



AGA KHAN TRUST FOR CULTURE



AL-AZHAR PARK, CAIRO
AND THE REVITALISATION OF DARB AL-AHMAR

PROJECT BRIEF

2005



INTRODUCTION

The origins of Al-Azhar Park project date to 1984, when the Aga Khan Award for Architecture organised a conference on the subject of *The Expanding Metropolis: Coping with the Urban Growth of Cairo*. At that time, the city was confronted by the array of contemporary development challenges faced by many cities, not least population pressures, a decline in the quality of housing and the attendant problems these conditions create. Despite these challenges, the question of how to reconcile conservation and development was a fairly new one.

It was clear that Cairo needed more green space. One study found that the amount of green space per inhabitant was roughly equivalent to the size of a footprint. It is one of the lowest proportions in the world.

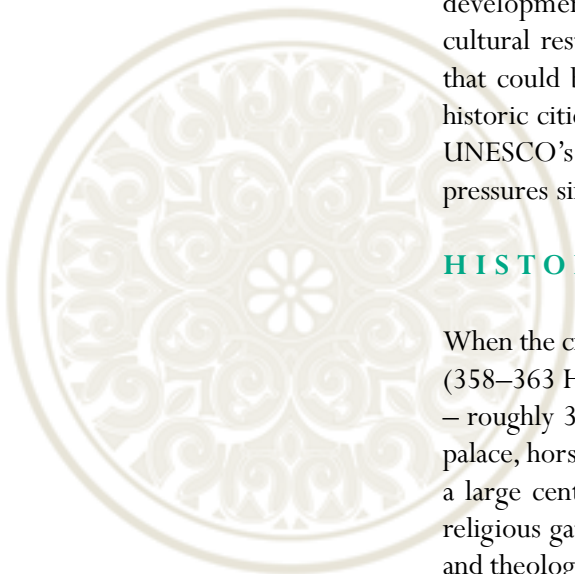
It was on the occasion of the conference that His Highness the Aga Khan announced his decision to finance the creation of a park for the citizens of the Egyptian capital. The only central location which was of suitable scale and which lent itself to rehabilitation was the derelict Darassa site, a 30-hectare (74 acre), 500-year-old mound of rubble in the inner city, between the eastern edge of the 12th Century Ayyubid city and the 15th Century Mamluk “City of the Dead”.

While the neighbouring district of Darb al-Ahmar was poor, it featured one of the richest concentrations of Islamic art and architecture in the world. The challenge was to revitalise this heritage in ways that turned traditional notions about cultural monuments on their head - that rather than being a drain on resources, they could be a stimulus for social and economic development.

The Park project was therefore intended to be a case study for a variety of development challenges, ranging from environmental rehabilitation to cultural restoration. The objective was to create models of development that could be replicated in many other settings, and in particular in the historic cities of the Islamic world. Almost one-third of historic cities on UNESCO’s list of world heritage sites are in the Islamic World. Many face pressures similar to those of Cairo.

HISTORY

When the city of Cairo was rebuilt and laid out by the Fatimids in 969–974 (358–363 Hijri), and named *al-Quahira* (“the victorious”), 20 percent of it – roughly 30 hectares – was devoted to open space. East of the *al-Mu’izz* palace, horse-riding grounds were turned into a royal park and garden and a large central space to the west was dedicated to military parades and religious gatherings. A dozen years later, *al-Azhar* (“the Radiant”) mosque and theological college were built (989). During the Fatimid, Ayyubid and



Mamluk periods, Cairo was one of the most advanced cities of learning in the Islamic world. Many landmark buildings around the Park, including the Citadel, testify to the glory of mediaeval Cairo.

In the first half of the twentieth century, Cairo was still a city of villas and gardens. In the last 50 years, however, population pressures and high-rise construction built to meet the consequent demand have made it one of the largest and most complex cities in the world. Its population has tripled since 1952, and today greater Cairo has around 17 million people.

