

Historic Cities Support Programme

THE AZHAR PARK PROJECT IN CAIRO
AND THE CONSERVATION AND REVITALISATION OF DARB AL-AHMAR



THE AGA KHAN TRUST FOR CULTURE

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Since its foundation by my ancestors the Fatimids in 969 (358h.), Cairo has been a vigorous hub of Islamic culture and civilisation. In spite of tremendous urban change and growth, it is still the richest treasure house of Islamic monuments anywhere in the world – a testimony to the generosity and variety of its cultural and architectural achievements.

My attachment to Cairo is, however, not based purely on its history. As one of the largest and most complex metropolises in the world, it provides dramatic insights into the full array of contemporary development problems. It also raises the question as to how to creatively re-connect an age-old heritage with the opportunities and demands of rapidly changing modern life, an issue which has been very much on my mind since the creation of the Aga Khan Award for Architecture over 20 years ago. More specifically, an increase in and improvement of scarce green surface within the city, one of the world's densest urban agglomerations, is an urgent priority. Often overlooked, public open spaces have a great role to play in historic cities. Their improvement and consistent use, besides enhancing the civic sense of the city's inhabitants, can often act as a catalyst for collateral private investments in urban rehabilitation.

Pursuing active urban revitalisation has become the main theme of the Historic Cities Support Programme (HCSP), another branch of the Aga Khan Trust for Culture (AKTC), established in 1991. From the beginning, the guiding principle behind this programme was to improve the quality of life of local communities through investment in their cultural heritage and through the rehabilitation of architecturally significant structures. This has been a goal in all earlier projects, from Baltit Fort and the surrounding settlements in Northern Pakistan to Zanzibar and its seafront. The sites in Cairo, which are the subject of this major HCSP project, offer a unique opportunity to implement the same principle on a much larger scale. Here, the Trust and the other donors involved in the project have the possibility to achieve something truly outstanding and fully commensurate with the potential of the place.

The history of this multi-faceted project, reaching back over a decade, has been an exhilarating process of discovery and opportunity. While at the beginning the idea was to provide the metropolis with a much-needed green space at the heart of its historic agglomeration, the progressive uncovering of 1.3 kilometres of historic wall led to another major task – giving a new “face” to the historic city as seen from the Park. Eventually, the conservation project for the wall itself, being inseparable from the abutting historic city fabric, led AKTC to consider a third, equally important priority, i.e., launching a combined physical and social rehabilitation process in the neighbouring area of the Park, the Darb



al-Ahmar district. In keeping with the general strategy for HCSP projects, it was clear that the Park construction, as well as the Historic Wall conservation, could and should also act as stimuli for the rehabilitation of Darb al-Ahmar. Accordingly, the Trust has initiated a range of community-based urban upgrading projects that contribute to the improvement of living conditions in the vicinity of the Park by providing cultural, social, economic and institutional support.

Through their interaction, these three projects, which will truly transform this significant area of Cairo, have called for a substantial increase in the human and financial resources invested by the Trust. For the work in Darb al-Ahmar, the Trust was fortunate to find committed partners such as the Ford Foundation and the Swiss-Egyptian Development Fund to support the ongoing rehabilitation process, which will have to be pursued on a long-term basis beyond the completion of the Park. Similarly, the comprehensive conservation of the Historic Wall is a five-to-eight year project. It has been established in cooperation with the Supreme Council of Antiquities in Cairo and will be managed by the Trust with the participation of other organisations, such as the French Institute for Archaeology. Substantial parts of the wall conservation and Darb al-Ahmar rehabilitation projects should be visible when the Park opens.

The implementation of the components of this complex undertaking would not have been possible without the active participation and support of the Egyptian authorities, under the leadership of Their Excellencies, President Hosni Mubarak and First Lady Mrs. Suzanne Mubarak, who kindly agreed to lay the foundation stone of the Park. My thanks go to them and to His Excellency the Minister of Culture, Mr. Farouk Hosni, Secretary General of the Supreme Council of Antiquities, Dr. Gaballa A. Gaballa, and particularly to His Excellency the Governor of Cairo, Dr. Abdel-Rehim Shehata, and his predecessor, His Excellency Mr. Omar Abdel Akher, whose constant support and personal commitment have been essential to the work of the technical team in charge of implementing the project.

It is my wish that the new Azhar Park, with its central location, will become a major new resource for visitors to and residents of the city of Cairo, opening up new views onto the surrounding historic monuments of this unique area of this unique city. Moreover, I would like to express the hope that the citizens of Cairo, and in particular the residents of the old city, will take pride in the Park and, stimulated by the construction of the Park and the restoration of the historic Ayyubid wall, will participate in the ongoing rehabilitation process of Darb al-Ahmar and its historic monuments and spaces.



CHRONOLOGY OF CAIRO

Compiled by Seif al-Rashidi

EARLY ISLAMIC EGYPT (639-868)	TULUNIDS (868-904) AND IKHSHIDS (935-969)	FATIMIDS (969-1171)	AYYUBIDS (1171-1250)
639 <i>'Amr Ibn al-'As enters Egypt from Syria</i>	868 <i>Abbasid Caliph al-Mu'tazz appoints Bakbak as governor to Egypt; Bakbak sends Ahmad Ibn Tulun instead</i>	969 <i>Fatimids enter Fustat with little resistance; Jawhar al-Siqili founds al-Qahira in anticipation of the arrival of the Fatimid Caliph al-Muizz from North Africa. Al-Qahira becomes the seat of the Fatimid empire</i>	1171 <i>Salah al-Din al-Ayyubi becomes sultan, extends Cairo's fortifications and constructs citadel</i>
640 <i>Byzantine forces defeated at Ain Shams</i>			
641 <i>Babylon (the Roman settlement near the later city of Cairo) capitulates and Muslim armies form the settlement known as Fustat (Tent City)</i>	869 <i>Ahmad Ibn Tulun rules independently from Abbasid caliphate, founds al-Qata'i</i>		1187 <i>Salah al-Din recaptures Jerusalem</i>
642 <i>Arab armies take Alexandria</i>	905 <i>Tulunid dynasty collapses and Egypt reverts to direct Abbasid control</i>	973 <i>Al-Muizz arrives in Egypt</i>	1193 <i>Salah al-Din dies and Ayyubid empire is fragmented</i>
644-645 <i>Abortive attempt by Byzantine troops to reclaim Egypt</i>	935 <i>Muhammad Ibn Tughj rules Egypt autonomously under the title of al-Ikhshidi given to him by the Abbasid Caliph</i>	989 <i>Al-Azhar becomes a centre for higher education under Ya'qub Ibn Killis</i>	1199 <i>Al-Adil unites Ayyubid empire</i>
750 <i>Abbasids enter Egypt and found al-'Askar</i>	968 <i>Kafur al-Ikhshidi dies; political and economic strife encourage Fatimid conquest of Egypt</i>	1073 <i>Al-Mustansir summons Badr al-Jamali, governor of Acre, to quell violence in Egypt</i>	1240 <i>Al-Salih Ayyub builds up an army of Turkish slaves (the Bahri Mamluks)</i>
		1087 <i>Badr al-Jamali, now the Fatimid vizier, consolidates Cairo's walls</i>	1249 <i>Louis IX captured by Ayyubid army in Mansourah; al-Salih Ayyub dies and is succeeded by his son Turan Shah</i>
		1096 <i>First crusade begins</i>	
		1099 <i>Fall of Jerusalem to the Franks</i>	
		1169 <i>Salah al-Din al-Ayyubi takes control of Egypt</i>	

BAHRI MAMLUKS (1250-1382)	CIRCASSIAN MAMLUKS (1383-1517)	OTTOMANS (1517-1805)	MODERN EGYPT (1805-1953)
<p>1250 <i>Brief reign of Shagaret El-Dorr as Sultana</i></p> <p>1258 <i>Mongols capture Baghdad</i></p> <p>1260 <i>Baybars defeats Mongols at Ain Jalut and reinstates Abbasid Caliph in Cairo</i></p> <p>1283 <i>Sultan Qalaun builds monumental complex including a maristan (hospital)</i></p> <p>1291 <i>Ashraf Khalil defeats crusaders, who retreat to Cyprus</i></p> <p>1294-1340 <i>Three reigns of al-Nasir Muhammed</i></p> <p>1340-1382 <i>Descendants of Qalaun remain in power</i></p>	<p>1383 <i>Sultan Barquq seizes power, establishing Circassian Mamluk dynasty</i></p> <p>1400 <i>Tamerlane sacks Damascus, and economy deteriorates, plague and famine are rife</i></p> <p>1412 <i>Mu'ayyad Sheikh retakes Syria, rules until his death in 1421</i></p> <p>1422 <i>Reign of Barsbay brings period of peace, cultural vitality and increased trade</i></p> <p>1468-1498 <i>Cultural revival under Sultan Qaytbay</i></p> <p>1488 <i>Discovery of Cape of Good Hope has an adverse effect on trade in Egypt</i></p> <p>1516 <i>Sultan al-Ghuri loses battle against Ottomans. Khayrbek, Governor of Aleppo, betrays the Mamluks</i></p> <p>1517 <i>Tumanbay II captured and hung, Ottomans take over Egypt</i></p>	<p>1517 <i>Khayrbek appointed first Ottoman governor</i></p> <p>1768 <i>Ali Bey al-Kabir revolts against the Ottomans, takes part of Arabia</i></p> <p>1772 <i>Revolt of Ali Bey al-Kabir suppressed</i></p> <p>1798-1801 <i>French expedition to Egypt</i></p> <p>1805 <i>Muhammad Ali expels Ottoman governor</i></p>	<p>1805-1848 <i>Muhammad Ali Pasha; virtual independence from the Ottoman court, comprehensive efforts to modernise Egypt</i></p> <p>1854-1863 <i>Said Pasha; grants concession to the French to construct the Suez Canal</i></p> <p>1863-1879 <i>Khedive Ismail; construction of European-style districts of Cairo in anticipation of the opening of the Suez Canal in 1869</i></p> <p>1936-1952 <i>Farouk I; deposed and exiled by Revolutionary Command Council</i></p> <p>1952-1953 <i>Ahmad Fouad II; Regency Council rules until 1953, when a republic is declared</i></p>



INTRODUCTION: A COMPREHENSIVE VISION OF URBAN REHABILITATION

Stefano Bianca, Director, Historic Cities Support Programme

The Historic Cities Support Programme (HCSP) was set up in 1991 as the operational branch of the Aga Khan Trust for Culture, with the task of implementing conservation and urban revitalisation projects in culturally significant sites of the Islamic World. Such activities are funded by the Trust itself, as well as by other donor agencies.

At its inception, the Programme's main focus was on individual buildings and public open spaces, but it has since gone a long way towards conceiving and implementing a range of truly integrated urban rehabilitation projects. Whether in Hunza, Zanzibar, Samarkand or Mostar, the emphasis of the past few years has been on building up a critical mass of activities around initial restoration or upgrading projects, i.e., on consolidating the projects by creating a self-supporting contextual framework, not only in physical, but also in social, economic and institutional terms. In doing so, the Programme's abiding concern is to demonstrate that well-handled conservation can spur progress, and that an appropriate development can be used to sustain the rehabilitation of historic districts and strengthen cultural identity.

Reconciling conservation and development is a prerequisite for achieving improvements in the quality of life in environmentally and culturally sensitive places. It calls for the introduction of appropriate new functions, i.e., the re-use of historic structures, in order to generate income for the buildings and for the local community. It also requires the improvement of services and public open spaces, community-supported rehabilitation of historic housing districts and open spaces, creation of employment opportunities and promotion of local crafts. Public awareness can be increased through the very process of project implementation itself, once proper participation mechanisms are established. Training opportunities can be provided, residents' participation encouraged and institutional capacity enhanced. It is through the interaction of such goals and activities that it becomes possible to capture and harness the impulses emanating from individual restoration projects and to generate fresh development impulses – forces that not only sustain the initial projects but often succeed in multiplying the effect of positive change and transformation.

An aerial view of the project site shows the topography of the Azhar Park after master grading (2000). On the edge of the site is the uncovered Ayyubid city wall (12th century) and, to the right, the Darb al-Ahmar district. In the distance, two major landmarks can be seen: to the left, Salah al-Din's Citadel and, to the right, the complex of the Sultan Hassan Mosque.

The array of HCSP projects in Cairo follows this integrated approach and is the Trust's boldest attempt to date to achieve interrelated conservation and development objectives. It is also the most challenging one, due to historic Cairo's towering urban and social problems and complex implementation procedures.

The Trust's involvement in Egypt began with the Aga Khan's decision to donate a park to the citizens of Cairo, following the conference of 11-15 November 1984 entitled "The Expanding Metropolis: Coping with the Urban Growth of Cairo", organised by the Aga Khan Award for Architecture. Soon thereafter, the 30-hectare site on al-Darassa was selected, because of its enormous potential as a "lung" at the very centre of the historic agglomeration. The hilly site is surrounded by the most significant historic districts of Islamic Cairo, all of which are major destinations for visitors to the city. To the west are the Fatimid city and its extension, Darb al-Ahmar, with their wealth of mosques, madrasas and mausolea, signalled by a long line of minarets. To the south is the Sultan Hassan Mosque and its surroundings, as

The future Park site in 1992, before work commenced, looking to the south. In the distance to the left is the Citadel of Salah al-Din and, in the centre, the minarets of the Sultan Hassan Mosque complex.



well as the Ayyubid Citadel. To the east is the Mamluk “City of the Dead”, with its many social welfare complexes sponsored by Mamluk sultans and dignitaries – an area which has developed into a dense neighbourhood of its own. The hilly topography of the site, formed by debris accumulated over centuries, now provides elevated view-points that dominate the city and offer a spectacular 360° panorama over the townscape of historic Cairo. On a clear day one can even see the pyramids.

The implementation of the initial Park project, prepared in the late eighties, was delayed, first because the former occupants of the Darassa site (a horse compound of the Cairo police and a storage site of a major contractor) had to be moved, and then because the area, as the last vacant space in central Cairo, was reclaimed by the General Organisation for Greater Cairo Water Supply (GOGCWS) for the construction of three large water tanks, to be constructed with funding from USAID. In a short period, the status of the site thus shifted from a neglected and derelict condition to a strategic resource for the surrounding neighbourhoods and the entire metropolis.

The future Park site in 1992, looking towards the northeast. In the background is the “City of the Dead”, with the mausolea of many Mamluk sultans and dignitaries, highlighted by domes and minarets.





The southern section of the Ayyubid city wall and the adjacent Mosques of Aq Sunqur (‘Blue Mosque’), and Khayrbek.

Above: Conditions in the 19th century. (David Roberts)

Centre: Conditions in 1992 show the wall buried beneath heaps of rubble and debris.

Below: The wall emerges during the site works in 2000.

Based on a protocol between the Cairo Governorate and AKTC signed in 1990, a new start for the project was made, which now had to integrate the water tanks as part of the Park design. The time prior to the completion of the water tanks in 1995 was used for developing a new master plan, with the help of Sasaki Associates, Boston, for a thorough investigation of the complicated soil conditions and horticultural tests (see chapter 3), and for the operation of a preliminary on-site nursery. Earthworks and mastergrading began in 1997 while the detailed design of the Park continued, with a view to taking best advantage of the site’s opportunities. The aim of the Park design was to provide a lively contrast between flat and hilly sections of the site, formal and informal planting patterns, as well as lush vegetation in focal areas of the plain and dryer stretches on the slope toward the city. The “spine”, which holds the complete Park design together, is a formal axis with a water channel and accompanying alleyways starting at the northern hill above the central water tank and pointing towards the citadel, the key landmark dominating the site. The axis then bends towards the minarets of the old city and leads to a small lake on the large lower plateau of the site. Gardens and pavilions in the classical Islamic tradition, surrounded by geometrically planted orchards, enhance the arrival point on the edge of the lake. A network of informal pathways surrounds the more formal areas and leads through all levels and corners of the site. Together, the various components of the Park design will provide the visitor with a rich and varied experience.

By 1996, when the Trust took over the site from the Cairo Governorate, the Historic Cities Support Programme had developed a more comprehensive approach to urban rehabilitation. Thanks to His Highness the Aga Khan’s vision and support, the Cairo project, initially limited to the Darassa site, was thus gradually extended to include the rehabilitation of the fringe of the adjacent Darb al-Ahmar district and the restoration of a number of key monuments defining the skyline of the historic city as seen from the Park site. This means that the construction of the Park is acting as a catalyst for a whole range of associated rehabilitation projects in its surroundings.

The Darb al-Ahmar rehabilitation projects, presented at the centre of this report, have been planned and designed in order to take advantage of the dramatic reversal of the conditions along the historic city resulting from the Park initiative. A former backyard of the Darb al-Ahmar district, used over centuries for disposal of rubble and debris, the Darassa site

has now, almost overnight, been transformed into a forecourt of the historic city. The dynamic potential released by this sudden turnaround is being channelled and harnessed to underpin an in-depth rehabilitation process in the catchment areas of the Park and along the main pedestrian accesses through the old city. In the long term, the rehabilitation process also needs to be sustained by co-ordinated actions in specific focal areas, thus allowing the rehabilitation process to radiate into adjacent zones of the old city. The specific programmes developed for Darb al-Ahmar are far from being limited to the conservation of monuments or physical upgrading. They deliberately associate and interrelate physical interventions with socio-economic development, training, community participation, institutional capacity-building and creation of new employment, thus maximising the economic dividends from the Trust's involvement in the area for the local residents. The keystone of this combined conservation and development strategy will be the establishment of a local "Darb al-Ahmar Development Corporation", as a vehicle for continued involvement of all stakeholders in the area. The Trust was fortunate to find other donors, such as the Egyptian-Swiss Development Fund and the Ford Foundation, who subscribed to the combined physical and socio-economic rehabilitation and are generously supporting the current activities.

During the massive re-grading of the western Park slope descending towards Darb al-Ahmar, the formerly buried Ayyubid city wall of Cairo was re-discovered and partly excavated along the western edge of the historic city. This wall, with its gates, towers, and interior chambers and galleries, is in itself one of the most important archaeological discoveries of the past decades relating to the Islamic period in Egypt. Moreover, it will form a distinctive third element between the Park and Darb al-Ahmar, providing an interesting enclosure and backdrop for the Park, as well as a monument which can be visited. It physically separates the Park from Darb al-Ahmar and the old city, but also acts as an attractive visual and functional connection, offering opportunities to visitors to enter the city from the Park, and vice-versa.

