Cairo

Renewing the Historic City
The Aga Khan
Historic Cities Programme

Cairo
Renewing the Historic City

Edited by Philip Jodidio
## Contents

### Preface
7  Preface  His Highness the Aga Khan

### Approaching Cairo

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>A Model for the Redevelopment of Historic Urban Centres</td>
<td>Luis Monreal</td>
</tr>
<tr>
<td>20</td>
<td>The Historic Cities Programme. AKTC Methodology at Work in Cairo</td>
<td>Cameron Rashti</td>
</tr>
<tr>
<td>34</td>
<td>Historic Cairo as a World Heritage Site. A Long and Uncertain Path to Urban Conservation</td>
<td>Daniele Pini</td>
</tr>
</tbody>
</table>

### Al-Azhar Park

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>The History of al-Azhar Park’s Development. Challenges and Opportunities</td>
<td>Cameron Rashti</td>
</tr>
<tr>
<td>76</td>
<td>A Brief History of Green Spaces in Cairo</td>
<td>Nasser Rabbat</td>
</tr>
<tr>
<td>90</td>
<td>Landscaping, Planning and Design</td>
<td>Anthony Wain</td>
</tr>
</tbody>
</table>

### The Historic Walls – Bridge and Barrier

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>102</td>
<td>The History of al-Darb al-Ahmar</td>
<td>Seif El Rashidi</td>
</tr>
<tr>
<td>112</td>
<td>Discovering the Fatimid Walls</td>
<td>Stéphane Pradines</td>
</tr>
<tr>
<td>126</td>
<td>Conserving the Ayyubid City Wall</td>
<td>Francesco Siravo</td>
</tr>
</tbody>
</table>

### Al-Darb Al-Ahmar – Urban Rehabilitation

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>146</td>
<td>Community Development</td>
<td>Jurjen van der Tas</td>
</tr>
<tr>
<td>158</td>
<td>Monuments Conservation Programme in al-Darb al-Ahmar</td>
<td>Christophe Bouleau</td>
</tr>
<tr>
<td>170</td>
<td>Urban Renewal</td>
<td>Cameron Rashti, Jurjen van der Tas, Francesco Siravo</td>
</tr>
<tr>
<td>182</td>
<td>Change and Continuity in a Historic Urban Settlement</td>
<td>Geoffrey Salkeld</td>
</tr>
</tbody>
</table>

### Impact Evaluation – The Project Ten Years On

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>196</td>
<td>A Panoply of Positive Human Development Outcomes</td>
<td>Yudhishtir Raj Isar</td>
</tr>
<tr>
<td>204</td>
<td>Al-Azhar Park. The Green Heart of Cairo</td>
<td>Sherif Erian</td>
</tr>
<tr>
<td>216</td>
<td>Urban Redevelopment Lessons Learned</td>
<td>Dina K. Shehayeb</td>
</tr>
</tbody>
</table>

### Case Studies

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>230</td>
<td>Alin Aq Palace</td>
<td></td>
</tr>
<tr>
<td>234</td>
<td>Aqsunqur Mosque</td>
<td></td>
</tr>
<tr>
<td>238</td>
<td>Aslam al-Silahdar Mosque</td>
<td></td>
</tr>
<tr>
<td>244</td>
<td>Khayrbek Complex</td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>Tarabay al-Sharif Complex</td>
<td></td>
</tr>
<tr>
<td>254</td>
<td>Umm al-Sultan Shaaban Mosque and Madrasa</td>
<td></td>
</tr>
<tr>
<td>260</td>
<td>Housing Programme</td>
<td></td>
</tr>
<tr>
<td>264</td>
<td>Open Spaces and Infrastructure</td>
<td></td>
</tr>
<tr>
<td>269</td>
<td>Acknowledgements</td>
<td></td>
</tr>
<tr>
<td>271</td>
<td>Biographies</td>
<td></td>
</tr>
</tbody>
</table>
Preceding pages, Khayrbek Mosque, Mausoleum and minaret seen from the rear.

Shadow play and climate control at the entrance of the Citadel View Restaurant in al-Azhar Park.
Preface

We stand today confronted with starkly different visions of the future of historic cities. At a time when our heritage, the anchor of our identity and source of inspiration, is being threatened with destruction, by war and environmental degradation, by the inexorable demographic and economic pressures of exploding urban growth, or by simple neglect, there can be no doubt that it is time to act. Will we allow the wealth that is the past to be swept away, or will we assume our responsibility to defend what remains of the irreplaceable fabric of history? My answer is clear. One of our most urgent priorities must be to value, and protect, what is greatest in our common heritage. Breathing new life into the legacy of the past demands creativity, tolerance and understanding beyond the ordinary. The Aga Khan Trust for Culture has accordingly sought to identify three “themes of concern” that correspond to the challenges we face. First, there must be an effort to protect, restore and skilfully reuse the heritage of the past. Second, we must address the pressing needs for social development and community buildings in a Muslim world all too beset by poverty. Third, it is essential to identify contemporary architectural expressions of quality, the best efforts at capturing the opportunities of the present and defining our aspirations for the future.

Since it was founded by my ancestors, the Fatimids, in AD 969 (AH 358), Cairo has been one of the great centres of Islamic culture and civilization. Despite its rapid growth in modern times, it still boasts an unrivalled group of monuments and historic areas. These buildings and neighbourhoods stand as a nearly indelible testimony to Cairo’s past, but I believe that they are also the key to its future. Today, with its nearly twenty million inhabitants, the contemporary metropolis clearly poses the full array of development problems. It raises in the most acute terms the question of how to create links between this rich heritage and the demands of today’s world.

The seeds for our cultural engagement in Cairo were first planted at a seminar more than thirty years ago. An enormous dumping ground of debris had developed over the centuries and surrounded one of Cairo’s poorest neighbourhoods. We made an effort to create a state-of-the-art green space: al-Azhar Park. That effort soon extended into a great archaeological adventure, uncovering and restoring some of Cairo’s oldest buildings. The twelfth-century Ayyubid Wall, for example, was almost completely covered in debris. We could not even tell how long it was! Today, thanks to work on site, important remains of the Fatimid and Mamluk Walls have been discovered and preserved. The minarets of Khayrbek and Umm al-Sultan Shabaan, like other landmark structures, were badly compromised. Six centuries of wear and tear had taken a toll – one that was difficult to reverse, especially given the vast array
Above, vista along al-Azhar Park’s main spine towards the Citadel of Cairo.

Right, al-Azhar Park’s formal garden and the Citadel View Restaurant.
of heritage sites in Egypt that were competing for scarce resources. Nonetheless, with the approach of a new century, the work of restoration and social development began here in the Darb al-Ahmar neighbourhood.

Our efforts here have been built with a great many partnerships – with the Egyptian government, the Governorate of Cairo, the Supreme Council of Antiquities, the World Monuments Fund, the Social Fund for Development, the Swiss Egyptian Development Fund, the Ford Foundation, the French Institute for Oriental Archaeology, and the people of al-Darb al-Ahmar. It has truly been a “team” effort – joining a host of local, national and international players. The Aga Khan Trust for Culture strives to approach such opportunities through a multi-tier, multidimensional strategy, drawing on experts not only from fields such as archaeology, conservation, restoration and engineering, but also from the worlds of finance, tourism, education, sanitation and public health – among others. The cultural components of such projects are numerous, varied and much less finite than most other development initiatives. The Trust, therefore, remains engaged with its projects.

Seven major monuments were restored in al-Darb al-Ahmar, and three public open spaces were created. We can take pride in the nearly twenty million visitors who have already come to al-Azhar Park. We can talk about how one thousand people were employed directly on this work, while another sixteen hundred were assisted in finding other long-term jobs. We can refer to the 175 craftsmen who were trained in restoration skills, while another two thousand people finished other forms of technical and vocational training. The overall impact on the quality of life in this community has been palpable. Disposable family income in al-Darb al-Ahmar increased and literacy rates climbed. And the impact will continue to ripple out beyond this community. For example, hundreds of young Egyptians have been trained in restoration by some of the world’s best experts; and they have gone on to create autonomous teams that can take on restoration projects anywhere in Egypt.

I wish to underscore another central motivation for this work. Through revitalization, we hope to preserve an extraordinary panorama of Islamic history, from the Fatimid caliphs to the present. At a time when fractures in the unity of the umma are so highly visible, I see such projects as particularly hopeful. They are important symbols for the identity of all Muslims; sources of pride for the entire umma. And let us be reminded, too, that in undertaking this work, we are not only attending to Islamic heritage, but also preserving an essential part of the patrimony of all humankind.
A MODEL FOR THE REDEVELOPMENT OF HISTORIC URBAN CENTRES

LUIS MONREAL

His Highness the Aga Khan inaugurated al-Azhar Park on 25 March 2005. In the speech given on that occasion, he recalled the incremental approach that guided the interventions of the Aga Khan Trust for Culture (AKTC) and the Aga Khan Development Network (AKDN) in what would become a template for future actions that bring together renovation, new construction, infrastructure development and socio-economic initiatives. He stated: “What started as one project actually turned into three: the design and construction of a park, the restoration of the Ayyubid Wall, and the community redevelopment of the historically important Darb al-Ahmar neighbourhood. All are tightly interconnected and have added to the body of knowledge we can share with others.”

The multifaceted nature of the interventions of AKDN in the heart of Old Cairo was the result of a series of events that began in 1984. It was in that year that an international seminar, entitled “The Expanding Metropolis: Coping with the Urban Growth of Cairo”, was organized by the Aga Khan Award for Architecture. Significantly, Ismael Serageldin, at that time Director for Programs in West Africa at the World Bank, spoke at the seminar of the need for architects, builders and urbanists to take into account historic and contemporary socio-economic, political and demographic factors in framing their actions in places such as Cairo.

During his visit to the 1984 seminar, the Aga Khan met with the Egyptian architect Hassan Fathy in the architect’s apartment. Located on the top floor of an eighteenth-century urban mansion called Beit al-Fann, this residence is in the area of the Citadel, close to the mosque of Sultan Hassan. From the broad terrace of Fathy’s apartment, the great monuments of Islamic Cairo were clearly visible, but so, too, was an empty expanse of land, running along what was left of the Ayyubid Walls built in the twelfth and thirteenth centuries by Salah al-Din and his successor. As the heir of the Fatimid founders of Cairo and Egypt’s greatest modern architect looked out, a part of the city’s future began to take form.

It was also in 1984 that the Aga Khan decided to donate a park to the citizens of Cairo. Two years later the thirty-hectare site on the Darassa Hills belonging to the Governorate of the city was selected. Because of its sheer size and site near the historic centre of Cairo, this location offered a unique opportunity to create a new “lung” for a megalopolis that is notably deficient in green spaces. What little greenery or park space may have existed in the city has been in large part consumed by the pressures of urbanization. His Highness the Aga Khan recognized from the outset that a park must not only be a space for leisure where residents can compensate for...
the stress of the densely populated city, but that it should also favour community relationships and family life. It would be a place set in the heart of the medieval city, yet dedicated to the future of Cairo.

The location of al-Azhar Park is, indeed, exceptional in many ways, not least because it abuts the Historic City Walls. Though parts of the Ayyubid Wall remained visible, much of it had been buried under centuries of rubble. The largely empty tract visible from Fathy’s apartment was nothing other than the ancient rubbish dump of the metropolis. More than half a millennium of trash and debris whose accumulated mass would thus ultimately define the contours of the future al-Azhar Park. Once the site of the park had been selected, it became clear that restoring these Walls would become a major element of the project. Beginning in September 2001, the French Institute for Oriental Archaeology (IFAO) undertook work in the so-called Darassa parking area, finding, among other elements, unknown sections of the Fatimid Walls (1087–92) and of the Ayyubid Walls (1174–78).

Twenty-five years ago, other great cities began to imagine the recovery of their abandoned, often industrial fringes. Thus Barcelona, chosen in 1986 to host the 1992 Summer Olympic Games, engaged in a large-scale renovation that opened the city once again to the sea. In New York City, the industrial South Street Sea Port area was converted, beginning in 1982, into a tourist attraction and “festival marketplace”. Cairo with the pioneering al-Azhar Park project made use of an ancient rubbish heap to recover views and access to its own rich cultural heritage.
In 1990, the Governorate of Cairo and the Aga Khan Trust for Culture, defining the procedures for the development of the Park, including the need to integrate three large water tanks as part of a district reservoir system, signed a protocol. The date of this agreement makes it clear that Cairo was in the vanguard of efforts to improve the urban environment through the recovery of underused land. This and other agreements related to the development of al-Azhar Park took the form of ‘Public-Private Partnerships’, a form that AKTC and others have since used successfully on numerous occasions in the context of the redevelopment of historic areas in Islamic cities.

When the potential and challenge of the restoration of the Ayyubid Walls entered the scope of the project, it became obvious that the neighbouring Darb al-Ahmar
Community had to be closely involved. The Park could thus benefit all of Cairo but it would also become the main resource of the neighbourhood. In conjunction with the creation of a new green space, it was decided to engage in a bold experiment aimed at upgrading the socio-economic environment of the community. Far more than a matter of landscape design and historic preservation, this was an attempt to provide an integrated, sustainable renewal of a large section of Cairo that could serve as an example for the development of other parts of the medieval city. Although historic preservation actions have often been undertaken elsewhere, the evolution of the AKTC programme in Cairo uniquely brought together the apparently disparate domains of landscape design, conservation of historic monuments – including many in al-Darb al-Ahmar – and a programme for socio-economic development in the area. The combination of these initiatives constituted nothing less than a proposal to revive elements of a historic city centre and to breathe new life into the community concerned.

It is the philosophy of His Highness the Aga Khan that sustainable socio-economic development is not possible unless a parallel cultural change takes place. The Old City is by no means inherently to be swept aside, nor is it an obstacle to progress. Old structures, if properly treated in conjunction with an adequate integration of newer buildings, can clearly provide a good quality of life and be more qualitatively...
interesting than a purely modern development. It was essential to put this process in motion through a strategy of gradual evolution rather than any rupture with the past. Based on knowledge of negative experiences in the West and elsewhere, where historic areas were entirely replaced by new neighbourhoods, this would be an integrated intervention – where the tools for economic development were combined with a judicious treatment of the existing urban tissue.

In the nineteenth century, al-Darb al-Ahmar was the area of a certain gentry, a middle- to upper-class neighbourhood, but this situation changed, in particular after the construction of the Aswan High Dam (completed in 1970) caused an exodus of rural populations who could not find work in Upper Egypt towards urban areas and Cairo in particular. Provincial agricultural workers replaced the gentry. Despite having been in the area since the 1970s, many of these people still have difficulty adapting to the ways of the city, in creating a sense that they are more than a transient population. In an attempt to alleviate this problem, the Darb al-Ahmar project devised a strategy aimed at providing tools for residents to become not only urban dwellers but also to gradually climb the social ladder. The goal was clearly not to provoke a new gentrification, but to give the residents of al-Darb al-Ahmar what they needed to improve their lives. This is where the resources of the Aga Khan Development Network came into play, by promoting the creation of local associations, developing vocational training opportunities – varying from computer skills to tailoring – and offering financial opportunities through a microfinancing and micro-credit strategy. Healthcare was also part of the scheme with the creation of an obstetrics centre for women of the area. Training and credits are not enough, the infrastructure also had to be dealt with: water and electricity upgrades were undertaken in collaboration with the Governorate of Cairo. AKTC directly assumed the responsibility for the public spaces near the monuments it restored. Although pragmatic in its rational progression from the original idea of a park to that of archaeological work that involved not only restoration but historic research, and on to the socio-economic implications of working directly

Above, families enjoying al-Azhar Park’s open spaces.