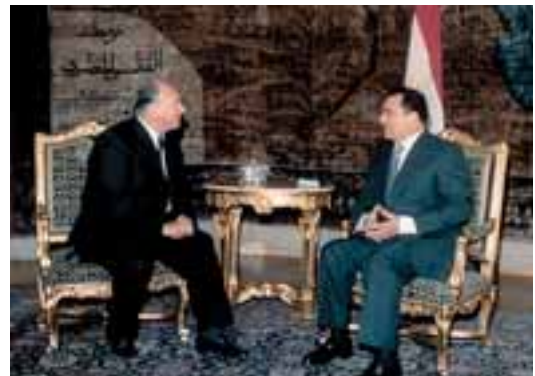
The growth was compounded by an urban dynamic characterised by disinvestment in the city centre areas. The combination of less investment – particularly in the maintenance and development of housing – and an influx of people, created stresses in the urban fabric that condemned many people to lower standards of living. It was widely assumed that the resulting downward spiral, ending in urban slums, was inevitable. The Aga Khan Trust for Culture set out to prove that those conditions could be reversed and that positive change could be sustained.

FROM A WASTELAND INTO A PARK

When the project of turning a rubble dump into a park that would act as a catalyst for development was first mentioned 20 years ago, it was considered outlandish. At that time, the concept of environmental improvement in cities was limited to planting trees in a few streets. Since then, many cities, notably Barcelona, have transformed neglected areas into vibrant city centres, but in the early 1980s, the concept was still new and untested.

Despite scepticism, the local authorities approved the choice of the site and the first plans were drawn up. The work was delayed by the integration into the Park site of three large fresh water reservoirs, each 80 metres in diameter and 14 metres deep. But in 1990 a protocol was signed between the Aga Khan Trust for Culture and the Governorate of Cairo that led to new plans taking into account the water tanks.

In 1992, the Aga Khan Trust for Culture established its Historic Cities Support Programme, to implement urban rehabilitation projects in different parts of the Islamic world. Cairo became its most demanding project, encompassing not only the construction of the Park but the restoration of the 1.5 kilometre section of the Ayyubid wall revealed by the removal of the accumulated rubble. It also included the socioeconomic rehabilitation of the neighbouring Historic City, which required launching of numerous restoration and community-initiated development projects. The larger area development project became a testing ground, and a case study, for finding solutions to challenges ranging from the technical demands of physical restoration to the equally challenging issues of socioeconomic development.





TECHNICAL CHALLENGES

The site posed several technical challenges. It had been a debris dump for over 500 years. This required excavation, grading and replacement with appropriate fill. Over 765,000 m³ was taken out of the Park and 160,000 m³ was used as fill elsewhere on site. A further 605,000 m³ was subjected to geotechnical treatment (sieving, washing, etc.) and mixed with 60,000 m³ of special sand and topsoil to enable the site to be covered with a layer of “good” soil from 0.5 to 2.0 metres deep. A total of 1.5 million cubic metres of rubble and soil were moved, which represents over 80,000 truckloads.

Over two metres underneath this layer of top soil is a clay membrane layer, 0.50 metres thick, which had to be laid down and engineered to prevent irrigation water seepage as well as soil settlement. Part of the clay was recuperated from the boring of Al-Azhar tunnel; the rest came from river bed sources not far from Cairo.

To correct high saline levels in the soil, “sweet sand” and top soil were mixed into the top layer, with corrective additives such as compost sulphur and calcium superphosphate. Salinity at present is between 8,000 and 13,500 ppm, which is high for most plants, but will decline as the salts are flushed out by irrigation. During testing stages, many plants died because of the salinity, and had to be replaced with less sensitive varieties.



ARCHITECTURE

The three buildings (Citadel View Restaurant, Lakeside Café and entrance building) were the object of a competition between seven international and Egyptian architectural firms. The Citadel View Restaurant was designed by Egyptian architects Rami el-Dahan and Soheir Farid. The Lakeside Café project was awarded to Serge Santelli, Paris.



