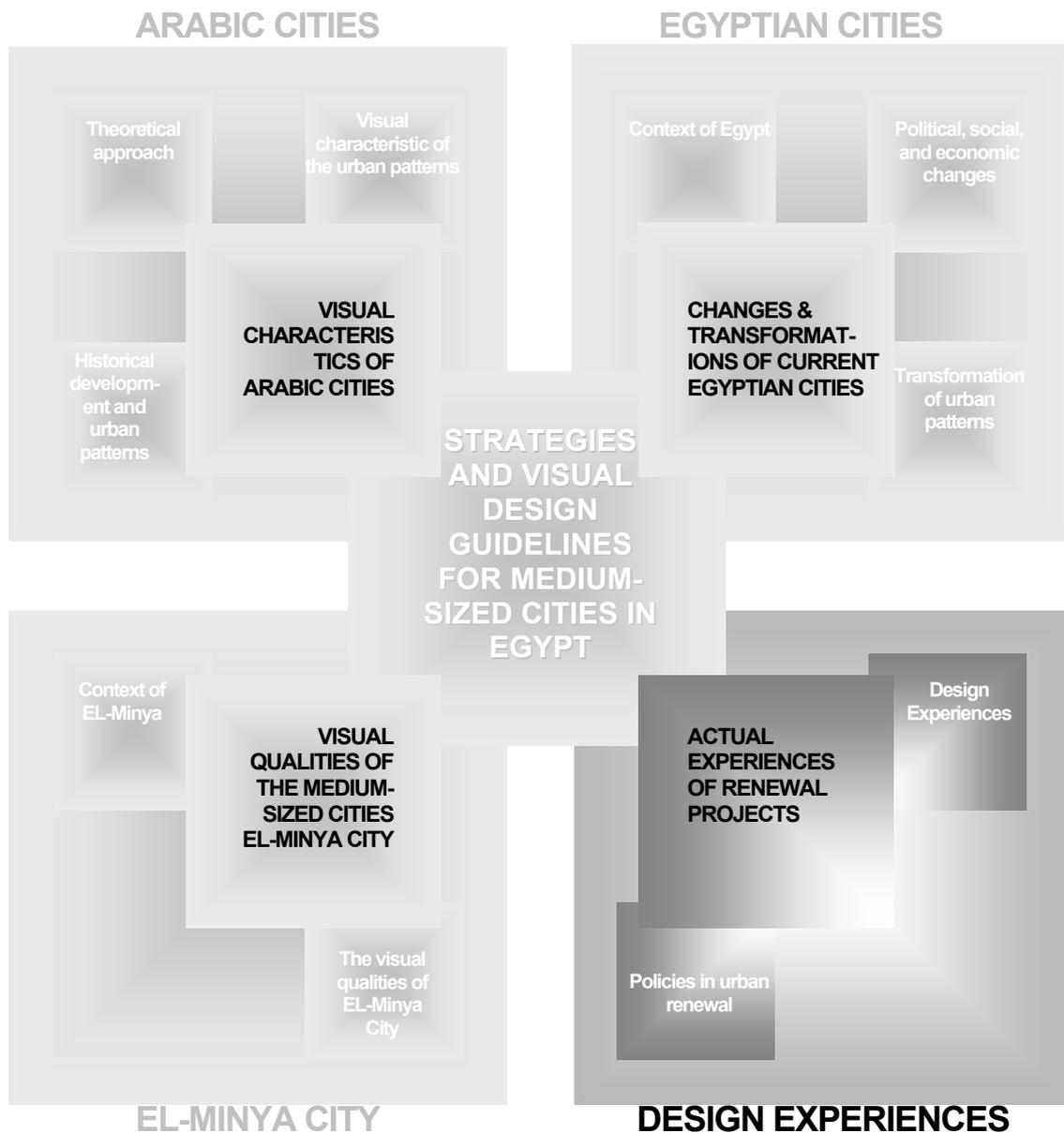


CHAPTER FOUR

ACTUAL EXPERIENCES OF RENEWAL PROJECTS IN ARABIC CITIES

- 4.1 INTRODUCTION
- 4.2 POLICIES IN URBAN RENEWAL
- 4.3 DESIGN EXPERIENCES IN RENEWAL OF ARABIC CITIES
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CHAPTER FOUR

4. ACTUAL EXPERIENCES OF RENEWAL PROJECTS IN ARABIC CITIES

4.1 INTRODUCTION

Testing pragmatic solutions and abstracting the lessons gained from actual fieldwork may well be the best way to explore the possibilities of a new intermediate approach. Accordingly, the following case studies seek to illustrate in more concrete the intervention ways, which contribute to survival of Arabic cities. The chapter is divided into two sections. The first section describes the policies in urban renewal. It is followed by section two, which discusses the design experiences in renewal of Arabic cities. Examples from various regions of the Arab world, including the cities of Medina Al-Munawara, Cairo, Baghdad, Aleppo, and Ismailiyya provide an idea of a resolution of respective conflicts. They all contain a general outline of the context in which they were developed, the objectives adopted, the specific proposals, design decisions, and means of implementation used.

Urban renewal means urban improvement; this covers a wide range of activities such as slum clearance, modernization, repair and improvement of the environment by, for example, reducing the general density in the built-up areas, improving social services and institutions and renovating and preserving historic and architecturally valuable buildings and areas.

Increasing importance is given in planning activities to the renovation, rehabilitation, revitalization, and conservation of existing city structures and of areas and buildings of particular architectural merit. Current urban renewal efforts are mostly renovation and modernization projects, which allow specific requirements to be met. Furthermore, it is generally appreciated that renewal efforts should be based on a comprehensive and co-ordinated strategy, including all aspects of the urban environment and the community and that urban modernization should be a continuous process to prevent deterioration.

Urban renewal can be directed towards resolving a number of physical problems, such as the upgrading of the city's housing stock, physical layout, and infrastructure to meet modern living standards, including the creation of open spaces, the extension, and improvement of the infrastructure, etc. Furthermore, the social needs and concerns of the people living in the renewal area are of the utmost importance. Citizens should not only be involved in the urban renewal process, but should be continuously involved in maintaining and enhancing their physical surroundings (UN, 1980).

To satisfy all the demands, the urban renewal process is faced with the problem of combining the wide range of different interests represented by various sectors of municipal, regional and national government, business concerns and residents. The process also faces the difficulty of striking a balance between general socio-economic interests and the sectoral interests of various government departments (UN, 1980).

Many definitions of urban design are largely preoccupied with design as a process, emphasizing ways of working conceptually and analytically, creatively and in a problem-solving mode, whether designing or trying to control design outcomes, and collaborating with various clients and with the community¹. One of the most useful conceptions of the process of design is Kevin Lynch's four modes of design action. These embrace diagnosis (analysing the spirit of the place, including patterns of use and the meanings attached to the place); policy (developing principles of quality development and management); regulation (codes and standards to execute policy and their negotiation); and design (the development of a specific form) (Lynch, 1976).

4.2 POLICIES IN URBAN RENEWAL

Design policies are primarily a framework for the overall design process². They can be classified into several different types:

- motherhood policies, which refer only to the most general of objectives;
- encouragement policies, which encourage applicants to meet specified objectives;
- consideration policies, which outline a range of factors that applicants should take into account when preparing a design, or which the planning authority will consider in evaluating a proposal;
- criteria policies, which outline a more specific set of factors that applicants should take into account and, more importantly, which the planning authority will utilize in evaluating the application;
- requirement policies, which set out forcefully what the local planning authority's requirements are in design terms; and

¹ Lang goes further to emphasize the necessary interactions between the design and development processes, the nature of the designing process, and procedural issues/activities. He develops a general model of the design process with five stages of intelligence, design, choice, implementation, and operation (Lang, 1994).

² Punter (1997) has explored that the policies should be; conceived as a hierarchy of policies from district-wide to local scales, and from statutory policy to supplementary design guidance; concentrated at one location in the plan in order to convey adequately the full range of design considerations and ensure their integration; and include those criteria that will be the basis for development control decision-making.

- Standards policies, which set a quantitative measure that is the normal, minimum, or maximum quantity or dimension that, would be acceptable (Punter, 1997).

4.2.1 URBAN CONSERVATION

Conservation policy seeks to retain the fabric, the architectural and historic quality, and essential character of an area, while allowing buildings to be reused for new purposes and new development to take place. In applying more force to the policies, more consideration of the proposed development is implied, covering elevational considerations, building materials and building scale, as well as morphological and urban design concerns (Punter, 1997).

Urban conservation is seen as a fundamental component of environmental sustainability policies, ensuring that existing built-up areas are used and reused to their best advantage, and recognizing that both the longevity and adaptability of historic structures, and their frequently more compact morphology and mixed-use character, are important resources for the present.

Design policies in conservation areas included particular stress upon the retention of spaces, building line and the grain of development, and upon the issues of setting and views. A design policy needs to recognize four groups of factors: the wider setting of the conservation area, both the visual and functional relationships that exist; the historic form of the development, embracing its plan form and street patterns, building-space relationships (figure-ground) and the grain of the development (morphology); the character of the area and its mix of uses, occupants and activities; and the pure townscape factors that concern the visual relationships between individual and groups of buildings, the views, vistas and spaces that they create (Punter, 1997).

“In looking at the contemporary housing schemes, conservation policy will be concerned about matters such as the relationship of the new development to the street scene, the foot-print and form of the buildings and their relationship to each other. The quality of the spaces between the buildings, the rooflines and window-wall relationships, the type and quality of materials to be used and how they reflect local traditions will also be important. Major tasks of conservation work also involve the improvement of public realm and include the restriction and calming of motor traffic and the removal of street clutter such as inappropriate street furniture.” (Greed, 1998, P.75)

Urban Conservation



Figure 4-1 A continuous group of high-rise apartment buildings in a manner that blends into the existing historic environment, Sana'a, Yemen By Rasem Badran, 1991.



Figure 4-2 A high-rise building on a square base with pyramidal sections, which respect the environment surrounding. Qasr Ghundan Hotel by Basil al-Bayati, 1993.



Figure 4-3 The Children's Cultural Park in Cairo by Abdelhalim I. Abdelhalim (1990) is a highly sophisticated work of great significance in which elements of tradition are united with contemporary design.

A policy discouraging copying except in particularly uniform areas of architecture can be one way of encouraging more architectural imagination and innovation and a more creative application of contextual principles.

“Many people recognize that conservation control has a tendency to produce safety-first architecture, often half-hearted copies of adjacent buildings or pastiche solutions borrowing from many local sources. While recognizing the priority of respecting the architectural or historic character of the area in any design solution, it is important to recognize in policy that ‘respect’ does not mean copying, that compatibility and conformity are desired, and that architectural variety may in fact be a characteristic of the conservation area.” (Punter, 1997, P. 285)

■ PRESERVATION

Preservation policy can be implied when the buildings and areas should be retained in their original state, regardless of the need to adapt to changing circumstances in order to ensure their survival without massive government aid. Retaining the vitality of the conservation area, and often its historic continuity, is demand attention to issues of building use, active ground-floor frontages, mixed uses, permeability and the grain of development - all functions that determine the amount of pedestrian activity in the public realm (Greed, 1998).

■ DIVERGENCE

Buildings that diverge from the general building line tend to be more conspicuous and, as a result, have an added opportunity for display. Such occasions may occur through a historic peculiarity in the street pattern, or by adaptations in the arrangement of neighbouring sites. Overhanging upper floors can achieve prominence for a building, even if the ground floor conforms to the general building line. Just as a projection building can enhance its importance, so equally can setting it back. Setting back can enable buildings that are significantly larger than their neighbours to avoid appearing overbearing or incongruous (Tugnutt, 1987).

■ RETAIN FAÇADE “FACADISM”

This policy is adopted when the façade is recognized as the most important feature of the building, or is crucial to the street scene. Original buildings were gutted, façade retained and tied back to new structure. New buildings must relate to existing storey heights on façade. This policy is very appropriate for the numerous buildings conceived as street frontages. The principle justification for facadism is to preserve the character of a piece of townscape or the integrity of a group of buildings (Tugnutt, 1987).

■ PARTIAL REBUILDING

This policy can facilitate the delicate surgery often required if the existing townscape character is to survive. Valued built features can be retained and enhanced by other parts of the site being sympathetically redeveloped (Tugnutt, 1987).

Table 4-1 Urban form and townscape considerations in conservation policies

| Urban Form | Approach Taken |
|---|--|
| 1. Building line 2. Grain 3. Morphology 4. Density | Irregular building lines and building groups sought Building groups, street patterns and building line Recognizes the importance of historic grain and the inappropriateness of large-scale development, Density to respect scale, form and grain of context |
| Townscape | Approach Taken |
| 5. Setting 6. Views 7. Skyline 8. Topography 9. Landmarks | Designate environmental areas of special character to protect the setting. Views into and out conservation areas protected Characteristic roofscape and skyline to be afforded all possible protection Hilly topography emphasizes importance of respecting long views and vistas. Protection given to views, landmarks and topographical features |

New Developments and Their Context



Figure 4-4 Seif Palace in Kuwait, completed in 1983, provides architectural evidence of analogy to the Arab tradition. The architectural space and formal details as well as the color and ornamental systems are elements that interconnect old patterns of Arab decorations and contemporary identity.

