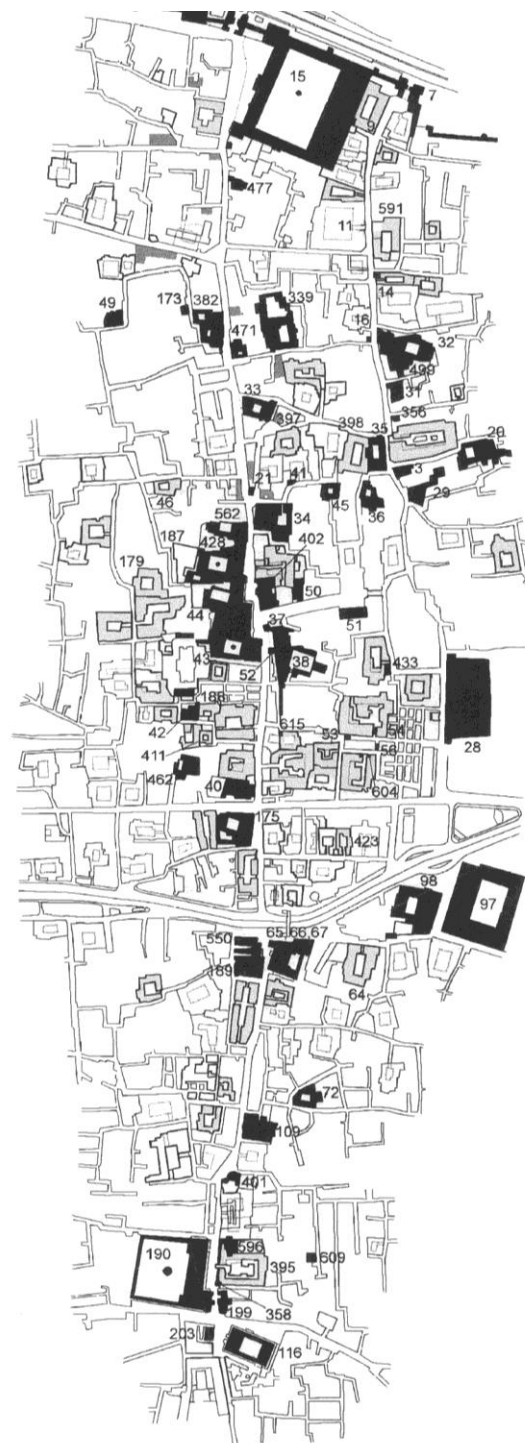
### 1.1 Al-Mu'izz Street Context

Al-Muizz Street (known as Shari' al-Mu'izz) is the main line of life of the Heritage Corridor in Historic Cairo. It includes historic monuments, *wakalat*<sup>1</sup>, and significant buildings. In addition to the Fatimid fortification walls and gateways, the historic monuments located along Shari' al-Mu'izz from Bab al-Futuh to Bab Zuwayla sum up to 30 monuments, ranging from *sabil*, *sabil-kuttab*, *zawiya*, mosque, collegiate-mosque, mausoleum, *maristan*, *hammam*, *saqqifa*, *bayt*, to *qasr*. The Fatimid erected six of the monuments, the Ayyubid 2, the Mamluk Bahari 4, the Mamluk Burghi 6, the Ottoman 8, and Muhammad Ali Pasha and his family 4. The result was a large variety of building form, size, and detailing (Figure 1).

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<sup>1</sup> Wakalat is the plural of wakala.

- 6 *Bab al-Futuh*
- 15 Al-Hakim -- Mosque
- 21 Abd al-Rahman Katkhuda -- *Sabil-Kuttab*
- 33 Al-Aqmar -- Mosque
- 34 Al-Amir Bashtak an-Nasiry -- *Qasr*
- 37 Sultan al-Zahir Baybars al-Bunduqdari -- *Madrasa*
- 38 Al-Malik al-Salih Najm ad-Din Ayyub --  
Mausoleum & Mosque-*Madrasa* al-Salhiyya
- 40 Al-Shaykh Mutahhar -- Mosque & *Sabil-Kuttab*
- 43 Sultan al-Mansur Qala'un --  
Mosque-*Madrasa*, Mausoleum & *Maristan*
- 44 Sultan an-Nasir Muhammad Ibn Qala'un --  
Mosque-*Madrasa* & Mausoleum
- 52 Khusru Pasha -- *Sabil-Kuttab*
- 65,66,67 Sultan Qansuh al-Ghuri --  
Mausoleum, *Bayt*, *Maq'ad* & *Sabil-Kuttab*
- 109 Al-Fakahani -- Mosque
- 175 Sultan al-Ashraf Barsbay --  
Mosque-*Madrasa* al-Ashrafiyya
- 187 Sultan Barquq -- Mosque-*Madrasa* & Mausoleum
- 189 Sultan Qansuh al-Ghuri -- Mosque-*Madrasa*
- 190 Sultan al-Mu'ayyad Shaykh --  
Mosque-*Madrasa* & Mausoleum
- 199 *Bab Zuwayla*
- 353 Fatimid Walls (Badr al-Gamali Wall)
- 358 Nafisa al-Bayda -- *Sabil*
- 382 Sulayman Agha al-Silahdar --Mosque  
& *Sabil-Kuttab*
- 395 Nafisa al-Bayda -- *Wakala* (facade)
- 401 Muhammad Ali Pasha -- *Sabil* (al-Aqqadin)
- 402 Muhammad Ali Pasha -- *Sabil* (al-Nahhassin)
- 428 Sultan al-Kamil Nasr ad-Din & Hassan Katkhuda  
al-Sha'rawi -- Mosque-*Madrasa* al-Kamiliyya
- 471 *Waqf* Mustafa Ja'afar al-Silahdar -- *Bayt*
- 477 Sidi Abu al-Khayr al-Kelibaty -- *Zawiya*
- 550 *Saqqifa* al-Ghuri
- 562 Sultan Inal -- *Hammam*
- 596 *Hammam* es-Sukkariyya
- 28 Al-Hussein -- Mosque
- 97 Al-Azhar -- Mosque