The total surface of the entrance building is 860 m², and the Citadel View Restaurant site is 3965 m², including the external terraces. The Lakeside Café has over 1500 m² usable surface. All buildings have masonry bearing walls with a high-sand-content limestone cladding, marble and stone pavements, and marble and ceramic tiles. All the Park buildings rest on piles or rafts. Nearly all materials used are of Egyptian origin, as is all the furniture, mostly made by local carpenters in Darb al-Ahmar.



LANDSCAPING FEATURES OF THE PARK

The Park’s site was designed by Sites International, an Egyptian landscape architectural firm. Most features of the Park were based on the traditional use of public spaces in Islamic contexts. This legacy can be seen in a variety of styles from different periods and different regions. It is reflected in the *bustan*-like orchard spaces, the shaded sitting areas (*takhtaboush*) and the

Fatimid archways used in the construction of Park buildings, among other elements. Persian and Timurid elements are also reflected in the water channels and fountains. Specific features of the Park include:

- The Royal Palm Promenade
- Geometric Garden
- Southern lookout
- Children's play area
- Children's amphitheatre and stage
- Northern lookout plaza and kiosk
- Water cascade garden
- Lake
- Orchard
- Playing fields
- Historical wall promenade and amphitheatre

The fountain and stream-lake are divided into two systems. The cascade and fountain system, which is approximately 90 metres long, is run by two pumps that re-circulate the water. The stream and lake are fed directly by raw Nile water from a nearby municipal line, a pipe measuring approximately 170 metres off site. The lake water is then filtered mechanically and pumped throughout the Park's irrigation main line. The total length of the main and lateral irrigation lines within the Park site measures approximately 10 kilometres.

The Park has all necessary amenities, such as ramps and toilet facilities, for the handicapped. The marble benches and lighting were designed by Sites International and built by local artisans using local materials.

HORTICULTURE

The realities of seasonal high temperatures, low humidity, scant rainfall and desert winds imposed severe conditions on the Park's plants and trees. Specialist plant nurseries were created, both on site and outside Cairo, to identify the best plants and trees for the soil, terrain and climate. The nurseries also carried out the propagation of the necessary plants to furnish the Park – 89 varieties of trees, 51 shrubs, five sorts of grass, 14 climbers, 50 groundcover plants and 26 varieties of succulents. Over 655,000 young plants from cuttings and seed were planted. Most of the lawn was planted elsewhere and brought in as turf. The lawn areas required four metric tonnes of grass seed.

The nurseries contain over two million plants and trees, which can be used not only for replenishing the Park's vegetation, but for planting in pots in the courtyards and roof terraces of the historic city, for sale to official and private garden contractors and for visitors to the Park. A sales outlet for plants is envisioned on site.





Perhaps the most interesting local varieties of trees are Sycamores, *Zyziphus* and four types of *Acacia*. Other species include the *Cassia smallii* and *Sophoras arizonica* and *japonica* trees. The non-Egyptian native plants were developed from stock in the country and adapted to local conditions. A good deal of experimentation was required to find hybrids that would withstand the difficult soil conditions found at the Park. Reflecting garden traditions in both the East and West, many medicinal and culinary herbs were planted in the Park, including laurel, chamomile, mint, lemon grass, coriander and thyme. A wide variety of roses have been grafted onto *Rosa canina* rootstock to ensure that they will thrive in Park conditions.

The Park utilises an irrigation system providing water through drippers and sprinklers. The irrigation is regulated by a special weather station in the Park which calculates the water needs based on temperature, humidity and wind speed.

RESTORATION OF THE AYYUBID WALL



When the Park project began in the mid-1990s, only the crenellations of a buried wall were visible. When the wall was excavated to a depth of 15 metres, a 1.5 kilometre section of the historic Ayyubid Wall and towers was revealed in all its splendour.

A huge archaeological conservation task was initiated, in conformity with international standards. The restoration of a 1.5 kilometre stretch of the eastern Ayyubid wall, which started in 1999, is to continue until the end of 2007. The Aga Khan Trust for Culture has taken the lead in the restoration of the stretch of the Ayyubid Wall abutting the Park with the coordination and approval of the Egyptian Supreme Council of Antiquities. Other sections of the Ayyubid Wall (north and west of the Park) are being restored by the Supreme Council of Antiquities.