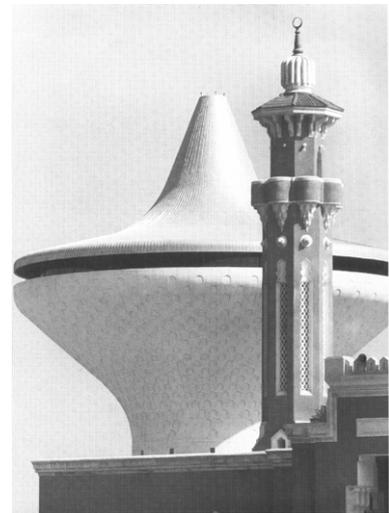


Figure 4-5 A landmark on the waterfront of the city recalls monuments of the past with its efficient blue ceramic tiles and use to cover the surface of the water reservoirs, the Kuwait Towers by Malene Bjoern (1977)

■ REPLICA REBUILD

It means that rebuild facades using present constructional methods to produce the same appearance as before and complying them with current buildings regulations. Rebuilding in replica can have an important role in making townscape to recreate an existing building, which cannot be retained for structural reasons or its difficult to match materials precisely, but is of benefit to the visual character of the area.

4.2.2 URBAN REHABILITATION

The policy aims to improve existing sites and buildings and to improve living conditions without replacing. This involved a number of basic measures such as careful improvement of accessibility, protection from through-traffic, relocation of harmful industrial activities, as well as the introduction or improvement of necessary social facilities, playgrounds and community services. The boundaries of residential areas within an increasingly commercialized downtown area were to be protected by special legal measures, land use prescriptions, and appropriate criteria for restoration and substitution of existing buildings.

Urban Rehabilitation



Figure 4-6 Rehabilitation of Asilah, by AL-Mouhit Cultural Association. Clean-whitewashed surface now predominate in Asilah and makes good environmental sense, helping the interior to keep cool, Asilah, Morocco.

■ REDEVELOPMENT

Redevelopment has an essential role in making townscape and in ensuring that areas remain alive and interesting. However, to be acceptable and successful, it needs to be undertaken on a far more selective basis. Redevelopment should be actively encouraged and channelled into locations, where it is most beneficial, whether for local employment, social considerations, or the local environment (Tugnutt, 1987).

■ UPGRADING

The policy aims to retain the existing housing stock, improve infrastructure, and enhance the commercial potential of an area. Upgrading low income urban communities has come to mean a package of basic services: clean water supply and adequate sewage disposal to improve the well-being of the community.

Upgrading customarily provides a package of improvements in streets, footpaths, and drainage as well. Solid waste collection is frequently included with its positive impact on health, along with streetlights for security and night activity. However, this physical improvement is only the beginning: health issues need to be addressed by providing clinics and health education programs, school facilities and teacher training programs are needed to counter-attack the lack of basic education, and lastly programs are offered to increase income earning opportunities and the general economic health of a community.

The most important element for success is commitment by all: the city, the community, and the families. A sense of partnership must be developed among them. Secondly, upgrading must meet a real need - people must want it and understand the value. The benefits are simply that people obtain an improved, healthy, and secure living environment without being displaced. The investments they have already made on their properties remain and are enhanced - this is significantly better than removing them to costlier alternatives that are less acceptable to them. Recognizing title and security of tenure makes a positive contribution to both the economic prospects of the poor, as well as to the national economy (World Bank, 2001).

4.2.3 URBAN REGENERATION

Urban regeneration is a term that has multiple meanings; it is the construction of new buildings, community support, the restructuring of a city or a neighbourhood in physical terms and cultural interventions.

■ REFURBISHMENT AND CONVERSION

These policies provide an area with a sense of place and reflect its past in a very tangible way. Refurbishment can imply anything from the installation of a new lift to total gutting behind a retained façade. Limited refurbishment can be especially relevant to the old building stock in depressed areas, where funds are likely to be limited. Conversion of buildings to new uses can help regenerate run-down inner city areas and provide accommodation in central locations. By adopting this approach, the impact on the local community of the great economic and social changes under way can be softened and familiar townscape adapted (Tugnutt, 1987).

■ SUPERIMPOSITION (IN-FILL)

In-fill sites are usually gaps within a continuous street frontage, corner sites, or back-land area behind frontage development. The new in-fill development should be considering the relationship with the existing form and grain of the conservation area. The problem in many situations is one trying to assimilate a potentially large bulk into a smaller-scale context.

4.2.4 URBAN REGULATION

Building regulations are sets of laws and rules adopted by a building authority to control the production and process of constructing different types of buildings. They provide fundamental design parameters for site placement, building size, height, and interior layout as well as design and construction details. They cover specific design and construction requirements, based on the occupancy, building height, floor area, availability of fire-fighting capacity, and other factors (Haviland 1996).

■ LISTED BUILDINGS

Listed building policy coverage mainly comprised policies on demolition, extensions, alterations, repair, and setting. The technical digest on alterations to listed buildings is especially valuable and can be easily tailored to local circumstances, particularly where there is some degree of uniformity of architectural character in the locality. The policy is characteristically comprehensive and detailed, emphasizing that alterations should be in accord with period style and detailing, that the original plan and form of the building should be preserved or restored, stressing the importance of using specialist labour under proper supervision. The issue of change of use is also covered in the policy, which seeks to ensure that new or adapted uses do not adversely affect the special architectural or historic interest of the building or its setting (Punter, 1997).

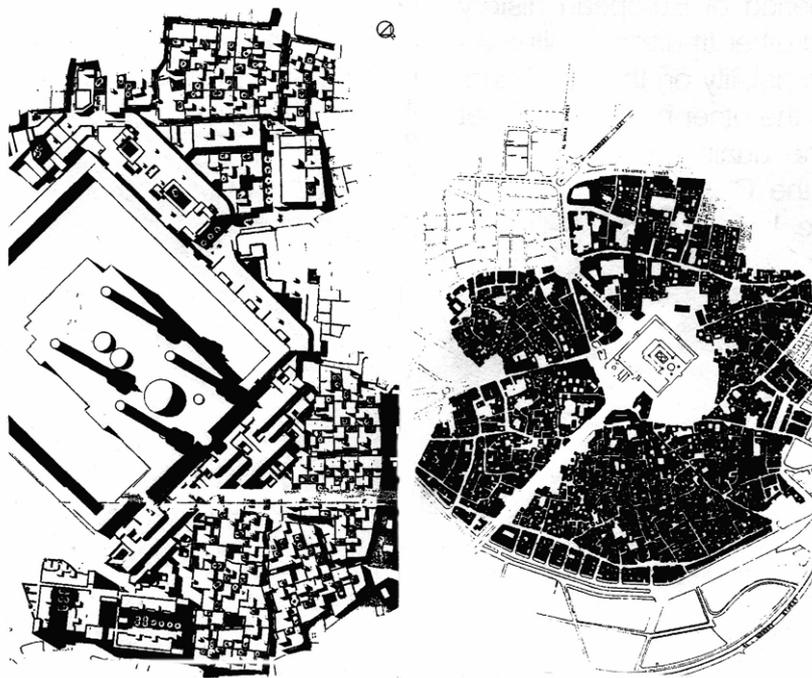


Figure 4-7 The in-fill scheme in Kadhimiya Shrine, Baghdad showing slum clearance in the immediate vicinity and the surviving traditional quarter around. The empty area around the shrine is the site, which is now being built up with housing and commercial development by APP (The Architectural and Planning Partnership). The Kadhimiya scheme is an attempt to create a new segment of the city, sympathetic to the character of the past. The plan shows the use of small traditional dwelling units, which do surround the courtyard. At the same time, the new housing caters for modern needs such as the motorcar and air-conditioning.

4.3 DESIGN EXPERIENCES IN RENEWAL OF ARABIC CITIES

4.3.1 COMPREHENSIVE DEVELOPMENT FOR THE CENTRAL AREA OF MEDINA-AL- MUNAWARA

The government authorities and the Saudi firm of Moussali, Shaker, Mandily and Stefano Bianca (In the early eighties)

■ HISTORIC BACKGROUND

The annual pilgrimage (Hajj) in Mecca and Medina and the extension of the prayer halls and the surrounding open spaces, as well as the planning of adapted structures around them, has posed complex urban development problems. Combined with the rapid demographic growth of the Islamic world in the past decades, this initiated a tremendous quantitative and qualitative change in pilgrimage. The development pressures on the holy cities generated by religious mass tourism have radically changed the traditional townscape of both Mecca and Medina

during the past 20-30 years. The main factors of change were the increasing demand for vehicular access to the central area and the Holy Mosques, combined with large-scale commercial construction of apartment buildings for seasonal pilgrim accommodation.

The formerly walled city of Medina was surrounded by suburbs dating from the 19th/20th century, originally constructed and occupied by the Turkish administration. The largest of these historic suburbs - Zuqaq al-Tayar - was separated from the walled city by a large open space called al-Manakha. Dominated by an Ottoman fort, it served as the arrival square and assembly point for the incoming or departing caravans, through a narrow suq, which gave access to Bab as-Salaam, the main entrance to the Prophet's Mosque. The mosque was rebuilt several times during the Mamluk and the late-Ottoman periods, but the green dome above the Prophet's tomb has remained the landmark of the historic city and the symbol of the second holy city of Islam. The Aghawat quarter contained some of the oldest historic sites of the Holy City and was originally built to accommodate the "servants of the Haram." It featured a number of interesting houses from the 18th/19th century, built with volcanic stone and bricks.

■ PROBLEM SITUATION

The erosion process was accelerated by further cuts into the historic fabric, made in order to achieve better vehicular access and to build car parks near the Prophet's mosque. It was fuelled by general neglect of the old city and by a partial burning and subsequent demolition of the historic districts adjacent to the mosque. This process reached its first climax around 1980, when most of the old city core had disappeared in order to allow for a temporary mosque extension west of the existing building and large car parks south of it.

■ OBJECTIVES

The project dealt with a comprehensive development vision of the city centre including the master plan for a "Cultural Area" around the Haram, covering the whole district of the former walled city, to re-establish a coherent urban form in the central area and to link the Haram extension with the surrounding structures.

■ EXISTING SITUATION

The situation was summarized as follows:

- The Prophet's Mosque was almost totally isolated from its historic urban context, and its provisional extension, covered by prefabricated aluminium roofs, appeared rather inappropriate.
- Large empty surfaces were created around the precinct of the Holy Mosque and used as parking lots.

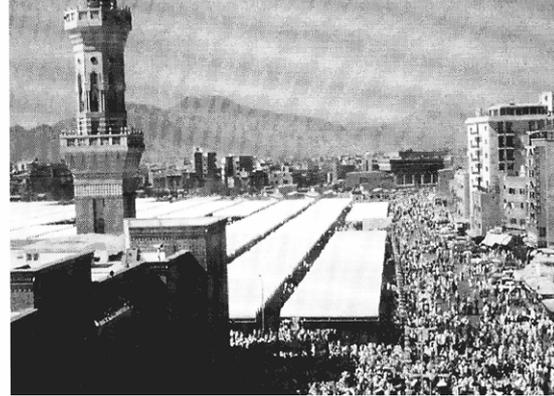


Figure 4-8 The Prophet's Mosque and Bab al-Salam as approached from south-east (1984).
Figure 4-9 The north-western corner of the Prophet's Mosque and the western square with the temporary prayer sheds during the pilgrimage season.

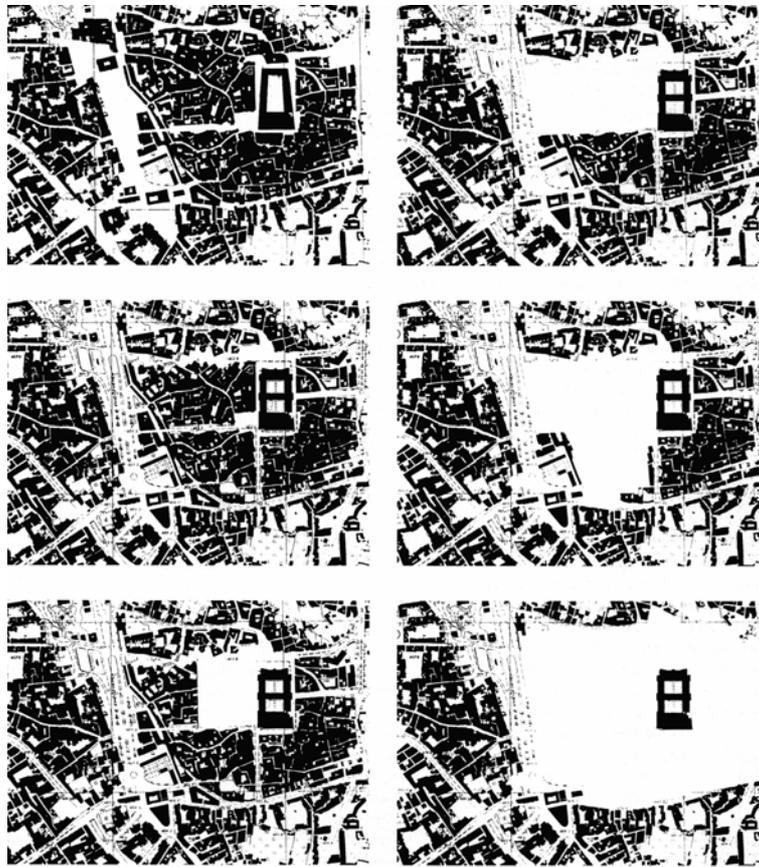


Figure 4-10 Six maps of central Area of Medina –al-Munawara have been drawn to illustrate changes that have gradually occurred since 1910. The progressive Clearance of the historic fabric of Medina occurred as a result of successive Urban interventions around the Prophet's Mosque. In the left Column, at the top, the conditions around 1910, with the newly constructed avenue leading to the gate of Bab al-Salam; at the centre, the conditions around 1960, after the Construction of the new Saudi mosque and various provisions for vehicular traffic, including new access to Bab al-Salam from the south; at the bottom, conditions around 1970, after clearance of part of the historic fabric west of the Haram. In the right column, at the top, the conditions around 1978, after further clearance due to the construction of temporary prayer sheds; at the centre, conditions around 1983, after a fire which destroyed the left portion of the Aghawat district; at the bottom, conditions around 1990, after total destruction of the Aghawat district.