While being an architectural feature in its own right, the city wall cannot be dissociated from the abutting Darb al-Ahmar district. Over the centuries, the houses and monuments built against the wall on the city side became an integral part of Cairo's urban and social history. Selective removal of encroaching elements is being undertaken, but a wholesale demolition of the historic housing stock attached to the



The central section of the Ayyubid city wall.

Above: The Park site as it appeared in a photograph from the 1920s.

Centre: Conditions as encountered in 1992.

Below: Conditions in 2000, after master grading of the Park.



A small square in front of the Aslam Mosque, adjacent to the Ayyubid city wall. Demolition of the houses between the wall and the square and the introduction of a large new road would destroy the social fabric and the cultural value of this place. (See also illustration on p. 52/53.)

city wall would contradict today's prevailing international conservation philosophy and practice, and might introduce undesirable and dangerous development pressures. Therefore, the project made a careful plot-by-plot study along the Historic Wall, defining appropriate modes of intervention for each building within the larger framework of the Darb al-Ahmar conservation and rehabilitation plan. The goal is to take advantage of the stimulus of the upgrading brought by the Park and at the same time impose clear building regulations and redevelopment models, in order to achieve a balanced rehabilitation process on this critical edge of the city facing the Park.

Apart from the Park project, the Historic Wall and the Darb al-Ahmar rehabilitation project, a fourth component proposed to the Cairo Governorate is an "Urban Plaza" development on the north-eastern corner of the site, adjacent to the busy al-Azhar road. This portion of the site, easily accessible and close to the Khan al-Khalili markets, has obvious commercial potential, while it is too separate from the upper Park plateau and too noisy to be part of the landscaped areas. A commercial building with shops, offices and an integrated car-parking facility was proposed for the site. Considering the demand for car-parking space in this zone of the city and the opportunity to create an income-generating commercial facility to support future Park maintenance and enhancements, the Cairo Governorate accepted the basic concept.

The planning of this area, however, was complicated by the discovery of the totally buried northern section of the Historic Wall. Following its excavation, the HCSP project team suggested shifting the site of the Urban Plaza slightly eastwards, to the northern edge of the Park site, as now shown in the revised master plan (see page 27). The basic idea of establishing a combined commercial and parking complex on the urban edge of the Park has thus been retained. It will enable the future operation, maintenance and enhancement of the Park to rely on an additional source of income (other than the entry tickets) and to become self-sustainable by adapting a well-known traditional concept in Muslim societies – the "waqf" model used for important public facilities donated to the community. The same idea is behind the inclusion of income-generating facilities within the Park, such as the hilltop restaurant and the lake-side café, which enhance particular areas of the Park and provide additional attractions for visitors.

To conclude this brief overview of AKTC activities in Cairo, it should be mentioned that the Trust, in co-operation with the World Monuments Fund, New York, is also engaged in the restoration of a number of key monuments in the area, such as the Umm Sultan Shaban Mosque and the Khayrbek complex, which are in many ways related to the Park, to Darb al-Ahmar and to the historic Ayyubid wall. These projects, through the reconstruction of the missing top section of the respective minarets, are essential for preserving the historic skyline of Cairo, as seen from the hills of the Park. Through the re-use of restored building components and improved public open spaces, they will contribute to the revitalisation of the Darb al-Ahmar district. Moreover, they will provide attractive transition spaces leading from the Park, through the wall and into the old city, thereby allowing visitors to experience the Historic Wall from both sides.

By bringing together and interrelating all the activities outlined in this introduction, the Cairo project clearly stands out as the most complex, important and significant component of the Historic Cities Support Programme. The Park project itself is in many ways a unique undertaking. The restoration of the Ayyubid wall is an equally distinctive endeavour, particularly considering its intermediate location between the Park and the historic city. The Darb al-Ahmar initiatives are somewhat different, inasmuch as they involve a *process*, rather than finite building activities. Thus they fall more in line with the typical urban rehabilitation approach now being pursued by the Programme. By the very fact of linking area-wide physical rehabilitation with socio-economic development, they assume an exploratory pilot role for future HCSP activities.

While all the works on the various components of the project are ongoing at the time this brochure is being published, I wish to express my deep gratitude to the entire technical team of Aga Khan Cultural Services- Egypt (AKCS-E), the Trust's implementing agency. Under the leadership of Ossama Hambazaza (Park project) and Mohammed el-Mikawi (Darb al-Ahmar), the dedicated staff has accomplished an enormous amount of work over all these years of exploration, preparatory studies and first steps of implementation. Unfortunately, it is impossible here to mention individually all those who have contributed, but the last page of the brochure features the names of the principal staff members and consultants who have been involved over the years.



Schematic design for the “Urban Plaza” (1), on the northern edge of the Park site. The triangle along al-Azhar Street (2), with the newly discovered section of the Ayyubid wall, is to become a sunken archaeological park. A proposed rearrangement of vehicular service access into Darb al-Ahmar will allow the creation of a pedestrian zone along the northern end of the excavated Ayyubid wall (3).



CONVERTING A DERELICT SITE INTO AN URBAN PARK

Cameron Rashti, Project Manager, Historic Cities Support Programme,
and Maher Stino, Sites International

The ever-expanding city of Cairo sits mainly on an alluvial plain atop a layer of unconsolidated sediment, transported over the millennia by the river Nile. Historic Cairo was founded in the relatively narrow floodplain valley between the Nile and a neighbouring limestone escarpment, the Moqattam Hills (150 metres above sea level), which follow a northeast-southwest course to the east of the river. Various dynasties developed subsequent urban centres, always on the eastern riverbank.

Between the alluvial plains and the Moqattam Hills rests an intermediate zone, a structural plain of sandstone, quartzite and calcareous clay. Within this plain, which stretches further to the north and to the east, several special landforms have developed, including isolated hills, elongated ridges and petrified forests, shifting sand accumulations and shallow dry drainage courses (wadis). As Cairo continues to expand along its eastern and southern edges, the city increasingly extends beyond the edge of the alluvial plain and its historic setting, into this structural plain. The Park site falls at the eastern border of the alluvial plain, overlooked by the nearby escarpments.

Since the founding of Cairo, the cyclical collapse and demolition of man-made structures have added vast amounts of debris to the overall amount of fill upon which the city rests. The large-scale deposit of such fill in physically discrete zones at the edges of the expanding city seems to have been an early practice. The cycle of building decay and demolition and subsequent removal of fill on to the heaps east of the city walls intensified after the end of the Mamluk period, i.e., the early sixteenth century.

A description by the French traveller de Thevenot mentions, as early as 1652, the heights of debris, which nearly hid the high walls surrounding the old city of Cairo. During the Ottoman era (beginning in 1517), urban growth is described as having been vigorous on the western side of Cairo, while decay was underway on the east. Maps prepared by the French Expedition at the start of the nineteenth century graphically confirm large and well-established tracts of man-made hills immediately east of the Ayyubid wall and north of the Citadel and Bab al-Wazir cemetery.

Master grading and consolidation of the critical western slope of the future Azhar Park descending towards the uncovered Ayyubid wall. In the background, the silhouette of the mighty Sultan Hassan Mosque complex.

Today, the most visible zone is the Darassa site, east of the old city, with its hills running northwards, where layers up to 20 to 40 metres thick have been found, intercalated with salt and clay layers of the Nile floodplain. Thus, considerable geological and man-made environmental pressures have jointly established – over millennia, in the one case, and over centuries, in the other – the essential physical setting of what eventually became the Park site.

PREPARING THE SITE

The southernmost water tank in 1994, during the final stage of construction. Further southwards, on the left, a view of the Citadel of Salah ed-Din with the late-Ottoman-style Muhammad Ali Mosque on a spur of the Muqattam plateau.

Given the request from the General Organisation of Greater Cairo Water Supply (GOGCWS) to use the site for the construction of three large drinking-water reservoirs (each 80 metres in diameter) and a pumping station prior to Park construction, site preparation was far from straightforward. Significant piling and soil works were required to construct the reservoir system, which was completed in 1996. The insertion of this water reservoir system inevitably created an additional set of constraints in terms of the risks of damage to the infrastructure



and the necessity to provide maintenance access to the reservoir tanks and distribution lines, including a main transmission line (diameter 1.4 metres), which runs parallel to Saleh Salem Street. A set of design guidelines was eventually prepared by the reservoir authorities for areas of interface between the Park design and the reservoir system.

Many of the opportunities offered by the site derive from its neglect over the centuries as an area purposely excluded from the living urban fabric of Old Cairo. Foremost amongst these was the decision to fix the boundary of Fatimid Cairo along the eastern edge of the floodplain in this area of the valley. A massive defensive wall system, exceeding 1,300 metres in length along the eastern perimeter of the city, represented the new urban edge, later extended by the Ayyubids in the early thirteenth century. It is this wall which, de Thevenot noted, was obscured by rising mounds of rubble. Following a major programme of debris removal and master grading by the Trust, involving the excavation and offsite disposal of more than one million cubic metres of fill, the aspect of the site has been radically changed and a magnificent civic monument

An aerial view of the southern water tank in 1999 (seen from the south), being integrated into the emerging new Park topography. At the bottom, in the centre, a prototype of typical pavements, pergolas and water features of the future Park main spine.



The Master Plan of the Azhar Park displays the various landscaping approaches used, each of which responds to the characteristics of the site. The “spine” of the plan is the formal axis descending southwards from the northern hill (right) and pointing towards the Citadel. It features a sequence of formal gardens, the most elaborate of which is on the top of the central water reservoir. The spine then turns westwards into the southern lower plain of the site, which leads to the lakeside café, offering a spectacular view of the old city.

has been returned to the city. Excavation of debris to depths of 7-8 metres along the eastern face of this wall and the discovery and exposure of a buried 300-metre extension of the wall along the north have raised renewed interest in the archaeological richness of this part of Cairo. This, in turn, fostered the idea of utilising the Park project not only as public green space but also as a panoramic platform, to view and re-interpret the built heritage of Old Cairo. Large areas of the Park sit over 20 metres above the Darb al-Ahmar district, while the peaks of the Park hills exceed it by around 40 metres.

Master grading of the western half of the site from the high fixed points of hills (+74/+77 metres) and reservoir tank-tops (+66 metres) to the lowest point of the Historic Wall (+31.5 metres) has eased the steepness of the original slopes. In the process, the western Park slopes have been altered from an original 1:1 to a more practical 3:1 to 2:1 incline. Yet, even at these modified angles, they remain problematic with regard to the wall below, and design solutions have accordingly necessitated



attention to slope stability, planting, techniques, irrigation and drainage. During the concept phase, extensive tests on the physical properties of the soil led to the classification of the site fill as being very silty and compressible (gravelly-silty sand found in a very loose state with a low degree of saturation), with an extremely low level of water absorbency. While variable across the site, the fill had been laid over the years without proper compaction. Under light loads and the absence of water, the fill undergoes moderate settlement; upon wetting, the fill compresses under its own weight. While the fill might repose at a 2:1 and even 1:1 slope in large areas, more than moderate loads and the introduction of water were considered capable of destabilising such slopes. For this reason, the construction of the reservoir system had to resort to deep piles down to natural sands for support of all but minor pipes. It was determined, early in the project, that all but the lightest structures would need piling support. A number of strategies were developed to overcome the inherent difficulties of the site soils to support hardscaped and planted areas. While major buildings would

On the southern plain, the spine is flanked by garden courtyards and geometric orchards in the Islamic tradition. The hills and slopes of the Park are accessible through an “organic” system of walkways with associated vegetation, shade and resting places. The northwestern slope is treated as a low maintenance dry landscape in order to stabilise the soil while minimising needs for irrigation. The three tank tops are enhanced by special features. The northern tank, for example, serves as a children’s playground.





Extensive preparation and earth moving was necessary to prepare the Park site.

clearly require piling or raft foundation support, a technique involving the partial excavation and replacement of soil in compacted layers of “structural fill”, to depths of 2-3 metres, was found to be sufficient for support of hardscape areas. To further minimise chances of settlement, due to the infiltration of water from planted zones, an impervious barrier (consisting of a 30-50 centimetre thick stratum of clayey soil) was provided below the compacted layer. Ingredients for the structural fill could be obtained from the original fill itself. This, in turn, justified the removal of a further layer of 1-2 metres (or approximately 600,000 cubic metres) of the existing soil material in the future planted zones for replacement with a similar barrier and improved soils. Isolation of the irrigated top zone, combined with systems of controlled irrigation and below-grade drainage, will enable the planted area to operate independently of the older, underlying layers of fill. Wetting agents and mixtures of imported sand and agricultural soil will further improve the physical soil properties.



HORTICULTURAL ISSUES

Cairo and most of Egypt fall within an extremely arid climate belt, which extends westward across the North African desert. It is the river, the sustenance of much of Egypt and Cairo, that allows the Nile valley to avoid the harshness of extremely arid climates. Nevertheless, the realities of seasonal high temperatures, low humidity, scant rainfall and desert winds impose severe criteria for planting systems. A plentiful and reliable source of irrigation water is of critical importance to man-made gardens in any arid climate. The existence of a pipeline supplying water from the Nile within the adjacent Salah Salem Street, on the east of the site, was a major asset. Realising the growing pressures on available water supplies in the region, irrigation system efficiency and the goal of moderating total consumption by selective usage of dryscape plants have been set as high priorities.

Despite these climatic extremes, Egypt boasts a wide range of native plants and trees, including dry landscape and desert species. The Azhar Park project has coincided with a recent phase of significant research and development projects involving desert reclamation, the introduction and application of new irrigation techniques and the expansion of commercial farming in Egypt. While landscape architecture in Egypt is still struggling for its rightful position as a speciality apart from horticultural engineering, the level of public and private interest in and involvement with horticultural issues is significant and growing. The Park project presented a special horticultural case in which highly unusual, man-made environmental conditions were superimposed over the normal constraints found on arid climate sites. Accordingly, the task of greening the site posed unique questions and challenges to the landscape architecture and the horticultural team.

A series of chemical property tests confirmed low levels of nutrients, slight-to-high levels of alkalinity (pH values from 7.2 to 8.5), and exceedingly high levels of salinity and CaCO_3 content. Initial testing of existing soil and mixtures with various additives, carried out over several months in the early investigative phases, demonstrated that a reasonable range of plant types could survive with appropriate conditioning of the soil medium. In order to support other than solely xerophytic plant types, which can survive in drought-like conditions and tolerate highly saline soil conditions, a programme of soil improvement including additives (sand, agricultural soils, gypsum),



*The off-site nursery
uses sophisticated pump and
irrigation methods to propagate
plants for the Park.*



Above: Water is delivered individually to each plant at the Park's off-site nursery.

Below: Pilot strip of dry landscaping on the western slope descending towards the Ayyubid wall.

nutrients, and salt flushing by initial irrigation was proposed and tested on site. Planting prototypes were established on both flat and highly sloped areas to test these options. Feedback from both horticultural and prototype planted areas was an essential part of the Park's landscape design methodology.

With approximately two-thirds of the site scheduled to be covered by plantings of various types, sources of sufficient plant stock for 210,000 to 220,000 m² of ground cover became a significant issue. Despite the presence of some commercial nurseries, a decision was taken to establish a limited on-site nursery for the above-described horticultural testing and a larger, off-site nursery for propagation of the main stock. In an important example of co-operation, the American University in Cairo (AUC) made available to the project a plot of 20 hectares in their desert agricultural research centre in South Tahrir over a multi-year period for cultivation as the Park nursery. Initiated in early 1998, the nursery had yielded most of the required species and quantities by



mid-2000. Nursery experiments and test planting on site have taught the team the appropriate ways of responding to the unique conditions of the Park site.

PARK DESIGN AND SPECIAL FACILITIES

Due to size and centrality, the Azhar Park is expected to fulfil a vital function in expanding park and green space available to the public in Greater Cairo, the population of which stood close to 16 million in 2000. It is anticipated that the Park will attract visitors from other regions as well. The total annual number of visitors is projected to reach as many as 1.5 million in the initial years.

The Park's conceptual design as developed by the consultant, Sites International, Cairo, sought to make maximum and skilful use of the site location, elevated topography and unique vistas overlooking historic Cairo. Generously dimensioned pedestrian paths follow the contours



Plants, pavement prototypes and Park fixtures being tested on-site.





Above: Lower canopy trees behind the main spine, with secondary walkways, sitting bays and green niches.

Below: The main spine with a central water channel and fountains, flanked by royal palm trees. (Renderings by Sites International)

in most areas, allowing for comfortable circuits throughout the entire Park site. An important exception to the curvilinear path system occurs along the main promenade, off the eastern entry gate. Here a formal promenade runs along a straight but descending course from a restaurant on the northern hill, through the centre of the central water-tank top, and continues 250 metres southward on an axis with the Citadel complex to the south. This processional path measures eight metres wide and is to be flanked on both sides by two rows of royal palms and parallel side paths, with lateral niches for seating.

At an *étoile*, at the southern extreme of this path, the main promenade turns in a south-western direction, passing through a compartmentalised, formal garden and then to a lakeside pavilion-café overlooking a large lake. The outer zones of the plain feature an orchard (*bustan*) which will provide shade, a stimulating variety of flowering and fruit trees and further room to stroll. The main promenade and series of formal gardens are anchored at each end by the hilltop restaurant and lakeside pavilion, which provide internal landmarks for the Park. Water features provides an additional, traditional theme from Islamic gardens, tying



this central pathway together along its entire length. Dispersed fountains, pools and carefully confined water channels lead, ultimately, to the more informal lake configuration in the southern meadow.

The terrain in the western half of the park consists predominantly of slopes with a gradient between 3:1 and 2:1, as described above. A continuous pathway has been carved into the hillside at approximately mid-height (+55 metres) between the walkway along the Historic Wall (+35/+39 metres) and the summits of the hills (+74 metres), providing lateral access at points to the eastern half. The western hillside will be covered with flowering and succulent plants with luxuriant tones. Views from the many vantage points along the west, across these slopes and the restored historic wall to Old Cairo with its beguiling constellation of major monuments and their domes and minarets will be captivating for residents and visitors to Cairo alike.

The sensitive and purposeful integration of the recently constructed reservoir tank-tops into the surrounding Park plan has been an important design priority from the start. Consultation with engineers of the Greater



Above: Atop the southern water tank a grove of shade trees and water channels.