- HISTORICAL MONUMENT  
(EXCLUDING WAKALA)
- WAKALA  
(UNLISTED AND LISTED AS HISTORIC MONUMENT)
- SIGNIFICANT BUILDING

Figure 1: Listed Historic Monuments Located Along Al-Muizz Street  
Reference: Author

While the significant buildings are mostly from the 19<sup>th</sup> century, the existing wakalat belong to much earlier period. Of the 360 *wakalat* that were located in Cairo during the Ottoman Period (Raymond, 1985), less than 50 exist nowadays, and only nine are located along Shari' al-Mu'izz (Figure 2).

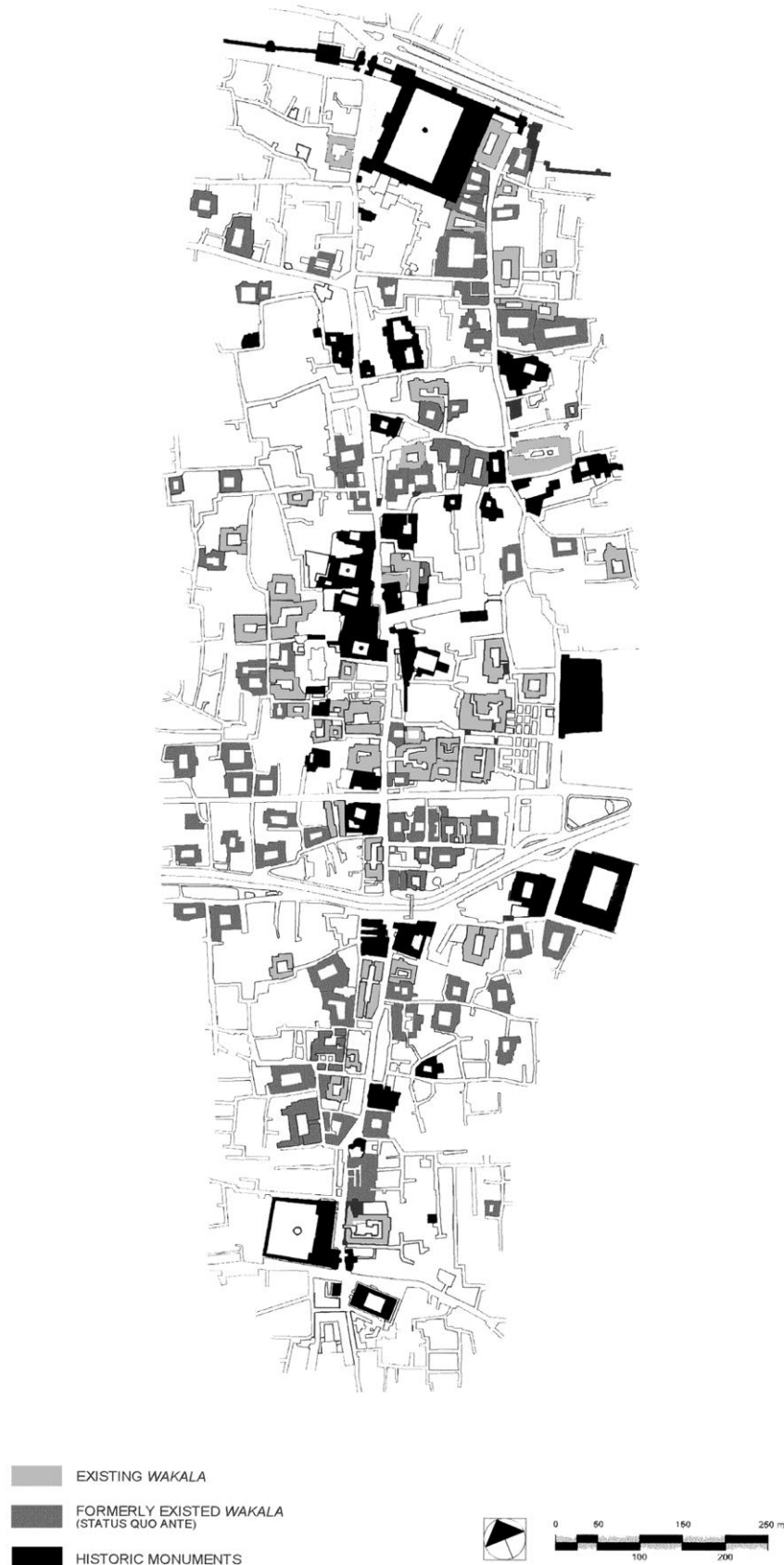


Figure 2: Historic survey of “Wakala”  
Reference: Author

The character of the area derives mainly from its space pattern, urban fabric, urban texture, the type and intensity of activities, the articulation of building facades, the scale and proportion of spaces with respect to building heights, and the harmony that long existed between buildings which starts to weaken nowadays.