Below, peak visitation along Azhar Park’s main spine.

Left, landscaped slopes in al-Azhar Park.
next to one of the poorest areas in Cairo, the efforts of AKTC began to form a logical system whose conclusions would serve other projects shortly thereafter.

For several reasons, the construction of al-Azhar Park and related projects should be construed as symbols of hope. The first of these involves the rediscovery of Cairo itself. From the now green hills of the Park, Cairo, for the first time, has a vantage point that allows visitors to take in the heart of the Islamic city in a single glance. This metropolis offers one of the greatest concentrations of art and culture in the world, on a scale matched by very few other cities. A second symbol of hope is the impact of the Park on the polluted environment. This thirty-hectare stretch of greenery has created its own eco-system whose microclimatic influence on neighbouring areas can only be positive. Since it houses three great water tanks for the city, al-Azhar Park is also Cairo’s symbolic fountain, a source of freshness in a city besieged by dryness. A third reason for hope is the cultural impact of the project. The Park and its influence in the area contribute to the development of a new perception of the city. Just as the renovation of Barcelona for the 1992 Olympics created civic pride, the inhabitants of Cairo can view this initiative as a source of inspiration. It is conceivable that the self-image of the city may evolve, and that other efforts to maintain and improve this great centre of learning and art will spring forth with no apparent link to what has gone on here, and yet al-Azhar Park will have quietly sown its seeds. Finally, it may be said that this project had an undeniable socio-economic impact. New job opportunities were created in the area, and new economic undertakings were launched if only because of the services required by the Park and the flow of visitors that it engenders. With an average of two million visitors a year, the Park generates enough funds for its own maintenance through gate and restaurant receipts. The overall impact on the quality of life in this community has been palpable. Disposable family income in al-Darb al-Ahmar, for example, increased by 27% between 2003 and 2009 – one third faster than in the whole of Old Cairo. Literacy rates climbed by one fourth. Despite the notable successes of the project, it will be noted at various points in this volume that subsequent outside events have sometimes had a negative impact, notably on the Darb al-Ahmar community. In the wake of the 2011 Egyptian revolution, for example, less control was exerted on the urban development of the city and certain structures were built without sufficient documentation and design quality. However, it is certain that the initiatives that were set underway by His Highness the Aga Khan more than thirty years ago have had a positive impact on the life of thousands of Cairenes.

With an average of two million visitors a year, the Park generates enough funds for its own maintenance through gate and restaurant receipts. The overall impact on the quality of life in this community has been palpable. Disposable family income in al-Darb al-Ahmar, for example, increased by 27% between 2003 and 2009 – one third faster than in the whole of Old Cairo. Literacy rates climbed by one fourth. Despite the notable successes of the project, it will be noted at various points in this volume that subsequent outside events have sometimes had a negative impact, notably on the Darb al-Ahmar community. In the wake of the 2011 Egyptian revolution, for example, less control was exerted on the urban development of the city and certain structures were built without sufficient documentation and design quality. However, it is certain that the initiatives that were set underway by His Highness the Aga Khan more than thirty years ago have had a positive impact on the life of thousands of Cairenes. More, the entire experience of the interventions of AKTC in Cairo has been at the origin of the development of a system based on ‘Public-Private Partnerships’, and a multifaceted approach that combines respect for history with an investment in the future. The template thus created in Cairo responds in a practical way to the theory expounded by Ismael Seregeldin at the 1984 seminar when he called on all those with a stake in the renewal of old urban centres to work together. The system developed served AKTC’s own later projects in Afghanistan and India, but it has also had an influence on historic urban renovation carried forward by other organizations.

The Aga Khan Trust for Culture and the Aga Khan Development Network as a whole did not come here simply to temporarily improve the landscape, but rather to bring forth a new growth and pride that will surely continue to flourish. When His Highness the Aga Khan looked out from the terrace of Beit al-Fann with Hassan Fathy in 1984, he saw the great monuments of Islamic Cairo, silent witnesses to a glorious past. The creation of al-Azhar Park, the restoration of the Ayyubid Wall and efforts in al-Darb al-Ahmar have been nothing other than an expression of confidence in the future of the metropolis and beyond, in the future of the great cities of Islam.
Above, the walkway along the Historic City Wall.
Below, circulation on the rampart walkway.
THE HISTORIC CITIES PROGRAMME
AKTC METHODOLOGY AT WORK IN CAIRO

Cameron Rashti

The Historic Cities Programme (HCP) has been operational in Cairo since the early 1990s, after the Aga Khan Trust for Culture (AKTC) entered into a Protocol Agreement with the Governorate of Cairo (1990) that called for the transformation of a thirty-hectare site in central Cairo – at the time a hilly and unstable terrain of debris – into a metropolitan park, the present-day al-Azhar Park. The 1990 protocol was the culmination, in turn, of many years of engagement by the Trust with Cairo as a prime exemplar of a historic city in the Muslim world, which, in the twentieth century, was to face the dilemma of modernization without sacrificing the integrity of its cultural heritage at the same time.

ORIGINS OF THE PROJECT
In the interest of highlighting the challenges and opportunities such simultaneous and opposing forces exerted on metropolitan and Historic Cairo, the Aga Khan Award for Architecture (AKAA) Programme sponsored a seminar on “The Expanding Metropolis: Coping with the Urban Growth of Cairo” in 1984 in Cairo. In this ninth in a series of seminars on “Architectural Transformations in the Islamic World”, an impressive array of area scholars, architectural, engineering and planning practitioners, and municipal officials were encouraged by His Highness the Aga Khan to reflect on the growing pressures of cities with populations over fifteen million by the end of the century. As His Highness framed the question at the time:

“Fifty cities are expected to have populations in excess of fifteen million by the end of the century. Are they going to collapse into disorder under the strain of expansion? And, if solutions can be found, will those solutions satisfy the needs of the inhabitants? [...] Cairo is likely to be one of those fifty cities. But, unlike many of the others, it has experienced centrally controlled urban planning going back over a century and, more significantly, possesses the rich tradition of a thousand years of Islamic culture…”

The 1984 seminar was to have an impact beyond the published proceedings of the essays and discussions that the seminar generated and which, on its own account, continues to offer critical insight on the subject. Following the seminar, to put ideas into practice, His Highness proposed the development of a metropolitan park in the historic core of Cairo as the initial step in the experiment of revitalizing marginal urban space in historic urban cores and, in the process, spurring socio-economic transformation and improvement. The precise delineation of the urban district of al-Darb al-Ahmar adjoining the selected park site – today’s al-Azhar Park – would take time.
and study. Both elements of this area development project and a long segment of the eastern Historic Wall (Ayyubid and Fatimid in parts), which pierces the two elements and serves as a spine, would preoccupy the Historic Cities Programme that was tasked in the early 1990s with the project.

PROJECT SCOPE
The Cairo area development project logically comprised ultimately three primary components – the Park, the Historic Wall and the district of al-Darb al-Ahmar (ADAA) – in an area-wide redevelopment and conservation initiative. Each component had its particularities, while their adjacency, interconnections and critical mass allowed for interesting synergies and cross-benefits. Teams working on the Park site needed to be respectful of the often fragile condition of the ramparts and towers of the Historic Wall, which, in numerous sections, were in a highly dilapidated condition. Passages through the Wall allowed the project to envision a park that would not only serve Greater Cairo but also provide vital green and leisure space for the residents of al-Darb al-Ahmar. The western slopes of the Park that flanked the Wall offered stunning views of Historic Cairo, already of interest to nineteenth-century travellers and painters² who had captured details of this panoramic view. The historic significance of this central zone of Old Cairo is commented on in a number of other chapters in this publication. On a different and immediate level, the architectural conservation work
carried out on numerous monuments in the area (discussed in the Case Studies at the end of the book) and the socio-economic vocational training activities expanded the base of trained crafts people who could be involved in work across all three areas.

Given the range of activities, sites of work and beneficiaries the project encompassed, rather than a single set of “methodologies” that might be applied to a single landmark site, the Cairo area development project called for multiple sets of methods drawn from numerous disciplines – urban planning, architecture, engineering, socio-economic, touristic, and environmental/landscape design, to name only the most central. Engagement with the public authorities – the Governorate of Cairo, the Supreme Council of Antiquities (SCA) and even al-Azhar Tunnel Authority for work near its boundary – was a parallel exercise throughout the project. To draw on best practices and available knowledge, the team(s) assembled for each of the three components – the Park, the Historic Wall conservation, and the Darb al-Ahmar urban conservation initiative – drew on international and national experts, with knowledge generation, sharing and transferring a key objective.

FROM THE PARTICULAR TO THE WHOLE: MAJOR PRINCIPLES
In understanding the complexity of an inner-city urban district redevelopment project over the course of time, a factor of key importance was the continuity of critical thinking and assessment of opportunities and challenges from the proposal generation stage to implementation. While some of the proposed interventions could be grounded in existing best practice and international standards, others required field investigation and testing. Accordingly, as expected, data collection became a significant phase of the work as there were many existing conditions relating to site, patterns of space and urban land use and misuse, degrees of structural instability of structures to be conserved, and so on. The intrinsic nature of problems or
sub-optimal conditions, be they environmental, physical, or socio-economic, required first the definition of the same via two- and three-dimensional surveys, rectified photography, historic research and socio-economic surveys.

One unavoidable constraint in such an approach is the fact that in projects of complex scope not all the data required for decision-making are immediately available. Certain physical factors – the topography of the terrain, the chemical composition of the soil, the salt deposits on monuments or the rising water table in al-Darb al-Ahmar – were readily verifiable. Less immediately tangible were factors such as the compression of soils under conditions of flooding (locally testable but not generally susceptible to calculation), the structural stability of weakened minarets or the critical needs of the adjacent community in terms of proposals for improvement to their quality of life. These primary and secondary factors were very much contingent on each other – dependent on detailed field research and database development – and were, further, subject to the risk that enquiry and testing might alter the original conditions of the situation, a well-known risk to scientific enquiry in broader terms.
From the outset, due to its nature, the project approach was one of blended investigation – one that considered components both as stand-alone and as composite elements of a greater whole. The grain or scale of each component was specific to its type. The Park site called for a design and treatment that recognized its status as a micro-ecology in its own right. Thirty hectares of planted zones of varying species and types required the attention of numerous geotechnical engineers, soil scientists, irrigation engineers and horticultural engineers – all in support of a master landscape design. The Historic Wall and selected monuments in al-Darb al-Ahmar (Khayrbek Mosque, Aslam Mosque, and Umm al-Sultan Shaaban Mosque in earlier phases, and Alin Aq Palace, the Aqsunqur (or Blue) Mosque and the Tarabay al-Sharif complex in later phases) would call for a multi-year process of surveying, documentation and careful conservation in some cases, and restoration in others.

Socio-economic research and baseline surveys in al-Darb al-Ahmar carried out by the project team led to the capture of the existing “Quality of Life” (QoL) indicators, in accordance with an AKDN-based format. Combined with detailed urban physical and socio-economic research, a valuable GIS-based database was developed that would later underpin AKTC’s proposals for a conservation master plan for al-Darb al-Ahmar.

His Highness’s remarks at the 1984 seminar underlined that Cairo had been the beneficiary of central urban planning; another conclusion that emerged was that a more granular and detailed conservation master plan that reflected the diversity of al-Darb al-Ahmar’s rich urban culture and living traditions was also critical. As a historic settlement, al-Darb al-Ahmar, when the project commenced, offered a rich tapestry of monuments and urban space that, with time and multiple phases of changed patterns of occupancy and use, had been subjected to severe physical and environmental stress.
The conceptual and methodological gap between the scale and method of conservation planning pursued for al-Darb al-Ahmar stands in stark contrast with the earlier wave of new cities planned in the 1960s on a heroic scale – for example, Islamabad, Chandigarh and Brasilia – and which were to preoccupy urban planners and architects for several decades thereafter. By the 1990s, the allure of new city planning had been partially tempered in maturing urban regions by urban redevelopment and regeneration, in acknowledgement of the critical need to ameliorate urban areas in which large portions of the population lived and had been living for centuries, and were likely to continue living.

The above factors and considerations were to remain visible as reference points during the data collection and analysis that followed. In new planned settlements, one collects data to support physical and economic models and plans for new configurations of urban fabric and services serving a future population. In historic districts, one collects data on urban space, fabric or communities in an effort to better understand appropriate mechanisms and interventions required to upgrade the urban fabric and services and further serve the aspirations of an existing community. In the latter case, with processing and critical review, data become essential tools for the conceptualization of interventions and consultation with stakeholders and the authorities for community space as well as monuments.

This line of urban and environmental research was tied to the definition of the area development project’s “catchment area”. Inscribed in 1979, Historic Cairo encompasses much of the historic centre of the city founded in the tenth century. AKTC’s area development project measures an area approximately two kilometres in length and one kilometre in width, with a population of approximately 70,000.

OVERARCHING OBJECTIVES AND APPROACH

The project had numerous objectives, all of which complemented and reinforced the others. On a city and district level:

‣ reclaiming an important area of a historic city centre (itself a UNESCO-listed World Heritage Site) that had fallen in areas into a derelict state;

‣ demonstrating how a historic district, even one that had been marginalized and passed over by waves of modernization of the urban agenda, could again be a vital focal point for urban and cultural regeneration;

‣ creating a large-scale prototype of environmental rehabilitation of inner urban space (on the community and park sites).

At a site-specific level for the Park project:

‣ providing vital green and open space in a city that was notorious for its sparsity of park space;

‣ commissioning a “world-class” yet sensitive landscape design in a city famed for its Islamic architectural monuments; and,

‣ providing a large inner-city area for use as leisure and civic space by the wider population.

The Trust, of course, knew this was a tall order but it also sensed that in order for a project to have impact in a complex urban setting such as Cairo, the right scale and mix of facilities were critical. As the Park site was a long, linear tract of land adjacent to the historic Ayyubid Walls and the adjoining district of al-Darb al-Ahmar, visibility of and access to important historic monuments were assured, although the urban fabric in which all the above nested was generally poor in quality and in maintenance.
This involvement would lead from the initial site enabling works and prototype testing as of 1994 to major master planning, landscape design and the tendering of a series of construction packages in the period 1998–2002. During the course of these years, a design competition of a number of short-listed architectural firms was organized to select final designs and design architects for three major Park facilities: the Entry Building, the Lakeside Café, and the Citadel View Restaurant. The planning and design process of the Park that ensued is described in detail in the section entitled “Al-Azhar Park”.

In al-Darb al-Ahmar, in addition to the launching of monument conservation activities for selected sites, with full building scaffolding allowing materials and structural problem diagnostics, the results of the 2003 socio-economic baseline survey carried out in the thirteen shiyakhas that make up the district enabled the project team to piece together a community redevelopment and support initiative. The overall goal of the latter was to stimulate social and economic development in the intervention area. Darb al-Ahmar households closest to the Ayyubid Wall were found to be among the poorest in Egypt.