THE DEVELOPMENT OF DARB AL-AHMAR



The neighbourhood of Darb al-Ahmar is one of the poorest and most populous areas of Cairo, lacking adequate sanitation and rubbish-collection services, with refuse often piled up in the streets and in courtyards. Faced with low rents, absentee landlords invested little or nothing in their buildings, with predictable results: roofs and walls collapsed, the historic monuments came under greater and greater stress, and expectations for the quality of life declined along with physical decay. Yet community and family life remained strong. Small family businesses, including carpentry, tile making, and other small crafts, continued to provide a portion of the local population with a living.

The project for socioeconomic development of the neighbourhood was conceived with the idea that the removal of the former rubble dump and

its metamorphosis into a park would have a catalytic effect on the general improvement of the district. However, to ensure this result, the project's scope had to encompass the cultural monuments in the neighbourhood and the people of this area. This approach took the form of an integrated urban area development plan containing a series of pilot interventions aimed not only at the restoration of landmark buildings, but at wide-based socioeconomic development.

The Aga Khan Trust for Culture brought together institutional partners, local non-governmental organisations, municipal institutions, neighbourhood representatives, local businessmen and people living and working in the area. A detailed survey of the local population's socioeconomic needs was made and a series of meetings were then held to determine the community's own development priorities. Through consultations with the residents, a list of priorities emerged, including training, sanitation, housing rehabilitation, a need for microfinance, rubbish collection, primary health care and a community centre, among others.

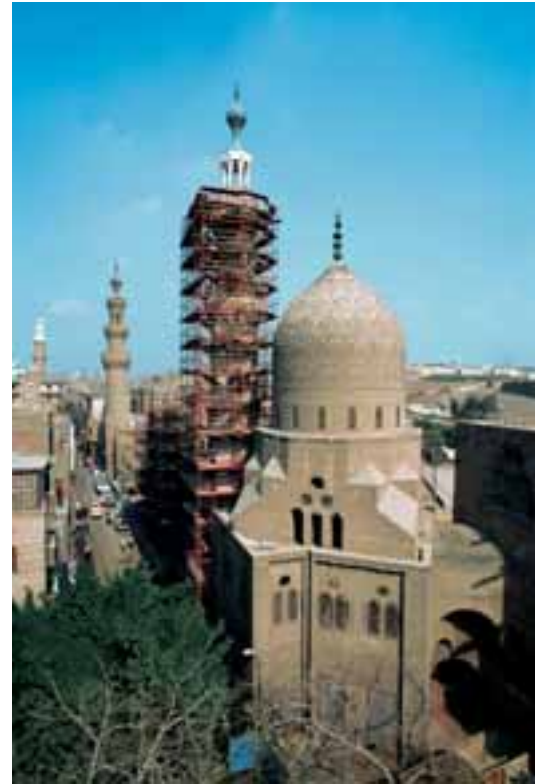
By late 2004, more than EGP 25 million (US\$ 4 million) had been spent on socioeconomic rehabilitation in Darb al-Ahmar, for housing projects and monument restorations with generous grants from the Egyptian-Swiss Development Fund, Ford Foundation the World Monuments Fund and AKTC. From 2005 to 2008 a larger programme for the rehabilitation of Darb al-Ahmar will be implemented with major contributions from the Social Fund for Development, Ford Foundation, Canadian International Development Agency (CIDA) and AKTC.

TRAINING

Many of the skills-training programmes have been implemented in conjunction with restoration and rehabilitation interventions on the Ayyubid Wall or in restoration projects in the district. Specifically, building tradesmen (masons, carpenters, plumbers and electricians) have been given product quality training. Apprenticeships offered to local youth in connection with stone masonry and carpentry, among other trades, are also part of the programme. Other apprenticeships with local businesses have been arranged, through a stipend system, in the fields of computers, mobile phone services, automobile electronics, office skills, furniture making and tourist market goods.

Training has been offered by local master craftsmen and technicians as well as through a handful of foreign experts. The project has offered over 150 training positions in activities such as stone carving, masonry work and materials conservation.