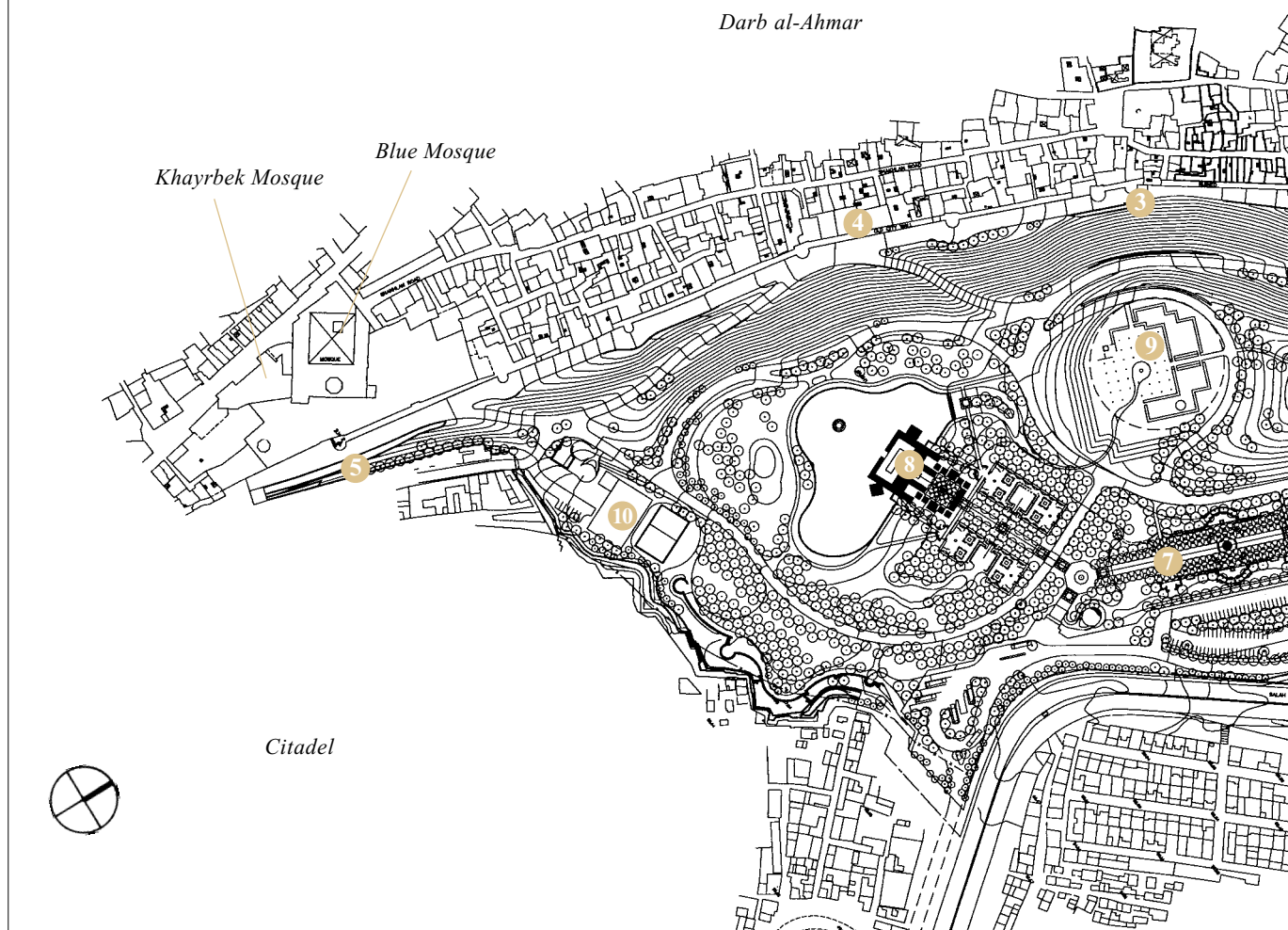
Below: "Sunken gardens" leading towards the lakeside café.

(Renderings by Sites International)

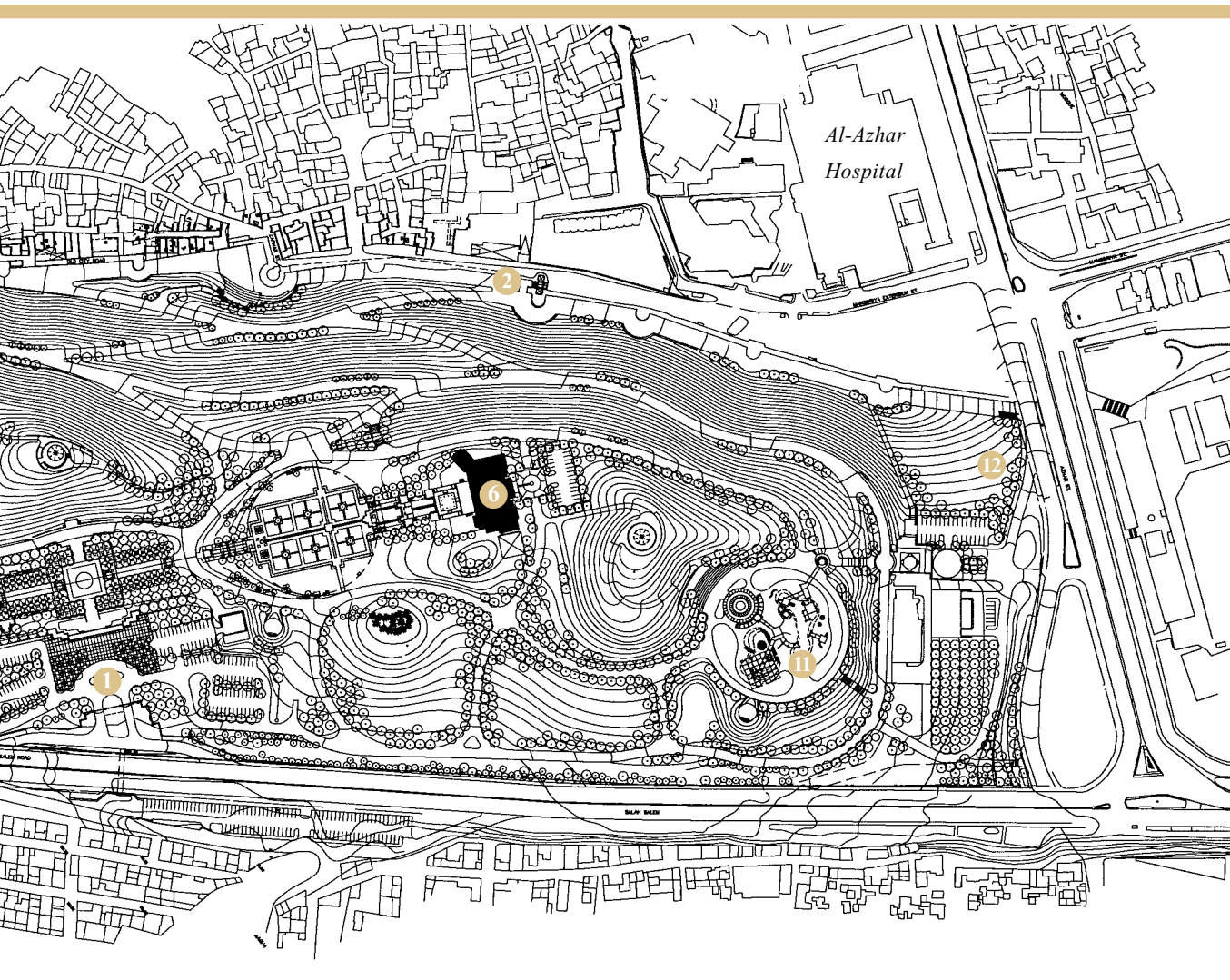


- 1 Main entrance from Salah Salem Road.
- 2 Side entrance through rediscovered city gate in the Ayyubid wall (Bab al-Barqiyya).
- 3 Connection with Darb al-Ahmar via old city gate and Aslam Square.
- 4 Proposed community centre and Park administration in the rehabilitated Darb Shoughlan School (p. 41). This location will connect the Park and the old city, visitors being led through the internal chambers of the Ayyubid wall.
- 5 Connection towards Bab al-Wazir area, the Citadel and Sultan Hassan complex, as well as a way of entering the courtyard behind the Khayrbek Mosque (p. 40).
- 6 Hilltop restaurant with sweeping views of Cairo's major landmarks.

Master Plan



- 7 *Main spine on the plateau connecting both the restaurant facility and the lakeside café.*
- 8 *Lakeside café with courtyards and orchards in the Islamic tradition.*
- 9 *Viewing platform and gardens on the southern tank top, offering a panorama of historic Cairo.*
- 10 *Community sports complex, for residents of the Darb al-Ahmar and local youth clubs.*
- 11 *Children's playground on the northern tank top.*
- 12 *Preferred site of Urban Plaza now under study. (see p. 13).*





The interior courtyard of the hilltop restaurant. (Renderings by Rami el-Dahan and Soheir Farid)

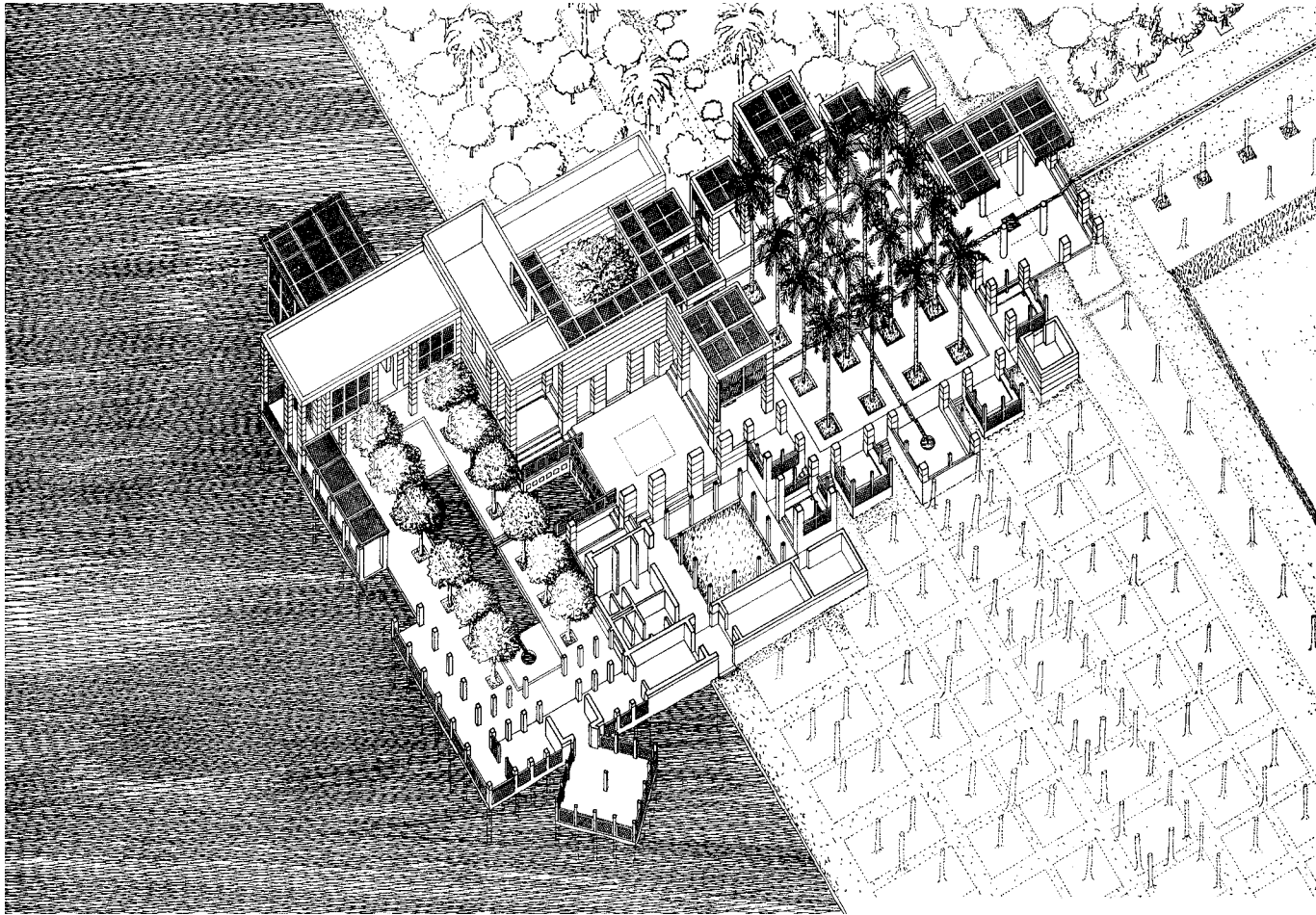
Organisation of General Cairo Water Supply (GOGCWS) during the design phase of both projects resulted in reinforcement of the reservoir structures to accommodate defined loads for planting and hardscape on each tank-top. With such loads and maintenance and access requirements taken into account, the Park design foresees a sitting area under trees on the south tank-top, with views out over the city. The central tank-top, in line with the main promenade, will contain a formal garden symmetrically sub-divided into a rich geometric design of landscaped zones. The northern tank-top, easily accessed from the main Park as well as from al-Azhar Street from the north, will serve as a children's play area.

The Park vegetation will vary from succulent desert plants on the western slopes to lush, grassy meadows with shade trees, to formal gardens and, finally, to *bustan*-like orchard spaces. The variety of species, particularly native Egyptian plants, will aim at establishing a new benchmark for park spaces in the region.

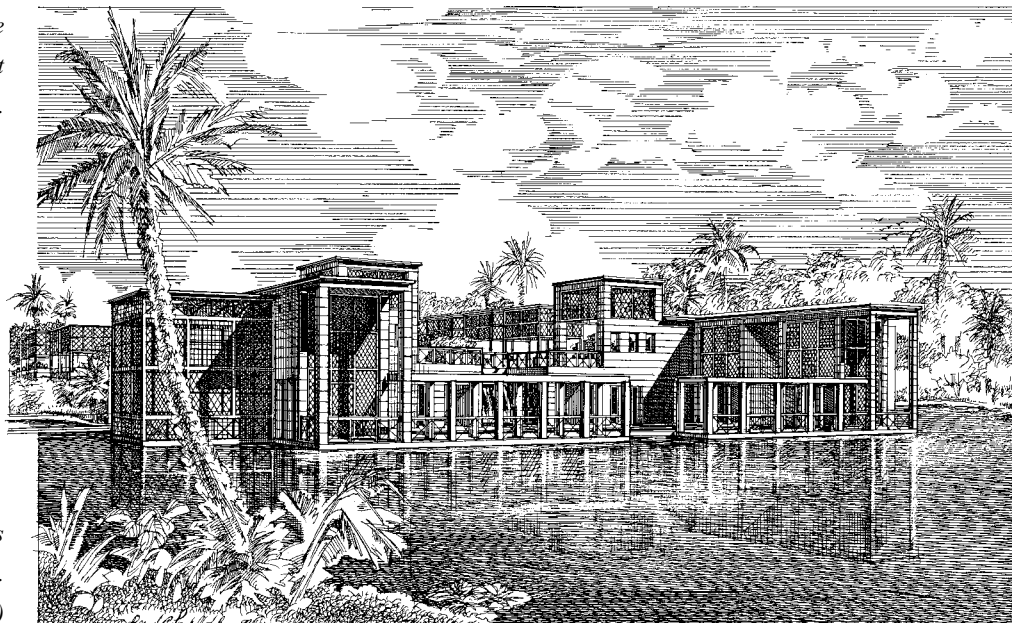
The entrance to the hilltop restaurant. (Renderings by Rami el-Dahan and Soheir Farid)

During the course of the development of the Park, a number of important architectural features and facilities were included to cater to the needs of all types of visitors. Their design involved the search for a creative relationship between the key architectural features – the hilltop restaurant, the lakeside café, and various plazas – and the architecture of old Cairo. Eventually, this inquiry was taken to the level of a design





Axonometric view of the lakeside pavilion, designed by architect Serge Santelli.

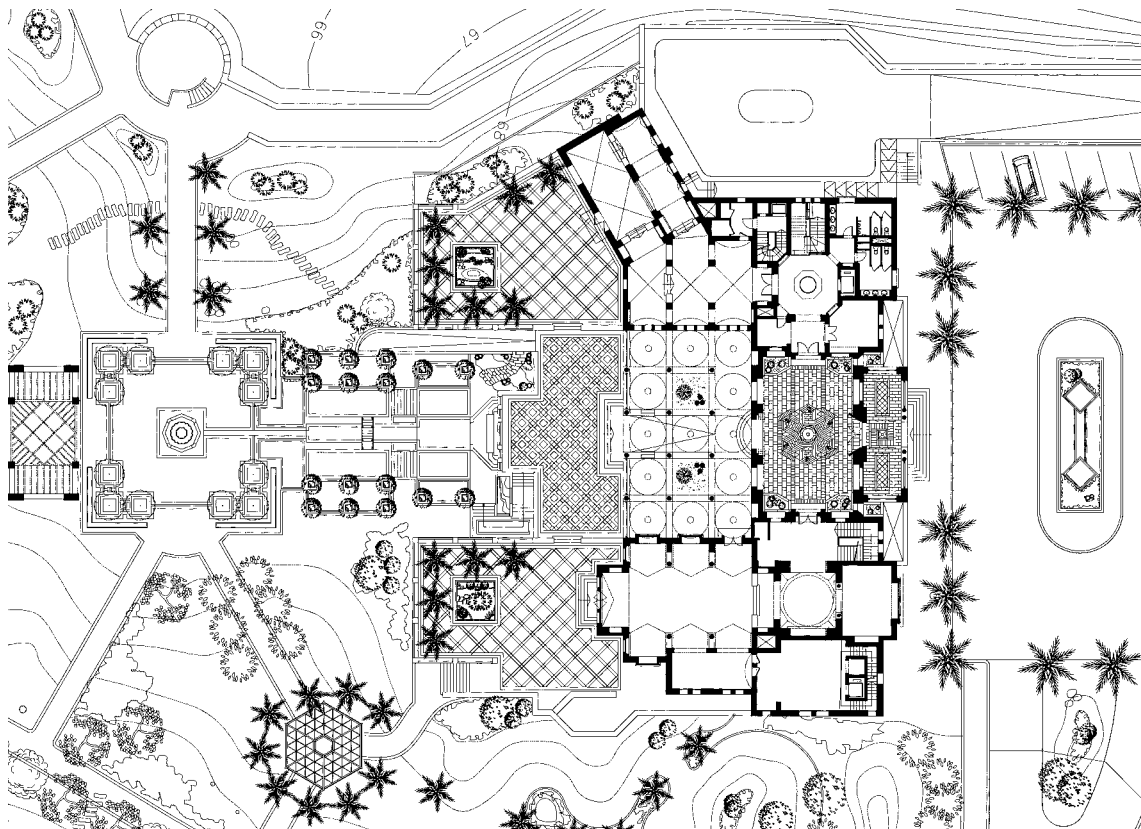


*Perspective of the lakeside café, as seen from the lake.
(Rendering by Serge Santelli)*

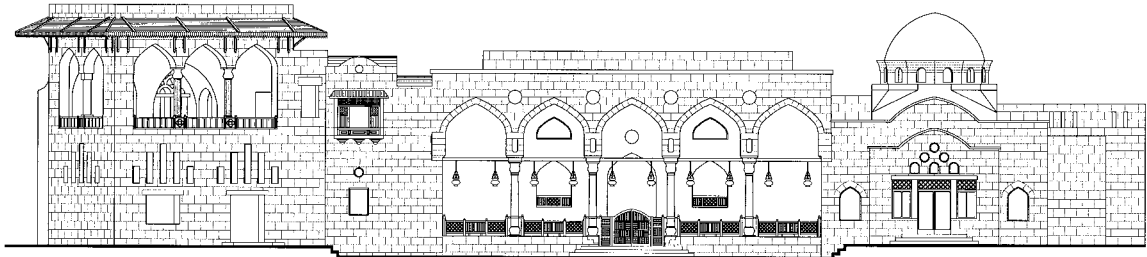
Below and opposite: The general plan and sections of the hilltop restaurant complex designed by architects Rami el-Dahan and Soheir Farid.

competition for the restaurant facilities, the outcome of which has led to the appointment of design architects for each facility, working in close co-ordination with the Park architect. In different ways, the designs of these structures are all informed by, or respond to, principles of traditional Cairene architecture.