The survey results led to the selection of focus on three specific areas of development: Housing and Open Space Upgrading, Access to Credit and Employment, and Basic Social Services (the latter including Health, Education and Solid-Waste Disposal). A Monitoring and Evaluation (M&E) Unit was established to track progress by reference to predefined quantitative and qualitative indicators. As the project brief explained the process at the time:
These sectors are combined and integrated in order to lay the foundations and create the preconditions needed for the social and physical rehabilitation of the area. In addition to these sectors, three priority issues were identified as cross-cutting; these cross-cutting issues are: the environment, gender, and organizational and institutional development.

The counterpart to the Darb al-Ahmar Revitalization Project was a wide-ranging set of tools dealing with the dilapidated urban fabric within the intervention area. These tools included at different phases new mixed-use development proposals to deal with space made vacant by collapse or demolition of structures; housing rehabilitation to introduce upgrades, better hygiene and ventilation; infrastructure and street improvements to introduce pedestrian areas and friendlier community spaces; and more intensive and comprehensively planned urban “action areas” in which all the above and related urban design methods were brought to bear on well-delineated and pivotal or node spaces. These action areas, from south to north, along the Historic Wall’s length were: (i) the Bab al-Wazir / Southern Entrance to al-Azhar Park Action Area (from the south end of the Park to Tower 2); (ii) the Aslam Mosque and Neighbourhood Action Area (from Tower 4 to Tower 7); and (iii) the Burg al-Zafar Action Area, spanning from the Burg al-Mahruq (or Tower 10) to the Archaeological Triangle and northern terminus of the Wall.

The Historic Cities Programme spends substantive time documenting not only the sites in which we work but also the processes and methodologies used to conserve
or restore a site, and then the results or the impact afterwards. This publication is in many senses a review of a major area development project completed in 2005 and operated since under a ‘Public-Private Partnership Agreement’ with the Governorate of Cairo. As can be discerned, documentation is a continuous process that, for the HCP, actually survives the end of a project. While these sites are testimonies to the long curve of history, time, ironically, is not always on our side.

**GENERAL METHODOLOGY**

The documentation task is one that is increasingly collective and technically demanding in nature: no individual professional can hope to have come across the nearly infinite number of project types and idiosyncrasies that make the conservation and management of heritage sites so complex and fascinating at the same time. Over the years, the Historic Cities Programme portfolio has included many projects of a similarly challenging nature. Within the constraints of this section, a small number of cases are listed below to illustrate the challenges and opportunities faced:

Looking over the lake towards al-Darb al-Ahmar from the Lakeside Café.
in all projects that deal with historic sites containing material heritage, one must at the outset determine the extent to which the immaterial or socio-economic and community dimension needs documentation and treatment. Even if certain sites appear to be stand-alone, they are usually part of a system of neighbourhoods and often inseparable in terms of usage, guardianship and welfare;
the Trust’s experience with its initial project portfolio led it to expand the documentation process from one that mainly captures physical and environmental data to one that includes important social and demographic information as well. Community focused, baseline survey methodology has been an essential tool in probing not only current problems but also ways in which conservation and good management of historic sites can have a beneficial impact on the residents of a catchment area;

this leads invariably to the consideration of what a project’s “catchment area” is. An earlier geographic term, catchment areas signal the spatial relationship of a specific physical feature or site and a zone of influence. It became popularized in urban and regional planning and then by market models and location theory. Here, we are not concerned with a precise boundary but a concept of proximity and adjacency and thus influence and interaction. Hence, the Trust’s projects soon moved from the documentation of isolated landmark sites to broader spatial urban or semi-urban assemblies, which demand documentation not only by normal physical surveying methods but also social scientific and economic methods;

prior HCP projects, such as the Stone Town, Zanzibar, and towns in northern Pakistan, led to an increasing focus on urban area development projects centred on heritage sites. The Cairo area development project was a prototype of many similar projects to follow. Later projects, such as the Lahore Walled City project, focused on the Shahi Guzargah processional route, which connects Delhi Gate to the Shahi Hammam, the Wazir Khan Mosque and the Akbari Gate of Lahore Fort; linkages (physical and cultural) between the Delhi Nizamuddin Basti and Humayun’s Tomb and the Sunder Nursery have explored and reinforced this approach. In Herat and in Kabul, multiple linkages have developed in the centres of these historic cities of Afghanistan;

to avoid conserved sites that lack animation or that would only serve as tourist venues, the Trust undertakes to develop a number of community focused assets where possible. In Cairo, Delhi and Kabul, newly built or restored parks and gardens serve as viewing platforms for the conserved sites, providing buffer space and better community access in fragile but important historic areas. In northern Pakistan, historic forts adaptively reutilized as heritage lodges provide critical facilities for access, leisure and discovery of local heritage;

the Trust monitors such completed sites and enters into operating trusts with the local authorities to maximize transfer of knowledge. A “Parks Impact Measurement System” (PIMS), developed in-house, allows collection and updating of information about key performance indicators, represented in a documentation system or database, which evolves over time and allows time comparison.

SUMMARY

In summary, the documentation and planning process within the Historic Cities Programme starts in the project’s conceptual phase and allows for sometimes discovery and sometimes reconfirmation of critical aspects of a project site and its catchment area and population. Determination of appropriate treatment of a certain site prior to such thorough analysis is inconceivable. Data collection itself has a time dimension, in the sense that previous historical surveys can serve as vital references but these are seldom sufficient; many of the places in which we work require fresh documentation because whatever exists is historical and may have been limited due to the equipment of that particular time, never previously surveyed or surveyed under earlier and different conditions.5
When we develop design proposals, the documentation process has to go further and, in a reverse mode, we test the documentation. We may have to go back to the site and collect more data; we may have to excavate further in some places while considering how to go about restoring, shoring or consolidating; we may realize that our information may not be adequate. Very often, a proposed intervention needs to be initially tested via a prototype. Whether dealing with earth and architecture or mud-brick architecture or traditional techniques of stone or masonry arches, and so on, the skill-set has been lost, so we have to train people on site and we have to carry out prototypes off site to illustrate that the right mix of technology, the right standards and the right materials have been selected.

The above are merely examples of technical approach. The need in an area development project to reach a balance between the physical and the socio-economic has been alluded to above, since the integrated development approach is premised on the material and immaterial cultural heritage in a given catchment area being “restored” to a position of importance in the daily life of a historic district. The responsible choice for historic cities is to understand their past, the reasons for established patterns and features in their built heritage and culture, and to seek a form of urban redevelopment or initiatives that are compatible and mutually reinforcing.

The benefits of area development projects including, as in Cairo, an important facility that takes on an operational life as a new or revitalized element in the heritage area, such as al-Azhar Park – providing critical green space and amenities for the public and access to their cultural heritage while contributing to the local economy – call for more flexible and long-term ‘Public-Private Partnership Agreements’ with the responsible authorities and the development of important local operational capacity. This process, if successful, is critical in accruing more than ephemeral or short-term benefits from a project and allows for an important feedback loop to all participants. It can be illuminating to return to a project area after ten or fifteen years, to gauge impact with regard to a previous conservation and/or socio-economic intervention and to cull lessons learned. This publication will hopefully contribute to this process of assessment.


2 The Scottish painter, David Roberts (1796–1864), is a prime example; he captured scenes of al-Darb al-Ahmar and the Ayyubid Wall from the site that became the Park in a lithograph entitled Cairo Looking West. Pascal Sebah recorded a similar view in a later photograph from the heights of the Park site.

3 Earlier detailed archaeological surveys of the Ayyubid and Fatimid Walls within the project area, prepared by Sir Keppel Archibald Cameron (K.A.C.) Creswell, were to provide an excellent basis for later extended documentation and the preparation of conservation strategies.


5 We normally assume that we need to perform brand-new and thorough, two-dimensional and three-dimensional surveys, especially with the advent of newer technologies today that offer much more resolution, precision and ability to visualize readily via digital files than was the case twenty years ago. In a recent generation of projects, the use of unmanned aerial vehicles (UAVs or “drones”) equipped with cameras has allowed considerable advances in project and site visualization and mapping, saving great amounts of time on the ground.

Further information of a detailed nature can be found regarding the Historic Cities Programme’s methodology and approach to the various components of the Cairo area development project in the following series of brochures, available digitally on Archnet at the following link: https://archnet.org/collections/54/details (accessed on 17 November 2017):


In the Gamaliyya district.
The Historic City of Cairo was among the first sites to be inscribed on the UNESCO World Heritage List in 1979 under the title of “Islamic Cairo”. The justification for the inscription was based on the following “criteria of selection”:

I Several of the great monuments of Cairo are incontestable masterpieces. [...]  
V The centre of Cairo groups numerous streets and old dwellings and thus maintains, in the heart of the traditional urban fabric, forms of human settlement which go back to the Middle Ages.  
VI The historic centre of Cairo constitutes an impressive material witness to the international importance, on the political, strategic, intellectual and commercial level, of the city during the medieval period.

As often happened in the very early nominations, the site was inscribed on the basis of a weak documentation, without a clear geographical delimitation and specifying no legal planning protection measures. The World Heritage Site was described as a “historic fabric” where many distinguished monuments stand out as “focal points” in different urban settings, such as al-Fustat, al-Saliba and al-Kabsh, the Citadel area and al-Darb al-Ahmar, the Fatimid nucleus of Cairo from Bab Zuwayla to the North Wall, and the necropolis from al-Fustat to the northern limits of Fatimid Cairo. These urban heritage zones, bearing witness to a complex history and to the multiple cultural layers of the city from the Roman to the late Ottoman period, were only indicated on a sketchy map, but the close relationship was stressed between each monument and its surrounding urban fabric, whose historic characters were reported as “almost intact”.

**FROM “ISLAMIC CAIRO” TO “HISTORIC CAIRO”**

The inconsistency of the nomination as “Islamic city” was clear from the beginning, as well as the lack of any urban conservation policy beyond simple “protection” from demolition of the registered buildings and the restoration of single, mostly religious monuments. On the contrary, the enforcement of a series of decrees and regulatory measures of the 1970s produced a widespread renovation of the urban fabric, with the widening of the historic street pattern in the denser areas and indiscriminate demolitions and reconstructions of up to four storeys. The process was accelerated after the earthquake of 1992 with hundreds of decrees of demolition of damaged buildings, without any concern for their real state of conservation and architectural value, which entailed the abandonment of a relevant building stock and the creation of Muizz Street rehabilitated.
of large “voids” and “frozen areas” in the urban fabric, which soon became informal waste-disposal areas and parking lots.

Despite the Antiquities Law of 1983 and the creation of the Supreme Council of Antiquities (SCA), insufficient protection measures and proactive actions for the preservation of the historic fabric was called out by UNESCO beginning in the early 1990s. It was only in 1997 that a United Nations Development Programme report addressed the issues of urban conservation with a large-scale and consistent strategy of intervention focusing on the main spines of the Historic City and addressing not only the monuments but also the upgrading of urban infrastructure and the rehabilitation of the housing stock in the most derelict areas.
As a follow-up, in 2002, the Ministry of Antiquities and SCA launched an ambitious “Historic Cairo Rehabilitation Project”, which addressed the preservation of the architectural heritage, without unfortunately targeting housing rehabilitation as a main objective. The project activities included the restoration of thirty-four listed monuments along the main spine of al-Muizz Street to make it a sort of “open-air museum” and sixty-seven listed monuments in other parts of Historic Cairo. However, despite the limited approach to urban conservation, the interventions on al-Muizz Street for the first time transcend the mere conservation of historic monuments to address aspects of infrastructure – a chronic problem facing the areas of al-Muizz and al-Gamaliyya – as well as street paving and renovation of the facades of non-registered and recent buildings. This work did not include structural or utilities interventions inside the houses since it did not fall under the SCA mandate. The project activities of SCA’s “Historic Cairo” project are still ongoing with numerous and important achievements in monument restoration, while the al-Muizz experience has been extended to cover entire residential blocks in both al-Gamaliyya and the southern stretch of al-Muizz Street.

At the same time, the state of conservation of the urban fabric has sensibly worsened with an overall and progressive decay of liveability and environmental conditions (poor housing, lack of infrastructure and services, uncontrolled waste disposal…), while the issues of protecting and safeguarding the World Heritage Site remain unsolved and await remedial action on the part of the different authorities concerned with Historic Cairo, including the Ministry of Culture and SCA, the Governorate, and several ministries (i.e., Planning, etc.).

A view of al-Darb al-Ahmar, spoiled by recent unauthorized buildings.
Since 1999, the World Heritage Committee prompted the government on several occasions to formalize the limits of the inscribed site and pointed out the need to strengthen the coordination among the various institutions involved in the rehabilitation. In 2002, an international symposium organized by UNESCO very clearly stated the need to elaborate a comprehensive conservation plan, to define an appropriate management system for Historic Cairo, and to address the multiple threats affecting the Outstanding Universal Value (OUV) of the World Heritage Site and its integrity. In 2006, in response to another decision of the Committee, the Egyptian government submitted a schematic “primary plan to define the borders of Historic Cairo” to UNESCO-WHC that included five zones reflecting the nomination file, without indication of the buffer zones still “under discussion among the governmental bodies”. Finally, in 2007, in response to the Committee’s request to prepare a comprehensive
Urban Plan for the Conservation and Development of the Old City. Egyptian authorities officially submitted the boundaries of the World Heritage Sites to UNESCO, now named “Historic Cairo”, and its buffer zones. These boundaries have not, however, been approved by the World Heritage Committee because they were considered unsatisfactory and lacking a consistent “Statement of Outstanding Universal Value”.

The new denomination of the World Heritage Site reflected the ongoing experience of the SCA “Historic Cairo” project that, despite a strictly “monumental” approach, addressed for the first time the urban scale and the structural elements of the historic pattern with a more comprehensive vision than single-monument restoration. Meanwhile, several small-scale projects, in different areas, mostly sponsored through international cooperation, raised awareness of the need to tackle the state of dereliction of the historic fabric also with interventions of rehabilitation of vernacular architecture in some selected, but limited, areas, such as al-Darb al-Asfar in the Gamaliyya neighbourhood and al-Sayeda, mostly meant to promote tourism.

In parallel, a new legislative framework was established, adding to the Antiquities Law 117/1983, which only addressed the registered monuments’ protection. Law 144/2006 fixed new criteria and procedures to limit the demolition of non-registered buildings that could be considered of heritage interest, while Building Law 199/2008 introduced the concept of “areas of particular value” and empowered a new body – the National Organization of Urban Harmony (NOUH) depending on the Ministry of Culture – for the delimitation of these areas and preparation of the related protection tools, in cooperation with the relevant governmental and non-governmental bodies.