Park construction has also stimulated the rediscovery of lost skills, such as the restoration of the intricate traditional windows (*mashrabiyya*). In the



Al-Azhar Park, Ayyubid Wall
and Darb al-Ahmar Programmes



**Al-Azhar Park landmarks
and facilities**

- 1 Neighbourhood recreation field
- 2 Park administration office
- 3 Citadel overlook
- 4 Picnic meadow
- 5 The park orchard
- 6 Lakeside Café
- 7 Sunken garden
- 8 Palm promenade
- 9 South lookout point
- 10 Main park entrance at Salah Salem Street
- 11 Visitor parking
- 12 Geometric garden
- 13 Citadel View Restaurant
- 14 North lookout point
- 15 Children's play area
- 16 Historic Ayyubid Wall
- 17 Amphitheatre
- 18 Site of the future urban plaza



حديقة الأزهر
Al-Azhar Park



Ayyubid Wall restoration programme major restoration locations

- 19 Community gate at the Khayrbek Complex
- 20 Visitors' circuit and between Towers 4 and 5
- 21 Archaeological remains
- 22 Restoration of gate of al-Mahruq
- 23 Restoration of gate of al-Barqiyya
- 24 Archaeological excavations in the north triangle

Darb al-Ahmar Neighbourhood ongoing physical intervention project sites

- 25 Development of open space and housing rehabilitation in gate area al-Wazir
- 26 Conservation project at the Khayrbek Complex
- 27 Restoration of the Umm al-Sultan Shaaban Mosque
- 28 Housing intervention along the Ayyubid Wall
- 29 Housing rehabilitation in Darb Shoughlan
- 30 Restored Darb Shoughlan School Community Centre
- 31 Open space improvements in Midan Aslam
- 32 Atfet Asaad housing rehabilitation



restoration process of the Darb Shoughlan School, which was once a gutted building, the need for floor tiling matching the original tiles led to the rediscovery of a forgotten *opus sectile* technique. The tile maker has revived the process, raised the quality of the tiles to the required standards, and has sparked interest in exports to Europe.

SOCIOECONOMIC DEVELOPMENT IN DARB AL-AHMAR

The first phase of the programme was successfully completed by the end of 2003. Based on the results of this phase and the outcome of the socioeconomic survey, a second phase of integrated urban development in Darb al-Ahmar, with a duration of four years, was started in January 2004.

During the second phase, rehabilitation and restoration of a substantial number of houses is foreseen, as is open space improvement. The existing credit programme will be expanded to stimulate entrepreneurship and increase levels of income for the area. Provision of basic social services (health, education and solid waste disposal) will be addressed in collaboration with local institutions active in these sectors and by strengthening their organisational and institutional capacities.



The successful employment scheme started during the first phase of the programme will be continued and expanded. In addition to the socioeconomic programme for Darb al-Ahmar, planning is underway for the construction of an urban plaza with a large car park, at the northern edge of the site. This will provide direct economic impetus to the surrounding district.

MICROCREDIT PROGRAMME

Despite the decline of the neighbourhood's physical structures, the entrepreneurial spirit has not died. What was missing was the means to start or expand the small businesses in the area. Since the beginning of the programme, a variety of businesses have been either started or further financed within three principal categories: shoemaking, furniture and tourist goods. Loans are used to buy new materials for traditional workshops or to create new businesses, such as a dry cleaner and an Internet café.



The microcredit programme was completely revised in 2004 and a comprehensive microcredit operation manual was developed and updated. In addition, a loan tracking software was installed. With these changes the programme was able to reach close to 400 new borrowers, with a near 100% recovery rate on loans within the first six months. Housing credit and business development services are planned for the future. By the end of the second phase, in 2008, it is expected that the total microcredit expenditure will be more than US\$1 million per year.

HEALTH, EDUCATION AND SANITATION ISSUES

Currently, the Trust is assisting the local government authority and its new private solid waste contractor to improve the garbage disposal process in the area. Preparations are in progress to extend coordination to the entire Darb al-Ahmar district. During 2004, 70 women were enrolled in the adult literacy programme. AKTC has worked as a broker between residents and the government-appointed private contractor in order to ensure proper and timely collection of garbage. A primary health care clinic providing a range of services, particularly to women and children, has been operating under the project umbrella.