## 2. METHODOLOGY

The research methodology is based on two stages: theoretical (descriptive analysis and literature reviews) and practical (analytical study) where the researcher conducted a comprehensive field survey.

Therefore, in order to encourage the tourism and revive the economy in Cairo and to fully strengthen the historic quarters that are one of the most important features in the city, the researcher proposed design concept consists of four main actions:

"Wakalisation". It implies re-clustering activities and revivalism of specialized *wakalat* wherever possible creating active assimilation of groups of activities. "Induce complementary activities" "Transformation of unused historic monuments" and vacant significant buildings into living structures and dynamic partners in the street revitalization process. "Provide a 24-hour design cycle" of activities along Shari' al-Mu'izz and in the surrounding areas, by increasing the cultural / leisure-time activities.

Consequently, the research suggests a new sustainable solution to develop the economical governmental income.

The research methodology starts with a specific site analysis and field survey to assess the current situation and conditions of the site, and then proposes modifications in the urban fabric of Al-Muizz street context.

## 3. SUMMARY OF THE SURVEY

Chaotic traffic and parking disrupt al-Mu'izz Street function as a retail *qasaba*. No room for pedestrian except by dodging various types of traffic, such as cars, bicycles, handcarts, carts pulled by animals, semi-trucks, trucks, and taxis.

Activities are clustered along the spine. At the ground floor level, seven major clusters could be identified as: onions, lemons and olives, coffee-shop equipment together with aluminum and stainless steel utensils, gold, perfumes and spices, leather shoes, as well as clothing, textile, and linen. About 55% of the 630 shops located along the street consist of jewelry, gift and specialty, perfumes and spices, clothing, linen, and shoes. Approximately 15% of the shops are wholesale. The highest intensity of activity is found in the area embraced between al-Muski and al-Ashrafiyya Streets just north of al-Mu'ayyad Mosque (Figure 3).

Vacant plots are located generally along or in immediate proximity of the secondary streets linking al-Mu'izz Street with Gamaliyya Street. They are mostly mid-block plots.

Non-conforming uses and "outer" activities that are incompatible with the *qasaba* include storage and wholesale areas, metal manufacturing yards, hardware stores, electricians as well as other personal services and food services. Poorly designed handcarts, food stands, and kiosks are scattered along the spine, generally facing historic monuments and obstructing pedestrian circulation. A temporary activity takes place in front of most shops, a sort of sidewalk display that is coined here as "al-fina". Although illegal, this demonstration of outdoor territoriality and personalization add color and liveliness to public spaces. Support activities rarely exist along Shari' al-Mu'izz and few public facilities are found, but they are mostly unrelated to the dominant functions of the *qasaba*.