- Intense vehicular traffic in the immediate surroundings of the Haram conflicted with the pedestrian flows and created congestion all over the central area, especially during prayer times.
- The remaining parts of the old city were rapidly decaying due to lack of maintenance and suitable rehabilitation policies
- Land speculation in the central area was getting out of control, generating high redevelopment pressures, and corresponding townscape problems, with more and more high-rise buildings being erected in the immediate vicinity of the Haram.
- Green areas within the city had disappeared at a rapid rate, with the effect that hardly any trees were left in the inner city, which was traditionally known for its beautiful palm gardens.

■ DESIGN BRIEFS

During the planning process, it was realized that the ring road could serve to intercept the radial traffic flows that tended to converge on the Prophet's Mosque. It would provide a means for protecting the Haram from the pressures of traffic. It would thus open new opportunities for the appropriate development of the most sensitive parts of the central area, preserving the integrity of the urban nucleus. Considering the size of the extension needed, it became clear that one of the major problems in the urban design of the new Haram area was one of scale, i.e. the problem of how to relate the enormous volume of the prayer spaces required in the surrounding urban texture and in the standards of human perception.

■ DESIGN DECISION

The master plan suggested surrounding the Haram area with a specially treated pedestrian zone, which would cover large parts of the central district. This protective envelope would in turn be surrounded by a zone with limited vehicular access, covering the rest of the central area inside the first ring road and forming a buffer zone around the pedestrian urban nucleus. Through-traffic would be discouraged by a specially designed circulation system consisting of self-contained loops and cul-de-sacs. The pedestrian routes were arranged in such a way that they passed through the ancillary buildings of the mosque, or they were designed as pleasant and attractive walkways with shading structures and attached gardens and commercial facilities. Great importance was attached to the development of pedestrian interconnections. The new in-fill extension is structured by an Islamic conference centre, a new pedestrian mall, an ablution facility, and a traditional Qur'anic university.

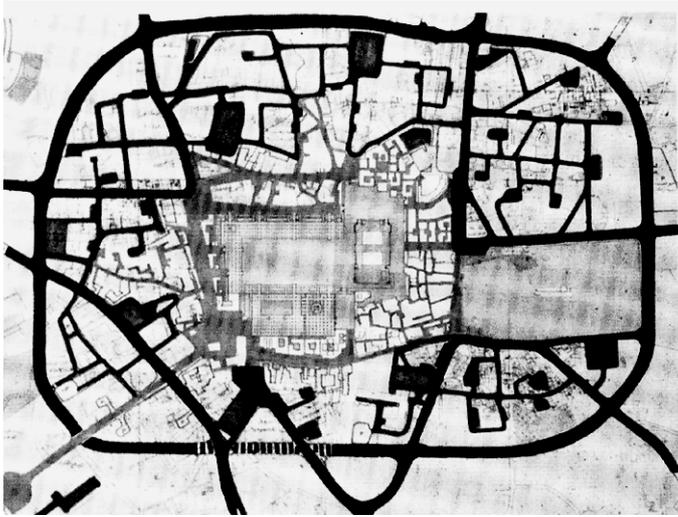


Figure 4-11 Proposal for a pedestrianised zone (in dark) around the Prophet's Mosque and its' western extensions. The plan suggested the conservation and rehabilitation of the remaining part of al-Aghawat (as well as the historic arteries of Bab al-Majidi and Zuqaq at-Tayyar), an array of car parks on the inner ring road and a scheme of vehicular loops for drop-off and public transportation reaching the corners of the pedestrian area.



Figure 4-12/13 Visual scenarios for the rehabilitation of low-traffic and pedestrian areas in the historic areas inside the first ring road. The main west-east spine of Zuqaq at-Tayyar leads to al-Manakha Square, and a communal courtyard (howsh) inside the old residential fabric of Zuqaq at-Tayyar.

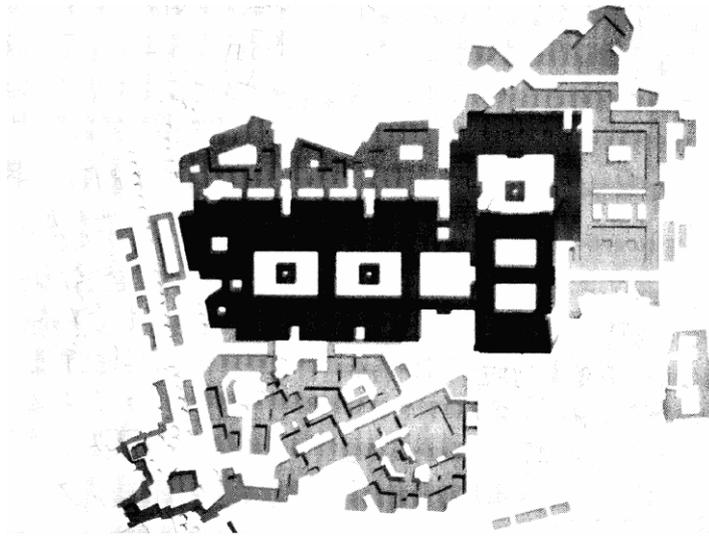
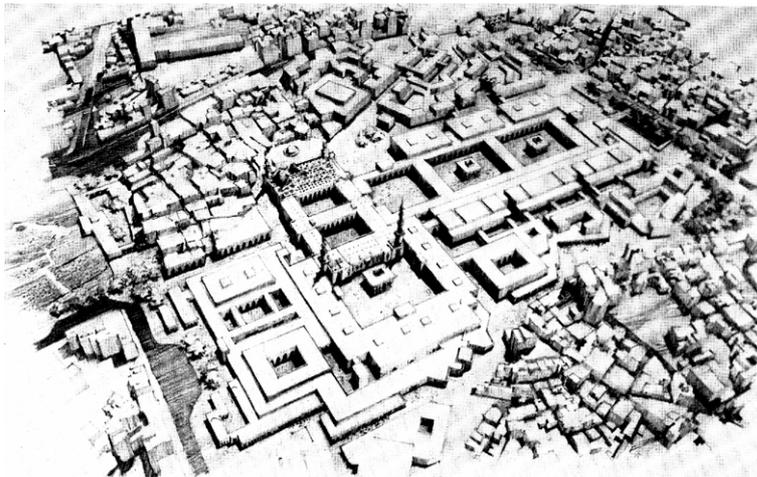
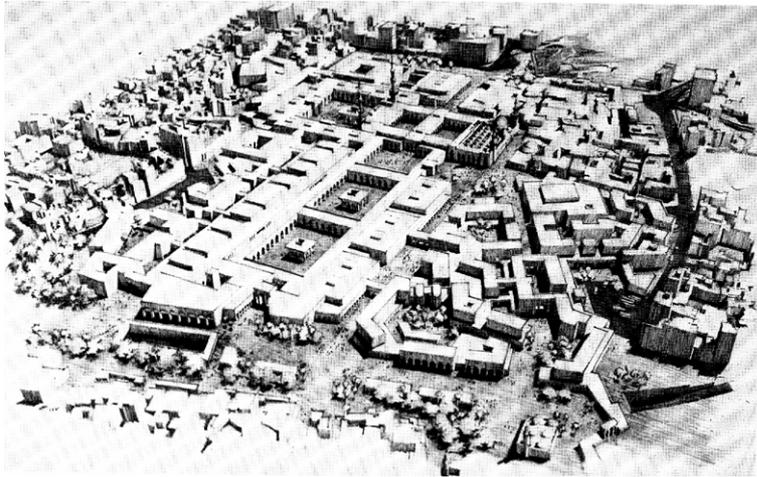


Figure 4-14 Final proposals for a phased Haram extension. The aim of this urban design scheme was to articulate building masses and open spaces in ways, which would relate them to the old Prophet's Mosque and reweave the fringe of the destroyed urban fabric. The dark tone indicates the proposed extent of the first phase, leaving options for two further extensions at a later stage.



The scheme presented a main intention to clarify the major conceptual principles such as distribution of volumes, relations between solids and voids, and interaction of the Haram extension with the surrounding urban fabric. It seemed appropriate to visualize the extension in a rhythm compatible with that of the present mosque building. This implied providing for reasonable maximum distances between structural columns (up to eight metres), in order to prepare for suitable proportions of arches and arcades. The Haram extensions respect the visual coherence of street scene and create successful visual relationships between buildings. The architectural style of the extensions respects the scale, form, and character of the historic context. Rehabilitation of the pedestrian areas create an attractive sequence of interesting places, spaces and views to provide visual interest and aid legibility.

Figure 4-15/16 Birds-eye renderings of the proposed extension (1983) and the surrounding urban fabric from south-west and from north-east. The Aghawat district, earmarked for conservation, is to the south-east of the Prophet's Mosque.

■ IMPLEMENTATION

During the official submission and approval period of the 1982 master plan, the government authorities commissioned an independent project for the Haram extension by a major Saudi contractor, who ignored most of the conceptual guidelines put forward by the master plan and the central area action plan.

4.3.2 THE CONSERVATION OF THE OLD CITY OF CAIRO

The Egyptian government and UNESCO consultant team consisting of Jim Antoniou, Stefano Bianca, Sherif El-Hakim, Ronald Lewcock and Michael Welbank, February to August 1980. The study team was assisted by the following key field staff: Mr Husain El Din Ismael, Mr Sameh Mohammed Fathy, Mr Fahmy Abdel Alim, Mr Ahmed Adel AlSayed, Mr Osama Sayed Hafiz.

■ HISTORIC BACKGROUND

The cultural significance of historic Cairo has been accepted internationally. The old city was included in the World Heritage List by the World Heritage Convention in 1979. Over the period 1966-1976, the residential population of the study area has declined by some 8.6% in the period when Cairo as a whole expanded by some 3.5% per year. There are indications that the rate of loss may be accelerating. This loss of residential population can be directly related to the loss of dwellings in the area. This was due to a number of factors including: the impact of rent control leading to lack of maintenance and eventual destruction of dwellings; the pressures from commercial interests seeking expansion space; voluntary building demolition by occupants to gain rights to new accommodation elsewhere; the deterioration of the building fabric arising from general decay and rising ground water leading to building collapse; and inadequate maintenance and the use of inappropriate building technology.

■ PROBLEM SITUATION

New industrial and business activities have invaded the old city, such as waste paper processing, the manufacture of aluminium sheets and utensils from scrap, and bulk warehousing, and these commercial enterprises are changing the character of the old city. The traditional pattern whereby craftsmen, merchants and workers lived and worked in integrated communities is being rapidly replaced by a new pattern of bulk storage and manufacturing establishments which does not fit well into the old urban fabric. Historic monuments were well maintained until about fifty years ago, but the rising water table, combined with the serious lack of maintenance, particularly of the roofs, has led to rapid deterioration of the masonry and wooden roofs leading in some cases to the total collapse of buildings. Many of the buildings are large, some enormous, so that repairing them is an expensive business.



Figure 4-17 Domes and minarets dominating the skyline of the old city Cairo



Figure 4-18 Street scenes in the old city with the minaret of Sultan Baybars in the distance.



Sequence of stages of decay:

- 1) Originally, roofs finished with a coat of lime plaster over a clay layer were repaired every year before the rainy season. Lack of maintenance has allowed the clay layer to become waterlogged and dissolve, leading to decay of wooden beams and eventual collapse.
- 2) Once water has penetrated onto the internal floors, decay and disintegration are accelerated, owing to the lack of any provision for waterproofing.
- 3) The building becomes uninhabitable, as the upper floors collapse, filling the lower levels with debris and dust. Low "fixed" rents discourage owners from making any repairs.
- 4) Finally, the building is temporarily waterproofed at first floor level to allow the ground floor shops - which yield high rents - to remain in use.

Figure 4-19 Building decay

The scale of commercial activity encourages large vehicles for delivery purposes within the area and has a detrimental effect on the structure of the monuments. There is a concentration in the established pattern of retail trades along the spine of the area. New premises and the extension of associated manufacturing and warehousing uses expand behind the spine within the boundary of the area. The distribution of activities creates considerable traffic movement. The number of vehicles, coupled with heavy pedestrian movement, produces acute congestion at a number of points.

■ OBJECTIVES

The main objectives of this scheme were to deal with restoration of monuments, to control the design and construction of new buildings, to rehabilitate and improve existing sites and buildings, to introduce new compatible functions for monuments, and to improve and contribute to the social facilities of the neighbourhood.

■ EXISTING SITUATION

The area covers approximately 3.7 sq km and is bounded by Bab al-Futah and Bab al-Nasr to the north, the Ibn Tulun Mosque to the south, the Port Said Road to the west and the Salah Salem road to the east. The old city lies between a range of low hills to the east, the cemeteries to the north-east and south, and modern Cairo with its high-rise buildings to the west. It is important to retain this clear distinction between the relatively low scale of the unique historic part (averaging 4 to 6 storeys) and the new scale of modern Cairo.