HOUSING REHABILITATION

By 2004, 19 community-owned houses (approx. 70 families), a health centre, a business centre, the restoration of an old school building and two reconstructed minarets were completed. An additional 11 houses will be rehabilitated either directly through AKTC's activities or through the microcredit programme (eight more began in the spring of 2004).

Of the 19 housing projects completed in 2004, seven were part of the initial pilot credit programme. It is envisaged that up to 200 houses (50 houses annually) will be brought into the housing credit programme by 2008. Housing projects that AKTC agrees to rehabilitate are selected on a case-by-case basis; many of these are in conjunction with AKTC's conservation programmes along the Ayyubid Wall and other identified monument restoration programmes.



RESTORATION AND RE-USE LANDMARK BUILDINGS

Historic buildings in Darb al-Ahmar include some of mediaeval Cairo's finest historic monuments. There are 65 monuments registered by the Supreme Council of Antiquities in the area, as well as several hundred unregistered but architecturally significant buildings.

AKTC targeted three representative projects: conservation of the Umm al-Sultan Shaaban Mosque, restoration of the Khayrbek complex (composed of several associated buildings, which in the future will be used as space for conducting administrative training classes) and the rehabilitation and adaptive reuse of the former Darb Shoughlan School, which now houses the Community Centre and AKTC's offices. A library was donated to the Community Centre by the German Sandstorm Group and a computer centre by Daimler-Benz. These initiatives are being undertaken through special agreements between AKTC, the Supreme Council of Antiquities and the Ministry of Awqaf (Religious Endowments).





The fourteenth-century Umm al-Sultan Shaaban mosque and minaret restoration project featured stabilisation of the roof and reconstruction of the top of the minaret, as well as repair of damage caused by the 1992 earthquake.

The stabilisation and partial restoration of the Khayrbek complex (named after the first Governor of Egypt after the Ottoman conquest) includes the thirteenth-century Palace of Alin Aq, the Khayrbek Mosque and Sabil-Kuttab, a ruined Ottoman house, as well as surrounding open spaces. The entire complex is expected to provide a setting for recreational and cultural events and to provide a focal point in the district for residents and visitors.

The rehabilitation of the former Darb Shoughlan school, an early twentieth-century building located along the historic wall, involved extensive renovation of a structure that was gutted. The building provides the space for a community centre in a context that sorely lacks public facilities. The re-use of the building will also feature office space.

EMPLOYMENT

During the peak of the park construction phase, approximately 400 workers were on site daily, involving three main contractors, over 15 specialized contractors, and many material suppliers and vendors. At least 35 full-time engineers and inspectors are overseeing the work. The Park is expected to permanently create over 250 jobs on site, and other jobs will be created for vendors and suppliers. The Ayyubid wall project involves more than 200 workers and training positions which have gone primarily to the people from Darb al-Ahmar community. In addition, most of the materials used in the restoration of the historic wall come from the local market.

SUSTAINABILITY

Because the project hires most of its staff members from the Darb al-Ahmar community, by the end of this second phase the project staff will be technically and administratively able to carry out the activities and direct the project. The credit services within the project are designed to be self-sustaining and will be continued after the initial disbursement. Investments are recuperated during the second phase. It is envisioned that the microcredit activities could eventually become a formal microfinance bank. The other social services like health and education are not, by nature, self-sustaining unless a fee for service is instituted.

In August 2007, the Governorate of Cairo will take over operation of the Park unless the agreement is extended for another five years.

The main sources of income for the Park will be:

- Entrance fees
- Revenue from the restaurant and the café



- Revenue from sale of snacks through various kiosks
- Special events (parties, shows, etc.)
- Parking fees
- Sale of plants

The Park is expected to run a deficit for the first two to three years of operation. AKTC is expected to cover this shortfall. About 2000 visitors per day are projected. The entrance fee will be higher for foreigners than for Egyptians. Darb al-Ahmar residents and children under 12 will receive discounts for entry.