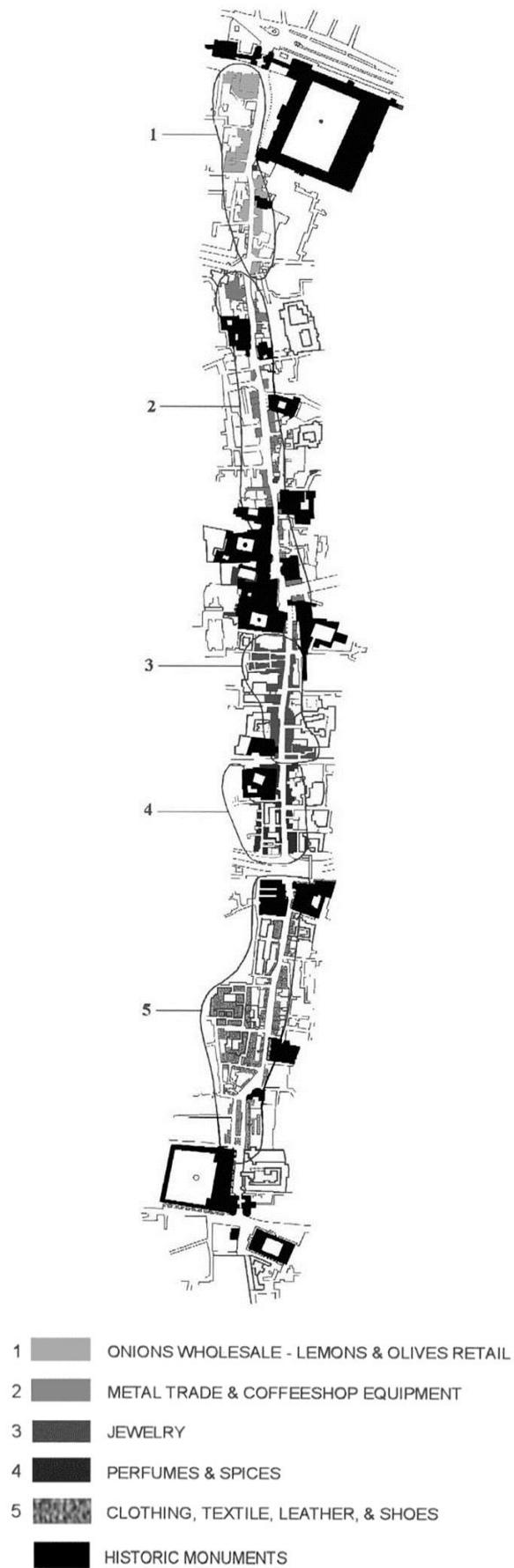


Figure 3: Groups of Activities  
Reference: Author

### 3.1 Space pattern, urban fabric and texture

Medieval Cairo was designed and built primarily for pedestrians. The contemporary four-wheel enameled machines are considered intruders within this 10<sup>th</sup> century human settlement. The space pattern consists of a delicate, human scaled, organic web of interrelated linear spaces branching from Shari' al-Mu'izz and Gamaliyya Street (Figure 4). It is a dynamic pattern embraced within a regular orthogonal frame – the Fatimid Walls. Both beginning and end of Shari' al-Mu'izz are historically and monumentally identified with the fortified walls and the old town gateways. Two outer reference points emphasize the terminal entourage: al-Hakim and al-Mu'ayyad Mosques with their imposing scale. Two inner reference points of smaller scale, but still with momentous significance, are found along al-Mu'izz street, *Sabil* Abd al-Rahman Katkhuda and *Sabil* Muhammad Ali at al-Aqqadin. Both form highly exposed axial vistas. Both act as space fulcrum, diverting pedestrian circulation. Each couple of reference points has identical social function and similar visual aspect. They create variations of the same theme within a closely-knit urban fabric.

The average width of Shari' al-Mu'izz is 9 meters. Three relatively new streets clearly differ from the rest in terms of width and horizontal alignment. Bait al-Kadi Street a wide, short, and rectilinear path links Bait al-Kadi *Saha* with Shari' al-Mu'izz. Al-Muski Street, also known as Gawhar al-Ka'id or "al-Sikka al-Gidida" (the "new street") created by Muhammad Ali in 1845. Al-Azhar Street, also known as al-Azhar "al-Gidid" (the "new") constructed after 1920. The latter fractures the urban tissue with its large width and traffic volume. The urban fabric is shaped also by plot size and built form, constituting the urban grain. Three scales of plots are interwoven. The largest plots are the seats of historic monuments, which create an obvious incongruity in scale of grain and quality of urban texture with the rest of the urban milieu. The average-size plots are the seats of existing or demolished *wakalat*, while the small plots dwell commercial and residential uses. The latter, forming the majority of plots, have irregular shapes, jigsaw clustering, and extremely narrow frontage, sometimes not exceeding 4 meters.

The urban texture is, by and large, harsh due to the articulation of building form, numerous projections and recessions in facade, the broken skyline, the indentation of building silhouette, the irregular building line, and the great interplay between light, shades, and shadows. The historic monuments constitute orderly coarse grain with a smooth texture, roughened by the minarets, domes, doorways, and stone carved cresting crowning the mosques and mausoleums. In contrast, the rest, composed mostly of residential, workshops, and commercial buildings, forms a disorderly small-to-medium grained rough-textured urban fabric. This balanced incongruity is what makes the area so exceptional.

Many pathways branching from Shari' al-Mu'izz are covered. They are concentrated in *Sagha*, Khan El-Khalili, and Leather Shoes *Suq'*. Two main segments of Shari' al-Mu'izz are covered: the areas between al-Ashrafiyya Collegiate-mosque and al-Azhar Street, and, between *Sabil* Muhammad Ali (at al-Aqqadin) to al-Ashrafiyya Street just north of al-Mu'ayyad Mosque. Path roofing is either temporary or permanent. Permanent roofing comprises of wooden joists and boards or steel lattice beams and corrugated sheets.





Figure 4: Urban Fabric and Space Pattern  
Reference: Author

### 3.2 Building condition and building height

Buildings have been divided into five categories with respect to the type and the degree to which improvements are necessary. These categories are:

- a) Deteriorated buildings requiring total removal and reconstruction. They have serious structural problems, difficult or too expensive to solve.
- b) Deteriorating buildings requiring major renovation. They require structural work, e.g., staircase reconstruction, in addition to major plumbing work, e.g., installation of new bathrooms.
- c) Buildings in average conditions requiring minor repairs. The structural system is sound. Minor restoration is also required, since some wall cracks are visible. Major cosmetic treatment is needed. Buildings are without plastering or with loose plaster.
- d) Buildings in good conditions needing cosmetic treatment. Cleaning and paint job are required together with additional touch to fit the architectural heritage of the area. No repair is required except those related to redesign of openings, shop fronts, and signs.
- e) Buildings in good conditions. No improvement is required and the buildings have a significant architectural character. Only 19<sup>th</sup> century buildings fall into this category.

The existing conditions of buildings have been analyzed with respect to heights (Figure 5). The total number of buildings in bad conditions sums up to 49. More than 85% consists of 1-2 storey high buildings. Of the 25 buildings in average conditions about 44% is 1-2 storey high. Only 32 buildings are in good conditions. Almost 43% consists of 1-2 storey high buildings. A concentration of deteriorated buildings consisting of 1-2 floor is found in the street block confronting al-Hakim Mosque. A second concentration is stretched between *Zawiat* Sidi Abu El-Kheir El-Kalbati and al-Silahdar Mosque. A third concentration is located around al-Aqmar Mosque. Few buildings are embraced between *Qasr* Bashtak and *Sabil* Muhammad Ali (An-Nahhasin). Others are located south of Qala'un on both sides of the street. The largest concentration is located around al-Fakahani Mosque up till *Hammam* As-Suqqariyya.