The urban form of the area is a homogeneous one, characterised by tight busy streets with continuous development, mostly of even height. Over these bustling streets hover the much larger-scale buildings of mosques with their towers and minarets. The area is divided into construction patterns, which are more than thirty years old, in various stages of deterioration, and those newly built in the last thirty years which are of a relatively low quality of construction and design, and which are therefore deteriorating rapidly as a result of a lack of regular maintenance. The types of new housing and school construction now being built are usually alien to the traditional urban form of the old city

Narrow main arteries within this tight, urban form make connecting links through the area and are intensively used, thus provide a clear differentiation from the mass of local streets. The most dominant route for pedestrians is the north-south spine running through the area, from Bab al-Futuh to the Mosque of Ibn Tulun, reflecting its historical development. There is a temporary break in the continuity of the route as a result of the construction of AL-Azhar Street in the first quarter of the twentieth century and its conversion to a double-level road system. This north-south route has its greatest concentration of activities from the suq of the Tent

Makers to the northern end of the Khan al-Khalili. There are also two sub-routes, which in addition to vehicular traffic carry large numbers of pedestrians: one runs parallel to the main north-south spine from Bab al-Nasr along AL-Gamaliya Street and the other leads from Bab Zuwayla to the vicinity of the Citadel. AL-Azhar Street has greater dimensions than the other streets and is used as the main spine connecting the modern city with the airport and the new suburbs to the east. It is fringed with commercial activity. For much of its length, Muski Street runs roughly parallel to it on an east-west axis. This is a narrow street now used as an open-air market, with a mix of some vehicles passing through the predominantly pedestrian throng.

■ DESIGN BRIEFS

From this brief survey, it emerged that:

- AL-Azhar Street must be accepted and its disruption to the users of the area minimized.
- Congestion in the market and commercial streets may have to be accepted as a self-regulating system.
- No programme of new road construction within the area generally should be envisaged.
- No further cross routes should strike through the area, nor should any increased capacity be encouraged on the existing cross routes.

■ DESIGN DECISION

Six clusters of monuments have been selected to form the first phase of an emergency programme. These are considered to form potential conservation and rehabilitation zones and are spaced out at almost equal distances between the northern gates and Ibn Tulun Mosque, each focusing on a single street about 250 metres long. Each group is thus tightly integrated, yet they are so spaced apart that their upgrading may have the maximum impact on the whole of the central area of the old city.

The conservation strategy for important buildings and their setting can be stated as follows:

- The index should be reviewed and revised;
- The existing procedures for indexed buildings should be strengthened;
- Key monuments, buildings and landmarks, and their settings, throughout the old city should be protected, restored and enhanced;
- Redevelopment of all other sites within the old city should be permitted up to plot boundaries and up to existing heights; and
- The six conservation zones proposed here should receive priority treatment over an emergency period of five years.

Five categories of treatment were identified within the zones:

1. Historic buildings to be restored (both listed and unlisted);
2. New buildings on vacant or dilapidated sites requiring the total control of design;
3. Substantial buildings which are likely to remain for some time, in need of external surface treatment, internal upgrading and provision of new services;
4. Sites and buildings adjacent to monuments, requiring control over methods of abutment and construction; and
5. Buildings in need of height control in the vicinity of the zones.

In particular, the role, which the public realm plays in each zone's activities, was carefully considered within the area. Such spaces range from the pavement of a street to the minor square. Some streets are important thoroughfares acting as a means of communication between one part of the historic city and another as well as giving access to buildings. The clear composition of spaces conveys a sense of enclosure, continuity, or compactness.

Consideration of the surface treatment of the public realm was necessary in terms of colour, texture, and materials. The relation of buildings to each other and to the surrounding spaces was also an important factor. An existing street facade emphasises the need for the retention of an element of continuity. In the case of a focal space, the paving surface is more significant. It is therefore important to evolve a discipline for sympathetic design achieving high architectural standards.

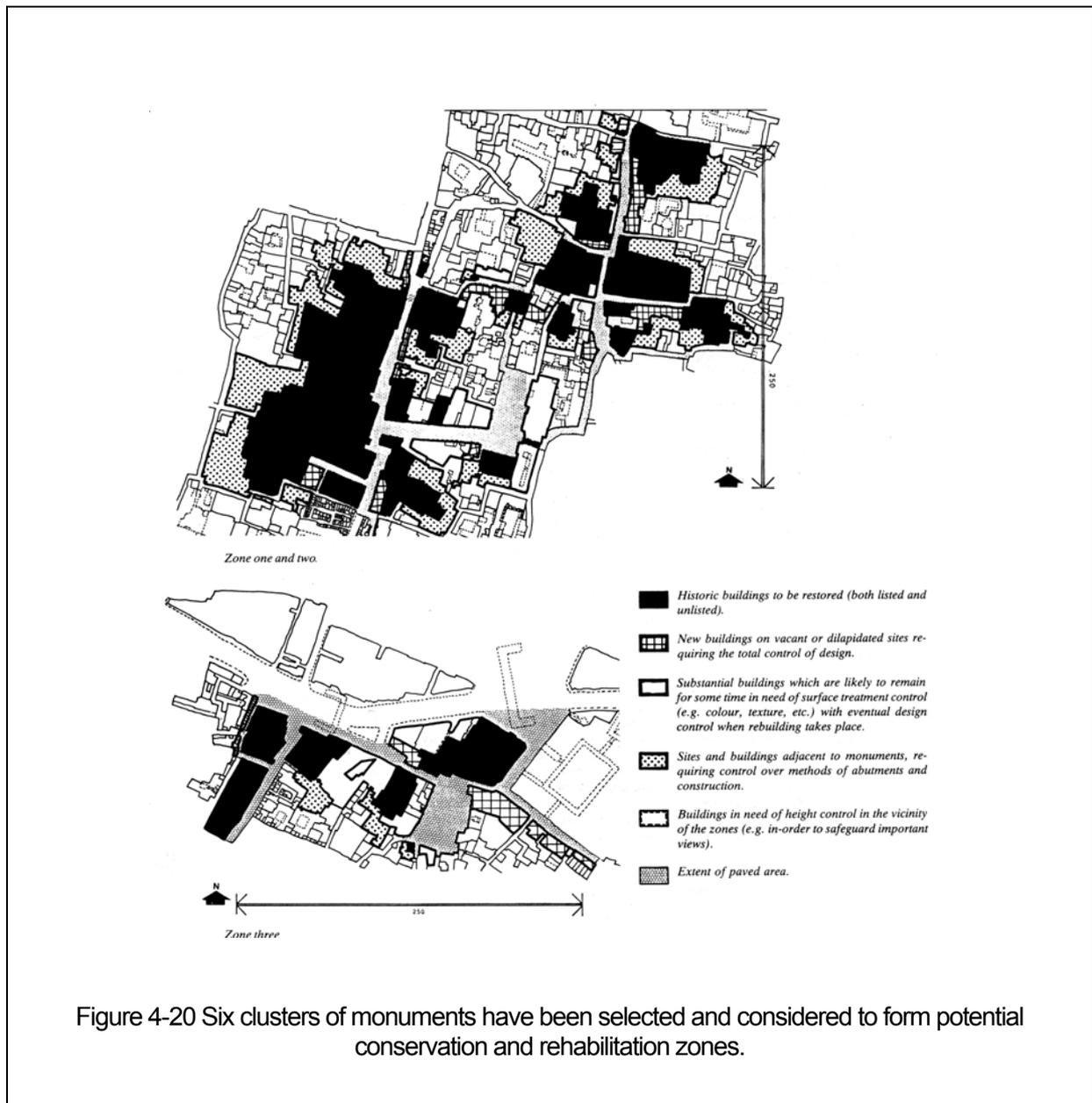
To prevent further deterioration in the environment and to improve the standard of living for the residents, priority was given to upgrading internal conditions of the buildings in each zone by developing a strategy for the relief of overcrowding and for the improvement of sanitary facilities and by giving encouragement, advice and financial assistance to those inhabitants or owners who wish to make repairs and improvement. Improvements to the quality of the external environment included the upgrading of the water supply/sanitation, refuse disposal and street cleaning services, and the provision of social facilities within each zone.

■ IMPLEMENTATION

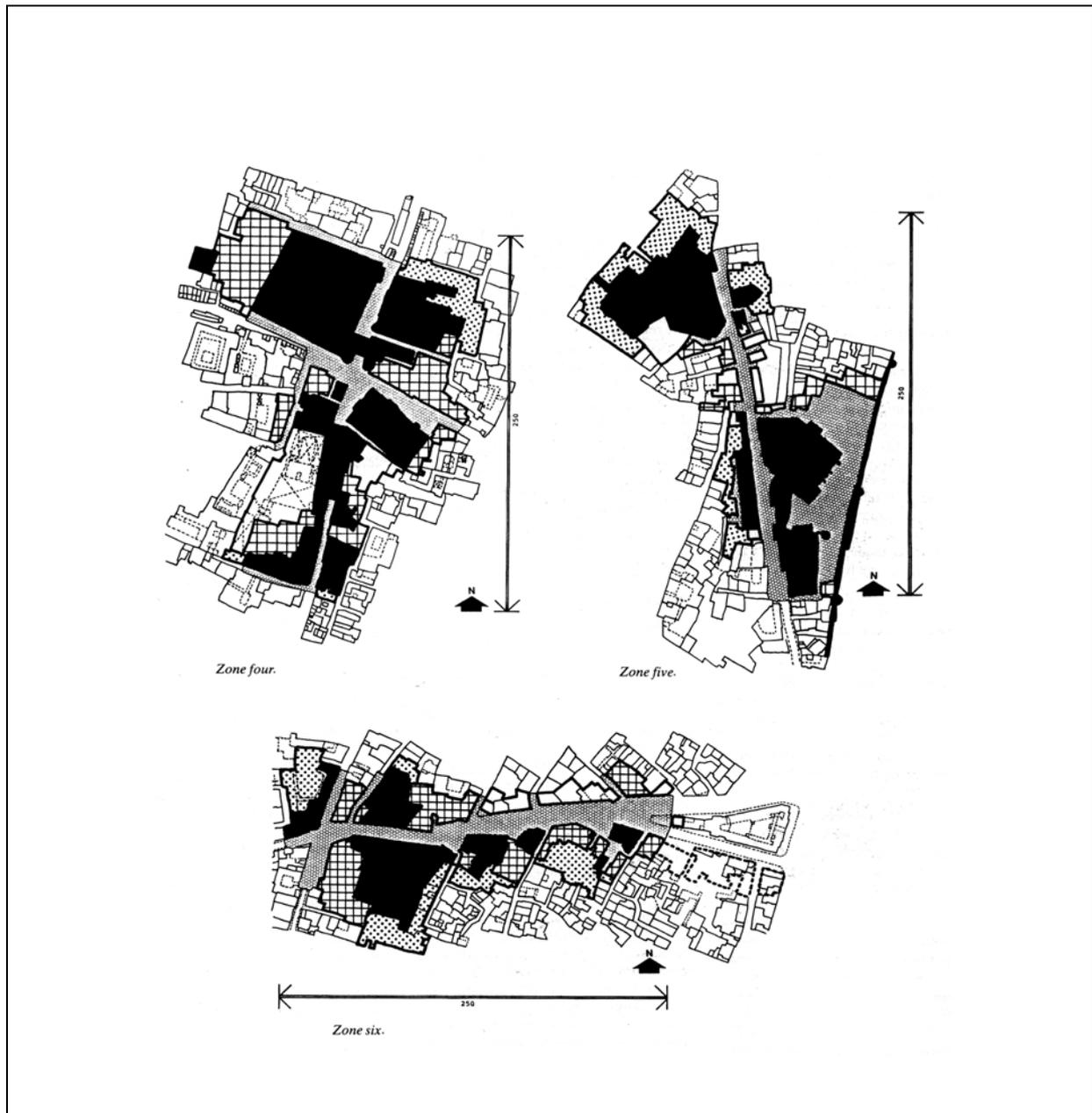
Two levels of action are proposed: firstly, at the level of the study area as a whole, and secondly, with specific clusters of monuments within the study area chosen for an immediate programme. The main authorities acting in the study area are as follows:

- **The Egyptian Antiquities Organisation** is responsible for giving permission for any alterations and additions to all "indexed" buildings.

- **Waqf Authorities** (Ministry of Endowments) own large numbers of Islamic monuments of significance in the old city, which may or may not be "indexed."
- **The Governor of Cairo** has the responsibility for giving permission for new buildings and demolition, The Governorate is the public authority responsible for the provision of public sector housing and social services in the area³.



³ This system of interlocking authorities could well work, but it does not. The reasons for this failure was: firstly from a critical lack of technical, administrative and managerial resources, and finance; secondly, from a basic lack of co-operation between various authorities; and thirdly, from flagrant flouting of regulations by individual building owners, absence of strong local community feelings on the issues, remoteness of the authorities involved, general apathy and, not least, the pressure of commercial expansion.



4.3.3 THE CONSERVATION AND REDEVELOPMENT OF BAGHDAD

The Municipality of Baghdad (the Mayor's counsellor Rifat Chadirji) and a consortium of consultants was appointed by the municipality, including Ihsan Fethi, Sohiko Yamada, Giorgio Lombardi and Stefano Bianca.

■ HISTORIC BACKGROUND

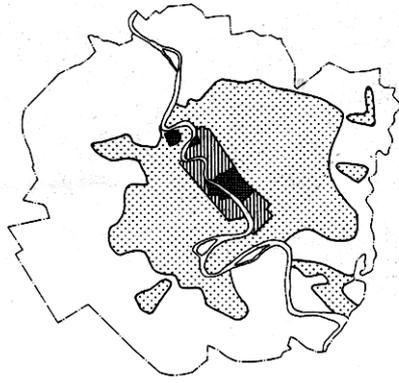
The first settlement of Baghdad was the famous "Round City" of AL-Mansur on the western bank of the Tigris (756 AD). The city outgrew its original shape more spontaneously and established urban districts. Its suburbs reached out to the eastern bank of the Tigris, generating the district of Rusafa that, over a period, shifted over one kilometre southwards from its

original position. During the Seljuk rule (1052-1152 AD), Rusafa was surrounded by new city walls, and this fortification was to determine the site and the size of the city until the beginning of the modern age. The establishment of Rusafa's modern urban system started in 1914, when AL-Rashid Street, an avenue for horse carriages and vehicular traffic with attached pedestrian colonnades, was cut through the historic fabric. In 1936, this operation was followed by Kifa Street, a second parallel axis at a greater distance from the river, built by German engineers. The new urban corridor of Jumhuriya Street (now Khulafa Street), carved out in 1956 and bordered by free-standing blocks with heights of up to 32 m. This new axis linked the northern and southern ends of the rapidly growing metropolis and formed a new linear central area, which was intended to become representative of modern Iraq. It was complemented by a system of perpendicular roads and two new bridges across the Tigris.