NOUH soon identified six “areas of particular value” in metropolitan Cairo, which also included the “modern” urban heritage of the nineteenth and early twentieth centuries, whose perimeters were established by decree in 2009 without related protection measures. The area of Historic Cairo was delimited based on an appropriate methodology, mostly taking into consideration the urban evolution of the site between the Nile and the Muqattam, and defining the area of the “maximum level of protection” with its “buffer zone”. These provisions could have represented an important improvement of the operational framework for the conservation of the historic fabric, but proved to be inefficient due to the lack of coordination between NOUH and SCA, still responsible for the management of the World Heritage Site, and the absence of legal protection measures.

It took thirty years from the inscription of Cairo on the World Heritage List to achieve recognition from a governmental body that its World Heritage patrimony should reflect the overlapping of multiple historic and cultural layers (not only the “medieval” and “sacred” ones) and should not be understood as a simple collection of registered monuments and distinguished buildings.

A STRATEGY IN URBAN REGENERATION: AKTC’S PROJECTS FOR AL-DARB AL-AHMAR

In this light, the projects carried out by AKTC in the neighbourhood of al-Darb al-Ahmard (ADAA) between 2002 and 2010 within the framework of the Cairo Area Programme represent a conceptual and operational innovation in the practice of urban conservation. Some crucial aspects deserve to be highlighted in this regard because they represent the basis of a new practice of urban conservation in Cairo – as well as worldwide-recognized “best practice”.

First, they marked the implementation of a long-term and coherent process of revitalization and regeneration of one of the most derelict neighbourhoods in Cairo, going well beyond architectural heritage conservation and single-monument...
restoration for religious or tourism purposes. Following a flexible and incremental strategy of implementation, AKTC interventions addressed the larger urban environment and the historic fabric with the aim of improving the living conditions of inhabitants while recognizing the full cultural and social significance of Cairo’s outstanding urban heritage. As indicated elsewhere in this volume, the interventions started in 1996 with the design of al-Azhar Park (opened to the public in 2005), a catalyst intervention that opened the way to the restoration of the Fatimid Wall (completed in 2003), and eventually to the rehabilitation of the neighbourhood of al-Darb al-Ahmar within the Walls, based on the extensive and detailed baseline surveys carried out since 2003.

Second, the rehabilitation strategy for al-Darb al-Ahmar reflected an integrated approach, combining several programmes of intervention targeting crucial aspects simultaneously. It supported a comprehensive view of urban conservation to be intended as a process for preserving cultural heritage, while improving the socio-economic and environmental conditions of the Historic City, not simply as a collection of single-monument restorations. Thus, the AKTC strategy comprised the following components:

- a series of socio-economic initiatives concerning community involvement, vocational training and capacity building, access to micro-credits, and so on. These were aimed at alleviating poverty and creating new job opportunities, particularly through reviving and developing traditional skills involved in building activities (i.e., carpentry, masonry, metalwork);
- historic building and monument conservation, following international standards and adopting the principle — which was quite new for the Egyptian authorities — of the “adaptive reuse” for community and/or cultural uses as a keystone in urban rehabilitation;
- a large Housing Rehabilitation Programme (HRP) that mainly addressed “minor” vernacular architecture in al-Darb al-Ahmar and was associated to the multiple socio-economic initiatives for community development, improving health standards and including the upgrading and rehabilitation of infrastructure networks and public spaces. The HRP was aimed at improving the quality and quantity of housing while maintaining its historic architectural features and providing secured tenure in the meanwhile. It was implemented with the financial contribution of residents and resulted in the rehabilitation and construction of more than a hundred residential buildings, including more than 330 households.

Third, the Programme showed that a comprehensive urban conservation policy requires new management and implementation tools. In this view, it promoted ‘Public-Private Partnerships’ to implement the projects, which involved the concerned institutional stakeholders, namely SCA and the Governorate, traditionally protective of their prerogatives and competence.

Finally, the Programme managed to apply new and updated concepts in conservation and planning, particularly with regards to the refurbishment of unlisted buildings abutting or adjacent to the medieval walls and the monuments that SCA planned to demolish following a nineteenth-century vision. It also managed to remove some 1970s planning provisions and the “after-earthquake” decrees of the 1990s, which would have resulted in further damage to the urban fabric. The interventions on the Wall and in the Darb al-Ahmar neighbourhood went in an opposite direction, combining the restoration of the monuments with the rehabilitation of their historic urban context. Not only were physical interventions linked to socio-economic initiatives,
but a comprehensive Action Plan for the Safeguarding and Regeneration of al-Darb al-Ahmar (a component of AKTC’s ADAA Revitalization Project) was also elaborated with the provision of protection and intervention measures for each building, based on the analysis of the architectural typologies and layouts.

Even if the urban conservation approach is not yet fully internalized and accepted by all the concerned Egyptian authorities and the Action Plan has yet to be approved, the AKTC programme was successful in drawing attention to the crucial importance of housing as an engine for revitalizing and regenerating the most derelict neighbourhoods of the Historic City. It demonstrated that residents were able to contribute financially to the rehabilitation of their buildings, which was not the case in other similar projects, testing mechanisms that can be replicated, with some adaptation, to provide solutions for low-income residents of houses suffering from deteriorated living conditions and endangered by official demolition plans.

Developed for the first time, it was an approach not solely tourism-oriented to architectural and urban heritage but focused on the needs of the resident population. It demonstrated that monuments could be used for social functions, without threatening or damaging their historic integrity, as exemplified by a health centre located in a restored (and partially reconstructed) Ottoman building on Bab al-Wazir Street.
Undoubtedly, AKTC’s approach differed from the norm and the established practice of the main stakeholders, particularly SCA. Most probably, it was successful to a large extent thanks to the resources engaged in the process and the credibility obtained with the creation of the very popular al-Azhar Park. If these conditions cannot be easily replicated, nevertheless these achievements remain and confirm the AKTC programme as a key reference in urban conservation for Historic Cairo and its management as a World Heritage Site.
THE UNESCO PROJECT FOR THE URBAN REGENERATION OF HISTORIC CAIRO (URHC): A REGULATORY AND MANAGEMENT FRAMEWORK FOR CONSERVATION

In 2009, Egyptian authorities and the World Heritage Committee agreed to develop joint activities aimed at protecting and revitalizing the urban heritage of Historic Cairo, in the framework of a larger UNESCO programme of Technical Assistance to the Egyptian government programme “Safeguarding of Cultural World Heritage in Egypt”.

The project was carried out between 2010 and 2014 with the primary goal of assisting Egyptian authorities in the fulfilment of reiterated requests from the World Heritage Committee:

‣ the revision of the boundaries of Historic Cairo World Heritage Site proposed by SCA in 2007, with the “Statement of Outstanding Universal Value”;
‣ the establishment of general protection measures for the World Heritage Site;
‣ the preparation of a Conservation Plan;
‣ the establishment of a Management Plan or a Management System.

Other important project tasks were also identified, namely:

‣ the systematic consultation of all the concerned institutions;
‣ the creation of a shared information system for all the relevant institutional stakeholders;
‣ the development of awareness-raising initiatives.

Through these activities, the project intended to put in place the basic regulatory and management tools for the conservation of the World Heritage Site, based on an updated approach, taking as a reference the previous best practices in Cairo, such as the AKTC programme, but also the issues raised by the ongoing debate developed by UNESCO for the preparation of the recommendation on the “Protection of Historic Urban Landscape” (HUL), of which the project was intended as an early application.

The key issue was not only the protection of architectural heritage but also the regeneration of a vital, though heavily dilapidated, urban fabric, with a very rooted population and a rich pattern of activities – an “intangible” heritage to be preserved and enhanced. This vision, which was only partially shared by several concerned administrations, emphasized the need to respect the different layers of the historic urban fabric up to and including modern times (i.e., not only the registered buildings), while considering conservation as a tool of a wider urban policy targeting social inclusion and the improvement of socio-economic, environmental and living conditions.

On this basis, the project developed in different directions, heavily conditioned by the difficult situation created by the events of January 2011 and by the volatile institutional relationships that followed, which kept the project from achieving all expected results. However, three lines of work can be highlighted for their possible future impact on the urban conservation of a World Heritage Site.


The first concerns the delimitation of the World Heritage Site and the revision of the “Statement of Outstanding Universal Value” (SOUV). Instead of considering only the spatial concentration of monuments and listed buildings, the new boundaries were outlined taking into consideration the morphology of the city before the modernization of the nineteenth century and its evolution between the Muqattam and the Nile, with reference to the following elements:
Above and opposite page, abandoned vehicles on roofs in the vicinity of the Citadel.

- the persistence of the pre-nineteenth-century urban layout and the street pattern;
- the persistence of “focal points” structuring the urban fabric (mosques, fortifications, administrative buildings, palaces, etc.) from different periods;
- the transformations and expansions of the “pre-modern” fabric, such as new roads connecting the ancient and new “focal points” or the developments after the hydraulic works to regulate the Nile and its canals.

Similar to NOUH, the new perimeter of the World Heritage “core area” encompasses the whole and not only a part of the pre-nineteenth-century *forma urbis*, including all the urban zones mentioned in the nomination\(^20\) as well as the “modern” interventions, to reflect the historic layering and the fundamental linkages to the Muqattam and the Nile, in accordance with the HUL recommendation. The World Heritage Site also includes the areas surrounding the Citadel and al-Azhar Park, which are considered to be complementary to the urban fabric of Historic Cairo.

The buffer zone was outlined to integrate the adjacent “areas of particular value” already identified by NOUH adjacent to the site, on the eastern bank of the Nile, to be protected as “national heritage”.\(^21\)

The following step was the elaboration of general protection measures to stop indiscriminate demolition and renovation, along with further dilapidation and environmental degradation of the urban fabric. These needed to be diversified and graded to match the very different urban layouts, architectural characteristics and physical conditions within the site.

To this purpose a visual but extensive field survey by blocks was launched covering the “core area” in order to rapidly evaluate the level of “heritage interest” of the
urban fabric according to a series of physical parameters (architectural merit, land subdivision, presence of historic street fronts, continuity and compactness of the historic fabric) but also considering the presence of activities and uses expressing local culture and traditions. In parallel and subsequently, more in-depth surveys and analyses were carried out on some issues that appeared to be particularly relevant, that is, the socio-economic profile of World Heritage Site housing conditions, environmental risks, waste-disposal management, abandoned areas and buildings in ruins, the oriented activities and others.

These surveys and studies showed that a process of physical decay and dilapidation of the historic urban fabric was taking place, with widespread demolition and intrusive reconstruction due to planning provisions, which lacked protective measures apart from those created for listed buildings and monuments. The process has accelerated since January 2011, with a total absence of any control on building activities and the spread of illegal high-rise structures up to ten to twelve floors, especially in vacant lots in al-Darb al-Ahmar and the northern cemeteries.

The Outstanding Universal Value that justified the city’s inscription on the World Heritage List was definitely at risk and irreversibly lost in many parts of Historic Cairo. Most of its architectural and urban attributes, including many “monuments” and large parts of the historic fabric, were in a very bad state of conservation or even abandoned, while urban liveability and environmental conditions are increasingly deteriorating, in spite of widespread socio-economic vitality.

To stop the process and respond to the decisions of the World Heritage Committee, a “conservation zoning” was proposed in March 2012, with a set of basic and graded protection measures to avoid further street widenings and demolitions, while regulating building heights, land subdivision and, for the first time, land use. The zoning and the related regulations have been harmonized with those proposed by NOUH for the “areas of particular value” of Historic Cairo and were accepted informally by the Governorate, but not by SCA.

TOWARDS THE MANAGEMENT PLAN: A UNESCO-URHC ACTION PROJECT FOR THE STRATEGIC AREA OF THE CITADEL AND SURROUNDING NEIGHBOURHOODS

As happened in the case of the AKTC programme, though in a different institutional context, it soon became evident that a system of management was needed for the planning of the conservation and regeneration of Historic Cairo, by not only SCA and the Ministry of Antiquities but also the Governorate and a number of ministries (Culture, Planning, Awaqf). Despite the signature of several protocols of collaboration with the concerned administrations, operational management of the World Heritage Site was never set up and the real preparation of the Management Plan was not initiated.

To prefigure a possible strategy of interventions to be developed by a hypothetica]
the presence of important “anchor” monuments – notably the mosque of Ibn Tulun, as well as the Citadel – and some of the major historic “spines” with high heritage value, even though they are heavily dilapidated in many parts and in need of revitalization;

- the presence of large derelict historic residential areas with high potential and opportunities for regeneration programmes;

- the presence of economic activities (namely markets, and some scattered tourist attractions) of interest for the larger urban area.

The area has occasionally been touched by rehabilitation projects (i.e., Dar Labanah) that indicate a possible interest for developing tourism activities but also the need to control pressures leading to uncontrolled transformations of the urban fabric and its delicate socio-economic balance. Moreover, the Action Project offers the opportunity to liaise with previous studies conducted in adjacent areas, such as some projects in the Sayeda Zeinab district and most of all the above-mentioned AKTC regeneration strategy for al-Darb al-Ahmar.

The Action Project intended to address some of the major issues affecting the state of conservation of the property and its Outstanding Universal Value, in particular:

- the presence of large derelict and dilapidated areas and a relevant unutilized building stock, which may represent an asset for the development of housing rehabilitation policies, as well as for the provision of services and facilities for the resident population;

- the worsening of the environmental situation, also due to the heavy impact of vehicular circulation and the lack of management of waste disposal.

To this purpose, the UNESCO-URHC Action Project developed a series of studies and demonstrative intervention projects concerning:

- the revision of the criteria of conservation to be adopted for the registered buildings that should be made available for use by the local community, reinforcing the system of public facilities and economic activities. In particular, proposals were developed for the adaptive reuse of the lower part of the Citadel, a large complex of buildings in a state of abandonment and an advanced state of dilapidation, set in a strategic position at the very heart of the World Heritage Site;

- the safeguarding and rehabilitation of the residential fabric of some “priority areas” along the historic spines leading to Bab Azab – the lower gate of the Citadel closed for decades. Comprehensive urban conservation plans were drafted based on detailed surveys with a methodological and technical approach similar to AKTC’s Action Plan for al-Darb al-Ahmar;

- the rationalization and enhancement of the pattern of economic activities, particularly handicrafts, diffused in the residential neighbourhoods, as well as the rehabilitation of a large market area along the walls of the Citadel that represents a critical environmental and social issue affecting the liveability of the adjacent areas.

Moreover, the UNESCO-URHC Action Project was considered as an opportunity to set up tools and procedures to be used for the implementation of the hypothetical Management Plan and the eventual development of a Conservation Plan. These notably concerned:

- the creation of a shared and comprehensive information system for urban rehabilitation and conservation through the implementation of field surveys and data
collections, to provide the necessary solid background for decision-making. The system should address the whole urban fabric in different levels of detail, not only listed buildings, and concerns all the relevant factors affecting the urban fabric, including the so-called “violations”:

- the promotion of an effective collaboration among the different administrations and institutional stakeholders which are concerned with the management of the World Heritage property;
- the promotion of initiatives of awareness raising and participation to involve the local residents of concerned neighbourhoods, but also residents of the city at large, in the URHC Project’s implementation. This included the preparation of a “visitor map”, the creating of a website, and the involvement of the local population in the field survey.