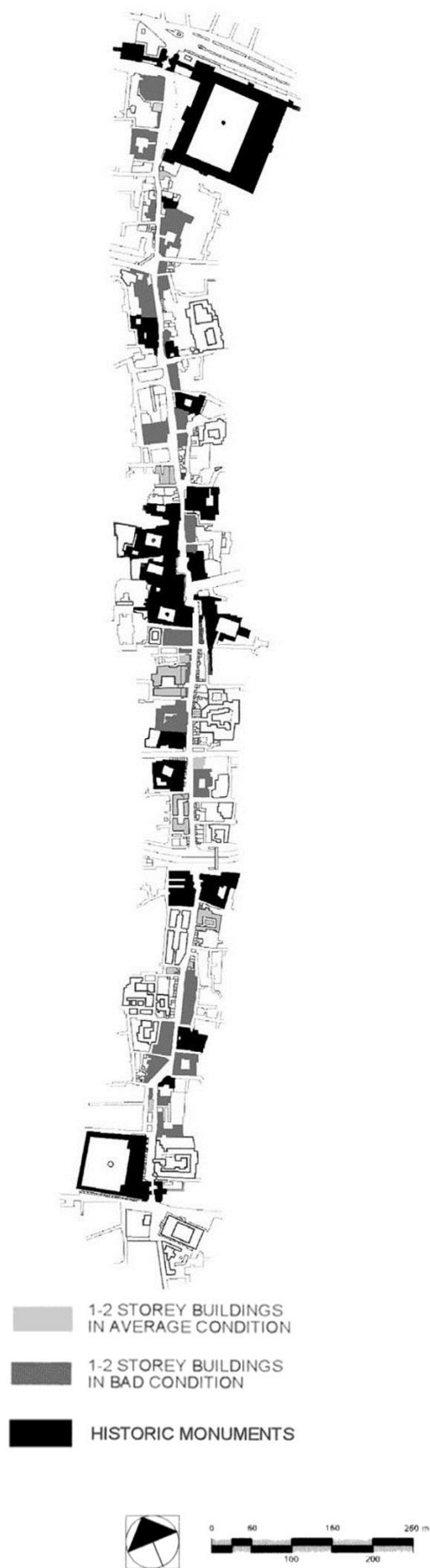


Figure 5: 1-2 Storey Buildings in average and bad conditions  
Reference: Author

## 4. RESULTS AND DISCUSSIONS

### 4.1 Historic monuments

The statutorily listed monuments have been divided into 3 groups depending on the type of proposed intervention (Zacaria, 1997). These groups are:

- Monuments in good and average conditions requiring maintenance and upkeep, such as *Qasr Bashtak*, *al-Hakim*, *al-Aqmar*, and *al-Hussein Mosques*. Some of them may require minor restoration.
- Monuments in poor condition requiring major restoration, for example, *Abu Ad-Dahab* and *al-Fakahani Mosques*, *Qala'un* and *al-Ghuri Complexes*. Some of them are currently under restoration.
- Monuments that could possibly be re-used, e.g., most of the *sabil* or *sabil-kuttab*.

### 4.2 Wakala

The proposed concept of "wakalisation" consists of extensive repairs and upgrading of the existing *wakalat* as well as the reconstruction – whenever possible – of the ones that existed previously. Some could be developed on vacant plots; others could replace the 1-2 storey high-deteriorated buildings.

Both upgrading and reconstruction include the provision of *rab'* (i.e., rented housing accommodations) above the *wakala* to re-establish the medieval trend of mixed uses and to foster the revivalism of traditional handcrafts by offering a subsidized duplex unit for every practicing artist.

### 4.3 Significant buildings

Buildings with significant architectural or historical value evoke a rich heritage of city memory. Those located along or seen from *al-Mu'izz Street* have been identified. More extensive search is required in the surrounding areas. The significant buildings to be retained and restored consist mainly of the 19<sup>th</sup> century ones that restoration costs are considered affordable and proportionate to the benefits derived from preserving them. Such buildings need to be immediately spot listed and repaired. A new statutory list should be prepared by the Supreme Council of Antiquities (SCA) to update the 1951 list of monuments.

### 4.4 Other buildings

The following is a categorization of buildings regarding the proposed type of intervention.

- Deteriorated and ruined buildings to demolish. The 1-2 storey high buildings have been identified since they are potential sites for early redevelopment stages and since they consist of 85% of the total number of buildings in poor condition.
- Deteriorating buildings requiring major repairs, such as plumbing installation or improvement, reconstruction of staircase, renovation of buildings facades and interior spaces, and strengthening some structural elements.
- Buildings in good and average conditions needing minor repairs and cosmetic treatment, e.g., to reduce the size and number of openings in building facades, redesign of facades and shop fronts, and external plastering and paint work.

### 4.5 Sites for prominent buildings

Key sites have been identified to provide new buildings with high-quality design. The proposed prominent buildings are considered a vista, a special landmark for tourist orientation, a fulcrum at an important intersection, an anchor activity to create a sense of place, or a nucleus for new development.

### 4.6 Proposed development areas

In addition to the vacant plots (either privately owned, or owned by the SCA or by the Ministry of *Waqf*) the 1-2 storey deteriorated buildings and the ruined buildings offer good opportunities for new development sites. Other sites could be acquired through reasonable negotiations.

Building height and build-to line as well as building projections and recessions should be mandated to make certain that the new buildings along al-Mu'izz Street will respect and preserve the existing street scale, space pattern, urban fabric, and urban texture.