■ PROBLEM SITUATION

In Rusafa area, two major interventions were planned. One project involved completing the transformation of Khulafa Street into a prestigious main axis of modern Baghdad, and the other tackling the redevelopment of the Bab AL-Sheikh area along a new perpendicular road connecting the railway station with the Tigris riverbanks. The first project on Khulafa Street undertaken for development extended into the old city with large 12 –floor-mega-structures celebrating the major traffic nodes and opening large squares around important intersections. In addition, a large-scale riverbank scheme was proposed, with its sequence of private terraces overlooking the Tigris. The second project was suggested to redevelop the Bab al-Sheikh spine, perpendicular to the river and to Khulafa Street. It endeavoured to create new housing typologies relating to traditional models and adapted to local habits and climatic factors by introducing protected private open spaces in the form of enclosed terraces or private courtyards. Another reference to the past is the repeated use of the Shanashil, the over-hanging first-floor window that is the most characteristic feature of Baghdad streets.

During the preparations for the Khulafa Street project and the Bab AL-Sheikh project (1980-1982), the Municipality of Baghdad became aware of the fact that major parts of the old city were to be destroyed were being given away for redevelopment without any overarching concept which could establish a relation between the proposed new structures and the surrounding urban fabric. The Khulafa Street project completely ignored the existence of historic urban structures and the layout and scale of the proposed new buildings ruled out any dialogue within the context.



-  Phase-1: Traditional city
-  Phase-2: Urban change up to 1950
-  Phase-3: Modern metropolis from 1950

Figure 4-21 Urban developments of Baghdad.

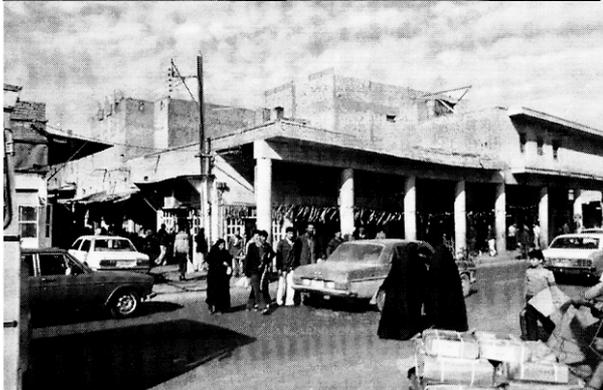


Figure 4-22 Typical section of 1) Rashid Street, 2) Kifa Street.

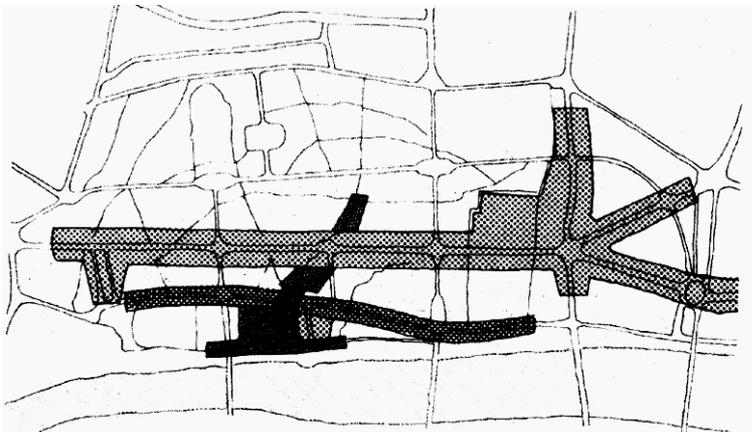


Figure 4-23 The three successive central areas of Rusafa: in dark grey the old suqs on the river-front and the spine towards Gaylani; in medium grey the colonial shopping street of AL-Rashid Street; and, in light grey, the new central business district and government administration developing around Khulafa Street

■ OBJECTIVES

In accordance with the goals and the given constraints, the following basic principles of the new master plan were defined:

- To establish compatibility between the activities of the Central Business District (CBD) and the physical environment of the historic urban fabric.
- To rehabilitate the old residential quarters, to improve their physical structures, and to enhance their amenities and environmental qualities.
- To reorganize industrial activities on the north-eastern edge of Rusafa with regard to the needs of the old city and the whole urban system.
- To develop and enhance a number of major pedestrian spines throughout the Rusafa area, in order to improve the coherence between the historic and the modern sectors.

■ EXISTING SITUATION

With the influx of a rural population in search of opportunities and employment, the old city became a welcome refuge and intermediate station for immigrants. The resulting densification, coupled with the property owners who were not interested in maintaining their houses, accelerated the physical decay. In addition, a new type of semi-industrial production geared to immigrant workers occupied all available niches inside and outside the historic city, often transforming old houses into workshops.

Three separate and partly conflicting urban systems emerged in Rusafa. Firstly, there was a neglected historic district suffering from insufficient infrastructure, amenities, and social facilities and inhabited by a crowded, predominantly poor population. It included busy local markets and emerging modern manufacturing facilities occupying decaying old suq structures and expanding into the former residential districts. Secondly, there was a modern service centre reflecting the size of the metropolis and catering to the needs of the upper middle class and the new leadership. It featured Western-type shops, banks, government administration, offices, hotels, restaurants, and cinemas and constituted an erratic block in the old city, in both functional and architectural terms. Thirdly, there was an industrial zone in the former open belt of the old city, engaging in heavy modern production processes yet still following certain pre-industrial habits, which caused enormous congestion, pollution, and unacceptable encroachment on public space.

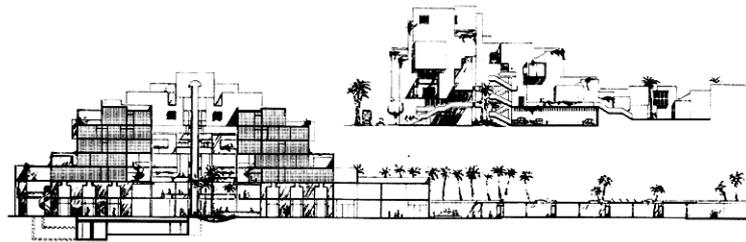
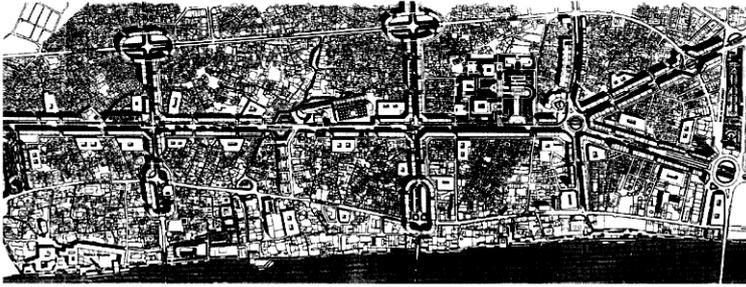
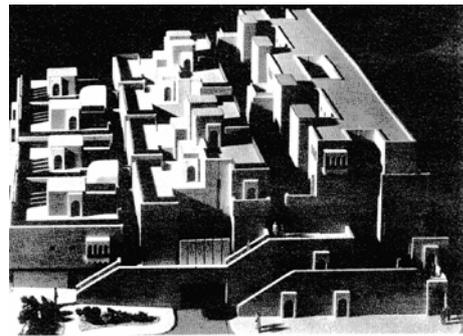


Figure 4-24 Urban redevelopment schemes for Khulafa Street and the surrounding zones, as proposed by TAC in 1980.

Figure 4-25 Typical sections of the redevelopment scheme for Bab AL-Sheikh proposed by Arup and Partners in 1982.

The Bab AL-Sheikh scheme represented an interesting approach to redevelopment which attempted to establish a transition of urban scale between the old city and the new street fronts. The housing varies in height from six to two stories across the depth of the site, with the two-storey housing at the back relating in height and scale to the existing traditional housing beyond. The intention is to create an urban boulevard, with commercial activities at street level on both sides and housing at the upper levels. The street façade is a double wall, which forms a continuous arcade at ground-floor level and provides additional rooms and terraces for the housing above, which gives cohesion and special identity to the new street.



1) Part of the housing seen from the new street. The different treatment of the arcade on the left denotes the old houses, which were incorporated into the development. The first two levels fronting the street accommodate shops and offices. Houses and flats rise from an elevated pedestrian deck. Brick is used on the external walls, and there are traditional elements such as enclosed balconies narrow vertical openings, corbels and timber screens.

2) A side view of the housing shows the internal streets, which run through the development at high levels. On the side of the new street, the housing rises to five floors, forming a street-defining wall. It then steps down to two floors at the back on the side of the Gaylani Shine.

Figure 4-26 Bab AL-Sheikh development by Richard England and Partners.

■ DESIGN BRIEFS

The main task was to establish the right linkages between the existing components of the urban system but, at the same time, to retain the urban features. For this purpose, conservation and redevelopment had to be conceived as complementary and interactive approaches within a well-balanced overall strategy for the city centre of Baghdad. The key to the viability of Rusafa as a historic area combining a Central Business District with integrated pockets of traditional residential quarters lie in a judicious redevelopment of the Sheikh Omar District, the belt along the former city walls.

■ DESIGN DECISION

The proposal envisaged the transfer of all heavy industrial activities to a new industrial zone on the periphery of Baghdad, allowing for the widening of the street and redevelopment of the adjacent strips. Continued at each end by Port Said Street and Muadhan Street, the widened Sheikh Omar road would form a high-capacity highway around the historic area to divert and absorb existing traffic pressures. Along this belt, a number of interchange nodes with multi-storey car parks, bus stations, taxi ranks, and commercial facilities would be located, to encourage the desirable shift from private vehicular traffic to public transportation and to pedestrian movement.

To control the transformation of character in the designated conservation area, a manual proposing specific design criteria for dealing with the various types of buildings occurring within the historic fabric was developed. It covered a broad range of interventions from restoration to rehabilitation, including substitution of ruins with new adapted structures. Being based on the original plot-by-plot typological survey of the old city, the manual provided a matrix defining the appropriate type of intervention for each building, taking its historic value and physical condition into consideration.

■ IMPLEMENTATION

The work of the involved group was completed in December 1983 and the final report was presented to the authorities in spring 1984. The tragedy of Iraq's sequence of wars with Iran and Kuwait brought to a grinding halt all development and conservation projects initiated in the early eighties. Nobody has any information on the status of the Rusafa projects.



Figure 4- 27 Map showing the existing conditions of the historic fabric at the beginning of the Rusafa study. The new centre on Khulafa Street was practically completed and the clearing for urban redevelopment of the Bab AL-Sheikh scheme on the north-south spine crossing the Tigris was accomplished.

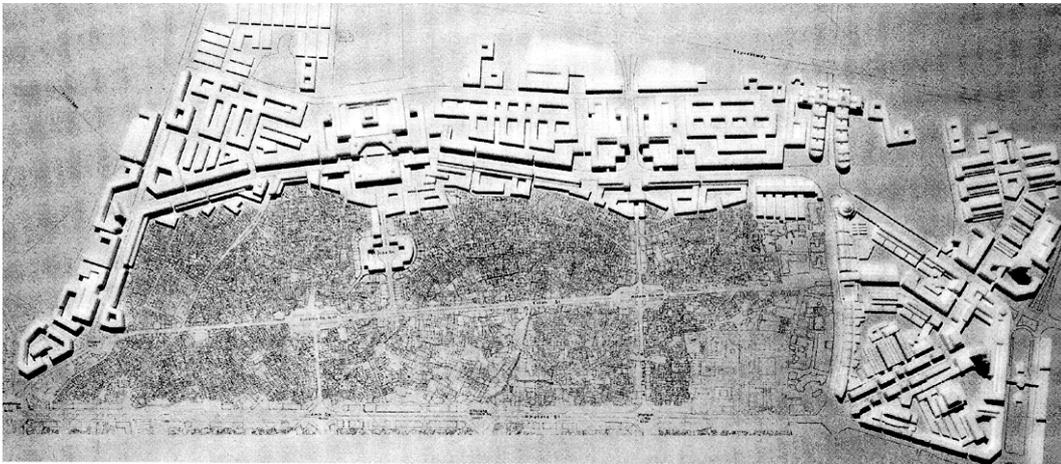


Figure 4-28 Volumetric plan for the proposed redevelopment of the belt area around the historic fabric, along Sheikh Omar Street, and detail of one of the major transition nodes.