Finally, building upon the experiences carried out in the framework of the Action Project, new urban design and conservation-planning studies were suggested with the following characteristics:

- to be based on the extension of the information platform and inventory created for the “priority areas”, in order to provide detailed plot-by-plot and open space regulations for the urban fabric;
- address vacant lands and “frozen assets” as a priority, and define criteria for adaptive reuse;
- to be integrated with architectural guidelines for conservation/ transformation interventions (material, building technics, design criteria).

A series of planning areas were proposed within the World Heritage Sites (Bulaq, Fustat and the cemeteries) and on their edges to make the connection with downtown, the Nile and the Muqattam. In order to carry out these tasks, the creation of a technical body for Historic Cairo World Heritage was proposed. This was meant
to gather staff from the different administrations following a limited but fruitful experience carried out within the framework of the UNESCO-URHC Action Project in effecting surveys and projects for the rehabilitation of the priority areas. This body was to be created within the framework of the Governorate but after the end of the URHC Project this proposal has apparently been abandoned.

CONCLUSION
A short summary of the conservation practices after the inscription of the Historic City of Cairo in the World Heritage List shows how a narrow notion of heritage and a limited view of the scope of urban conservation have accelerated the socio-economic decline and the physical dilapidation generated by an uncontrolled process of urbanization and environmental changes. It is clear that World Heritage status did not contribute to the preservation of the Historic City from amputations and irreversible losses, due to the lack of coordinated actions from the institutional stakeholders and ambiguous relationships between Egyptian authorities and UNESCO. In the end, only the new perimeter of the World Heritage Site and the related “Statement of Outstanding Universal Value” were approved by the Egyptian government, without the complementary measures of protection.

So far, corporate and private interests have superseded international agreements, while obsolete conservation methodologies have prevented the application
of international charters and standards unless the economic suitability of the project was demonstrated, as in the case of al-Azhar Park. Today, urban conservation is simply meant as a collection of tourism-oriented building interventions with the main goal of attracting funds, while conservation planning is not understood by most of the stakeholders and remains unapplied, as the experience of NOUH shows.

The partially successful experience of al-Darb al-Ahmar and the few results of the URHC demonstrate the importance of international organizations and sufficient financial resources in creating the proper conditions for partnership and coordination with the different institutional stakeholders to implement conservation strategies, which otherwise seem technically too complex and financially unsustainable.

2 See Ministry of Culture, Supreme Council of Antiquities, “Historic Cairo”, Cairo, 2002, and “Historic Cairo. A Mission of Conservation 2002–2006”, Cairo, 2006. The project addressed only the architectural heritage of the “Fatimid City” and the Saliba, al-Kabsh, and Darb al-Ahmar quarters. The other components of the World Heritage Site (i.e., the Citadel and the cemeteries) were not taken into consideration.
4 Among the factors affecting the World Heritage Site, the following were mentioned: uncontrolled building renovation; the very bad conditions of the vernacular housing stock and infrastructural networks; the lack of protection and safeguarding tools; the absence of a policy for socio-economic revitalization; the confused and ineffective system of management of the site with overlapping and conflicting actors.
6 Al-Darb al-Asfar Alley Rehabilitation Project, 1994–2001, financed by the Kuwait-based Arab Fund for Social and Economic Development (AFSED). The project introduced at the small scale an interdisciplinary approach to conservation that combined building restoration with urban rehabilitation, community participation and the upgrading of the quality of life in the area.
7 In 2002, the governor of Cairo and the Paris mayor launched a joint technical collaboration for the rehabilitation of the Sayeda Zeinab district, which comprises several architectural masterpieces and interesting remnants from the French presence in Cairo. Studies and detailed conservation projects for selected streets, such as Abdel Meguid al-Labban and al-Khoderi, were carried out.
8 The following “areas of particular value” were identified in Cairo: Historic Cairo, Khaled Governor of Cairo, Garden City, al-Rawda Island, Zamalek Island, and Helipolis.
10 See the section entitled “Al-Azhar Park”.
11 See the section entitled “The Historic Walls”.
13 The Antiquity Law prevents the change of the present uses of registered buildings, thus many of these, even public ones, remain unused after restoration works.
14 These partnerships probably helped to overcome some legislative and administrative constraints.
16 The Programme addressed all the cultural heritage of Egypt, but most of the resources and a specific Technical Assistance project was dedicated to Historic Cairo.
17 A draft of the Recommendation on the Historic Urban Landscape was prepared in 2010 and eventually approved by the General Conference of UNESCO on 16 November 2011 (http://whc.unesco.org/en/historic-cairo-project (accessed on 17 November 2017). It promoted a comprehensive and integrated vision of urban conservation.
18 In particular, because of the lack of collaboration from the different institutional stakeholders it was impossible to establish a Management Plan and prepare a comprehensive Conservation Plan.
19 The so-called “Napoleon’s map” of 1807 was taken as a sort of “baseline” to evaluate the transformations that have occurred in the Historic City.
20 The new delimitation had to consist in a “see documentation”, otherwise a new process of inscription would have to have been initiated. This would have implied the preparation of a new updated documentation, which would have hardly justified the inscription of Cairo on the World Heritage List as a “historic city” because of the awful state of conservation of its urban fabric.
21 This includes Khaled Governor of Cairo and the Garden City as well as the undeveloped areas surrounding the Citadel and al-Azhar Park.
24 See Dina K. Shehayeby, “Community-Oriented Activity Pattern” (December 2011) and “Living and Working in Historic Cairo: Sustainability of Commercial and Productive Activities”, URHC (December 2012).
26 Actually, in June 2013, SCA transmitted to the World Heritage Centre the SOUV drafted by the URHC project, but not for submission to the World Heritage Committee. In fact, it was declared that the document would be officially submitted only after the approval of the stakeholders of the site. Despite the urgent requests of the World Heritage Committee in 2012, the corresponding draft map with revised boundaries was submitted only in February 2015, after the government’s approval. The conservation zoning and the protection measures have never been approved and transmitted to the World Heritage Committee, despite reiterated requests.
28 The surveys carried out in the historic residential survey acted as the trigger for preparing a handbook for surveyors in English and Arabic that can be used in the rest of the Historic City.
The origin of al-Azhar Park as an initiative of the Aga Khan Trust for Culture (AKTC) has been discussed at a summary level in the first section of this publication. It is important to explore the nature of the Park’s development in further detail in order to understand the full scope of the Cairo urban area development initiative. It has been seen that the 1984 seminar organized in Cairo by the Aga Khan Award for Architecture – “The Expanding Metropolis: Coping with the Urban Growth of Cairo” – reflected intense international attention within professional and planning circles on historic cities that have experienced immense pressures from urban growth. This interest stemmed from evidence of inappropriate urban planning techniques in many historic cities, where the mediation between heritage protection and conservation and new systems of infrastructure, transport and even building types led to insertions in historic districts that threatened the existence of this same heritage.

The “new town movement” and its predecessor, the “garden city movement” earlier in the twentieth century, were promoted as solutions to urban congestion, poor sanitary conditions and growing urban populations. Later movements and paradigms, such as the regional city and city of towers (and its pinnacle, the Corbusian ideal city), deriving from these and other sources, raised questions of scale and placed a premium on large, monolithic urban structures often standing more or less alone and taking into account the increase of car ownership and new forms of congestion. What was seen as “good for the West” was seen in many other areas as being good for their cities as well.

Throughout the same period, the urban heritage and significance of Historic Cairo did not go unnoticed, even if the proposed strategies were varied. Most groups who have tried to propose solutions to this challenge have underestimated the enormity of the task of safeguarding the built heritage of Historic Cairo. As one specialist and writer on architectural preservation has written:

“The sociological and physical survey of Cairo done under Napoleon I was the first step toward developing an empirical understanding of the metropolis. In 1880 [sic], a nongovernmental group, the Comité des Monuments de l’Art Arabe, was formed to save the Islamic heritage of the city and to introduce the general principles of European preservation practice. The committee surveyed the city, identified significant structures, and undertook a number of meticulous and well-documented restorations... the efforts of foreigners attracted international attention to the pressing need to conserve endangered historic assets.”

Preceding pages, an aerial view of the completed al-Azhar Park.

Opposite page, al-Azhar Park view to the Sultan Hassan Mosque.

Above, the main spine.
In many ways, globally in the 1980s and more recent periods, the scene was set for a confrontation of movements: “new” urban planning systems were difficult to reconcile with the aims of urban conservation. The nature of the confrontation, however, would be different from one city to another.

The challenges of the urban conservation planning and redevelopment of Historic Cairo transcend the formal issue of conflicting planning methodologies. Cairo, the home of more than 21% of Egypt’s estimated 95 million population (2016), has a relatively high urban density of nearly 20,000 people per square kilometre, roughly on a par with that of Greater Paris. This may not sound very alarming but as one zooms into central Cairo, the density level increases to closer to 45,000 people per square kilometre. Finally, in the district of al-Darb al-Ahmar (ADAA), which comprised the AKTC urban area development catchment area, the density was calculated at 90,000 people per square kilometre. Current densities of Historic Cairo need to be understood in conjunction with its immediate physical geography.

The long-time isolation of the Park site from the inner city of Cairo is better understood when viewed in a larger geographical and geological context. The city of Cairo, which has been expanding since its original founding, itself sits largely on an alluvial plain overlying approximately 300 metres of unconsolidated sediment, transported over the millennia by the Nile. Historic Cairo was founded in the relatively narrow flood-plain valley between the Nile and the neighbouring limestone escarpment of the Muqattam Hills, which rise to nearly 150 metres above the otherwise flat plain and form a natural barrier to the east of the river.
Between the alluvial plains and the Muqattam Hills rests an intermediate zone, a structural plain of sandstone, quartzite and calcareous clay. Characterized by a diverse topography, this area features assorted landforms, including hills, ridges, remains of petrified forests and shifting sand masses. The Park site falls at the eastern border of the alluvial plain, overlooked by the nearby escarpments. The extraordinary levels of sediment have played a pivotal part in the physical development and evolution of the city and continue to do so today, where certain sites near the central city pose complex problems for the support and stability of the increasingly intensive and high-rise developments – the typical response to the high cost of land. 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 site, into this intermediary plain.

In view of these facts, the regional planning school focus on the larger environmental context is particularly relevant in the case of Cairo. The situation of the city’s historic core and newer zones, on both sides of the Nile, and its incremental expansion into neighbouring agricultural land as well as the rugged desert highlands of the Muqattam Hills, form a meaningful and necessary environmental setting for al-Azhar Park. The lack of quality open space within the city has resulted from centuries of growth and containment by the dictates of distance from municipal services, although new ad hoc settlements have defied this natural constraint in recent decades.

While the following text will dwell principally on the landscape and architectural response to the barren site that was to be transformed into al-Azhar Park, the additional challenge of the Park in mediating from the regional to the local and granular level of the Historic City and the adjacent district of al-Darb al-Ahmar and the Ayyubid Wall needs to be kept in mind by the reader wishing to comprehend the larger project. This account of the development of al-Azhar Park will also argue that as a large, single site in central Cairo it has served as an important new social, cultural and environmental focal point or reference in this part of the city, becoming over time an urban territory with special meaning for the adjacent historic district of al-Darb al-Ahmar as well as metropolitan Cairo.
Al-Azhar Park, completed in 2005 by the Aga Khan Trust for Culture in the heart of Historic Cairo, has furnished insight, in its development process, into the impetus behind urban redevelopment and the precarious position of parks within the otherwise relentless drive of urban development. The origins of parks, whether humble or grand in scale and design, can spring from single acts of vision and, by good design and implementation, result in the enhancement of a special site. Land becomes developed when it has significant value and that value can be generated by its inherent quality or natural attraction, its location, or both. Even highly unattractive land can take on special value in certain circumstances, although, first, the social or economic case needs to become compelling for the process to start.

In more recent periods, major parks in inner cities have tended to depend on a high degree of coordination by the developing authority and commitment to a major social goal in gaining access to a large, under-utilized space. In the increasingly strongly commoditized world of real estate (the market translation of the three-dimensional space of the landscape designer), the case for open space is one that is often hard to construct and harder to defend. When the criteria for judging competing potential uses of central city space are predominantly economic ones, the
less-intensive, passive, reflective and civic functions of a public park can be difficult, in these narrow terms, to promote as a priority, if not as a necessity, for a measure of urban balance.

It is, indeed, serendipitous that in Historic Cairo, less than four kilometres from the Nile and one kilometre from the Citadel, and abutting the eastern Historic Wall of the Ayyubid era, a tract of thirty hectares had remained essentially untouched by the residents surrounding the site for more than ten centuries, other than for the purpose of tipping loads of debris and rubble from the Historic City over its eastern edge. The integrity of the site was in all probability defended by these man-made deposits, which gradually reached such levels and heights that the more than one kilometre of the Historic Wall along its edge was submerged on the outside face by the undulations and hills of loose fill, up to forty-five metres in depth.

The increasingly prohibitive cost of removing the debris or finding uses for the artificial hills, which could support no heavy structures without deep piling, must have excluded this tract from the normal pressures of urban development. Initially, the Historic Walls set firm and irrefutable limits to the city’s breadth and width. Fortifications on the town’s perimeter were meant to protect and insulate those inside from the outside domain, to designate the (protected) internal urban from (unprotected) external rural space. As in many other medieval settlements, the void outside
had physical and mental attributes, only eventually worn down in later periods. An example of how stretches of the outlying city spaces can be reunited with the inner-city settlement in their post-medieval phase is illustrated by the development of al-Azhar Park.

THE HISTORICAL TRANSFORMATION OF THE SITE
Since the founding of Cairo, the cyclical collapse and demolition of man-made structures have added vast amounts of debris to the overall fill that the city rests on. Large areas of Historic Cairo, itself, thus sit on fill from earlier periods. 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 as fill to adjacent heaps east of the built city, in the vicinity of the Citadel, is noted as having intensified, by one account,7 during the period following the end of the Mamluk era (1516).

A travelogue by the French voyager Jean de Thévenot (1633–67) describes, as early as 1658, the heights of debris, which nearly hid the high walls surrounding the Old City of Cairo. Urban growth during the Turkish era is described as having been vigorous on the western side of Cairo while decay was underway on the east. The attractions of the Nile on the west and the geological deterrents on the east, outlined above, have contributed to this pattern. 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.

Reflections of this area are still visible today, in al-Azhar Park’s topography. The Park site, known also as the “Darassa Hills”, lies east of the Old City and is characterized by northwards running hills, where layers up to twenty to forty metres of fill have been found. Unique geological and man-made environmental pressures have jointly shaped over millennia, in the one case, and over centuries, in the other, the essential physical parameters of what was ultimately to become a park site.

THE RATIONALE FOR THE SITE’S DEVELOPMENT AS A PARK
While excluded from the Historic City, in recent years the proximity and size of the Park site had posed an interesting dilemma to would-be occupants. The disadvantages of its geotechnical properties have been significant enough to create a “quasi-frontier” to urban growth, while its proximity to the historic core and offer of large open space has made it a natural site for transformation. Opportunities to transform Cairo’s edges have not gone unnoticed in the last few decades.

The inspired proposal put forth by His Highness the Aga Khan in 1990 to transform the rugged site into a municipal park can be singled out as the prime reason for its current integrity. The resultant use of it to contain a water reservoir as well as a park added complexity, but further underlined the civic function associated with the site, reinforcing its place in the public domain.