#### 4.7 Paths, Nodes, and Activities

- The function of the existing nodes needs to be emphasized. It is important to give each node a special identity by accentuating the difference between nodes.
- To create new nodes with various types of spatial and functional arrangements.
  - A cluster of historic monuments, e.g., Qala'un Cluster which is a complex square composed of four interconnected spaces. The node is presently a true open-air museum.
  - A group of specialized activities not necessarily of the same type, e.g., al-Muski Node where gold, perfumes, spices, gift, and specialty shops intertwine.
  - A combination of monuments and activities, e.g., al-Hakim *Saha* after renewal of the street block facing the mosque. Both *Sabil* Muhammad Ali Node, at al-Aqqadin, and al-Mu'ayyad Node fall within this category.
  - A multi-level node, e.g., al-Ghuri *Saha* designed as a two-level square. A sense of place aimed to be created with predominantly cultural activities.
  - A circulatory node, e.g., Katkhuda square. Additional mid-block pedestrian paths have been suggested to provide transparency and cohesiveness between the qasaba and parallel back street leading to Gamaliyya Street.
  - A multi-functional node, e.g., Amir al-Guyushi Node, a proposed node located at the intersection of Amir al-Guyushi al-Guwany Street and al-Mu'izz Street<sup>2</sup>. In addition to the existing commercial secondary school, retail is suggested along the qasaba, a workshop-*wakala* in the back, and a *rab'* on top.
  - A departure or arrival node, e.g., al-Mu'ayyad and al-Hakim Nodes, respectively. Both nodes require a mixture of extensive mutually supporting activities, to meet the requirements of a variety of users and a diversity of life styles.

Within the proposed nodal pattern, Qala'un and al-Ghuri are considered Climax Nodes and should be rehabilitated accordingly. They need to be transformed into agora or meeting places with major socio-cultural activities, e.g., open-air exhibitions.

- To accent the diversity of the lateral paths linking al-Mu'izz and Gamaliyya Streets. It is suggested that some could be specialized in particular activities, while others may include multi-functional and mixed uses. Certain lateral links require special treatment and design, e.g., El-Badestan Street (known also as Khan El-Khalili Street) linking al-Hussein Mosque with al-Mu'izz Street via Khan El-Khalili area.
- To create west of Shari' al-Mu'izz a third spine parallel to al-Mu'izz and Gamaliyya Streets. This new spine is an ad hoc mixture of activities serving the daily needs of the residential areas. To avoid pedestrian dead-end paths branching from al-Mu'izz Street. Circulation continuity and clear street hierarchy are basic for vitalization.
- To create a variety of gateways leading to the lateral links and to the secondary paths branching from al-Mu'izz Street to accentuate their identity.
- Many important views of monuments and vistas are experienced in al-Mu'izz Street. They have to be maintained. No roofing of path will be allowed in these areas. Building height should be restricted for the buildings abutting the monuments.

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<sup>2</sup> This segment of Shari' al-Mu'izz was originally called Amir al-Guyushi al-Barrani Street.

- Covered segments of al-Mu'izz Street generate a kinetic unity, accentuate pedestrian realms, intensify walkability, and enhance the creation of al-fina. Many of the existing path roofing require renovation. New areas of al-Mu'izz Street and of the surrounding streets proposed to be covered. Some of them were historically covered.
- Arcades are proposed in specific areas within nodes and around monuments, to widen the effective width of the street, to give room for al-fina along a sheltered path, to create a sense of place, and to allow better exposure of monuments, as in the case of al-Aqmar Mosque. They are suggested in Muhammad Ali Node (at al-Aqqadin) and al-Muski Node as well as in the development areas facing al-Hakim and Barquq Mosques.
- To provide support activities and tourist amenities along al-Mu'izz Street and especially in the gateway-nodes (such as al-Hakim, al-Mu'ayyad, al-Hussein/al-Azhar, and al-Ghuri Nodes) or in the climax node (such as Qala'un).
- Al-Mu'izz Street consists basically of hardscape. The frame of reference is composed of hard materials and should remain so. No more trees are required along the street and some of the existing trees need to be trimmed for better exposure of monuments.

## 5. CONCLUSION

No single solution could be suggested for the rehabilitation of al-Mu'izz Street. Instead, a set of proposals and recommendations are presented. They represent an amalgamation of various objectives, design guidelines, and proposed interventions. A detailed case-by-case study needs to be prepared for each cluster and for each particular area of the street.

The proposed concept plan deals with the various types of buildings and street elements separately and the recommendations are classified accordingly (Figures 6a, 6b).

### 5.1 Proposed design concepts

The proposed design concept consists of four main actions:

- The first: "Wakalisation" is the first concept. It implies re-clustering activities and revivalism of specialized *wakalat* wherever possible creating active assimilation of groups of activities.
- The second is to induce complementary activities to retail shops, such as pollution-free workshops or new activities, e.g., a weekly *suq'* held on Fridays.
- The third is to transform unused historic monuments and vacant significant buildings into living structures and dynamic partners in the street revitalization process. Using a historic monument after restoration, helps keeping the building in good conditions, and adds new thematic tourist-oriented activity along Shari' al-Mu'izz. A *Sabil-kuttab* could be reused as an information center, a college-mosque as a museum.
- The fourth is to provide a 24-hour design cycle of activities along Shari' al-Mu'izz and in the surrounding areas, by increasing the cultural / leisure-time activities.