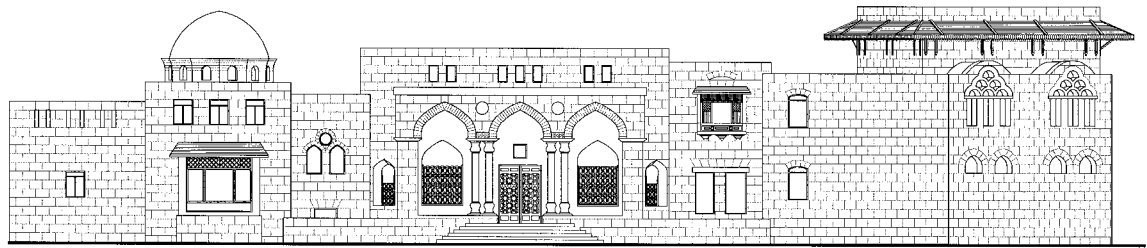
The Hilltop Restaurant: Designed by architects Rami el-Dahan and Soheir Farid, the architecture of this building is clearly inspired by Fatimid archways. Its mostly vaulted spaces provide a traditional shell for the various dining or exhibition zones which are articulated around a central hall and include many features reminiscent of traditional Cairene architecture. The drawings show an almost symmetrical layout: the central axis, running from north to south, passes through an entrance palm court, an entry portico and a shaded sitting area (*takhtaboush*), before arriving at a terraced garden. From there, it continues, at a



Restaurant South Elevation



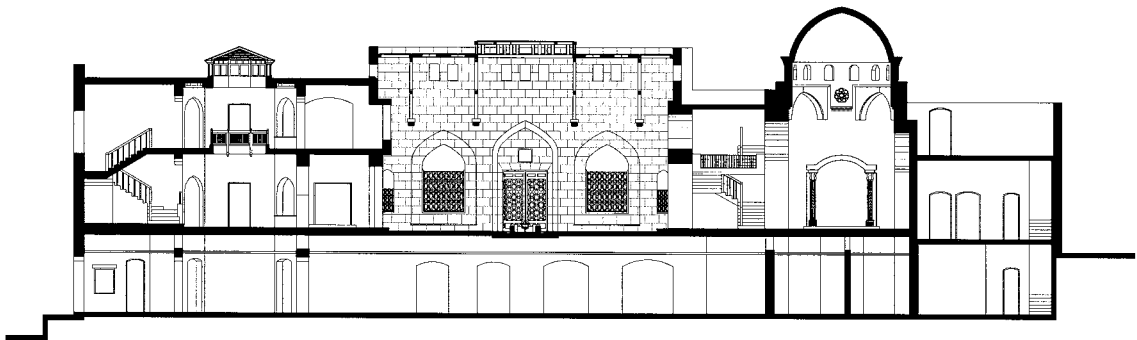
Restaurant North Elevation



Section through Entrance

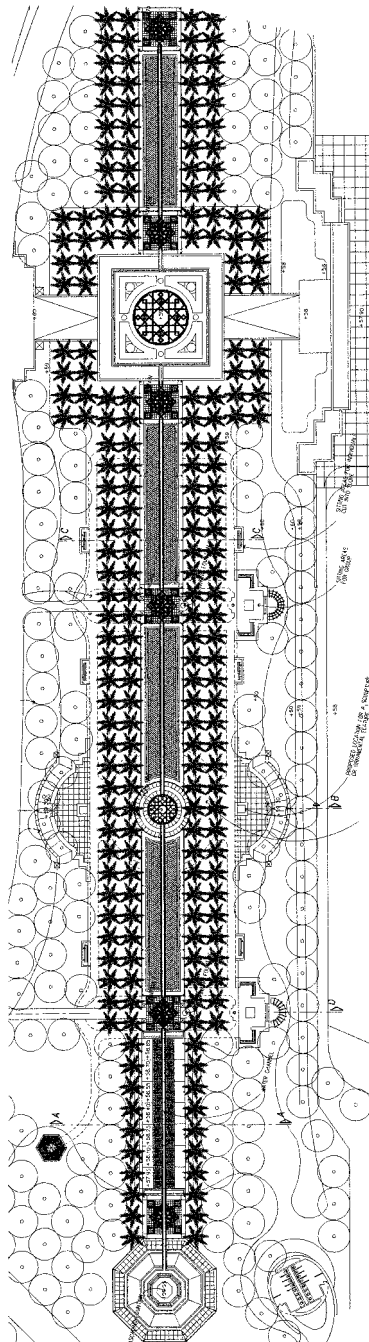


Section through Restaurant and West Wing



0 1.5m 3m 6m
Scale 1/150

Below: The main spine connecting the restaurant and the lakeside café designed by Sites International.



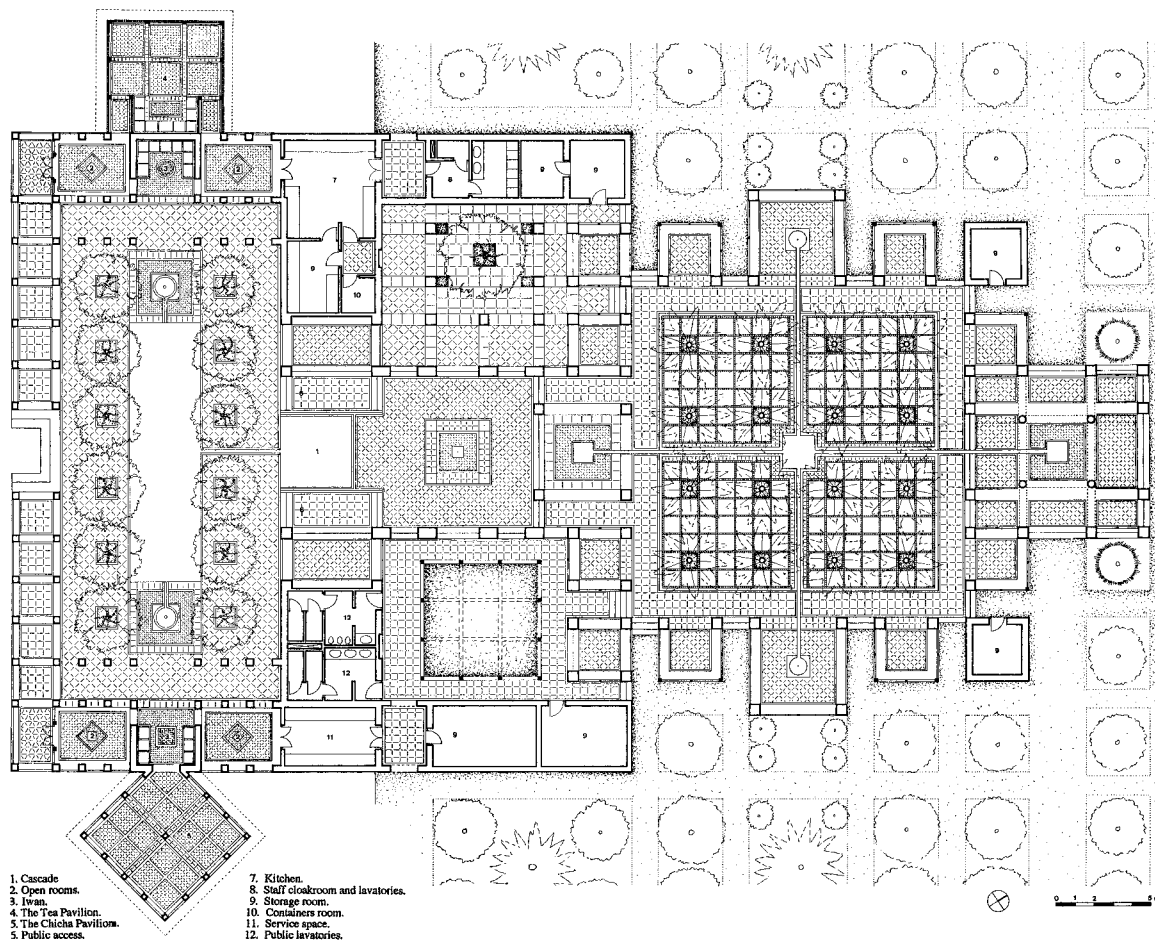
lower level, in the Park's main promenade, opening sweeping vistas onto the Citadel complex, one of Cairo's landmarks. Access to the building will be via the Park main entry and along an internal access drive. A dedicated zone for car parking will be provided across from the restaurant entrance, and there will also be valet parking in the main bays off the Park entrance.

The Lakeside Café and Pavilion: The design of the lakeside café, prepared by architect Serge Santelli, is more abstract in its interpretation of historic Cairene architecture. It is based on a composition of highly geometric pavilions placed in different rectangular patterns. On the east side of the complex, the pavilions enclose a square palm court with a central fountain and crossing water channels inspired by classical Islamic gardens. Here, informal shaded sitting space is provided for Park visitors, who can relax and enjoy beverages without cover charges. Through an intermediate space, visitors then reach the elongated poolside café "floating" above the lake. This zone provides more formal restaurant space and is further defined by two larger, square pavilions at each end of the poolside terrace. The pavilions and adjacent rooms will have enclosing screens with intricate detail inspired from traditional *mashrabiyya* panels. While providing ample shade and attractive courtyard areas, the whole complex can be considered an indoor-outdoor space. It is consistently extended by formal gardens, which are embedded in the orchard scheme covering most of the plain in the southern end of the Park.

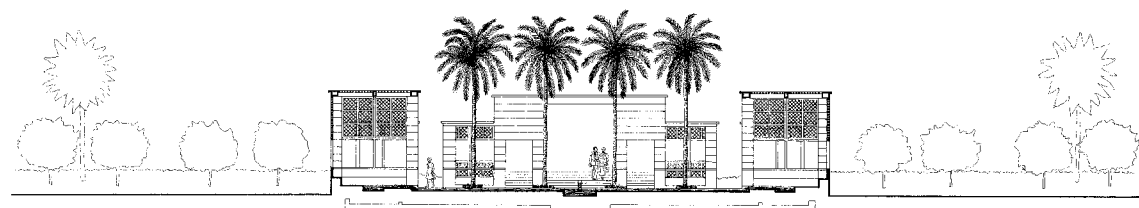
The above facilities, forming the architectural highlights of the Park and benefiting from magnificent views, will constitute major attractions for residents of Cairo and foreign visitors alike. They will contribute to the metamorphosis of a former barren site into a lively destination point worthy of the history and the unique cultural experience of the capital of Egypt.

Opposite: The general plan and cross-sections of the lakeside café and terraces designed by architect Serge Santelli.

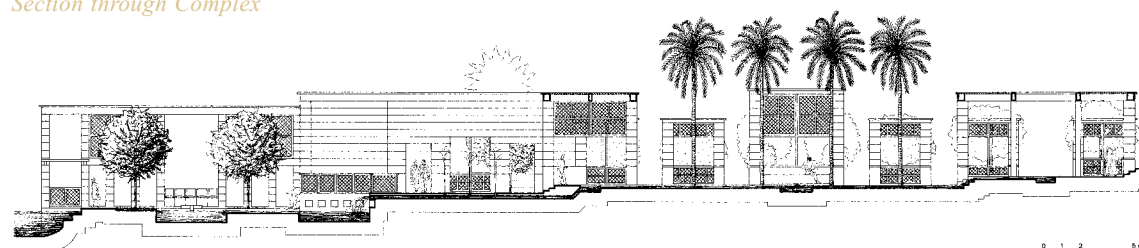
Plan of the Lakeside Café



Section through Garden



Section through Complex





REVERSING THE DECLINE OF A HISTORIC DISTRICT

Francesco Siravo, Senior Project Officer, Historic Cities Support Programme

Darb al-Ahmar is a densely built urban triangle in the heart of Islamic Cairo. It is located near the prestigious al-Azhar Mosque and the popular Khan al-Khalili, historic Cairo's principal bazaar, and is bordered by the Azhar Street, the Darassa hills and the north-south spine of Darb al-Ahmar Street. Today, the area is the focus of much public interest, and is on the verge of major changes induced by a number of large-scale projects, such as the construction of the Azhar Street tunnel and pedestrian square between al-Azhar and al-Hussein, the development of new parking and commercial facilities near al-Hussein Hospital ("Urban Plaza") and, last but not least, the creation of the 30-hectare Azhar Park on the Darassa hills, a strategic location between the Fatimid city, the Mamluk cemeteries and the Citadel.

Furthermore, the old city has recently become the focus of more and more restoration projects, thanks to an ambitious programme financed with a special fund granted by President Mubarak and implemented by the Egyptian Ministry of Culture. This programme includes some 50 monuments in the heart of the old city, some of them close to Darb al-Ahmar. In Darb al-Ahmar itself, the Aga Khan Trust for Culture has initiated the restoration of the thirteenth century Ayyubid city wall and a number of other monuments described in this chapter.

These developments will dramatically improve the image and importance of the old city of Cairo over the course of the next several years. They are indeed expected to attract many new visitors and bring significant economic benefits to Darb al-Ahmar. But they also present serious risks for an area which is both socially and environmentally fragile. Unless held in check and properly channelled through a conscious planning effort, speculative pressure may soon result in a pattern of uncontrolled development in the area, leading to the expulsion of both the current residents and the existing activities, and thus paving the way for a total substitution of the traditional urban fabric. The common, though incorrect, perception of Darb al-Ahmar as a haven for crime and drug-related activity may also sustain radical concepts of intervention aimed at clearing and sanitising the district, thus further contributing to irreversible transformation. Awareness of these potential risks prompted AKTC to initiate, in parallel with the

Rooftop view of the Aslam neighbourhood in Darb al-Ahmar illustrating the dense existing housing fabric, much of which is in poor condition and in need of upgrading.



View of the main spine of Darb al-Ahmar; taken in the 1920s and, opposite (p. 37), a typical neighbourhood street as it appears today.

strategic programme, a plan of action to guide future interventions in the district.

ISSUES AND OPPORTUNITIES

Darb al-Ahmar suffers from the weaknesses commonly found throughout Islamic Cairo (and many other historic city centres in developing countries), the combined result of a series of social, economic and physical factors:

- Low family incomes and an economic base that often lags behind development in newer parts of Cairo;
- A deteriorating housing core resulting from unrealistic planning constraints, pending demolition orders, limited access to credit and widespread insecurity of tenure;
- Continued deterioration of monuments and historic structures;
- The consequences of the 1992 earthquake and a lack of public investment and regular upkeep of city infrastructure; and
- The absence of essential community facilities and services.

But the district also has significant strengths and opportunities that are the source of the area's vibrant character. These strengths are the result of the district's closely integrated physical and social fabric, namely:

- A traditional layout and pedestrian orientation where housing, open spaces, commerce, mosques and places of social gathering are integrated and create a highly cohesive urban environment;
- An outstanding collection of mediaeval monuments and historic buildings;
- A dense residential core where neighbours help and depend upon each other;
- A well-established community with a population largely employed in productive activities; and
- An important pool of skilled workers and small enterprises.

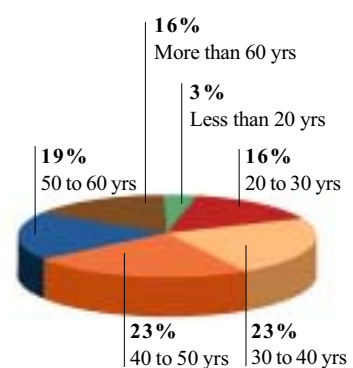
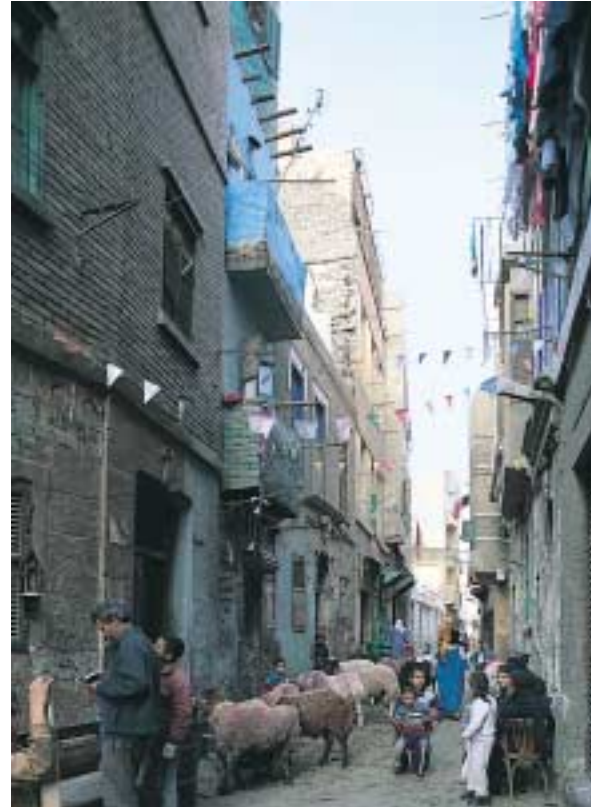
These positive characteristics defy commonly accepted stereotypes of Darb al-Ahmar, which is often perceived as a slum area where residents are presumed to be recent immigrants occupied in marginal activities, and where traditional values and a sense of community are supposedly lacking. Very much to the contrary, AKTC's survey shows

that most adults are gainfully employed and that crime in the district is negligible. Furthermore, over 60% of the people have lived in the area for thirty years or more, and almost 20% have been there for more than fifty years. Length of residence was found to be the result not of necessity, but of choice. Most inhabitants feel comfortable and safe in their neighbourhoods. They cite the proximity of family and mosques, as well as the support of their neighbours, as reasons to stay in the area, thus highlighting the very traditional values and sense of community which are said to be lacking. Most importantly, residents view Darb al-Ahmar as their permanent home and are ready to invest their own resources to improve their living conditions. The survey thus demonstrates that the essential pre-conditions needed to implement a housing rehabilitation and economic revitalisation programme exist, and that such a programme can be firmly based on the district's social setting and local resources.