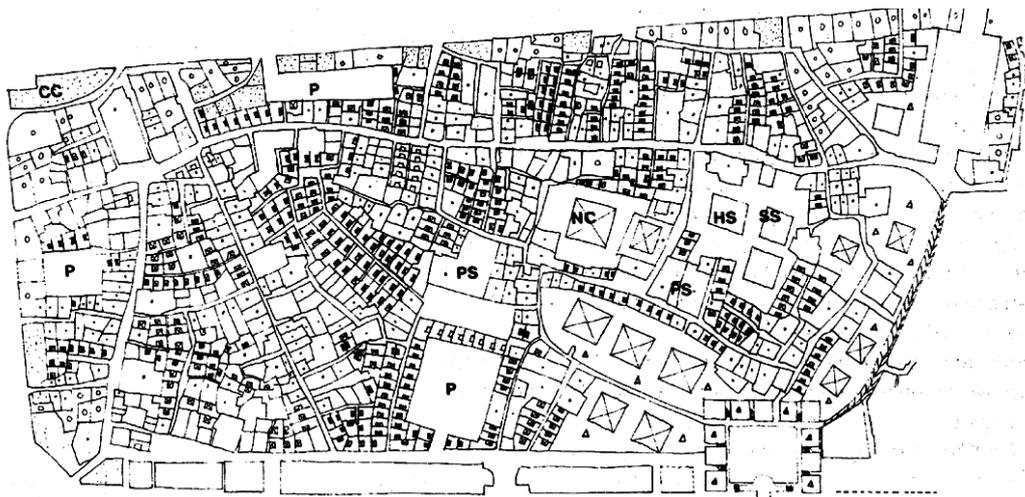


Figure 4-29 Example of a rehabilitation plan for one of the islands of the historic city located between Khulafa Street and Kifa Street. The conservation and rehabilitation plan for the historic fabric was based on a detailed assessment of each island. It indicates plot-by-plot proposed intervention measures, such as conservation of traditional houses, substitution by topologically related new units, re-use of open spaces for residential car parks (P) and re-use of ruined or vacant plots for communal facilities (CC), including primary schools (PS), secondary schools (SS), high schools (HS), or neighbourhood centres (NC) with youth clubs and health facilities.

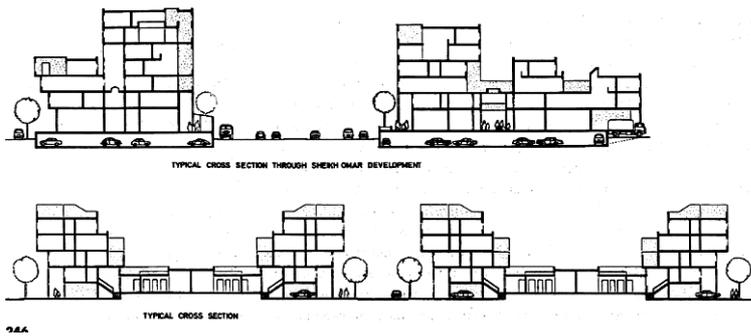
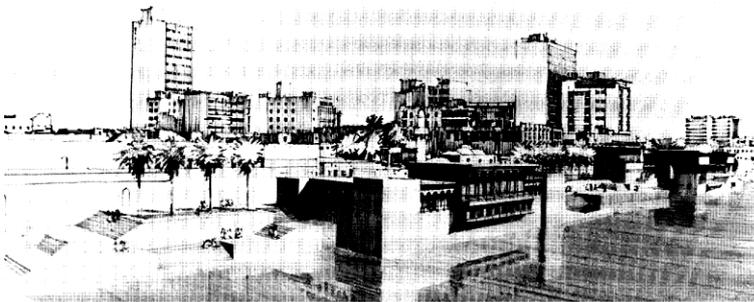


Figure 4-30 Typical sections showing development principles for new town-house units to be included in the redevelopment of the Bab AL-Sheikh and Bab AL-Sharqi areas.

The scheme creates aesthetic values through emphases of the public and private realm relationship and contextual factors. For the proposed Sheikh Omar development, it suggests a continuous and coherent visual form with up to five storeys along the Sheikh Omar belt and up to eight or ten storeys around the main interchange nodes. The volumes step down to two to three storeys on the fringe of the old city, in the mixed-use areas in the northern sector of Rusafa. The concentration of volumes and of activities around the nodes is meant to break the monotony of the street-front development and to highlight the new entry zones into the central area. Typical sections of the schematic volumetric layout have been made to demonstrate the feasibility of the project and to serve as a basis for future detailed development of smaller sub-units of this overall scheme.



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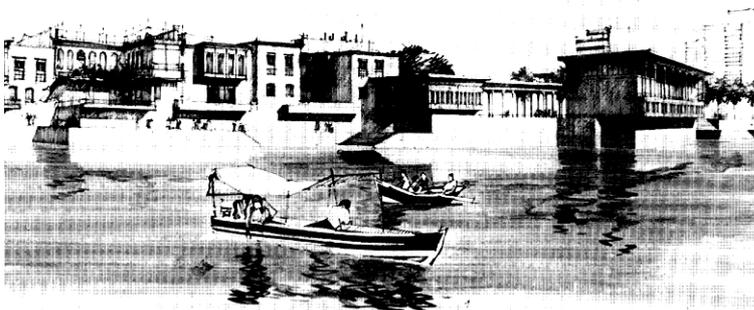


Figure 4-31 Sketches for the proposed Tigris-river-front redevelopment, including low-height public facilities reminiscent of the previously existing river balcony buildings.

The proposal scheme considers the water frontage development and protects its environmental quality. A new pedestrian walkway along the Tigris riverfront was proposed, together with a series of in-fill structures, which would highlight certain focal points, where perpendicular lanes of the suq network provide good access to the riverfront. For these focal points, steps descending to the river, small boat-taxi stations and projecting structures with terraces, colonnades, shaded seating spaces and public coffee houses were designed. The proposed new structures would frame the views onto the river and provide attractive meeting places for visitors to the central area. Some of their architectural features, mainly the pillared balconies overlooking the river, would evoke the lost traditional aspect of the riverfront, without attempting to replicate pre-existing historic buildings.

4.3.4 INTEGRATING EXISTING FRAGMENTS (OLD AND NEW) OF ALEPPO

The client of the project is the Aleppo municipality (with the aid of the recommendations of the Unesco report) and the Syrian company Iskan AL-Askari (Military Housing Establishment) with the company's Director Nabil Kassabshi, collaborator Thierry Grandin under Stefano Bianca's supervision as the professional.

■ HISTORIC BACKGROUND

The beginnings of Aleppo's new town date back to 1868, when the Ottomans established a Western-style city administration in the newly constructed "Serail" building. The Ottoman administration started developing a number of new residential districts in particular Azizie, to the north-west of the old city, which clearly reflected contemporary European town-planning influences. By 1900, after the demolition of the city walls and the southern edge of Jdeide, the northern moat road was framed by two lines of terraced houses in a hybrid Ottoman-European style. This new spine, called Khandaq Street, became a major west-east connection between the periphery of the old city and the rapidly growing new town. In addition, a north-south spine was developed from the new quarters of Azizie towards Bab Antakia. The intersection of the two spines on the north-western corner of the city, near Bab AL-Faraj, became an important node in the urban system.

■ PROBLEM SITUATION

By 1969, as a result of introducing new road construction, an area of two hundred by two hundred metres in the north-western corner of the old city was surrounded by large avenues. The pressure for demolition and total redevelopment increased accordingly. In 1978/79, a project for the redevelopment of this north-western corner of the old city was worked out. It envisaged a number of 16-storey office buildings and an opera house on a two-storey commercial concourse replacing the historic fabric. The intent may have been to establish Aleppo as a modern metropolis, which could rival the capital city. The project design was totally alien to the surrounding urban fabric and the project's functional program was far from realistic in economic terms. In 1983, excavation for the first phase of the project was started, and during the early works on the underground car park, the foundations of the old city wall were exposed. The loss now became more evident, and the antiquities service managed to stop imposing a large non-buildable zone east of the uncovered foundations. As a result, the municipality announced its decision to abandon the old Bab AL-Faraj project and start a completely new project that would take into account the special character of the adjacent areas and integrate all remaining historic structures, as well as the already built parts of former schemes, namely the underground car park.

■ OBJECTIVES

The new project, detailed in 1985/86, was drawn up according to the following agreed objectives:

- To redefine the edges of the old city along the major roads of the late 19th century and to establish a dialogue with the surviving remains of the old streetscape.
- To fill the large townscape gap of Bab AL-Faraj by integrating all existing "fragments", old and new, into a coherent overall urban form which should be flexible enough to cope with a variety of site constraints and historic references, and strong enough to produce an urban core with an identity of its own.
- To provide an attractive focal point of urban and civic life this would connect the historic and the modern centres of Aleppo, while enhancing the status and prestige of the old city.
- To establish a contemporary architectural style and vocabulary, this would refer to typical Aleppine elements, which have evolved throughout the centuries, having been continuously adapted and re-used up to the recent past.

■ EXISTING SITUATION

In 1979, around 90% of the old urban fabric of the Bab AL-Faraj site was demolished, and defining the partial excavation for the basement of the old project. The site is surrounded by different architectural characteristics; the edge of the Bustan Kulab district to the west, the street-front development of 1900 along the covered moat, north of the site, the partly demolished southern edge of the site, and the remaining structures of the 17th century Rajab Pasha house on the eastern edge against the background of modern blocks from the sixties. The surveys show a considerable traffic congestion around Bab AL-Faraj and in the adjacent areas of Bustan Kulab and Azizie, where radial roads penetrating the city from the west intersect with circular roads around the old city.

■ DESIGN BRIEFS

The Bab AL-Faraj project was set by first providing better opportunities for organic linkages with the surrounding areas. A tentative new site plan for the future development was prepared, assuming building heights of 2-3 upper floors and defining the main components of urban form in terms of land use and overall volumes. The project planned to take advantage of the central location by providing a new civic core on the threshold between the old and the new city.

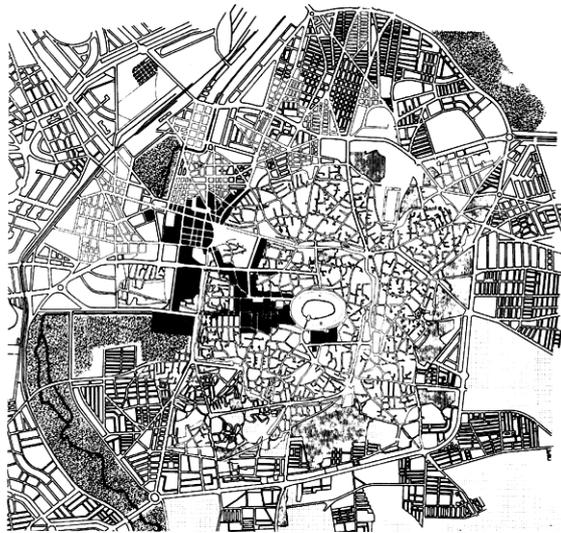


Figure 4-32 Plan of the central area of Aleppo around 1980, showing further urban extensions around the old city, as well as a new road framework.

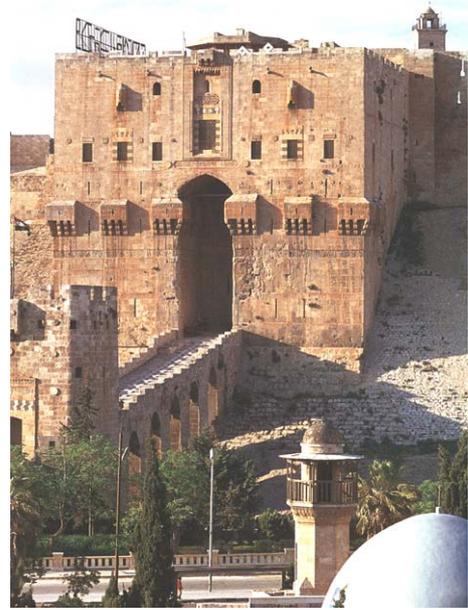


Figure 4-33 The entrance of the citadel, which dominates the city.

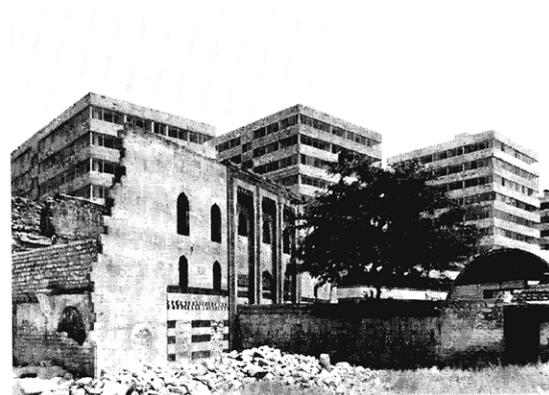


Figure 4-34 Existing conditions around Bab AL-Faraj site.

■ DESIGN DECISION

In order to relieve the node of Bab AL-Faraj, to prevent or minimize west-east traffic through the old city and to divert north-south traffic further west, channelling it into more recent and less busy avenues, which could become part of an old city bypass, should be taken into consideration.

The decision of the new urban form was to be an enclosed public open space of irregular shape, defined by a theatre-cum-cultural centre, as well as commercial buildings linked with an adjacent hotel complex. These volumes were to occupy most of the destroyed northern part of the site, establishing a continuous urban form with clear edges, which evoke the boundaries of the old city walls. To the west, the streetscape of Bab AL-Faraj was completed and re-defined by a law and partly transparent suq building, giving access to the sunken archeological area. On the southern sector of the site the architectural treatment was somewhat different in scale and grain, since the main task here was to rehabilitate and complete the surviving urban fabric on either side of Bahsita Street, the old spine which leads to the restored Omari Mosque. Small-scale in-fill was used to repair the disrupted urban structure and re-establish the old pedestrian street network, while screening the street edge with new commercial buildings. Under the open plaza and the adjacent public and commercial buildings, it was possible to accommodate an underground car park, making use of the already constructed basement of the old project.