Parks have historically served well as buffer zones between competing urban uses as well as transitional devices in separating or differentiating various intensive districts. The surrounding inter-urban routes of al-Azhar Street and Salah Salem, which have, over time, become vital transport links, and the discontinuity between al-Darb al-Ahmar and the City of the Dead in the east-west direction, and al-Azhar and the Citadel to its south, have skirted the site, turning it into such a buffer zone with highly contrasting edges and vistas. The housing built on top of sections of the Historic Wall on its west, together with signs of squatter activity, signalled a situation that had
Above, plan of al-Azhar Park.

Following pages, the central formal garden looking south towards the Citadel of Cairo.
reached a head in terms of urban pressures needing resolution in one form or another.

The initiative to develop a park on this large but hemmed-in site turned a corner in the evolution of this district, allowing the city to respect its past (the limits of the Old City, the more than 1300-metre-long Historic Wall, and the barren expanse of the site) while providing significant open space in which the pedestrian – resident or visitor – can move through a three-dimensional space in the absence of the ubiquitous car, that is, the chance to escape the predominant general urban experience. Surrounded on the north, east and part of the west by roadways, the site's Park space declares a local victory of nature and pedestrian movement over the vehicle.

THE PARK MASTER PLAN
Sasaki Associates was enlisted, in the earlier stages, to establish with the Trust the guiding principles for the Park’s master planning process. In the mid-1990s, this included the careful insertion of a Park circulatory system and feature spaces around and above the constructed water reservoir. Due to its size, centrality and proximity to Historic Cairo, the Park site was assigned a value by its planners, which called for its treatment as a metropolitan park in scale.

Al-Darb al-Ahmar’s need for green space was a clear priority from the start. The educational or informational value of a multi-purpose park, which could be a large gateway to Old Cairo and a platform from which to overlook the monumental skyline of the city, was a further objective. While containing walkways and amenities, parks are clearly intended to provide plentiful areas of green space. While small parks can...
thrive on a narrow range of plant life, al-Azhar Park was viewed as a space that would encompass a wide diversity of plant form, serving as a central theme itself.

ADVANCING THE PROJECT DURING A FIRST WAVE OF DEVELOPMENT (1992–96)

The concept master plan had reached a clear level of definition as early as 1996, but the project’s advance was delayed by a requisition from the General Organization of Greater Cairo (GOGCWS) to the Governorate of Cairo to use the same site for the construction of a municipal water reservoir complex, consisting of three large, circular reservoirs (each eighty metres in diameter) and a pump station to serve the adjacent district. In a comparatively short period, the site shifted from its historic derelict status to that of strategic importance with respect to the district infrastructure. The more “modern” real-estate pressure on the site had begun.

A multi-year programme of excavation, piling and grading works was set in motion to construct the reservoir system between 1991 and 1996. The superimposition of this water reservoir system on the site inevitably created an additional set of constraints in terms of safeguarding the investment value of the infrastructure and the necessity to provide maintenance access to the reservoir tanks and distribution lines (including a 1400-millimetre-diameter transmission line), which run the length of the Park. A set of design guidelines, prepared by the GOGCWS consultant team, established criteria for areas of interface between the Park design and the reservoir system. As the AKTC
team resumed work in the mid-1990s, it was clear that the Park design would need to nimbly incorporate the reservoir tank tops into a general master plan.

RESUMING THE DESIGN OF THE PARK
By 1998, a number of preliminary environmental strategies for overcoming the site’s geotechnical and soil problems had been advanced and tested, an off-site nursery established to commence propagation of a wide range of plants, and a Cairo-based landscape architectural team, Sites International, appointed. As lead design consultant, Sites International took on the central organizing role in the development of the final master planning and schematic design.

The resultant scheme – developed in 1998–99 – tackled head-on the problem of creating a natural, organic landscaped area with an array of amenities next to a dense, urban community and medieval monuments. Linkages through gates in the wall with the community were sought and, by means of extensive excavation along the Historic Wall, the Park topography was brought in cascading slopes down to a new “Historic Wall Promenade”, which forms a principal walkway at the base of the Wall and western slopes, interconnected to all parts of the Park. Flatter areas were studied for more intensive pedestrian water-viewing opportunities, and the large reservoir tank tops were incorporated into the design as special gardens at higher altitudes.
THE MASTER PLAN’S RESPONSE TO THE SITE CHALLENGES

In the further development of the master planning of the Park, site analysis capitalized on the opportunities offered by the site, deriving from its neglect over the centuries as a result of its exclusion from the living urban fabric of Old Cairo. The Historic Wall, a massive defensive system, exceeding 1300 metres along the eastern perimeter of the city, represented an absolute edge on the east of the original Fatimid city. It was later extended but essentially respected in an outer line built by the Ayyubids. It provided, at one stroke, both a limit to sprawl and a magnificent testimony to the abilities of military engineering and masonry skills of the twelfth century.

Following a major programme of debris removal and master grading by the Trust, involving the excavation and off-site disposal of more than one million cubic metres of fill, the experience of the site was radically changed. Excavation of debris to depths of seven to eight 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 re-established visually the original scale and importance of the Wall system, and in turn raised renewed interest in the archaeological richness of this part of Cairo. Uncovering the Wall reinforced the importance of utilizing the Park project not only as general park space but also as a platform to view panoramically, and reinterpret, the built heritage of Old Cairo. Large areas of the Park sit over twenty metres above the Darb al-Ahmar district, while the peaks of the Park hills exceed it by about forty metres.
Master grading of the western half of the site from the high fixed points of hills and reservoir tank tops to the lowest point of the Historic Wall relieved the original steep slopes. The western slopes remain radical from the viewpoint of landscape treatment, and design solutions necessitated attention to slope stability, techniques of planting, irrigation and drainage in this relatively steep and narrow zone flanking the Wall.

THE GEOTECHNICAL CHALLENGE: 1997–99

Extensive soil physical property tests, initiated in the concept phase, led to the classification of site fill as being very silty and compressible, with an extremely low level of absorbency of water. While variable across the site, the fill had been laid over the years without proper compaction. Under light loads and without water, the fill naturally undergoes moderate settlement; upon wetting, the fill compresses under its own weight. Geotechnical studies conducted early in the project made it evident that anything heavier than light structures would need piling support.

A number of strategies were developed to overcome the inherent problems in the site soils in supporting hardscaped and planted areas. While major buildings would 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 two to three metres, was found to be sufficient for support of hardscape areas. To minimize chances of settlement due to infiltration of water from planted zones, an impervious barrier was provided below the compacted layer.

This, in turn, further justified the removal of one to two metres of the top layer of existing fill 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, have enabled the planted area to operate independently of the ancient layers of fill below. Wetting agents and mixtures of imported sand and agricultural soil further improved the physical soil properties.

THE CHALLENGE OF PLANTING ON THE SCALE OF THE PARK

Most of Egypt and Cairo fall within an extremely arid climate belt, which continues westwards 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 otherwise implicit in extremely arid climes. The realities of high temperatures, low humidity, scant rainfall and desert winds at certain seasons set possible if stringent 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 river water from the Nile within adjacent Salah Salem Street, on the east of the site, was indispensable. Realizing the growing pressures on available water supplies in the region, irrigation system efficiency and the goal of moderating total consumption by selective usage of xerophytic plants were 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 project coincided with a phase of significant research and development projects involving desert reclamation, the introduction of new irrigation application techniques, and the expansion of commercial farming in Egypt, culminating over recent decades. While landscape architecture is still struggling for its rightful position as a specialty apart from horticultural engineering in Egypt, 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 found to be superimposed over the normal constraints and challenges found on arid climate sites. Initial testing of existing soil and mixtures with various additives over several months demonstrated, in the early investigative phases, that a reasonable range of plant types could survive with 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), 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 design methodology.

With approximately two thirds of the site scheduled to be covered by planting of various types, sources of sufficient plant stock for 210,000 to 220,000 square metres became a significant issue. Despite the presence of a number of commercial nurseries, a decision was taken to establish a limited on-site nursery for the
Plan (above) and section (below) of the Citadel View Restaurant.
above-described horticultural testing and a larger, off-site nursery for propagation of the main stock. In an important example of cooperation, the American University of Cairo (AUC) made available to the project a plot of fifty feddans in their desert agricultural research centre in South Tahrir over a multi-year period for cultivation as a Park nursery. The Park’s landscape varies from dry, succulent plants on the western slopes to lush, grassy meadows with shade trees, to formal gardens, and finally to bustan-like orchard space. The variety of species, particularly native Egyptian plants, aimed at establishing a new benchmark for park spaces in the region.

THE PARK’S FINAL DESIGN
Due to size and centrality, al-Azhar Park has, by all accounts, fulfilled a vital function in expanding park and green space available to the public in Greater Cairo, the population of which stood close to 17 million in 2002 and is closer to 20 million today (2017). The Park attracts visitors from other regions as well. Total annual visitor numbers have stabilized at the two million level. The Park design, of necessity, has needed to keep this large potential user group in perspective.

The design of the Park sought to make maximum and skilful use of the site’s location, elevated topography and unique vistas overlooking Historic Cairo. Generously dimensioned pedestrian paths follow the contours in most areas, allowing comfortable circuits of 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 and linear promenade runs along a straight, but descending, course from the Citadel View Restaurant.
View Restaurant on the northern hill, through the centre of the central tank top, and continues 250 metres southwards on axis with the Citadel complex to the south. This processional path measures eight metres wide and is flanked on both sides by a double row of royal palms and parallel side paths, with pockets for seating.

At an étiole at the southern extreme of this path, the main promenade turns in a south-western direction, passing through a compartmentalized, formal garden and thence to the Lakeside Café pavilion overlooking a large lake. The outer zones of the plain feature an orchard (bustan), which provides 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 Citadel View Restaurant and Lakeside Café pavilions, which provide internal landmarks for the Park. Water features provide an additional and traditional theme from Islamic garden typologies, tying this central pathway together along its entire length. Water fountains, pools and carefully confined water channels are dispersed and lead, ultimately, to the freer form of the lake in the south meadow. Lighting was introduced into the Park with maximum use of low-level, custom-built bollards and restriction of pole-type light fixtures to the
Plan (above) and section (below) of the Lakeside Café.

1. Cascade
2. Open rooms
3. Jwan
4. The Tea Pavilion
5. The Chicha Pavilion
6. Public access
7. Kitchen
8. Staff cloakroom and lavatories
9. Storage room
10. Container room
11. Service space
12. Public lavatories
parking and eastern edge. Along the main spine, custom marble light towers were integrated, as with all seating, into the main spine’s design motifs.

The terrain in the western half of the Park consists predominantly of steep and continuous slopes, running from the summits to the foot of the Historic Wall. A continuous pathway was carved into the hillside at approximately mid-height between the walkway along the Historic Wall and the summits of the hills and provides lateral access at points to the eastern half. The western hillside is cloaked with flowering and succulent plants with luxuriant tones. Views are available from the many vantage points along the west, across these slopes and the restored Historic Wall to Old Cairo, beyond, with its beguiling constellation of monuments and minarets.

The sensitive integration of the recently constructed reservoir tank tops into the surrounding Park plan was an important design priority from the start. The Park design called for a seating area under trees on the south tank top, with views out over the city. The central tank top, in line with the main promenade, contains a formal garden symmetrically subdivided into a rich geometric design of landscaped zones. Here, associations with historical models of Islamic gardens were evoked in the form
of symmetrical layout, inner and outer zones, the defining medium of pools and fountains, and important axes. The northern tank top, easily accessed from the main Park as well as from al-Azhar Street from the north, serves as a play area for various age groups and in close vicinity to an intimately scaled amphitheatre.

During the course of the Park’s design, significant time and attention was devoted, by the Trust, to exploring the potential for a sound, creative and interpretative relationship between the architectural design treatment of key architectural features in the Park – in particular, the Lakeside Café pavilion, the Citadel View Restaurant and various plazas – with the architecture of Old Cairo. This enquiry was taken to the level of a design competition for the restaurant facility, the outcome of which led to the appointment of design architects for each facility, working in close coordination with the Park architect. As an intrinsic part of the competition brief, the designs of these structures were each informed, in varying ways, by the careful survey of earlier examples of Fatimid and Mamluk architecture. These exercises led to the agreement by the Trust to construct two food-and-beverage facilities within the Park, described in further detail below.
The Citadel View Restaurant
Originally conceived as a secluded, five-star restaurant set on the higher hills within the Park, the facility design evolved to that of a two-storey facility featuring a full restaurant, outdoor terrace, lobby and, upstairs, a tearoom and manzara café. The total facility consists of 1300 square metres on the ground floor and 500 square metres on the upper level. Access is via the Park main entry and along an internal access drive. A dedicated zone for parking (twenty-four cars) was provided opposite the restaurant entrance.

The building, designed by architects Rami El Dahan and Soheir Farid, provides a traditional shell for the various dining zones within an interpretation of historic Cairene architecture. The building’s plan is based on a symmetrical layout whose central axis (intriguingly an inner courtyard) passes through an entrance palm court, an entry portico and a takhtaboush, before arriving at a terraced garden overlooking the main axis of the Park. Along this axis, vistas of the Park’s main promenade and the Citadel complex, beyond, can be seen.

The Lakeside Café
The conceptual design of the Lakeside Café, prepared by architect Serge Santelli, is based on a highly geometric array of pavilions set around the sides of a palm court, on the east side. On its western end, the café encloses a poolside terrace on three sides with the open edge overlooking the lake in the south meadow. While providing ample shade and fascinating courtyard areas, the Lakeside Café can be considered
an ensemble of indoor-outdoor space. The lakeside zone is further defined by two square pavilions at each end of the poolside terrace, enclosed with wood screen walls, with intricate detail referring to traditional mashrabiyya panels. In contrast to its hilltop counterpart, the Lakeside café offers light salads, snacks and pastries, together with tea and coffee service, depending, naturally, on the time of day.

In the eastern portion, seating is provided under the various twelve shade pavilions, thus offering a shaded seating area on the sides of the palm court. Further service spaces are provided in the intermediate zone where one enters the Lakeside café. The palm court serves general Park visitors who wish to relax informally during their visit to the Park.

THE PARK’S SUSTAINABILITY AND EVOLUTION
Spaces marked by walkways, pools, hills, greenery and amenities constitute a park’s identity at its inception, but parks are unlike buildings and more like living urban districts, begging for the life and animation provided by users. Unlike buildings, park softscape in particular – its biomass and plant profile – do not stand still but, rather, mature over time as its plant life takes root and prospers. Parks rely for sustainability on the protection and watchful eye of a supervising entity. This fact was recognized by the Governorate of Cairo and the Aga Khan Trust for Culture, and, following construction, both parties entered into a twenty-year ‘Public-Private Partnership’ whereby AKTC’s local affiliate, Aga Khan Cultural Services (Egypt), has responsibility on behalf of the Governorate for the Park’s operation and maintenance. The experience of the Park’s operations is discussed in a later section.