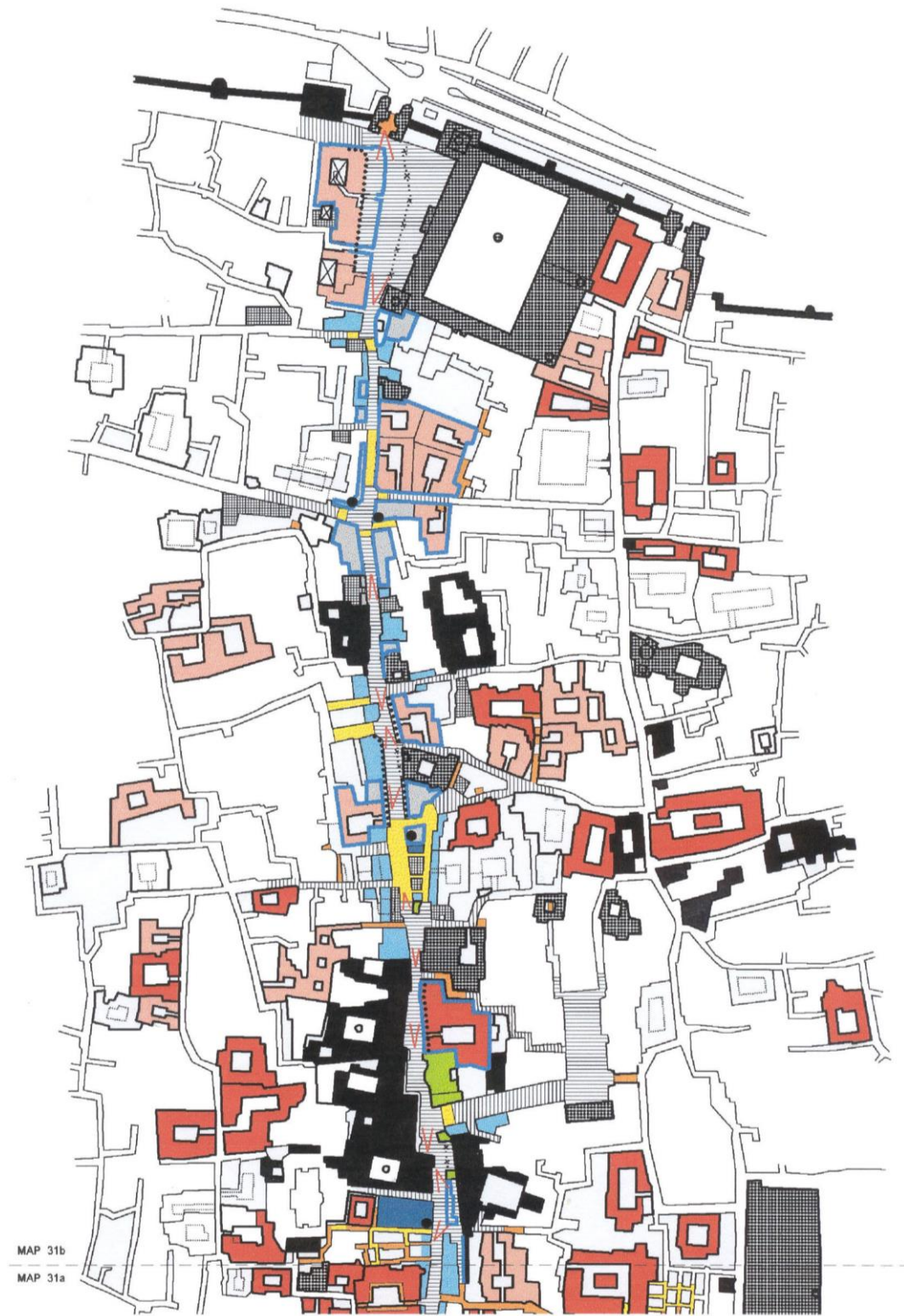


Figure 6a: Al-Muizz Street (from AL-Hakim Mosque to Al-Hussein Mosque)  
Proposed Concept Plan  
Reference: Author