STRATEGIC ACTIONS AND PILOT INTERVENTIONS

Awareness of these positive factors, but also of the area's inherent risks and weaknesses, prompted AKTC to extend its planning efforts into Darb al-Ahmar. In co-operation with institutional partners and local NGOs, both general issues and specific concerns were discussed with national and municipal institutions, neighbourhood representatives, local businessmen as well as with people living and working in the area.

These discussions helped identify general planning policies and a number of pilot projects aimed at the improvement of living conditions through the preservation and careful development of the area. The long-term strategy developed for Darb al-Ahmar focuses on an integrated programme of physical and economic revitalisation in an effort to reverse the present pattern of decay and improve living, leisure and working conditions for residents. This strategy sees preservation as part of a comprehensive rehabilitation process. It envisions a future for the district in which a stable residential core is enlivened and sustained by a capillary system of small workshops and retail activities, supported by essential infrastructure and community facilities, and made more attractive by well-maintained open spaces and monuments. To realise this vision, conditions must be established to sustain and encourage a stable and self-sufficient



A social survey and demographic assessment showed that a high percentage of the population are long-term residents in Darb al-Ahmar.

Darb al-Ahmar is located between the famous al-Azhar Mosque (left) and the hills of the Azhar Park, visible in the background. Direct pedestrian links exist between the Park and the historic spine of Fatimid Cairo, with its many bazaars and old neighbourhoods.

population. In turn, this requires improving the economic climate, addressing community development issues and physically upgrading the area. More specifically, actions must be aimed at creating and facilitating access to sustainable employment opportunities for unemployed young people, providing health and educational facilities, particularly for women and school children, and, above all, strengthening civic groups and local institutions that will steer and sustain future actions in the district. Such socially relevant activities can and must go hand in hand with physical rehabilitation projects, such as restoring and re-using key historic structures and providing for their ongoing maintenance, upgrading open spaces and the urban environment and ensuring their ongoing upkeep, and rehabilitating and improving the existing housing stock and enabling its survival. Both the social and the physical aspects are indeed interdependent and can foster significant synergies.



Implementation of such interrelated activities is sought through a series of pilot projects in specific locations within Darb al-Ahmar, strategically located near the Historic Wall bordering the new Park, particularly along the corridor that is at relatively higher risk of uncontrolled transformation. They take advantage of special opportunities identified during the course of the survey, which focus on individual monuments and historic buildings, on significant public open spaces and on residential clusters, as detailed below. Over the next few years, these pilot projects will offer an opportunity to investigate key conservation and development issues and help identify policies and solutions for physical improvements that can be applied throughout the district. Whether individual monuments, public spaces or residential areas, these projects can be viewed not only as candidates for rehabilitation but also as catalysts for future social and economic revitalisation.



Above: Darb al-Ahmar is a closely knit community of artisans and small shopkeepers.

Below: The Tablita Market in the heart of the historic centre (see p. 45).










REHABILITATION OF HISTORIC BUILDINGS

Historic buildings are plentiful in Darb al-Ahmar, and they include some of mediaeval Cairo's finest and most admired historic monuments. There are sixty-five monuments registered by the Supreme Council of Antiquities in the area, as well as several hundred unregistered but architecturally significant buildings (mainly apartment houses) that determine the quality of this urban context. Their long-term preservation is crucial to maintaining the area's architectural character, and they should play an important role in attracting visitors to the area and in enhancing the life of the district's neighbourhoods. Future development strategies in this sector need to promote the stabilisation and long-term maintenance of these structures, as well as integrate them in the district's social, recreational and educational activities.

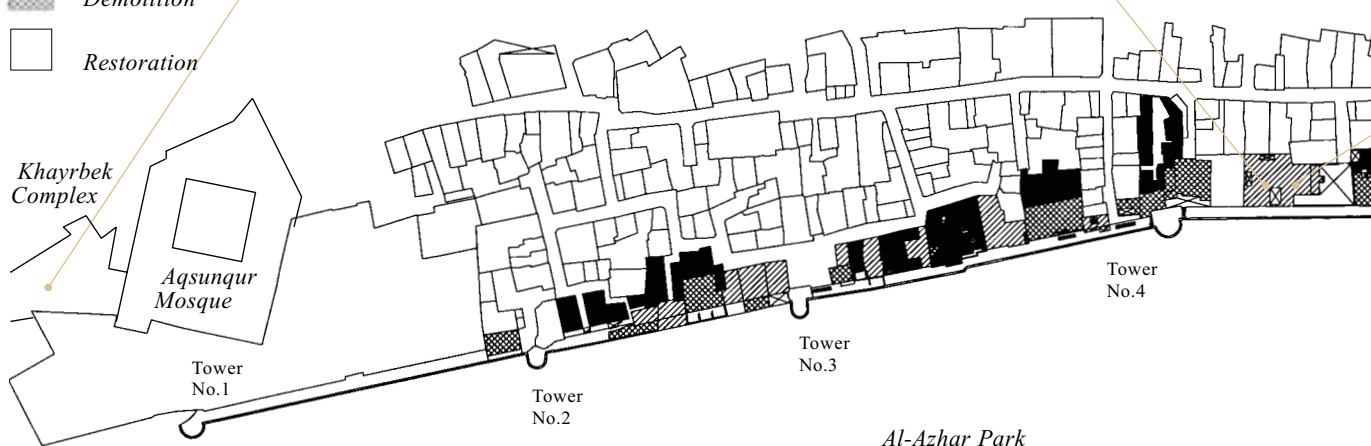
AKTC has targeted three representative projects to fulfil these strategic objectives through practical, direct action: conservation of the Umm Sultan Shaban Mosque, restoration of the Khayrbek complex (composed of several associated buildings) and rehabilitation and adaptive reuse

Proposed Interventions

-  Maintenance
-  Rehabilitation
-  New Development
-  Demolition
-  Restoration

• Interventions to restore the Khayrbek complex and surrounding open spaces.

• Rehabilitation and conversion of the abandoned Darb Shoughlan School into a community facility and visitors centre. (See pgs. 41/43)



of the former Darb Shoughlan School. These initiatives are being undertaken through special agreements between AKTC and the two institutions responsible for these buildings: the Supreme Council of Antiquities, as the custodian of all monuments in Egypt, and the Ministry of Awqaf (Religious Endowments), the actual owner and often user of many monuments. These agreements will help develop partnerships to explore and implement innovative and realistic solutions for preserving Cairo's monuments and historic buildings. Planned solutions range from identifying appropriate restoration techniques to finding compatible new uses and developing the roles these structures will play in Darb al-Ahmar's revitalised physical organisation and social life.

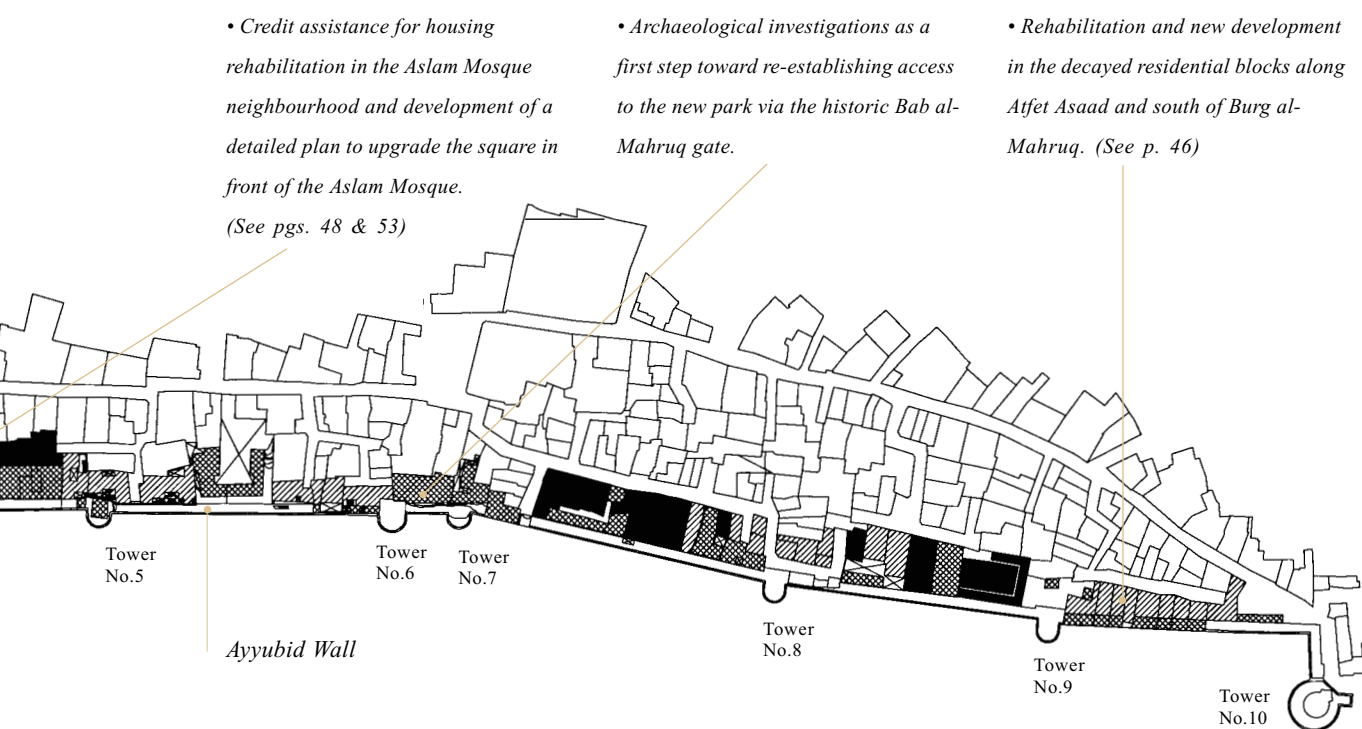


Above: Darb Shoughlan school facility under rehabilitation.

UMM SULTAN SHABAN MOSQUE

A partial restoration and reconstruction programme has been started for the fourteenth-century Umm Sultan Shaban mosque and minaret. The cracks that appeared at the base of the minaret following the 1992 earthquake led to renewed attention to its structural condition and prompted an investigation into the history and architectural features of the building and its partially collapsed minaret. Fuelling the ongoing

*Opposite page above:
The Khayrbek complex as seen
from the Park site.
Opposite page below:
The Khayrbek complex from the
Darb al-Ahmar side.*





The French photographer H. Bachard recorded the Shaban Mosque before the top of its minaret collapsed in 1884, providing essential information for its planned reconstruction. In the foreground are the typical “mashrabiyya” bay windows of traditional streets in historic Cairo, very few of which remain.

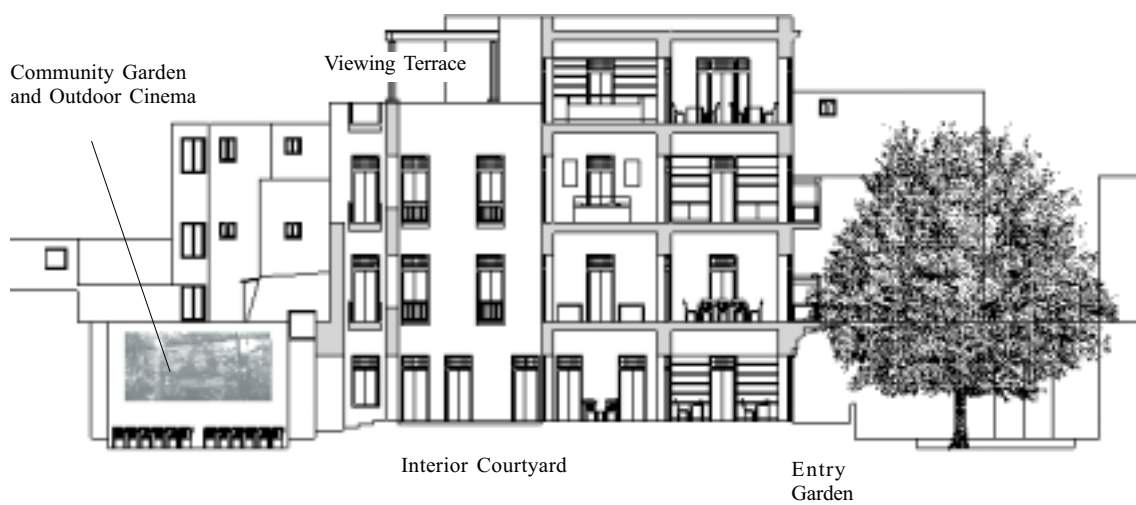
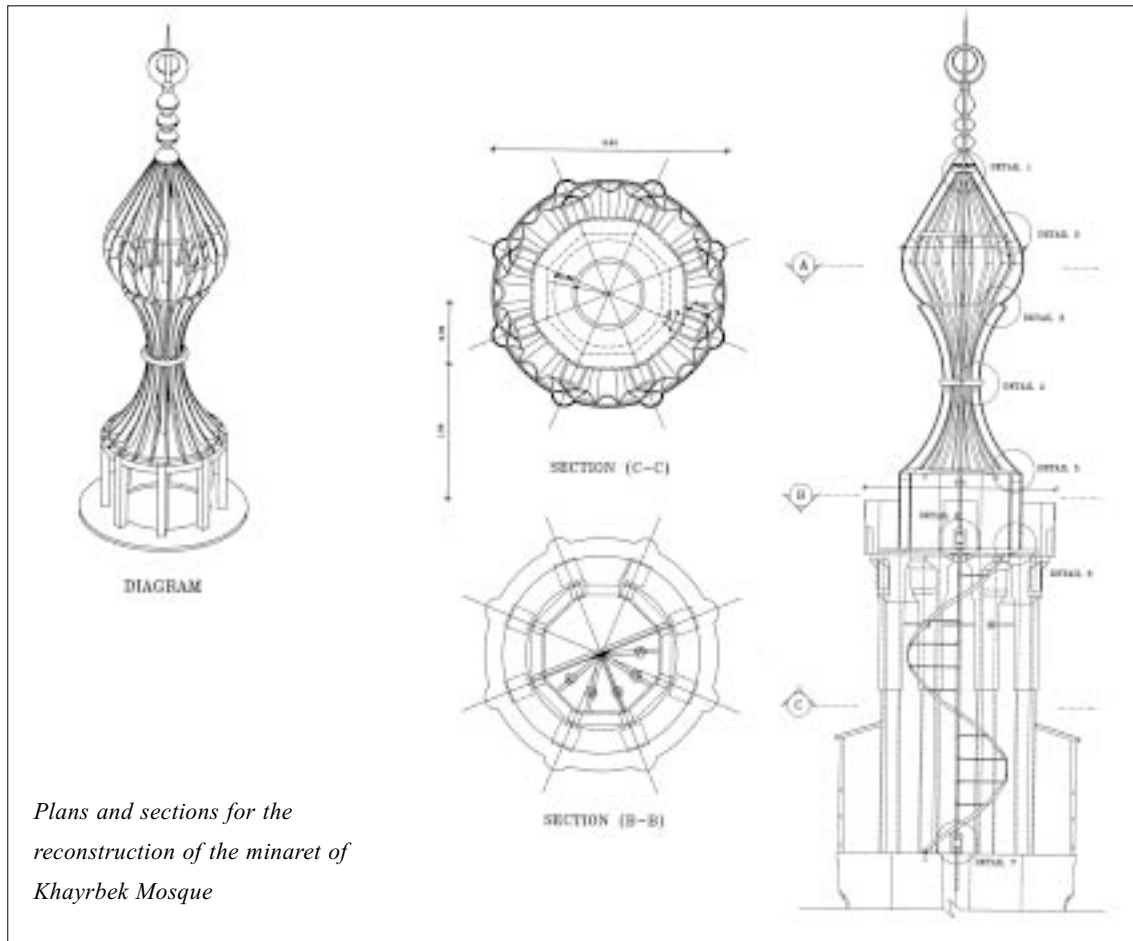
investigation is the need to preserve this landmark and a desire to re-integrate the missing section so that it may once again fulfil its visual and symbolic role in the city. The stabilisation of the roof and reconstruction of the top of the minaret will restore the integrity of Darb al-Ahmar’s streetscape and complete the skyline of historic Cairo, as seen from the Park.

KHAYRBEK COMPLEX

The Khayrbek complex and adjacent structures are another monumental ensemble in AKTC’s programme. Named after Khayrbek, the first Governor of Egypt after the Ottoman conquest, the complex was built in several stages during the Mamluk and early Ottoman periods. The stabilisation and partial restoration of the complex includes the thirteenth-century Palace of Alin Aq, the Khayrbek Mosque and Sabil-Kuttab, a ruined Ottoman house and surrounding open spaces. AKTC plans to re-establish the extraordinary urban value of this ensemble, which lies at the southern end of the Azhar Park, in close proximity to the Blue Mosque, through a combined programme of restoration (the Historic Wall and the Khayrbek Mosque and Sabil-Kuttab), stabilisation of the ruins (Palace of Alin Aq), adaptive reuse (the Ottoman house) and environmental and landscape improvements. The entire complex could eventually provide a setting for recreational and cultural events and provide a focal point in the district, for residents and visitors.