Over time, well-maintained parks also take on significant if less tangible values, and this is the case for al-Azhar Park as well. Successful parks inspire residents, provide joy to viewers and foster civil society in the important realm of leisure and connection to nature and one’s environment. They become the settings for novels, films and festivities and often the containers for memories of a society. This is the role that al-Azhar Park continues to aspire to over time. In this manner, al-Azhar Park illustrates in a positive sense the urban design principle8 that certain sites can “have a disproportionate effect on the surrounding urban territory and have powerful, long-lasting, durable impact on their relations with other places, objects and peoples”.

1 Anthony M. Tung, Preserving the World’s Great Cities, Clarkson Potter Publishers, New York, 2001, p.120.
2 By “urban planning systems”, the collection of current standards, practices and methodologies is implied. Over the twentieth century, there has been a discernable shift in focus of planners from “town planning” to “urban planning”, although towns have a more tangible feel and “urban areas” are more generic.
3 According to the “World Population Prospects Report”, Greater Cairo had an estimated population in 2016 of 20.5 million, up from 9.8 million in 1990, when the al-Azhar Park project was beginning.
4 According to the website portal of Jones Lang LaSalle (JLL), “The population density in Inner Paris has reached record levels with over 20,000 inhabitants per square kilometre, raising Paris just above some major world cities in America and Asia”. See: http://www.grand-paris.jll.fr/en/paris/demography/ (accessed on 17 November 2017).
5 For another source: “The most recent data from the Egypt’s statistical authority (the Central Agency for Public Mobilization and Statistics or CAPMAS) indicates that within the Cairo Governorate ... the overall urban population density is 117,000 per square mile, or 45,000 per square kilometre. This means that urbanization in the Cairo Governorate is more than 1.5 times denser in terms of population than Manhattan and the city of Paris”. Source: http://www.newgeography.com/content/002901-the-evolving-urban-form-cairo (2012) (accessed on 17 November 2017).
6 Examples of illegal or squatter settlement within and around Cairo are numerous. See: Peter Sims, Understanding Cairo: The Logic of a City out of Control, The American University of Cairo Press, Cairo, 2012, as one example.
8 Donald McNeil, Global Cities and Urban Theory, Sage Publications Ltd., London, 2016. In his introduction, McNeil notes his special attention to series of objects or sites that serve to concentrate the city and have an amplified effect or influence.
After an overwhelming first sight of the magnificent Pyramids, the next impression a traveller has when flying over Cairo is of a dusty, ochre sea spreading below him/her on both sides of the Nile, with small dots of darker colours that do little to alleviate the dull monotony of the landscape. This is modern Cairo, densely laid-out buff-coloured buildings that sprawl across miles and miles of former agricultural and desert land with few open or green spaces. The only noticeable green is a narrow strip along the banks of the river and larger patches of the sports clubs on the island of al-Gazira, with the areas of Muhandisin and Heliopolis. Otherwise, the unalleviated expanses of ochre are perplexing, to say the least, for a city lying at the apex of the bountiful Nile, one of the mightiest rivers in the world and the greening agent of its own valley. It is also misleading, insofar as it may imply that Cairo has always been a toneless city with very few gardens or parks, when historical records suggest the opposite.

In fact, the city of al-Qahira (Cairo) was originally founded around a bustan, which, in modern terminology, is the equivalent of a park. When the Fatimid army arrived in AD 969, its leader, Jawhar al-Siqilli, was charged by his master, Caliph al-Muizz li-Din Allah, who remained back in Tunis, to establish a new royal city. The general chose an area almost two miles north of the then capital of al-Fustat east of the Bustan al-Kafuri and laid out the royal enclave that came to be known as al-Qahira. The Bustan al-Kafuri was a sizeable jardin de plaisance constructed by Kafur al-Ikhshidi, the wise black slave ruler of Egypt between 949 and 968 right before the Fatimid invasion, who was unjustly defamed by al-Mutannabi, the most eloquent medieval Arab poet. This original siting of al-Qahira is rarely remembered today, especially as the overcrowded area of al-Muski at the heart of Historic Cairo, where the bustan once stood, betrays no hint of its verdant past.

FROM THE FATIMIDS TO THE MAMLUKS
The Bustan al-Kafuri was soon incorporated into the Fatimid Western Palace, built by Caliph al-Aziz (975–996), where it more or less maintained its function as a jardin de plaisance, this time in a genuine royal context. After the fall of the Fatimids in 1176, the palace enclosure was parcelled out and built over by the Ayyubids. In the next century and a half, at least four major charitable complexes – of the sultans al-Kamil, Qalawun, his son al-Nasir Muhammad, and Barquq – and two amirial palaces – those of Baysari and Salar – in addition to a number of hammams and khans, occupied the largest part of what used to be the Fatimid Western Palace and its gardens. The only vestiges that remained of the palace are found today around the main courtyard...
of the once prosperous bimaristan (hospital) of Qalawun, built in 1284, where coffered wooden ceilings with painted animals and floral motifs and marble shadirwan (slanted wall fountains) still stand in what is believed to be original Fatimid iwans. Of the Bustan al-Kafuri itself, nothing remains.

The proximity of the Nile River allowed the powerful and wealthy during the Fatimid, Ayyubid and Mamluk periods to exploit its eastern bank – and to a lesser extent its western one – and the borders of the several seasonal ponds that formed after its annual flood in the low land west of the city to establish huge basatin for their recreation. Most famed are the basatin of Sayf al-Islam (a brother of Salah al-Din al-Ayyubi), which lay to the west of where the two magnificent mosques of Sultan Hassan and al-Rifa‘i stand today and extended towards the no-longer-extant Birkat al-Fil (Pond of the Elephant). These basatin were called the gardens of Abbas in Fatimid times and were appropriated by Salah al-Din’s family along with the majority of other Fatimid properties.

Other famous basatin existed on al-Rawda Island in the middle of the Nile facing al-Fustat, which developed in the early Mamluk period on the ruins of a short-lived late-Ayyubid citadel. The Rawda citadel was first built by the last Ayyubid sultan of Egypt, al-Salih Najm al-Din Ayyub (1240–49) as a place for him and his loyal troops to retreat to from the more official Citadel of Cairo. The majority of structures inside it and along its walls, including the towers that overlooked the Nile, were of a residential nature. The sources mention loggias (maqa‘id, sing. maq’ad), belvederes (manazir, sing. mansara) and halls (qa‘at, sing. qa‘a) located along the two sides of the Citadel facing the river.

Opposite the Citadel, and later on its site after its abandonment, many basatin were developed in the early Mamluk period. The memory of these basatin is preserved primarily in the waqf documents of buildings that were erected on their sites.

Left, shadirwan from the Fatimid Western Palace, now in the restored bimaristan of Qalawun.

Right, an early 19th-century engraving by Pascal Coste: view of light structures along the khalij (canal), which he called casins.
and in the books of Khitat, especially the famous Kitab al-Mawa'iz wa-l-I'tibar bi-Dhikr al-Khitat wa-l-Athar (The Book of Moral Sermons and Lessons Derived from the Remembrance of Cities’ Traces and Building Remains) of Taqiyy al-Din al-Maqrizi (1364–1442). Al-Maqrizi describes many of these basatin and reports the festive events held in them that had ceremonial, recreational, literary or amorous aims. From his and others’ descriptions emerges an image of verdant gardens with various flowers (narcissus, jasmine, roses, dog roses), shrubs and trees (palm, vine, lemon, bitter orange, prune, pear, mulberry, moringa, privet, myrtle, sycamore), and some light pavilions and belvederes scattered across the landscape.

Another type of open space, the maydan (translated as hippodrome in this context), flourished in the medieval period, especially under the Ayyubids and the Mamluks. Mayadins became essential urban spaces in Cairo – there were eight of them at one time or another – as everywhere else in the Islamic world where Turkic horsemen ruled and established an equestrian military elite after the Seljuk rulers rose to power in the eleventh century. Although they were all large, open and covered with grass (majil in medieval terminology), the mayadins were not meant for the use of the masses. They were royal establishments for polo games and equestrian exercises (furusiyya), the backbone of the Mamluk military organization upon which the new regime depended. Sultans Salah al-Din al-Ayyubi (1176–93), al-Kamil Muhammad (1218–38), al-Zahir Baybars (1260–76), al-Nasir Muhammad (1293–1341), and Qansuh al-Ghawri (1501–16) are the most famous builders of mayadins in the history of Cairo.

The most important of these mayadins, and the only one that still exists today, is the maydan under the Citadel. Planned along with the Citadel by Sultan al-Kamil Muhammad for military parades and training, the maydan sits almost on the same site as the parade ground built by Ibn Tulun around 876, more than three centuries earlier. To judge from the chroniclers’ reports, it had at least three different and interchangeable names: the Maydan al-Qa’ (Citadel Maydan), the Qaramaydan (Turkish view of the Qaramaydan as depicted in the Description de l’Égypte in the early 19th century.
for Black Maydan), or the Maydan al-Akhdar (Green Maydan). Many Mamluk rulers refurbished it after the end of the Ayyubid period, most notably Baybars, al-Nasir Muhammad, and Qansuh al-Ghawri. Al-Nasir Muhammad took great care to ensure its usability all year round and to protect its grass from the scorching heat of Cairo in the summer. He had palm and fruit trees planted in it, presumably along the edges, and a number of wells dug and equipped with waterwheels (sawagi, sing. saqiya) for its irrigation. He had it filled in with a special kind of rich black soil (called al-Ibliz), whence perhaps the origin of the name of Black Maydan. It was first illustrated at the beginning of the nineteenth century on the map of the Description de l’Égypte as an enclosed rectangle (approximately 220 by 100 metres) surrounded by stone walls on three sides and fed by at least one watercourse (qastal) that brought water from the well of Dar al-Baqar, opposite the old basatin of Sayf al-Islam.\(^1\)

The basatin and mayadin, however, were outside the city proper. They formed a sort of cordon vert in the space between the Nile and the western boundaries of the city and around the Citadel (one exception was a maydan constructed by Sultan Baybars north of Cairo in the area of Hussayniyya in the 1260s). They were routinely the first victims of any urban expansion between the thirteenth and the end of the nineteenth century when the city was growing both towards the receding river and towards its southern satellite, al-Fustat. Except for the Qaramaydan, they had all long been gone when the urban expansion was redirected towards the desert to the north and east or across the Nile to the west in the twentieth century.

No large open green space existed in the urban core of medieval Cairo, and to some extent this was true of most cities of the central Islamic land between the eighth and nineteenth century. This is due in part to the arid climate prevalent in the Middle East, which made the maintenance and irrigation of a large green space a very difficult and costly endeavour. In medieval Cairo, which was situated three miles to the east of the river Nile, long aqueducts (majari, sing. majra) had to be constructed and wells had to be dug at various intervals to provide the Mamluk mayadin with water. No sultan seems to have deemed it worth his patronage to spend money and effort on providing any open public space similar to the European plazas, and the...
people did not seem to have expected such an endowment as they did religious or charitable institutions and civic services. The public spaces in the city were thus confined to its markets and the courtyards of its mosques.

Another reason for the dearth of plazas may lie in the conceptual distinction between private and public space in the traditional city, whereby entertainment was kept strictly within the confines of the private domain whereas communal spaces were devoted primarily to business and worship. In practice, however, this distinction was hard to enforce, to the chagrin of conservative commentators, many of whom noted with disapproval the scenes of debauchery that occurred when common people were allowed to gather in the basatin and mayadin to celebrate holidays or to partake in royal ceremonies. Men and women are reported to have indulged in all sorts of illicit activities from dancing and singing to drinking, to eating hashish, to frolicking and sometimes even outright sexual intercourse. Foreign conservative observers ascribed these practices to lax morals on the part of the Egyptian people.

**MEDIEVAL SETTINGS AND FORMS**

We know very little about the layout of medieval basatin and much less about their patterns of maintenance and use. Irrigation and drainage were among the most important problems facing their designers, and they came up with some ingenious solutions, including aqueducts, subterranean drainage canals, water tanks and sauqi (sing. saqiya, waterwheel). The remains of the aqueduct of Ibn Tulun in the al-Basatin area east of Cairo (ninth century), the entire waterworks system of wells, aqueducts and sauqi around the Citadel of the Mountain and the Qaramaydan (today named the magdan of Salah al-Din; thirteenth to fourteenth century), and the huge water intake tower of Sultan Qansuh al-Ghawri on the Nile Corniche today (early sixteenth century) are only the most impressive remnants of the waterways that crisscrossed medieval Cairo and fed its multiple mayadin and basatin, mansions, mosques, and asbila (sing. sabil, public drinking fountain).

Nor are we better informed about the various functions of basatin and their double character as both private gardens and public parks depending on the occasion. We have vague descriptions of regular communal outings on festive days, in which rich and poor took part as spectators and sometimes actors. People lined up along the waterways or rented spaces in the tree-shaded basatin to observe the activities and celebrations, and take advantage of the occasion to indulge in normally frowned-upon activities, such as dancing and singing, and other diversions, which often bordered on the religiously prohibited. Most notable are the festivals that preserved the memory of pre-Islamic ceremonies, such as the nawruz (the Persian New Year and a celebration of spring), the kasr al-khalij (the opening of the Nile canal to mark the peak of the yearly flood, the life-giver to Egypt), and the ‘Id al-Ghitas (perhaps an ancient rite of the Nile modified by Christian overtones). All were given an Islamic cachet of sorts, or at least an Egyptian one, and were occasionally sponsored by the state, especially in times of plenty.

On other, less formal and more private outings, rich patrons would organize majalis (settings, sing. majalis) in their basatin for scholars, poets, musicians and literati, who would gather to drink, sing and recite poetry, and indulge in adab debates. Despite their permissive outlook, these majalis were not seen as debauched entertainment. Many great learned men enthusiastically took part in them, such as ‘Imad al-Din al-Katib al-Isfahani, Salah al-Din’s secretary and a trained jurist himself who left us vivid descriptions of the lively majalis he attended in the Cairo basatin. Some of these majalis took place in the open air, others in tents, and still others in special light.
structures, which seem to have been adapted for the particular outdoor setting. Most notable among these architectural elements were the *manzara* and the *maq’ad*, both of which first appear as accoutrements of *basatin* during the Fatimid and Ayyubid periods.

The word *manzara* is derived from the verb *nazara*, “to look, to watch”, which refers to the structure’s basic function as a place from where one looks out, perhaps the equivalent of a belvedere. In the Cairene *basatin*, a *manzara* appears to have been primarily a pavilion with numerous openings, small and large. But because of their presumably lightweight construction material such as wood, reed and textile, all *manazir* mentioned in the sources have disappeared. The only clues we have of their forms are occasional representations in contemporary Mamluk miniature paintings, such as the fifteenth-century illustrated manuscripts of *Kalila wa Dimna*, the *Maqamat* (séances) of al-Hariri, and the *Iskandarnama*, or those rare mosaic representations dating from the early Mamluk period in the Citadel of Cairo, in the funerary dome of al-Zahir Baybars in Damascus, and in the scenes repaired under Baybars and Qalawun at the Umayyad Mosque in Damascus.