A CASE STUDY

From its inception, Al-Azhar Park was intended to be a case study. Because of its scale, and the variety and scope of the various projects and archaeological assets, it presented a laboratory for methods on the revitalisation of poor neighbourhoods in historic cities. Many of the best practices developed in the Trust's projects, such as in Northern Pakistan and Zanzibar, were tested for their replicability. If they worked, it could be assumed that they were replicable in other contexts.

In conjunction with the inauguration of the Park, a seminar will take place in Cairo, bringing together top experts in landscape design, environmental issues, restoration and conservation, as well as socioeconomic development, with the aim of situating the Al-Azhar project within the framework of the rehabilitation of Historic Cairo, including both current and future initiatives. Subjects discussed will include cultural rehabilitation as a catalyst for development, aspects of conservation and archaeology in an urban context and best practices in community-based rehabilitation of historic districts.

Through the seminar and through publications, lessons learned will be disseminated to Ministries of Culture, Planning and Finance, as well as municipal administrations, so that decision-makers can explore methods of revitalising their own historic areas. Civil society organisations which are involved in the restoration of historic cities, including local NGO's, microcredit organisations, and service providers in health and education, can also learn from this process.

TESTING CONCEPTS AND METHODOLOGIES

A variety of development and restoration concepts and methodologies – which will be discussed at the symposium – were tested or emerged from the process. Many are of a technical nature, and are documented in technical publications (see “Resources” at the end of this document) but the broader concepts include the following:





1. The “top-down” approach to development does not work.

Development has to be grassroots and grounded in the needs and priorities of the community. Time and again the agencies of the Aga Khan Development Network have seen that the best development ideas come from the residents themselves. The role of an external institution is to help residents identify their own needs and provide some of the means and expertise to create development solutions. Without the consent and the participation of the people affected, development projects are doomed to fail.

2. There is an alternative to traditional remedies to the decline of historic neighbourhoods.

These usually involve isolating monuments by the forced removal of inhabitants in surrounding neighbourhoods or accepting a *laissez-faire* approach that allows commercial developers to set the priorities of a neighbourhood. In either case, residents are displaced. The approach of the Aga Khan Trust for Culture, on the contrary, has been to stimulate rehabilitation without displacing residents, largely by ensuring that they have a stake in the future of their community, by helping create viable businesses through the provision of micro-credit and assisting owners restore crumbling houses, for example. Community priorities, including health, education, solid waste disposal, job training and jobs, are also being addressed.

3. None of the aspects of development can be treated in isolation from the others.

An environmental problem cannot be treated in isolation from the surrounding social issues. For physical rehabilitation to be successful and sustainable, it must be coordinated with social programmes. Only by addressing the broader issues in a comprehensive way can development be effective and lasting.

4. There is a need for a broker between local communities and government authorities on issues that are important to residents.

This can take a number of forms, such as brokering agreements on methods of restoration and bridging differences between communities and government authorities.

5. By providing a successful example – rehabilitation of a row of houses, for example – pessimistic expectations can be reversed when people see what is possible.

This is enormously important in neighbourhoods where decline is often accepted as inevitable.

6. Historic monuments can be vibrant and important parts of community life rather than a drain on resources.

Many such monuments are restored but then padlocked most of the time because of a lack of funding for personnel. However, through adaptive re-use monuments and cultural assets can be returned to their original function as integral parts of daily life.

AVAILABLE RESOURCES

CD-ROM includes:

- Images of the project in high, medium and low resolution, including all images in this brief.

DVD includes:

- “Green Space for Cairo” – BBC Earth Report (aired week of 15-21 March 2004)
- BBC Earth Report Arabic
- BBC Earth Report English

Technical Documentation:

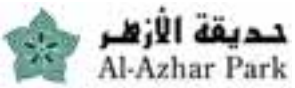
- Al-Azhar Park
- Ayyubid Wall
- Landmark Buildings and Monuments
- Social Programme in Darb al-Ahmar

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