DARB SHOUGHLAN SCHOOL

Finally, the rehabilitation of the former Darb Shoughlan school, an early twentieth-century building located along the Historic Wall, offers an opportunity to introduce a community centre in a context that sorely lacks public facilities. The objective of the adaptive re-use proposals for the former school is to take advantage of the building’s close proximity to the Historic Wall and the future Park, as well as its potential, given its location and size, to serve the community. This led to the idea of re-using this large structure as a combined community and visitors centre. An orientation and exhibition space and a rooftop café with views of the Park and the Citadel will accommodate visitors, while residents will find recreational as well as family, educational and community services in the building. Some of the activities and services will produce revenue for the future operation and maintenance of the community centre.





Enhancement of deteriorated public open spaces is needed to improve the quality of community life in the neighbourhoods, as well as to attract visitors interested in the history of Cairo.



PUBLIC OPEN SPACES

Public open spaces are poorly maintained and deteriorating throughout Darb al-Ahmar due to a lack of planning and investment in public infrastructure. Their deterioration may also be attributed to the fact that it is unclear what purpose they are to serve and who is to be responsible for their maintenance. In the future, a clear understanding of how these spaces are to be utilised within the community, and how they can be brought back to full use, will be essential if they are to serve civic purposes effectively and be maintained properly over time.

Toward this end, AKTC has carried out detailed surveys in Darb al-Ahmar's neighbourhoods and discussed with residents ways in which the current uses can be discontinued when harmful, or maintained and improved when desirable. Plans target not only major and highly visible spaces, but also commercial streets and small neighbourhood squares that play an important role in the quality and appearance of public spaces in the district. Proposed interventions, to be carried out with the involvement of the district authorities and the development of self-help initiatives, focus on a variety of these spaces:

Commercial streetscapes. Possible improvements range from basic space planning to accommodate conflicting activities, to upgrading street paving, public lighting and signage, as well as façades and storefronts. While these improvements by themselves do not generate economic activity, they can do much to attract and enhance commerce;

Important public squares and public concourse areas. These often require comprehensive reorganisation and space planning. Improvements in these highly visible spaces can do much to enhance the image of the area and attract visitors;

Small neighbourhood squares. These are found throughout the inner blocks of Darb al-Ahmar, often associated with tombs of saints and community mosques. These spaces can be targeted for simple low-cost improvements, designed to encourage informal contact and community life.

Aslam Square is an example of a small neighbourhood square targeted for improvements by the AKTC team. Interest in this area stems from its proximity to Bab al-Mahruq, one of the principal historic gates that

existed along the eastern side of the Ayyubid city wall and which was later blocked. In the past, the gate was connected to Aslam Square and, from here, to the important thoroughfare leading to the Fatimid gate of Bab Zuwayla. With the creation of the Azhar Park, this old connection will be re-established and Aslam Square gradually equipped to serve both as a pedestrian link and as a forum for commercial activity and social interaction in the closely knit Aslam neighbourhood.

Archaeological excavations have started near Bab al-Mahruq as a first step to re-opening the old connection with Aslam Square. Future actions foresee the involvement of local residents in an improvement scheme for the square that includes elimination of informal vehicular parking and the upgrading of public utilities, paving and lighting. The scheme will be complemented by a façade improvement programme of the residential and commercial buildings around the square, as well as selective restoration of the Aslam Mosque facing the square.

Another open space improvement project relates to the Tablita Market on the main pedestrian axis linking the heart of the Fatimid city with the Azhar Park (see picture page 39). Here, an uncontrolled proliferation of street vendors, poor management and deterioration of environmental conditions have led to a situation where the market was under threat of being completely removed – with disastrous consequences for the local community. A new project to contain and reorganise the vendors within an enclosed new market hall has now been prepared by AKTC in close cooperation with vendor representatives and in consultation with the Cairo Governorate, in an attempt to resolve the deadlock and to provide a suitable architectural solution for this sensitive vacant space.

HOUSING IMPROVEMENTS

Housing improvement projects complete the group of pilot initiatives foreseen by AKTC and constitute the most relevant demonstration of the viability of the historic fabric, at least in the eyes of the residents. As the best antidote to depopulation and decline, they are essential if Darb al-Ahmar is to remain self-sufficient. Detailed surveys carried out along the eastern boundary of Darb al-Ahmar show the worsening conditions of the residential fabric due to limited access to housing finance and insecure tenure, a problem in many historic cities. Those forced to abandon their houses and shops cannot find affordable alternatives in the same area. If the present pattern of disinvestment



*Above: Archaeological excavations near Bab al-Mahruq.
Below: Rehabilitation of deteriorating 19th-century housing stock is urgently needed.*



Improving old houses along the Historic Wall is particularly important along the edge of Darb al-Ahmar.

Left: Schematic rendering of existing conditions in Atfet Asaad. Right: Schematic rendering of the integrated pilot project, showing improved conditions after selective removal of encroachments on top of the wall. Physical and social rehabilitation of housing goes hand in hand with the wall restoration.

persists, it can only pave the way for further deterioration and the eventual demise of irreplaceable social, economic and cultural assets. It will also deprive the district of the critical mass of inhabitants needed to sustain the area's social and economic life.

Improved living conditions will promote a stable population and the kinds of productive activities that come with a steady demand for goods and services. Better housing is the basis for reversing the current decline and preserving the area's traditional social and urban fabric. For these reasons, AKTC, as part of its larger revitalisation effort, is giving priority to the identification of policies and programmes that will ameliorate housing in the area. A dual strategy is being pursued, aimed at facilitating the gradual rehabilitation of existing residential units and promoting the redevelopment of ruined buildings, vacant plots and blighted areas into new housing.

In 1998, AKTC launched a pilot study of 125 plots and buildings in Darb al-Ahmar's Aslam neighbourhood to find out what kinds of improvements are needed and how best to intervene. At the same time, the study was used to ascertain residents' interest in remaining in the

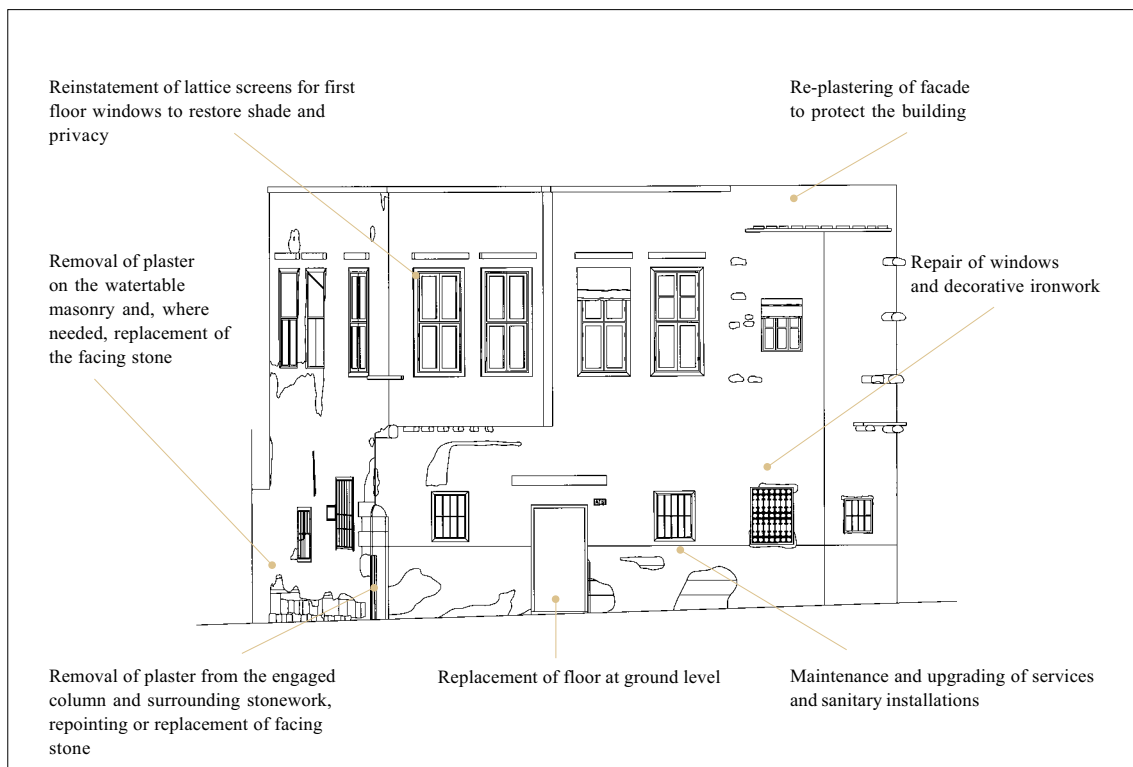


district and their willingness to contribute to the rehabilitation of their homes. The results of the study show that essential rehabilitation costs could be met largely by the residents themselves, without having to depend on very limited public resources. Creating the conditions for upgrading occupied buildings and helping people to afford to continue living in their homes not only reduces the threat of abandonment and irreversible decay, but also saves the government the considerable social and economic expense associated with relocating entire households to other parts of the city.

By analysing the quality and condition of both traditional and contemporary structures, the study identifies nine levels of physical intervention in the neighbourhood, subdivided into actions aimed at preserving the historic fabric and actions aimed at transforming individual buildings that are considered inappropriate or structurally unsafe. In addition, the case studies propose a series of models for housing rehabilitation and new construction that take into account residents' lifestyles, income levels and tenure status, as well as innovative institutional and financing programmes which can be used to facilitate implementation.

Case study analysing how existing buildings can be improved.

Interviews confirm that many residents want to stay in Darb al-Ahmar and invest in housing. This trend should be encouraged to avoid expensive and unpopular relocation programmes.





A recipient of micro-credits for small enterprises has opened a tea kitchen and meal catering service for the local community.

Axonometric view of the proposed new scheme around Mahruq gate, which calls for a new connection between the nearby Midan Aslam and the Azhar Park. (see also pgs. 52/53)



Rehabilitation must be complemented by new development to provide more housing, which is in short supply throughout Darb al-Ahmar. The many plots of vacant land in the area offer ample opportunity: in 1997, a physical survey identified close to 320 vacant ruins and unimproved plots out of a total of 2,000, more than a sixth of area properties. At least part of this available land can be returned to full residential use by encouraging private development, particularly where clusters of ruins and vacant land offer the possibility of building multiple housing units and realising operational economies. In these cases, incentives can be provided using low-interest loans administered through special arrangements with owners (or tenants) and lending institutions. Project staff facilitate interaction between both sides, providing technical assistance and housing finance programmes for low- and moderate-income households. Such schemes already exist for new development, but have never been applied in historic areas. Their adaptation would present special challenges, but also open up new opportunities for high-profile, exemplary initiatives.

AKTC is currently exploring one such opportunity in the area immediately north of the Burg al-Mahruq tower. Here, the high percentage of ruins combined with easy vehicular access present excellent prospects for comprehensive housing redevelopment. In the proposal, special attention is devoted to creating a promising mix of commercial activities and housing, providing different apartment sizes and resident parking and to identifying design solutions that are compatible with the surrounding historic context.

INSTITUTIONAL TOOLS AND LOCAL INCENTIVES

The implementation of these various initiatives, however meaningful in themselves, will only be of limited consequence to the district unless they are accompanied by a revision of the present planning and institutional framework and the implementation of a combined system of incentives and constraints to preserve the physical fabric, maintain the present inhabitants and achieve balanced development throughout the area. To this end, AKTC is in the process of establishing and refining specific mechanisms and tools for future institutional action and local involvement. These include:

- Repealing often counter-productive planning decrees imposed on the district, particularly the demolition orders issued to clear areas surrounding monuments and to make way for vehicular roads that have never been realised. These decrees have created uncertainty about tenure and discouraged residents from investing in the area;
- Declaring Darb al-Ahmar a conservation district subject to special planning provisions, including a conservation and development plan with accompanying building regulations;
- Establishing a dedicated task force charged with the continued planning and management of the area, and, in particular, implementation of individual restoration and rehabilitation initiatives, provision of advisory services and monitoring of building applications and construction activities;
- Providing direct incentives for the residents in the form of investment in the upgrading of public spaces and infrastructure,



*Illegal encroachments on the
Ayyubid wall.*



Above: Participatory discussions with local residents and shopkeepers in front of a model of the Tablita Vegetable Market, an area to be improved.



Below: Women of Darb al-Ahmar meet in the courtyard of the community development office and take notes during a health care lecture.

as well as assistance for home improvements. To this end, AKTC, with support from the Egyptian-Swiss Development Fund (ESDF) and the Ford Foundation, has secured direct financing for pilot initiatives in the Aslam neighbourhood, comprising a selected group of approximately 100 buildings and related open areas;

- Introducing indirect incentives in the form of employment opportunities, neighbourhood facilities and training. Employment-generation incentives include direct recruitment for rehabilitation and construction in the Park and other rehabilitation programmes initiated by the Trust, as well as apprenticeship programmes for workshops in the area, administered by AKTC's partner, Centre for Development Services, Egypt, with financing from ESDF. AKTC has also secured the financing for the establishment of three neighbourhood facilities accommodating community, recreational, and health-related services. Finally, training in traditional construction and rehabilitation work has begun with direct funding from AKTC in the wall restoration pilot project. Training activities are to be expanded with the contribution of other institutions and donors.

These new institutional tools and local incentives need to be established to ensure that a revised planning and implementation framework for the district is in place as soon as possible. Such measures will demonstrate strong public commitment toward the revitalisation of the district and create the confidence needed to mobilise resources within the area. But they will need to be sustained by a comprehensive community development effort if Darb al-Ahmar is to benefit from the present initiatives as well as to generate new opportunities over the long term.

INVESTING IN PEOPLE: THE COMMUNITY DEVELOPMENT CORPORATION CONCEPT

Development institutions and non-governmental organisations have gained a better understanding of what makes a successful community. Careful observation shows that inner-city communities, such as Darb al-Ahmar, are made up of people who have common values and goals, and are capable of enlisting and directing the support needed to achieve their aims. A complex and extended system of social relationships forms the basis of this network of mutual support and shared

responsibility that translates into the social capital needed to realise the community's potential. This positive interchange and the process of mobilising internal resources cannot be imposed from the outside; rather, it must be nurtured and developed from within.

Such an understanding calls for a different approach to revitalising distressed communities. Interventions should seek to provide information, contacts and resources that will enhance existing assets and help realise the aspirations of the people most directly concerned. Institutions must move away from the establishment of policies that ignore local needs and resources. Moreover, instead of attempting to promote development through the supply of goods, they should support local efforts, thereby helping communities help themselves. While external institutions and development organisations may be able to kick-start and assist in steering certain development processes, none of Darb al-Ahmar's problems will be solved without the local community, which must gradually take responsibility for its immediate surroundings.

To address this challenge and involve residents and area businesses towards this end, AKTC and its partners, with support from the Cairo Governorate, have introduced the concept of a Community Development Corporation (CDC) in Darb al-Ahmar. This body, which will gradually become an independent, locally based entity, will facilitate co-operation between the government, local NGOs and the private sector. As such, it will operate not so much as a traditional social agency dispensing subsidised services to identifiable target groups, but more as a self-sustaining, community-managed, private-sector initiative. It will activate community resources within the framework of locally identified problems, needs and priorities. It will combine the mobilisation of resources, technical co-ordination, community affairs and institution-building with physical upgrading and environmental improvement activities. Through this work, it will support the community and encourage the development of new entities capable of providing leadership, technical assistance, and management of local resources.

The development of the Darb al-Ahmar Community Development Corporation will eventually offer the critical support needed to help residents become more self-reliant and the community to take greater responsibility for maintaining and developing the district's social fabric and physical environment.

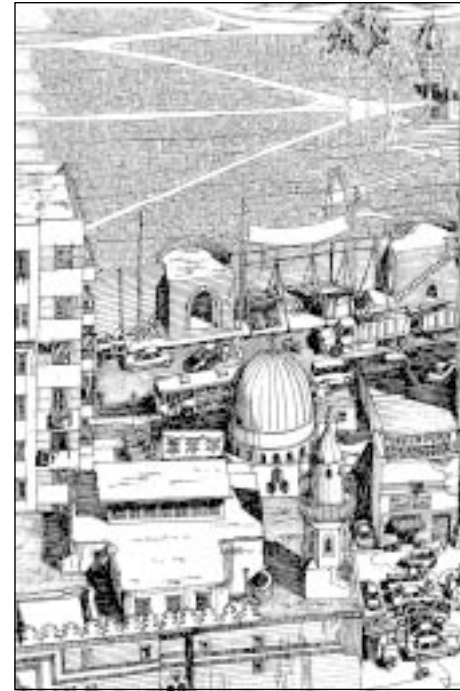


Above: One of the events in the programme, "Women Work Together" (Darb al-Ahmar Community Development Office).

Below: Drawing competition for children in the courtyard of the Community Development Office.



Left: Aslam Square in its present condition, showing signs of decay and the lack of management of public open spaces. At top, the decaying Historic Wall and the beginning of the Park site.



Middle: The worst case scenario showing how further decay and demolition of buildings could negatively affect the Darb al-Ahmar neighbourhood and undermine the linkage between the Park and the neighbourhood.

FUTURE PROSPECTS

The action plan and the pilot interventions for Darb al-Ahmar seek practical and sustainable alternatives to the current dilemma confronting officials and planners in historic Cairo - alternatives that may provide valuable examples for many other historic cities. Often, the only perceived options are either to accept the current decay as inevitable, or to embark upon a costly and socially disruptive policy of radical transformation. Continuation of the present inertia and disinvestment would no doubt condemn the area to ever lower standards of living and the continued deterioration of public services and infrastructure. On the other hand, radical redevelopment fuelled by the projects already under way around Darb al-Ahmar may arouse strong speculative pressures and a pattern of uncontrolled change.

Contrary to these two scenarios, the alternative being pursued in Darb al-Ahmar by AKTC builds on the direct involvement of residents, community groups and local institutions towards a gradual rehabilitation of the existing residential and commercial property and a phased improvement of the urban environment. With strong institutional support and active management of the residents' capacity for direct intervention, the social fabric can become the engine driving



the rehabilitation efforts. Paramount is the conviction that, in the long run, community involvement is the best means of achieving lasting results. This alternative is both wise and achievable: it is far less costly over time than either abandonment or radical intervention; it actively engages the existing social setting and it will not disrupt or alienate the people concerned. It also keeps the historic fabric of the district alive, thus preserving a significant portion of historic Cairo for future generations.