■ IMPLEMENTATION

The project is now being executed after some minor changes and revisions requested by the municipality. A major concern was the phasing of the construction process. To allow for a smooth systematic implementation, the project was subdivided into six lots. The municipality decided to start with the south-eastern corner, south of Bahsita Street and the Omari Mosque. This part, now almost completed, contains mainly shops on the ground floors, offices, and administration blocks on the upper floors. Phase two will concern the in-fill structures on Bahsita Street and the south-eastern fringe of the surviving urban fabric; phase three the Bab AL-Faraj suq on the western edge of the site; phase four the sunken archaeological park and the hotel complex; phase five the commercial structures around the plaza; and phase six the theatre and cultural centre.

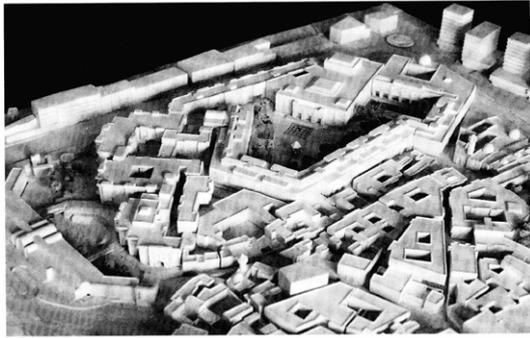


Figure 4-35 Model view of the new project from the south-west.

Figure 4-36 Model view of the new project from the north-east.

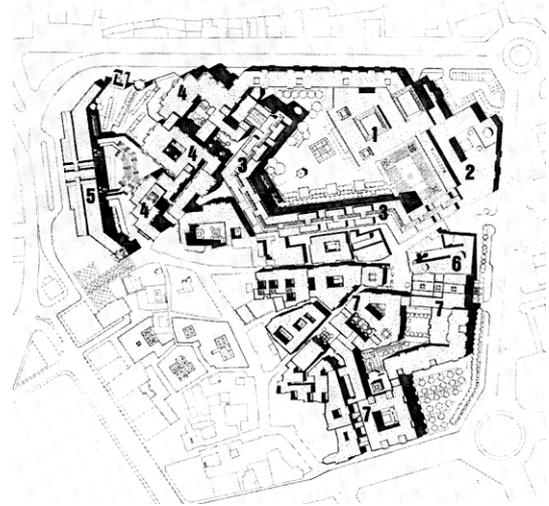


Figure 4-37 Site plan of the new Bab AL-Faraj project (1984).

1) Theatre/multi-purpose hall. 2) Cultural centre with integrated remains of Rajab Pasha house. 3) Urban plaza building with shopping arcades and passages covered on the ground floor and offices/apartments on the upper floor. 4) Hotels. 5) New covered Bab AL-Faraj market. 6) Omari Mosque. 7) Commercial facilities.

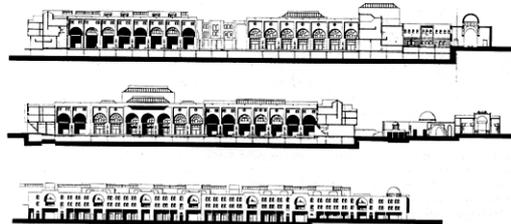


Figure 4-38 Sections/elevations cutting through the central square.

The new building project enhances the fundamental architectural principles of scale, height, massing, alignment, and respects the context and traditional pattern of frontages. The southern edge of Khandaq Street was designed in response to the long line of late-Ottoman terraced houses on the northern side of the old moat. A new linear building compensates for the absent southern counterpart and completes the linear street space with arcades of similar scale, without attempting to replicate the features of the destroyed terraced houses. The design of the plaza buildings is intended to strike a balance between individual buildings and overall urban form: the cultural centre, the theatre and the commercial multi-purpose building all use the same basic type of arch with a number of variations and different in-fills, corresponding to the specific character of each building.

The fenestration proportioned related within the elevation, and sympathetic to adjacent buildings. The western front of the hotel complex was conceived as a visual substitute for the previous city walls. The elevations were given a strong mural character with relatively small window openings. To the west of the hotels, a low commercial building along the street was introduced, to re-establish the clear spatial sequence of the Bab AL-Faraj streetscape with its two typical nodes, north, and south of the street channel. The southern part of the new project is composed of a series of in-fills which are intended to repair and revitalize the district's old pedestrian spines, leading from Bab AL-Faraj to the Oman Mosque, and from there southwards to the Umayyad Mosque and the central suqs.

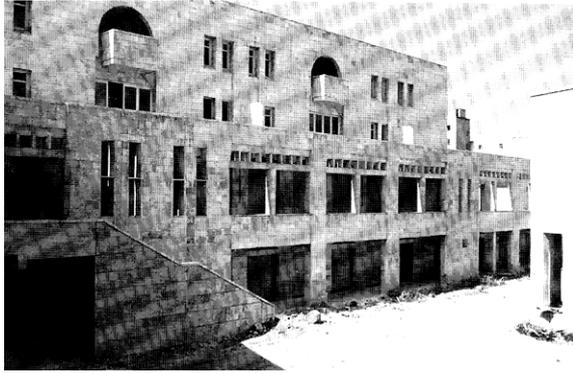


Figure 4-39 View of the nearly completed commercial complex in the south-eastern corner of the new Bab AL-Faraj development (1998).

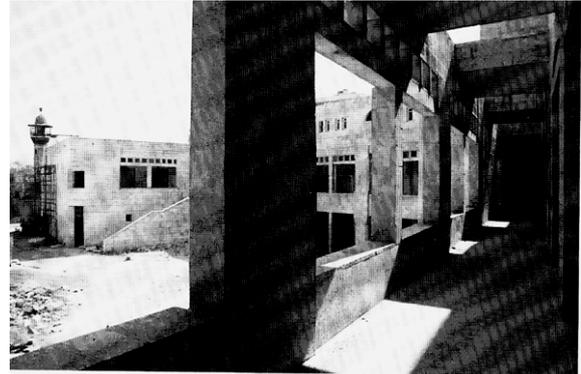


Figure 4-40 View of the upper level pedestrian arcade of the above complex, with arcades connected to the walkways of the surrounding streets.

4.3.5 UPGRADING AND DEVELOPMENT OF ISMAILIYYA, EGYPT

The Governotate of Ismailiyya, Clifford Culpin and Partners, were involved with the preparation of the master plan, the detailed design of sites and services and upgrading projects, and the provision of technical assistance to set up the implementing agencies and the training of their staff

■ HISTORIC BACKGROUND

Ismailiyya was founded in the second half of the last century. It was originally the headquarters of the Suez Canal Authority and then became mainly a service centre. During the Arab-Israeli conflict, from 1967 to 1973, the Suez Canal region became a war zone. Consequently, people were evacuated, and Ismailiyya, like the other canal cities, was damaged.

■ PROBLEM SITUATION

After the hostilities subsided, the government resolved to reconstruct the canal cities and to undertake redevelopment programmes. Financial assistance from the United Arab Emirates went towards constructing 17,000 new apartments. Meanwhile the government was funding 10-15% of the housing units being built annually as public rental housing. Privileged Ismailiyyans, mainly government employees, had access to this housing. But many with low incomes were ineligible and could only get housing in the private rented sector or in squatter accommodation.

■ OBJECTIVES

The project suggested upgrading two examples of informal developments. One, Hai EL-Salaam is a northern extension of Ismailiyya City that had uncontrolled growth. The other, Abu Atwa, formerly an agricultural settlement, is about four kilometres south of Ismailiyya. The proposals involved the upgrading of existing sectors and the development of new housing area primarily for low-income groups.

■ EXISTING SITUATION

Hai EL-Salaam and Abu Atwa housing are a personal endeavour controlled by local and personal decisions. The housings encouraged the input of thousands of families utilizing their collective imagination, energy, time, and funds in order to create their own habitat.

■ DESIGN BRIEFS

Hai EL-Salaam was an area of unplanned expansion onto the south of the city with adjacent open land, which provided scope for expansion. Hai EL-Salaam was a relatively straightforward area. The land was nearly all owned by the government; the ground conditions were reasonable.

The positive aspects of the informal sector of Hai EL-Salaam could be supported, and at the same time combined with the advantages of secure tenure and a planned subdivision, then the projects might point the way to a satisfactory and effective form of urban development.

Combining upgrading and new development has many advantages. It allows relocation of families, normally unavoidable in upgrading, as close as possible to the original site. It allows the setting up of social facilities, which may not be possible to install in densely settled existing areas, to be located in the new area to serve both. Utility networks similarly can serve old and new areas. New settlers can use services such as shops, builders' merchants, and skilled workers from the old areas and one agency can manage both programmes.

■ DESIGN DECISION

For upgrading areas the proposals define the street system and, within this, individual plot boundaries. The defined plot lines were then the basis for selling the land to the occupants. The price of land was set deliberately at a low level with repayments over 30 years to ensure that even those with very low incomes would be able to afford. It was proposed that income from the sale of the land would be used to provide basic infrastructure, which in this case consist of a sub-base course for roads, water, electricity, and street lighting. It would also pay for administration and services such as solid-waste collection and maintenance. Re-organized

plot boundaries were designed to allow reasonable circulation and a minimum demolition of less than 5% of the existing buildings.

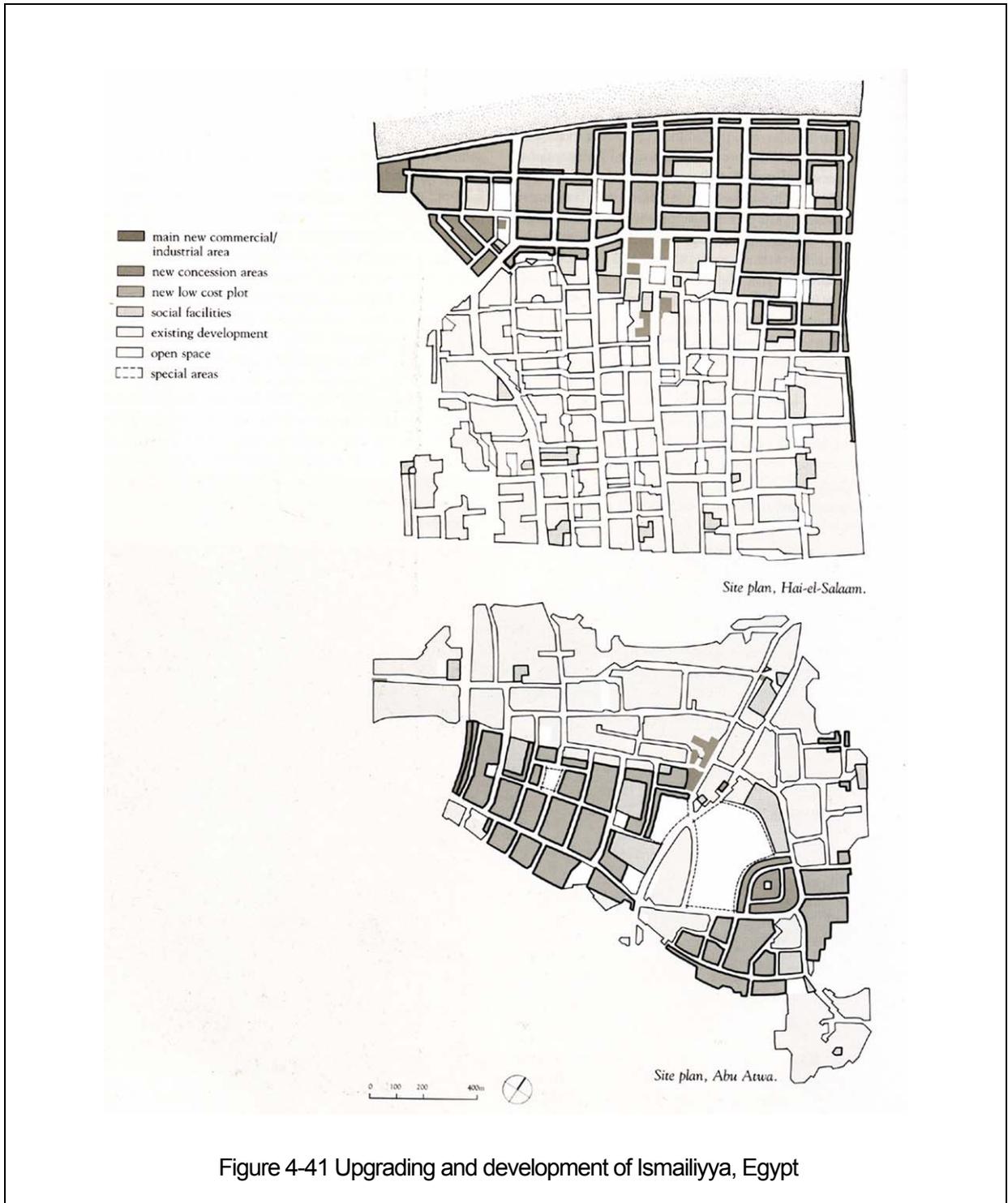


Figure 4-41 Upgrading and development of Ismailiyya, Egypt

For new settlement areas, the concept is to provide a basic level of infrastructure, which could be paid for from the income derived from the sale of land. At the same time, land was priced so as to be affordable by the target income group. This means that initially infrastructure would be limited to surveyed plots, which were levelled and surfaced to sub-base only. Water, power, and other services were proposed as in the upgrading areas. All infrastructure systems were designed so as to be capable of upgrading at a later date when resources permitted. It was decided that it was preferable to reduce costs by minimizing the initial levels of infrastructure provision rather than minimizing the plot dimensions. Infrastructure can be later upgraded but the plot dimensions, once fixed, would be very difficult to change.