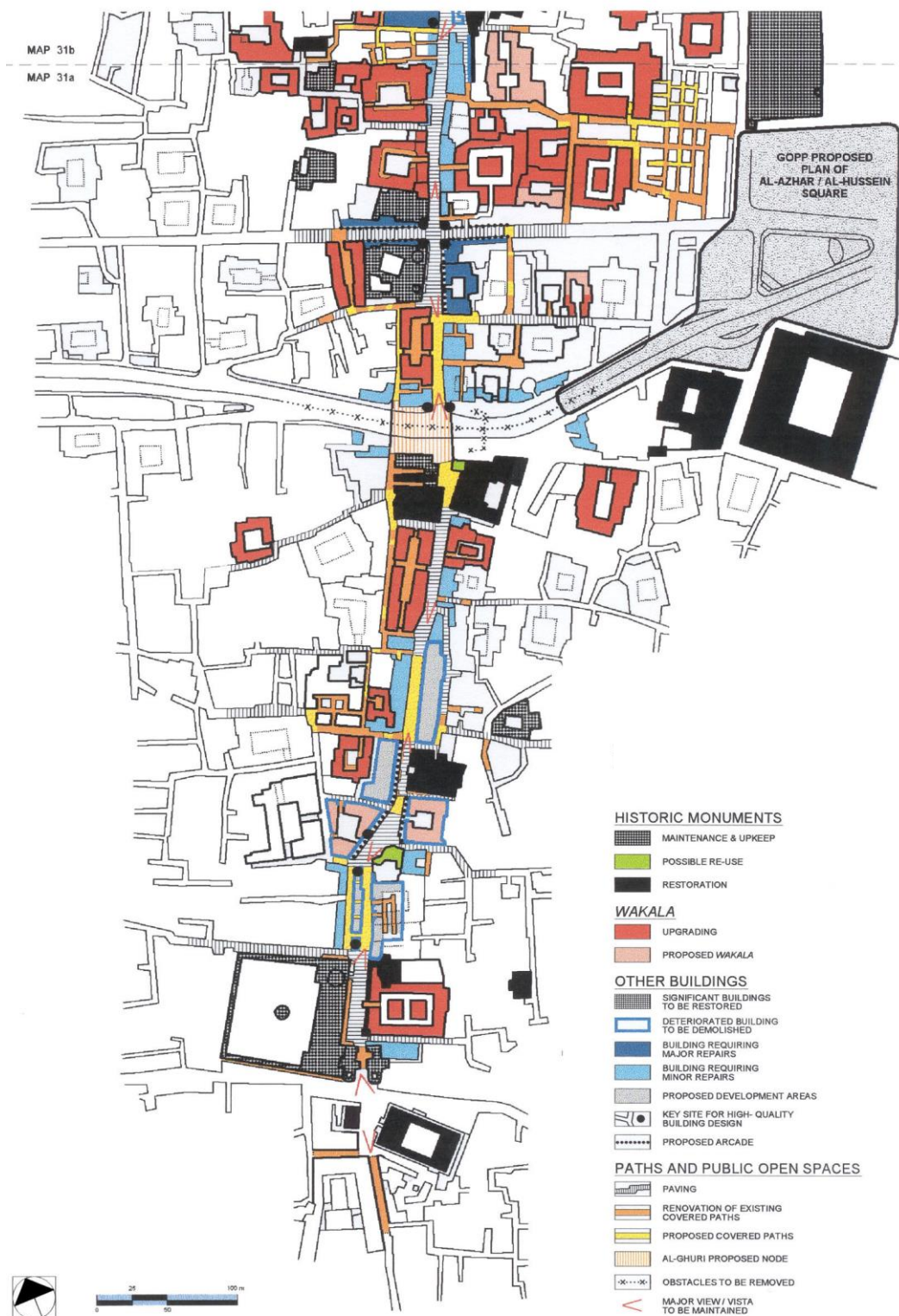


Figure 6b: Al-Muizz Street (from Al-Hussein mosque to Sultan Al-Mu'ayed Shaykh mosque)  
Proposed Concept Plan  
Reference: Author



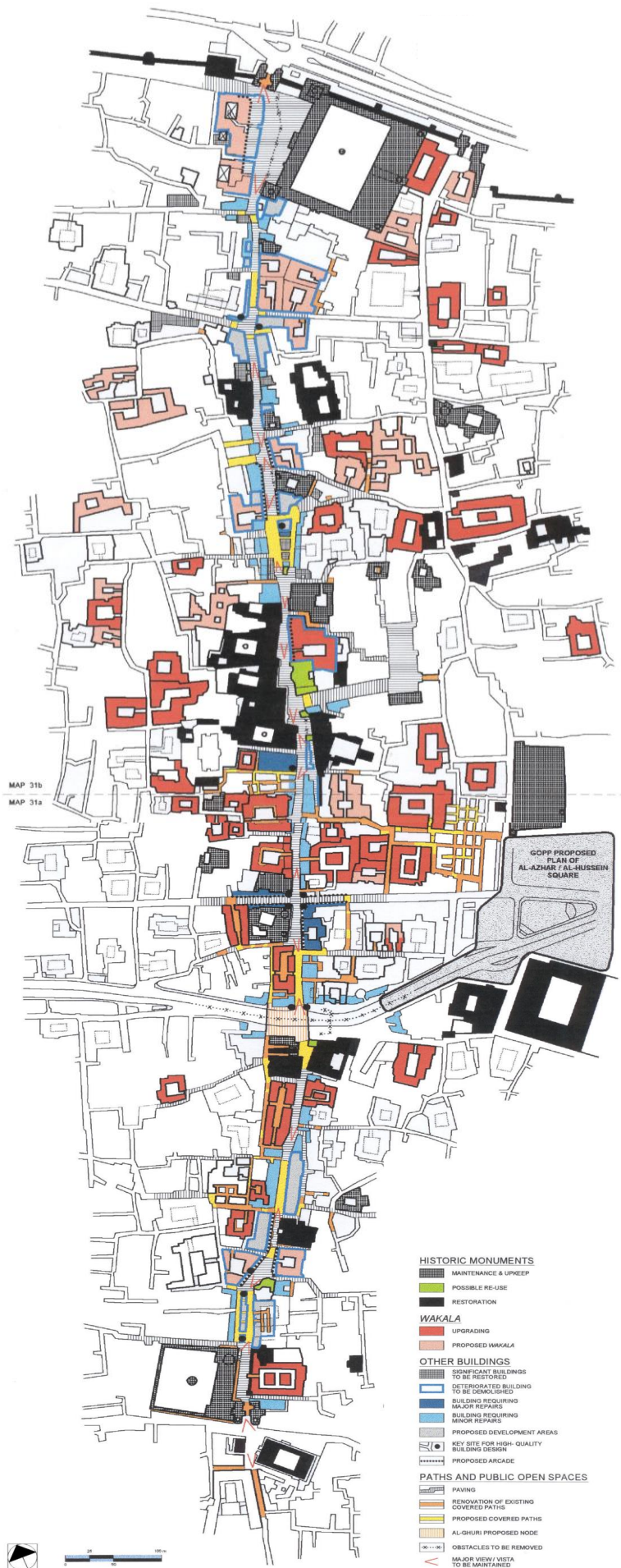


Figure 6 ab: (Combined)  
Al-Muizz Street  
Proposed Concept Plan

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