Ultimately, institutional co-ordination and community involvement within a gradual process of economic improvement and physical rehabilitation must be viewed as the necessary ingredients for taking on the manifold conservation and revitalisation needs of historic Cairo. Too often, this task has remained an abstract notion predicated on grand and difficult-to-implement schemes, rather than being pursued through practical rehabilitation efforts based on actual needs and realistic programmes for action.

The results of AKTC's ongoing activities will be important beyond the Darb al-Ahmar setting, as they offer a living model of old city rehabilitation that could be applied in identifying both general policies and practical solutions throughout historic Cairo, and indeed in many other historic cities in the Islamic world.

Best-case scenario showing how the area between Aslam Square and the Historic Wall can be improved without demolition, and how a linkage between the Park and Darb al-Ahmar can be provided.



UNCOVERING AND RESTORING THE AYYUBID CITY WALL

Francesco Siravo, Senior Project Officer, Historic Cities Support Programme
and Frank Matero, Scientific Adviser

Cairo's Ayyubid fortifications were begun in 1176 by Salah al-Din, a Kurd of the Ayyubid clan who came from Syria and overthrew the Fatimid caliphate in 1171. They were built to contain the former Fatimid palace-city and its suburbs, the pre-Fatimid city of Fustat and the pre-existing fortifications within a single system. Unlike the first Fatimid wall, the Ayyubid fortifications were built entirely of stone and made use of new defensive devices brought from Syria, such as bent gate entrances and arrow slits reaching the floor.

In the following centuries, Cairo's rapid urban expansion went well beyond Salah al-Din's boundaries, rendering the old walls virtually obsolete. Unlike the other parts of the walled city, however, the eastern section is the only area where urban expansion beyond the walls did not take place. This was due to the enormous mounds of debris deposited just outside the wall, an accumulation that probably began in the fifteenth century, during the Mamluk period, when the eastern part of the city had declined in importance. The area just beyond the wall remained a dumping ground for hundreds of years, gradually rising to a height of some thirty metres, and forming a major barrier to modern urban expansion. The Mamluk cemeteries, the so-called "Cities of the Dead", developed on the other side of the artificial hills, leaving unbuilt the barren site in between.

Early prints and photographic records confirm that the wall was largely buried by the end of the nineteenth century. Old maps from the Napoleonic era also show that buildings in Darb al-Ahmar were generally built right up to the edge of the city at the time of the French occupation around 1800 AD. Many of the buildings actually abutted the Ayyubid wall and additional rooms were constructed into and indeed on top of the one-time fortifications. Several of these are still in use, posing, in some cases, a threat to the structural integrity of the wall.

Today, after the grading works for the Azhar Park, the major portion of the remaining Ayyubid wall is once again emerging over a length of approximately 1,500 metres from Bab al-Wazir to al-Azhar Street, forming the boundary between the Darb al-Ahmar district and the Park. The outer face of the wall is now exposed to view and to natural elements, while on the city side, private development pressures and

Conservation work in progress on the Ayyubid wall and, in the background, the old district of Darb al-Ahmar.



Map of Cairo around 1800 as surveyed by the French expedition under Napoleon. Clearly visible are the hills of Darassa. It is also clear that 200 years ago the old city already abutted the Ayyubid wall.

institutional demands may raise complex urban development issues. Future intervention will have to consider not only the preservation of the wall, but also how to intervene in the surrounding context. Comprehensive planning and design policies had to be developed both for the residential fabric abutting the wall and regarding the points of access and the pedestrian promenade along the western edge of Azhar Park.

PHILOSOPHY OF CONSERVATION

Given the above circumstances, the approach adopted – as well as the specific work carried out in a pilot project area along the wall since the beginning of 1999 – relies on the concept of the Historic Wall as part of the living heritage of Cairo. Moreover, the questions of how best to consolidate and protect it were instrumental in establishing a clear policy of intervention for the historic urban fabric attached to the wall, and enhancing the wall's role as a potential attraction for future visitors to the new Azhar Park.

The concept of living cultural heritage implies notions of value, birthright and obligation. Each of them establishes a moral imperative in the treatment of any collective inheritance. In response to this, modern conservation practice has developed a set of principles, namely:

- To research and document all evidence, including physical, archival, and historical information, before, during and after any intervention;
- To respect the cumulative age-value of historic structures, by recognising the stratification of physical records of human activity, displaying the passage of time and embodying different materials and techniques, as well as changing cultural beliefs and values;
- To safeguard authenticity as a cultural value associated with the original making (or re-making) of an object or site by recognising human authorship or the record of time and place;
- To avoid harm to historic structures, either by minimising physical interference when reestablishing structural and aesthetic legibility and meaning, or by intervening in ways that will allow other options and further treatment in the future.

These tenets are rooted in internationally recognised and accepted standards of conservation, namely the International Charter for the Conservation and Restoration of Monuments and Sites of 1964 (the Venice Charter). It builds on the fundamental principles set out in the Athens Charter (1931) with the added emphasis on the importance of context, the discouragement of reconstruction except in cases of anastylosis (reassembling of preserved fragments) and the integration of modern scientific technology where appropriate and useful.

More recent charters, such as the Burra Charter of 1981, established by ICOMOS Australia, stress that the ultimate aim of conservation is to retain or recover the cultural significance of a place and must include provision for its security, maintenance and future survival. In most cases this is based, first and foremost, on respect for the existing fabric and involves minimal physical intervention, especially as this relates to the traces of additions and alterations related to its history and use. The conservation policy appropriate to a place must first be determined by an understanding of its cultural significance and physical condition.



View of the southern section of the Ayyubid wall, behind the “Blue Mosque”, in 1920. The debris on the Darassa site, or the future Azhar Park (left), is already reaching the full height of the wall.



Above: Conditions of the central section of the Ayyubid wall show to what extent the silt and debris had risen in 1920.

Below: A view of the southern section of the Ayyubid wall in 1920.

This, in turn, should determine which uses are compatible with the formal and material reality, not the reverse.

In line with these general tenets, the intervention guidelines applied by the AKTC team to the conservation of the Historic Wall express a preference for retention or compatible repair of original fabric over reconstruction, wherever possible. The recommendations for intervention in the surrounding urban fabric advocate respect for the changes accrued over time, in order to preserve the integrity, scale and significance of the wall in its current configuration and context. Ultimately, the proposed interventions promote continuity rather than radical transformation. The long-term goal is to integrate and harmonise the remnants of a valuable past with present realities and future uses in ways that are compatible and sustainable.

PRESERVING THE HISTORIC WALL IN ITS GIVEN CONTEXT

The first step in the conservation process was a comprehensive assessment of the physical condition of the wall. The method developed, including special architectural surveys, as well as digitised graphic and photographic documentation, responds to the specific conditions of the site, and will serve as a model for similar work in the future. The survey was divided into two parts: a general study to assess and document the wall's overall condition and its relationship to the adjoining urban fabric, and a detailed material condition survey of the pilot area, located midway along the wall, between towers 4 and 5, as indicated in the respective plan. This representative 100-metre-long wall segment includes the curtain walls on both sides, the two towers, and the interior chambers and galleries.

The general survey provided an analysis of the masonry and identified areas of significant deterioration, distinguishing between loss of facing stone to the rubble core and total loss of the wall. It also documented the presence and extent of previous repairs. The detailed condition survey provided a fuller quantitative analysis, complemented by a qualitative assessment of the causes and effects of deterioration. Severity of loss, for example, was classified according to extent and depth, as well as to whether the process was still active or inactive. In addition, samples were taken for laboratory testing to ascertain the exact nature of the materials and their conditions and problems.



Together, the field survey, graphic documentation and laboratory work yielded a comprehensive record of the construction of the wall and its present state, as well as the diagnostic tools needed to formulate an intervention programme. Suggested measures include recommendations and procedures for archaeological investigations, emergency stabilisation, masonry treatment (including cleaning, removal of salt and biological growth, grouting, consolidation of deteriorating stone and selective stone replacement) as well as limited reconstruction for reasons of structural stability or visual continuity. The policies and guidelines for masonry intervention, as summarised on page 62, were designed to achieve maximum retention of the original historic fabric while ensuring the visual and functional continuity of the wall as an urban element.

To date, a survey, assessment and pilot conservation treatment of significant interior and exterior surfaces in the pilot area have been carried out with specialists recruited by the Trust and its local company, AKCS-E. These activities also included a training component for Egyptian professionals, junior staff of the Antiquities Department and local

Above: The turrets of the central section of the Ayyubid wall were almost buried in debris in 1994, before work on the Park began.

Below: The most prominent tower of the Ayyubid wall (Bab al-Mahruq) still buried in debris (1994).





Above: Mason cutting stone for the wall restoration project.

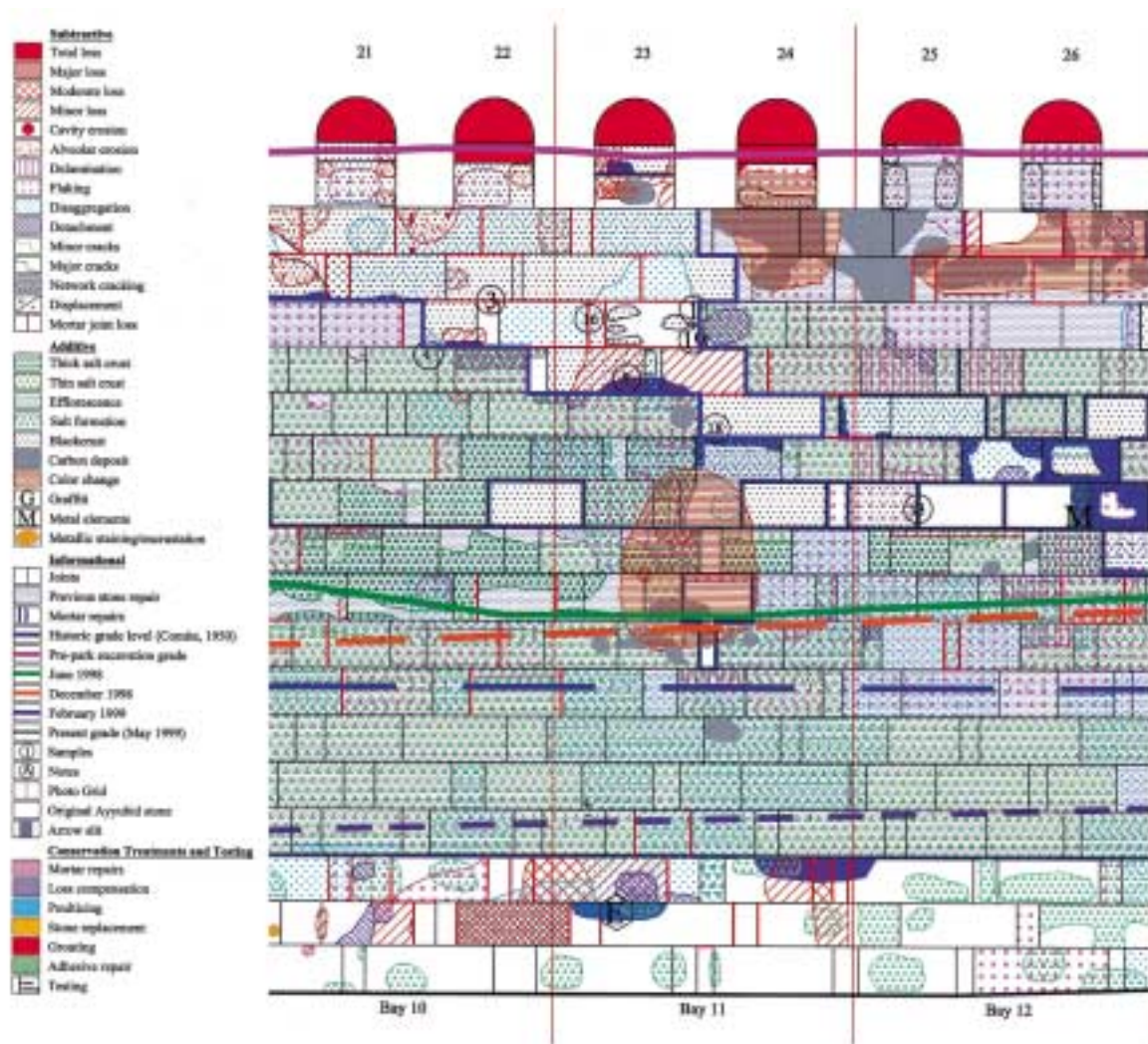
Below: The pilot restoration project (between towers 5 and 7) under implementation.

craftsmen. The work accomplished has helped in establishing a methodology and operational procedures for the eventual treatment of the entire wall. It has also provided the information for estimating the nature, extent and cost of future interventions.

In addition to documenting the condition of the wall, the general survey analysed the wall's contextual relationship to the adjoining urban fabric. The extent and configuration of the abutting houses was recorded by the team and assessed with regard to their use, condition, date of construction, architectural integrity and significance. In addition, a series of typical sections documented the physical connection between the wall and the adjacent buildings, and, in particular, whether these structures are built up against, on top of or into the wall at the lower levels.

Special attention was given to recording all cases where adjoining buildings pose a specific threat to the structural integrity of the wall,





either through damaging industrial activities or water seepage from plumbing installations. Finally, in an analysis of the wall structure, the project documented the interior defensive system, as well as past and present points of access, in addition to other connections with Darb al-Ahmar and the rest of historic Cairo – particularly the former city gates, such as the now-vanished Bab al-Mahruq and the recently discovered Bab al-Barkiyya.

Digitised survey showing the masonry conditions along a section of the wall contained in the pilot project.

These various analyses, complemented by in-depth investigation of social and housing conditions in particular areas (such as the Aslam Mosque neighbourhood and the Atfet Asaad Alley), are the basis for recommendations regarding i) the removal of incongruous, detrimental or structurally unsound additions and accretions, ii) the retention and rehabilitation of selected historic buildings, and iii) the improvement



Tower 5 before intervention



Tower 5 during intervention work



Tower 5 after completion of the intervention programme

Guidelines for intervention

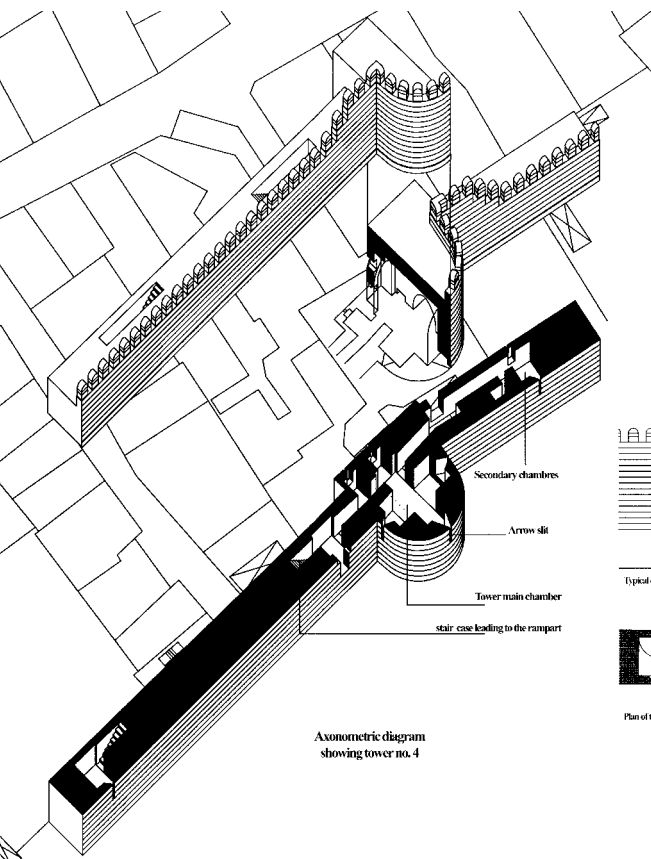
Status	Condition	Action
Original wall-extant	<ul style="list-style-type: none"> • partial loss of facing stones • substantial loss of facing stones • total loss of facing stones • partial loss of crenellations • total loss of crenellations 	<ul style="list-style-type: none"> • <i>replace in-kind</i> • <i>replace in-kind</i> • <i>stabilise core as is</i> • <i>anastylosis only</i> • <i>replace in-kind</i>
Original wall-repaired	<ul style="list-style-type: none"> • partial loss of repair • substantial loss of repair 	<ul style="list-style-type: none"> • <i>replace/repair in-kind</i> • <i>replace with masonry similar to original</i>
Original wall-replaced	<ul style="list-style-type: none"> • partial loss 	<ul style="list-style-type: none"> • <i>assess/repair in-kind</i>
Original wall-missing	<ul style="list-style-type: none"> • total loss 	<ul style="list-style-type: none"> • <i>repair with new masonry</i>
Specifications		
Replace in-kind	Replace using similar stone, dimensions and coursing; construction installation methods may vary from the original masonry.	
Repair in-kind	Repair using similar stone, dimensions and coursing; construction installation methods may vary from the original masonry.	
Stabilise as is	Preserve existing form and fabric; stabilise as necessary using traditional or modern construction methods	
Anastylosis	Re-erect form using only existing original fragments in original position	
Repair with new masonry	Construct missing wall for structural and visual reintegration in a manner which is visually similar and technologically compatible but distinctive from the historic original.	

of housing conditions to avoid the displacement of residents. The recommendations seek to differentiate and selectively modify the current Antiquities law which requires the clearance of any building or structure within immediate proximity of a monument. They seek a formal acknowledgement of the need to protect the structural integrity of the Historic Wall, to preserve the surrounding historic fabric and to maintain the current inhabitants. (See example on page 46.)

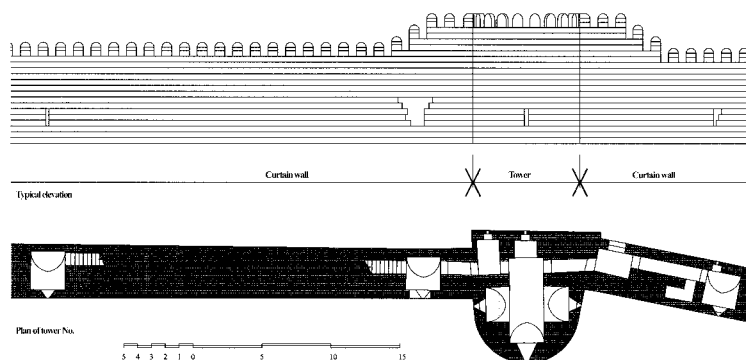
In addition, the proposals prepared by the team define the flow of pedestrian movement and access along the wall, its relationship to the general circulation patterns of the Park and Darb al-Ahmar, and those portions of the wall to be made accessible to the public. Altogether, these plans and recommendations advocate the conservation and harmonious integration of the Ayyubid wall within the traditional urban fabric and contemporary life of Darb al-Ahmar.