Planning was based on a hierarchy of semi-private areas within blocks, neighbourhoods with sub-centres, and the new main centre to serve old and new areas. Sub-centres have higher order services such as health clinics and preparatory schools and the main centre has a large Friday mosque, polyclinic, social centre, and market. Shopping is mainly catered for by the ability of anyone to open a shop on his plot. Plots near the centres are, however, planned so as to be able to be more efficiently used for commerce. Only the market building includes purpose-built shop units. Small workshops can be operated on residential plots, but “bad neighbour” uses are catered for in special areas.

It was assumed that households would spend 20% of their income on housing. It was concluded that full infrastructure provision was not affordable and that initially only a minimum provision was possible without subsidy. Therefore, it was proposed that full provision be achieved incrementally, over a period corresponding to the population's ability to pay for this level of provision.

Semi-independent project agencies with local officials were set up since the local government of Ismailiyya did not have administrative, financial, or technical structures to manage the projects. These agencies were given the right to buy and sell land and to use the proceeds for infrastructure, management, and maintenance. They were responsible for the comprehensive planning of layouts and the survey, allocation and sale of plots. Negotiation with those agencies that provided the area's water, electricity and sewage was also their responsibility in addition to representing the people before authorities responsible for social facilities. Their further responsibilities included technical assistance to plot owners, landscaping and coordination with the city council. The agencies' staff received on-the-job training explaining detailed work procedures. In addition, seminars helped to explain why the works were being implemented.



Figure 4-42 Community life manifests itself in the newly established nurseries and playgrounds (left) as well as by the appearance and consolidation of small businesses (right).

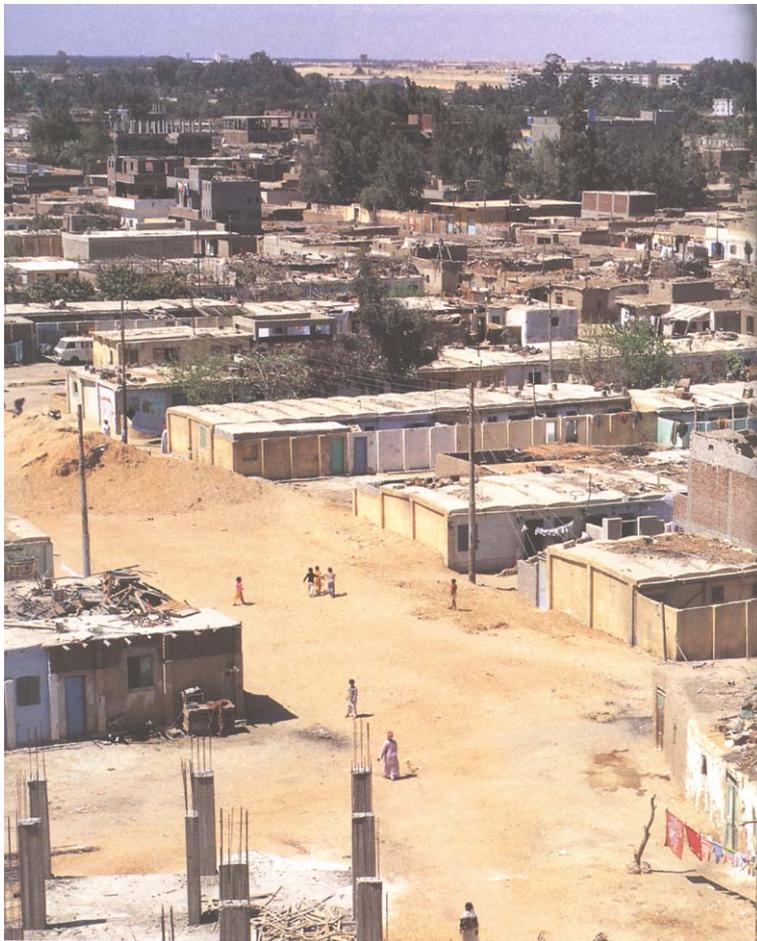


Figure 4-43 Hai el-Salaam district shows the consolidation process, which is taking place. This is evident where a single storey dwelling is being extended upwards to create a three storey walk-up unit. The pride of owners is exemplified by the fact that many have painted the façade of their individual dwellings.

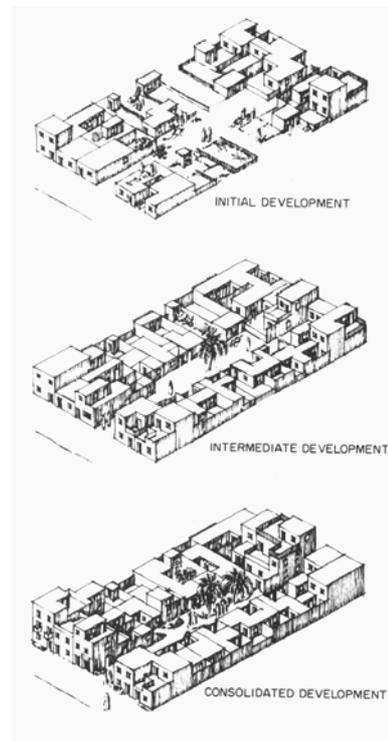


Figure 4-44 The incremental development of a typical cluster as proposed. Proposed plot sizes and shapes can be designed to allow the patterns of use observed on existing plots and, at the same time, to be economic to service. Plots can be developed with one front room as a shop or workshop, rooms can be rented, and additional floors can be built to allow residents to supplement their incomes.

Plot pricing varied to enable affordable payments at low-incomes. Good commercial locations commanded higher prices and open market prices were charged through auctioning for key location concession plots. This allowed internal cross-subsidy favouring low priced plots. Over half are in this category, which thus increased the number of affordable plots.

Building materials used in Hai EL-Salaam, and Abu Atwa range from the cheapest solutions for construction to the higher standards of the formal sector. Modern building materials were favoured by the governor and the settlers, but a slow rate of construction in low income areas suggests that modern materials may be too expensive for immediate use.

The Project Agency provided different house plans for families who could not afford to pay for professional assistance. Houses might be self-built or contracted to builders in the project. Control of lot types encouraged diversity of income level. Lots that are more expensive were allocated along the wider avenues and at intersections to ensure that, the areas with the strongest visual impact would appear completed early in during development.

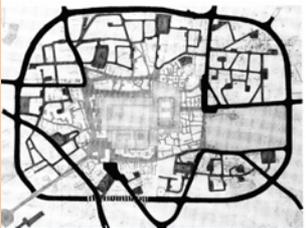
■ IMPLEMENTATION

The formulation of proposals is a very important process, but what matters in the end is what is implemented. Changes made during implementation came from many directions. The main change was in the application of standard building regulations, which are relatively strict in Egypt. The governor was concerned that the new part of the city should not look like a slum. The desire to build in modern materials is echoed by the settlers themselves, but slowness of building amongst those with low incomes supports the original study findings that modern materials are too expensive for immediate construction. In addition, the original layout plans had the low cost plots on lanes of 6-9 m width designed to allow play and communal use, but to discourage through traffic. This irregular shape of small streets or semi-private spaces was rejected in favour of straight streets.

4.4 CONCLUSION

The chapter argued the lessons, which could be gained from actual design experiences in renewal of Arabic cities. It then provided a framework for understanding and solving the urban problems in these cities. The chapter also explained the concept of urban renewal, which can be directed towards resolving a number of physical problems, such as the upgrading of the city's housing stock, physical layout, and infrastructure to meet modern living standards, including the creation of open spaces, the extension, and improvement of infrastructure, etc. The chapter, in particular, illustrated and demonstrated that the rehabilitation of historic buildings, as a solution to enhance the visual quality of Arab cities, is an attempt to keep alive values. The conclusions of design policies listed below try to introduce the principles, which could be used to develop and improve the quality of Arab cities. Different ways of considerations are possible according to the character and development pressures of each case.

Table 4-2 Design experiences in the renewal of the selected case studies in Arab cities.

| Case Studies | Design Policies |
|---|---|
| <p data-bbox="204 1043 507 1111">The Central Area of Al-Medina-al-Munawara</p>  | <ul style="list-style-type: none"> ▪ Envelop the centre area with treated pedestrian zones and arrange the pedestrian routes passed through the ancillary building or designed as pleasant and attractive walkways and commercial facilities. ▪ Surround the centre area by a zone with limited vehicular access through traffic systems consisting of loops and cul-de-sacs. ▪ Establish the outer ring road around the urban agglomeration as a whole. ▪ Conserve and rehabilitate the remaining part of the historic city. |
|  | <ul style="list-style-type: none"> ▪ Consider the size of the extension by adopted the idea of articulating the huge mass into a number of interconnected units forming a complex architectural fabric, which relates to the scale of the existing building. ▪ Re-establish a coherent urban form in the central area and link the extension with the surrounding structures. ▪ Integrate of the extension with associated functions and surrounding buildings. ▪ Visualize the extension in a rhythm compatible with the existing and introduce major conceptual principles such as relations between solids and voids, and interaction of the extension with the surrounding urban fabric. ▪ Subdivide the extension into a number of interrelated individual buildings to grant optimum flexibility for future design and implementation. |

The Old City of Cairo

- Consideration of the surface treatment of streets and spaces are necessary in terms of colour, texture, and materials.
- Relating buildings to each other and to the surrounding spaces is an important factor.
- Emphasise the existing street facade for the retention of an element of continuity.
- Paving surfaces are important to evolve a discipline for sympathetic design achieving high architectural standards.

- To prevent further deterioration in the environment and to improve the standard of living for the residents, priority was given to:
 - Up-grade internal conditions of the buildings in each zone by developing a strategy for the relief of overcrowding,
 - Improvement of sanitary facilities,
 - Encourage, advice and financial assistance to those inhabitants or owners who wish to make repairs and improvement, and
 - Improvement of the quality of the external environment which included the up-grading of the water supply/sanitation, refuse disposal and street cleaning services, and the provision of social facilities.

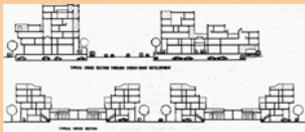
- The conservation strategy:
 - The index should be reviewed and revised.
 - The existing procedures for indexed buildings should be strengthened.
 - Key monuments, buildings and land-marks, and their settings, throughout the old city should be protected, restored and enhanced.
 - Redevelopment of all other sites within the old city should be permitted up to plot boundaries and up to existing heights.

- Five categories of treatment were identified within the zones:
 - Historic buildings to be restored (both listed and unlisted);
 - New buildings on vacant or dilapidated sites requiring the total control of design;
 - Substantial buildings which are likely to remain for some time, in need of external surface treatment, internal upgrading and provision of new services;
 - Sites and buildings adjacent to monuments, requiring control over methods of abutment and construction; and
 - Buildings in need of height control in the vicinity of the zones.

Rusafa, Baghdad



- Establish compatibility between the activities of the Central Business District and the physical environment of the traditional urban fabric, on the one hand, a more "traditional" and mainly pedestrian centre, recreation and small-scale retail activities; on the other hand, a more "modern" city centre in the new redevelopment sectors containing offices, administration, large-scale shops and modern facilities and amenities.
- Reduce pressures of vehicular traffic in the central area, while optimizing accessibility through appropriate modes of transport, giving high priority to efficient public transport systems and limiting private car access to certain areas.
- Rehabilitate the traditional residential quarters, to improve their physical structures and enhance their amenities and environmental qualities.
- Transfer of all heavy industrial activities to a new industrial zone on the periphery.
- Treat all the existing points of conflict between the traditional pedestrian network and the vehicular system with a re-establishment of the continuity of the pedestrian system as much as possible.
- Develop and enhance of major pedestrian spines, in order to improve the coherence between the traditional and the modern sectors.



- Create a continuous and coherent urban form between new and old. The scheme suggests up to five storeys along the belt of the historic core and up to eight or ten storeys around the main interchange nodes to break the monotony of the street-front development and to highlight the new entry zones into the central area and the volumes step down to two to three storeys on the fringe of the old city.
- Create a new pedestrian walkway along the river-front with a series of in-fill structures as a focal points, where perpendicular lanes of the central area provide good access to the river-front, (for these focal point, the project designed the steps descending to the river, small boat-taxi stations and projecting structures with terraces colonnades, shaded seating spaces and public coffee houses).

Bab AL-Faraj- Aleppo



- Prevent or minimize traffic through the old city and divert the traffic, channelling it into more recent and less busy avenues, which could become part of an old-city bypass.
- Integrating all existing "fragments", old and new, into a coherent overall urban form which should be strong enough to produce an urban core with an identity of its own.



- The new buildings should enhance the fundamental architectural principles of scale, height, massing, alignment, and respect the context and traditional pattern of frontages. It should be designed in response to its surrounding and strike a balance between individual buildings and overall urban form.
- The new building should provide an attractive focal point of urban and civic life, which would connect the historic, and the modern, while enhancing the status and prestige of the old city.

Upgrading and Development of Ismailiyya

- The project demonstrates an alternative approach to deal with the problem of massive urban growth with its concomitant problems of inadequate shelter for the poor and the resulting unsanitary conditions. The approach puts the emphasis on upgrading existing settlements, and on community self-help construction.
- For upgrading areas the proposals define the street system and, within this, individual plot boundaries. It was proposed that income from the sale of the land would be used to provide basic infrastructure, water, electricity, and street lighting. It would also pay for administration and services such as solid-waste collection and maintenance.
- For new settlement areas, the concept is to provide a basic level of infrastructure, which could be paid for from the income derived from the sale of land. All infrastructure systems were designed so as to be capable of upgrading at a later date when resources permitted.
- There are many advantages of combining upgrading with new development. It allows family relocation as near as possible to the original site. It allows improved social facilities, which may not be possible in densely settled areas to be in the new area and to serve both. Utility networks can service the old and the new areas.