Replacement of cement by lime mortar in the joints of recent masonry.



Axonometric diagram showing tower no. 4



Axonometric view of tower 4, showing typical components of the Historic Wall, including interior galleries, chambers and curtain wall.



THE WALL AS A CULTURAL RESOURCE AND VISITOR DESTINATION

Together, the conservation of the original structure of the wall and the preservation of the living city fabric around it should be seen as the best antidotes to further decay and the potentially destructive commercialisation that can be induced by excessive numbers of visitors and uncontrolled tourism. Certain risks for the wall and Darb al-Ahmar can be foreseen following the opening of the Park in 2003. Too often, cultural resources around the world have often become mere commercial commodities for mass tourism, with the result that genuine historic places have been compromised and emptied of meaning. Local residents have often become overly dependent on an unpredictable tourism service economy.

Above: Archaeological investigations being carried out within the towers after clearing of debris.

Alternatively, the Historic Wall can be turned into a resource and opportunity for deepening the appreciation and understanding of the value and function of the historic city's cultural heritage and the



traditional social fabric which developed along the wall. In pursuing this view, some questions become immediately relevant in planning for the future role of this important landmark: How can a forgotten and long-buried monument be re-introduced into a rapidly evolving new context without losing its authentic meaning? How can it be reinvented as a living component of historic Cairo? And, more generally, how can tourism generated by the Azhar Park be reconciled with the traditional life of the Darb al-Ahmar community? Answers to these questions are not just part of an academic exercise, but must be addressed pragmatically in the search for new meanings, functions and activities around and within the wall. Future interventions need to ensure that the Historic Wall maintains its original significance and can be properly re-integrated into its contemporary context. In order to achieve this, the following four programmatic objectives have been established as a framework for future action:

1. *Designing pedestrian access and circulation along the western side of the Park to enhance the perception of the Historic Wall as a dynamic edge and meeting point rather than as a barrier between the community and the Park:* Reaching the right balance is essential here, since two opposite dangers must be avoided: on the one hand, that of opening access indiscriminately as this would invite abuse of the monument, its commercialisation and touristic consumption; and, on the other hand, that of treating the wall as a forbidding edge separating the Park from the community, which would only result in the perception of the new “moat” as a backyard for disposing trash. Avoiding these two extremes, the proposed access and circulation system identifies the locations of the former city gates as the natural and historically appropriate connections between the Park and Darb al-Ahmar. Three entrances are being revived: Bab al-Barqiyya, close to the main traffic artery of al-Azhar Road, to serve as the main access from the north-western edge of the Park; Bab al-Mahruq, the vanished gate now the subject of an archaeological investigation, to create a mid-point entry; and Bab al-Wazir at the south-western corner of the Park, to provide access close to the main religious sites and historic monuments along the southern stretch of Darb al-Ahmar Street. In addition, two more connections are proposed in conjunction with the visitors’ exhibits and circuits at Darb Shoughlan and Burg al-Mahruq. All of these links are conceived as meeting points to foster visitor and community interaction and sustain carefully planned venues into the daily life of the Darb al-Ahmar area.



Visitors’ circuits and exhibits are planned through the interior galleries of the wall. These points of entry will act as meeting points, and provide visitors and residents with a greater appreciation of the cultural heritage related to past and contemporary uses of the wall.

Opposite: Panorama of the central section of the Historic Wall, being both a separation and a potential linkage between the Park site and Darb al-Ahmar.



Fragments of Mamluk and Chinese pottery, found during excavations along the Ayyubid wall.

2. *Establishing didactic programmes and experiences in order to enhance appreciation of the wall as a monument and important urban feature of Islamic Cairo, to explain its changing role in the development of the city and to introduce visitors to the life of the community that inhabits the surrounding district:* Planned initiatives include visitors' circuits and exhibits through the Darb Shoughlan School and along the ramparts and interior galleries between towers 4 and 5, and in Burg al-Mahruq, featuring the presentation of the archaeological, historical, military, cultural and social aspects related to past and contemporary uses of the wall. The possibility of a major archaeological park is also being discussed for the northernmost area, between towers 14 and 15, where there is a unique opportunity to explore the archaeological remains along the city side of the wall, buried since Mamluk times. Finally, the establishment of a space for the performing arts and other cultural activities is planned near the Khayrbek complex, adjoining the southern edge of the Historic Wall. This is to be used by local artists and musicians to stage folk dramas, musical events, festivals and children's shows, offer a focal point for the community and provide visitors with a better understanding of the local culture and traditions.

3. *Introducing activities that are relevant to promoting a deeper understanding of the cultural heritage among visitors and residents and the development of local skills and abilities to preserve and protect Islamic Cairo:* The wall offers great opportunities in this respect, both as an arena to demonstrate the aims and methods applied to its discovery and conservation and as an ongoing training ground where local craftsmen, national bodies and international institutions can come together to explore and identify appropriate restoration techniques. These experiences will also promote the creation of a manpower base specialised in traditional building crafts, modern restoration techniques and small enterprise development, all of which are needed throughout Islamic Cairo. Conservation can thus be linked to programmes that foster economic development and future employment opportunities for the local community.

4. *Ensuring the future management and long-term sustainability of the wall through the establishment of permanent repair and maintenance programmes, and the monitoring of future changes and transformations:* As with any historic resource, the wall cannot be physically re-generated, but only retained, modified or totally lost. Sustainability thus means valuing and ensuring the survival of the

continuing contribution heritage can make to the present through the thoughtful management of changes that are responsive to the historic environment. In order to be successful in the particular context of the Historic Wall, sustainability must be considered as a dynamic process of public participation, achieved through dialogue and consensus, which ultimately leads to better stewardship of the monument. Future programmes must therefore ensure that the long-term benefits are also understood and enjoyed by the surrounding community, as it is one of the principal stakeholders in ensuring the continued life and appropriate use of the structure. In future, measures such as a garbage collection, open space maintenance, repair of the wall, and rehabilitation of the surrounding buildings, should not be implemented against the will of the community, but through its direct involvement and participation.

This shift in attitude, from a perception of the Historic Wall as an abstract, isolated monument to its reinvention as a part of a larger urban programme, together with the gradual implementation of the plans and activities described above, can turn this obsolete structure, buried for centuries and removed from the city's mainstream development, into a cultural asset and living component of the future revitalisation of Islamic Cairo. The challenge ahead lies in safeguarding the remains and true significance of the Historic Wall, while shaping its new role for the years to come.



ACKNOWLEDGEMENTS

THE AZHAR PARK PROJECT

Al-Azhar Park is the product of a consortium of design and technical consultants working closely with the management of the Aga Khan Trust for Culture (AKTC) and its affiliate Aga Khan Cultural Services, Egypt (AKCS-E). The project has received on-site co-ordination and support from Ossama Hambazaza, General Manager, and Sharif Zaki, Financial Controller, and the AKCS-E team. Mohammed Hassouna, Partner, Hassouna & Abou Ali, Attorneys at Law, has provided important support and assistance on legal and development matters.

On behalf of the project sponsor, the Aga Khan Trust for Culture, Stefano Bianca, Director, and Cameron Rashti, Project Manager, of the Historic Cities Support Programme (HCSP), have been responsible for formulation of the overall project's design development and implementation workplan.

Don Olson, Principal, Sasaki Associates Inc., (Boston) and Gonzalo Castro, Principal, GEI Consultants, Inc., (Boston), have provided specialist advisory services in park master planning and geo-technical engineering. Project management services have been provided by Egyptian Project Management (EPM), Cairo, under the direction of Adel el-Samadony, Managing Director, and Ahmed Saleh Mokhtar, Project Manager, and their staff.

The detailed and final Park design has been a collaborative effort led by Maher Stino and Laila el-Masry, principals of Sites International, (Cairo), the Lead Design Consultant and Park landscape architect. The Sites International team, including Abdel Monem el-Sayed, Khaled Mostafa, and Fathie Shehto provided landscape, hardscape, grading, signage and planning design services as well as co-ordination of the Park design team. Infrastructure engineering services were prepared by Misr Consult, (Cairo), directed by Sameh Abdel Gawad and Tarek Sabri; technical geo-technical engineering services were provided by Ardaman-Ace, (Cairo) led by Mohammed Sheta and Ahmed Hosny; and, lighting systems design services have been overseen by Graham Large, Principal, Phoenix-Large/ lightmatters (London).

Interior view of the Khayrbek mosque, for which a conservation project is being prepared.

The two restaurant facilities within the Park have been designed by architects selected by the Trust on the basis of a limited design competition. The Five-Star Restaurant and Entry Gates were designed

by Rami el-Dahan and Soheir Farid, Principals, el-Dahan & Farid Engineering, (Cairo) and their associated building services engineer, Hassan Bakry. The Lakeside Café was designed by Serge Santelli, Architect, and his associate Karine Martin, (Paris). Food service areas for both restaurants have been planned by Johann A. Good, President, Swiss Inn Hotels & Resorts, Cairo.

The AKCS-E team, led by Ossama Hambazaza and including Nasr Abdel-Monem Mousa, Ahmed Said, Abdel-Messieh Saad, Youssef Diallo, Youssef Thabet and Gamal Sallam, managed initial site operations involving excavation, grading, and site-specific geo-technical experimentation. The AKCS-E in-house nursery programme, directed by Saady Badawy, horticultural specialist, and supported by a large team, has been responsible for the propagation of much of the required plant stock for the Park as well as for horticultural testing. At the time of printing, the selection of the contracting companies to be involved in the various construction packages was underway; credits to these groups joining the project will need to await a further edition.

THE DARB AL-AHMAR REVITALISATION PROGRAMME

The Darb al-Ahmar historic district revitalisation programme and restoration of the Ayyubid city wall are being implemented, on behalf of AKTC, by an interdisciplinary team from Aga Khan Cultural Services, Egypt (AKCS-E), supervised by Mohammed El-Mikawi, Executive Manager. Stefano Bianca, Director of the Historic Cities Support Programme (HCSP) and Francesco Siravo, Senior Project Officer, HCSP, are responsible for the project's development and technical coordination.

The Darb al-Ahmar planning team includes AKCS-E professional staff Ashraf K. Botros, Mohammed Saeed, Kareem Ibrahim and Seif El Rashidi, as well as consultants Debora Rodrigues and Jeffrey Allen. In addition, Dina Shehayeb is responsible for the social and environmental analysis of Darb al-Ahmar. She was assisted by Ashraf Abdu who conducted the demographic survey. The employment and economic development components of the Darb al-Ahmar programme are being carried out in cooperation with the staff and consultants of the Centre for Development Services, Egypt, coordinated by Roger Hardister, Alaa el-Din Saber and Mohammed Abdel Hafiz.

THE AYYUBID CITY WALL CONSERVATION

The Ayyubid city wall conservation activities are being implemented under the scientific direction of Professor Frank Matero of the University of Pennsylvania and monitored by Inspector of the Supreme Council of Antiquities, Khaled Azab. Professionals and staff in the field include Elisa del Bono (Team Coordinator), Mohammed Saeed, Ayman el-Gohary and Hazem Rashed (AKCS-E Architects), Laurino Saccucci and Mauro Musolino (Master Builders), Peter Sheehan and Nora Shalaby (Archaeologists), Hussein Mohsen Mohammed, Nasser Said Ali, Ashraf Abdel Salam and Debora Rodrigues (Conservators), Hamed Youssef (Foreman), Adel Said Ibrahim, (Procurement Officer), Lorna Naguib and Alamir el-Mahdy (Conservation Trainees), Sayed Alsayed, Mahmoud Sayed Mohammed and Ahmed Eid Farag (Stone Cutters).

AKTC also acknowledges the contributions provided at different stages of the work by Richard Hughes (Structural Engineer), Tom Roby (Architectural Conservator), and Kecia Fong, Dana Cloud and Catherine Dewey (Conservation Interns).

PUBLICATION CREDITS

This brochure was conceived and edited by Stefano Bianca, assisted by William O'Reilly, Jack Kennedy and Marie-Martine de Techtermann. Design and production were managed by Robin Oldacre. Drawings and plans were supplied by the team of AKCS-E, architects Serge Santelli, Rami el-Dahan and Soheir Farid and prepared by Marco Christov. Gary Otte, Cameron Rashti, Stefano Bianca and AKCS-E supplied images for the publication, and all historic photography was supplied by the Fogg Art Museum at Harvard University with the exception of the David Roberts engraving, on page 10 (courtesy the Library of Congress), and early photographic images of the Historic Wall, reproduced with the permission of the Creswell Archive.

THE AGA KHAN TRUST FOR CULTURE

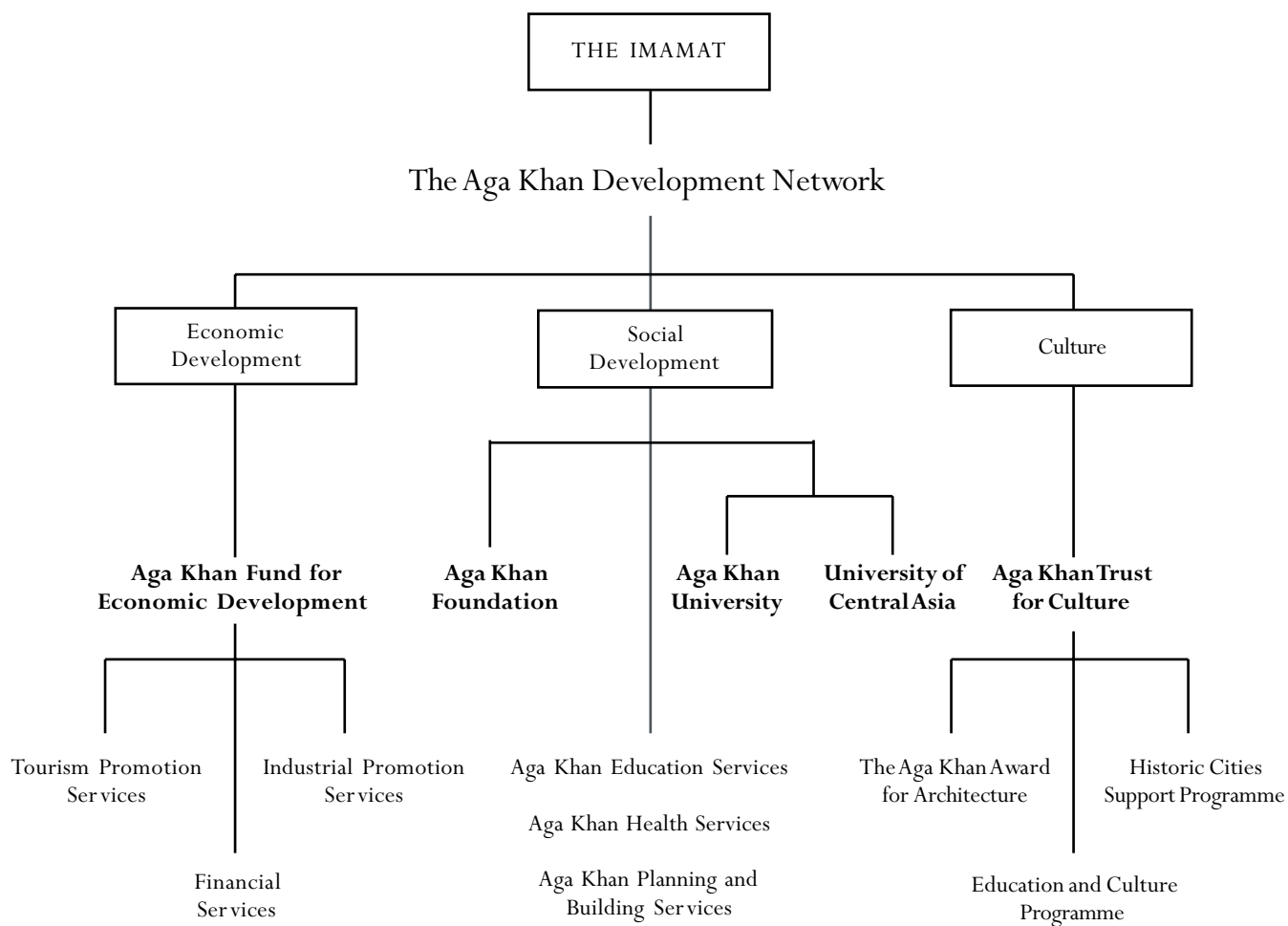
The Aga Khan Trust for Culture (AKTC) was formally established in 1988 in Geneva as a private philanthropic foundation to integrate and co-ordinate the various initiatives of His Highness the Aga Khan regarding improvement of the built environment in societies where Muslims have a significant presence – the built environment being understood as the most complex and most tangible expression of cultural development. In addition to HCSP, the Trust currently has two other programmes. The Aga Khan Award for Architecture, a precursor of the Trust, was established in 1977 as the world's largest prize for architecture. The Education and Culture Programme sponsors four major projects: Archnet.org, an electronic resource for architectural students, teachers, researchers and practitioners, on the world-wide-web; the Aga Khan Humanities Project in Central Asia, which is developing a humanities curriculum for use in universities; the Aga Khan Music Initiative in Central Asia, which is concerned with the revitalisation of traditional music; and the Aga Khan Program for Islamic Architecture at Harvard and MIT established in 1979.

The Aga Khan Trust for Culture is part of the Aga Khan Development Network (see organigram on opposite page), a family of institutions created by His Highness the Aga Khan. The Aga Khan Foundation focuses on health, education, rural development and the enhancement of non-governmental organisations. Aga Khan Health Services provide primary and curative health care in India, Pakistan, Kenya, Tanzania, and Syria. Aga Khan Education Services operate more than 300 schools and advanced educational programmes Asia and Africa. Aga Khan Planning and Building Services provide material, technical assistance and construction management services for rural and urban areas. The Aga Khan Fund for Economic Development, a for-profit agency registered in Switzerland, promotes entrepreneurial activity and supports private sector initiatives. Two universities are also part of the Network: the Aga Khan University, Pakistan's first private, autonomous university; and the University of Central Asia, which is the world's first university dedicated exclusively to education and research on mountain regions and societies.

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First edition printed in July 2001, by Imprimeries Réunies Lausanne s.a. (IRL), Switzerland





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