The word *maq’ad* means “a place to sit” and is usually translated as loggia, but in the medieval Cairene context it appears to have denoted an upper floor or simply a raised rectangular loggia with an arcade opening overlooking a courtyard, garden, or some other setting. If we can believe the sources, *manazir* and *maqa’id* dotted the medieval *basatin*’s waterfronts in Rawda Island and elsewhere, but it is very difficult from the available information to imagine whether they stood alone or in some prescribed formation and to what, if any, kind of structures they were attached. Moreover, the exact architectural difference between *manazir* and *maqa’id* is difficult to ascertain, although they were to become very distinct in later times when they both migrated to the urban residential architecture and became integral components of the Cairene courtyard house.

This process seems to have started in the late fourteenth century right around the time when the rule passed from the Qalawunids to the Circassian Burjis under Sultan Barquq (1382–1400). Huge suburban *basatin* were slowly subdivided into smaller urban plots in the Mamluk Burji (1382–1517) and later in the Ottoman period (1517–1805). This development, no doubt related to the shrinking base of wealth for the ruling amirs with the change of the Mamluk power structure, could also have been affected by the expansion of the city towards the ponds and the Nile bank. It resulted in the urbanization of the *bustan* and the interiorization of its functions.

This in turn restored the courtyard to its former central position, a position that it had lost during the Ayyubid and early Mamluk periods, when huge urban mansions, such as the palaces of Amir Alin Aq (1293), Amir Bashtak (1334–39), and Amir Qawsun (1337) came with only small, service-oriented courtyards. Their main reception halls generally turned their backs on the courtyard and looked towards the outside street or *birka* (pond) depending on their location. The situation was reversed in Burji and Ottoman residences. The reception halls were arranged around, and opened onto, the large, planted courtyard with very few openings to the outside that were heavily shielded by *mashrabiyyas*. The new arrangement became clear from as early as the middle of the fifteenth century, as shown in the few remaining Burji Mamluk and Ottoman palaces down to the eighteenth century.

Not surprisingly, both *manzara* and *maq’ad* made a forceful appearance in Burji urban palaces. They migrated from open-air settings to the courtyard house and became the common reception spaces in Ottoman palaces, probably as a consequence of the transposition of the *bustan* to the residence, and its reduction to an
urban courtyard-garden. From the fifteenth to the nineteenth century every mid-sized Cairene house boasted a \textit{maq'ad} with at least two arches, and larger houses sometimes had up to five arches, as in the case of the \textit{maq'ad} of Amir Mamay (1490). The \textit{manzara} adaptation to the new urban setting is less clear, since a \textit{manzara} is architecturally very similar to a common \textit{qa'a}, with its raised \textit{iwans} and central \textit{durqa'}. In the Ottoman period, it appears that the term \textit{manzara} (by then pronounced \textit{mandara}) was used exclusively to designate a first-floor \textit{qa'a}, which opened onto a courtyard and was used solely for receiving male guests. The most famous of these \textit{manzaras} can be found in the Ottoman mansions of the seventeenth to the nineteenth century. As a remnant of their former open-air spatial arrangement, they all had shallow fountains with single-stream jets, usually located in the middle of their central \textit{durqa'as}. 

Top, the \textit{maq'ad} of Amir Mamay (1490).

Left, an engraving by Pascal Coste showing an interior view of the summer salon of a house in Quartier-Hauch Kadan, Cairo (1839).

Right, view of the \textit{majlis} in Shubra Palace, designed by Pascal Coste, 1820.
More elaborate gardens began to be laid out in the otherwise functional courtyard that had always existed in Cairene palaces and residences beginning with the ninth-century Fustat houses. They contained flowers and medicinal herbs, evergreen trees, and palm trees and vines. Their flowerbeds were sunk both for aesthetic and irrigation purposes. The palaces were given an introverted composition centring on the verdant courtyard, which could hardly have been seen from the street. Thus, the inevitable impression many pre-modern visitors, who had no access to private homes or their gardens, had was that Cairo was an overbuilt city that lacked green spaces.

**NINETEENTH-CENTURY DEVELOPMENTS**

The nineteenth century saw the expansion of the city towards the river. The process began with new *basatin* established by Muhammad Ali Pasha, his sons, sons-in-law and grandsons following the draining of the seasonal ponds to the south and west of the city and the stabilization of the riverbanks on both sides. These royal *basatin* were endowed with palaces and used both as *jardins de plaisance* and as orchards, plantations and nurseries. The earliest among them appear to have been the palace and garden of Shubra, designed by the French architect Pascal Coste for Muhammad Ali in the mid-1820s, and the two no-longer-extant palaces, Qasr al-Rawda and al-Qasr al-'Ali (1835), that Ibrahim Pasha, Muhammad Ali’s son and successor, built on land granted him by his father on al-Rawda Island and in Bustan al-Khashshab, on the eastern bank of the Nile. They followed on the heels of very timid attempts that appeared in Alexandria where Muhammad Ali built his first residences à la grecque and in the Citadel of Cairo where he built his more official Jawhara Palace and Harim Palace, completed between 1814 and 1827.

Each of the royal *basatin* had a palace or a pavilion, and sometimes more than one, built by a member of the royal family. These sumptuous structures, designed...
mostly by foreign architects attracted to Cairo by the patronage of the new ruling class, were the sites of the first truly Westernizing gestures in residential Cairene architecture. As landscape projects, the basatin cordoned the city off from the west and south and spread to the areas formerly occupied by the seasonal ponds of Azbakiyya, al-Fil, al-Ratli and Qasim-Bey, the newly formed island of Gazira, and the west bank of the Nile at Giza and Imbaba. No new developments were initiated in the east of the city where the Mamluk North Cemetery (al-Qarafa al-Kubra) and the slopes of the rocky Muqattam Hills hindered construction and where water was scarce and hard to procure.

With very few exceptions, these basatin did not last long. Some were incorporated in a new district, al-Ismailiya, designed à la française in the late 1860s by Ismail Pasha (r. 1863–79), the impatient modernizer who wanted to turn Egypt into a part of Europe despite all adverse circumstances. This grand urban project extended from the medieval city westwards towards the Nile along a north-south axis, with tree-lined avenues radiating from central squares to form star patterns modelled after the imperial Paris of Baron Haussmann. Planned in haste by the premier Egyptian reformer, Ali Pasha Mubarak, and a Haussmannian designer imported from France, Pierre Grand, the new district was meant to impress Ismail’s guests, the European monarchs who had been invited to Egypt for the inauguration of the Suez Canal in 1869. But having borrowed heavily to bankroll his flamboyant projects, Ismail ended by bankrupting the country and was deposed in 1879 before the completion of
his Parisian-style district. Three years later, the British occupied Egypt, ostensibly to secure the country’s repayment of its heavy debts, but ended up staying for seventy-two years.

As part of the colonial financial measures, the khedival land-holding company (al-da’ira al-saniya) was forcibly sold to pay for the debts incurred by Ismail. This spelled the loss of many of the remaining royal basatin and palaces, which were apportioned for real-estate development. Their sites ultimately formed the framework upon which much of the phenomenally growing capital city rose in the early twentieth century. This included the posh quarters of Tahrir, Munira, Manial, Zamalek and Aguza. Consequently, only truncated green remnants were left: in the Azbakiyya Garden; in the Maydan al-Tahrir area where the two palaces of Dubara and Ismailiyya once stood; in Garden City, which once formed part of Ibrahim Pasha’s plantation and High Palace (al-Qasr al-’Ali), but was developed as a model garden city under British colonial authorities; in the Gezira Club, Marriott Hotel and the Fish Garden, all pieces of a much larger landscaped bustan attached to the Gazira Palace Ismail completed in 1868 in time to house the Empress Eugenie whom he invited to attend the inauguration of the Suez Canal; and in the Orman Gardens (today the Giza Zoo) and the nearby University of Cairo, both standing on the grounds of the Gazira Palace, also built by Ismail.
POST-COLONIAL CHALLENGES

The 1952 revolution, led by the charismatic officer Gamal ‘Abd al-Nasir (r. 1954–70), adopted ambitious socialist modernization programmes, complete with land reforms and hastily implemented residential, industrial, educational and infrastructural projects meant to herald a new age of progress. Expediency may have been behind the dearth of parks in the new urban developments of the 1960s to the north-east of the city, like the orthogonally planned Madinat Nasr (Victory City), and on the west banks of the Nile, such as Madinat al-Muhandisin (Engineers City). But land shortage, demographic explosion and a heritage of separation between public spaces and leisure may also have contributed to the little interest in providing government-sponsored, large housing projects with public green areas. This, of course, added to the pressure on the parks inherited from the royal era, which had been open to the public, and which now had to serve an ever-growing population with very limited budgets for upkeep.

The situation worsened with the laissez-faire inquitah (opening up) economic policies introduced by Anwar al-Sadat (r. 1970–81) and carried forward by Husni Mubarak (r. 1981–2011) that opened Greater Cairo to the greed of developers and speculators who wanted to bulldoze every old building and appropriate every open green space to make way for bigger and more profitable constructions. This accelerated the destruction of even the very small gardens left around some of the old villas in the same quarters that once formed parts of larger parks. Furthermore, many of the left-over palatial gardens and the verdant promenades along the river banks were given away to exclusive luxury hotels and expensive clubs and restaurants, which were beyond the means of the general public. Even the small patches of agricultural land on the left bank of the Nile, which were forgotten amid urban incursions in the Ahram (Pyramid), and the western flanks of al-Muhandisin areas have disappeared in the last decade of the twentieth century under pressure of an ever-swelling population with its unrelenting demands for more housing, more roads and more shopping malls.

One unusual landscape project of the same period offered some relief for the green-space-hungry city. This was the thirty-hectare al-Azhar Park donated by His Highness the Aga Khan and developed by the Aga Khan Trust for Culture between 1992 and 2005 as part of a larger rehabilitation project of the adjacent historic district of al-Darb al-Ahmar and the uncovering and restoration of the Ayyubid Walls that ran along the western edge of the Park. The Park itself is a phenomenal feat of soil engineering and landscape design. Built over the historic landfill of Kiman al-Barqiyya, a mound of garbage that accumulated over seven hundred years outside the walled city, it required the excavation, removal and replacement of more than 1.5 million cubic metres of soil. It is also uniquely significant in that it is located in the poor section of Cairo, which had no open green spaces since the building up of the Mamluk magadim, and is sandwiched between the Historic City and the Northern Qarafa, the medieval cemetery with its magnificent funerary monuments. The Park, cleverly managed and equipped to service a range of economic classes, quickly became a destination for both tourists and locals for its leisurely paths, abundant fountains and green groves, but especially for the vistas it offers onto the Historic City. Unfortunately, no other recent project in Greater Cairo, not even the many beautifully landscaped clubs in the new posh satellite cities to the north of the city on both sides of the Nile, compares with al-Azhar Park in its rootedness in its urban and historical contexts or its civic and environmental commitment.

In conclusion, what are we to make of this brief history of green spaces in Cairo? The first point is the need to historicize the perception of the city as a drab, crowded
urban expanse and to locate it in its proper timeframe. The second, and perhaps opposite, point is to understand both the advantages and limitations of learning from history. Clearly, there is no particular model to be recovered as far as the basatin or mayadin are concerned. They belonged to a lifestyle that is gone and is irrecoverable. The landscaping of the khedival basatin was imported wholesale from Europe with varying degrees of success in adaptation to the local environment. (One particularly successful import were the Banyan trees brought from Bengal to line the roads circling the Gazira [present-day Zamalek] when it was made into the park for Ismail’s palace.) Furthermore, these pre-modern green spaces depended on a system of patronage that is impossible to replicate today. But they also offer many architectural and horticultural elements that can be revived and reintroduced, not out of nostalgia alone but also because they have proven that they function well within the prevailing environmental and social constraints of Egypt. Thus, maqa’id and manazir can form the basis of a typology of indigenous architectural elements of landscaping and viewing. Similarly, medieval irrigation tools, techniques and native plants could be incorporated in the design of parks both as claims to an “authentic landscape” and
as tried and proven good solutions for sensible use of water and soil, for shading and greening, and for decoration.

But the most important lesson to be learned from the historical record, in my opinion, is related more to devising a strategy for survival than to influencing the actual design of new parks. Basatins and magadins, and later on small villa gardens, disappeared because they offered attractive sites for the development of much more profitable real estate. Speculators and contractors, as well as state agencies responsible for housing, saw in them obvious targets, already plotted and irrigated though neglected, disputed and therefore easy and cheap to acquire. They were in a way the victims of their own success. Could we devise a design strategy – in addition to the much-needed legal and zoning devices – that would ensure the survival of public green spaces in the heart of the ever-growing metropolis? That is the real challenge facing the city and its planners as they ponder solutions to its seemingly insurmountable problems of population explosion, resources depletion, environmental degradation, infrastructural exhaustion and severe social inequalities.


BIBLIOGRAPHY


An innovative city park has the potential to be both the playground and the powerhouse of a new, urban ecology and economy. Al-Azhar Park was motivating in its promise and purpose in that all the prerequisites of a great urban park project were present simultaneously:

‣ an intention to transform Cairo;
‣ an opportunity in terms of space and location;
‣ the capacity for access and action;
‣ the ability to organize sustainable management.

The Park was planned with the realization that the remnant topography of the mounds of accumulated rubble must be removed, some one million cubic metres, and then reworked to create a composite and credible landform. The convincing elevations achieved offered spectacular view opportunities off site and the rolling slopes made for an easily walkable landscape. Although entirely man-made, the Park has a light sense of nature about it in its form and flow.

Earthmoving machines sculpted the wasteland extensively to reconfigure a naturalistic range of hills and slopes. It was, indeed, an additional distinction that in the process the significant remains – 1.3 kilometres long – of the buried Ayyubid-era city wall was unearthed, which was a clear heritage bonus. Positively dramatic in its impact, with crenellated battlements and great cylindrical towers, it is a magnificent background and the proposed layout of the new Park was creatively adapted to engage with the fortified Wall. The resultant urban ravine, half park, half heritage, is a unique feature and a profound promenading experience.

The final earthworks created clear vantage points as hilltop belvederes that benefit from the physical and psychological elevation from the main planes of the Park and city. They are undoubtedly the *genii locorum* of the Park below. Even the traffic noise seems dissipated at their level. Their panoramic skyline-views of mosques, minarets and more are breath-taking and memorable, especially on a clear day, or at sunset.

The dominant landscape architectural feature of the site is the Grand Axis, with its bold cross-park alignment. A view shaft of stepped, longitudinal space, it runs from the Citadel View Restaurant, fixed on the distant Citadel view, and is exotically reinforced by flanking colonnades of royal palms. As a composition, it is both magnificent and irresistibly photogenic. Its attraction to visitors is clearly seen in the delighted promenading crowds, on any day. This route overlooks the pattern of the terraced formal gardens and accesses them with ease and elegance. They are laid out...
to display the geometries and proportions of traditional Islamic garden design and, even when flowerless in winter, their clipped hedges display an eye-catching pattern. In summer, their plantings are vibrant with colour.

The Grand Axis steps down the site, connecting as it passes with the generous entrance plaza, alive with interactive fountains, a rare thrill in Cairo, then pivoting onto a sub-axis focused on the view bisecting the Lakeside Café. It overlooks the man-made lake, which is artfully shaped and naturalized with water's edge plantings. By design, it is especially contemplative.

The architectural form of the main buildings in the Park is essentially that of articulated pavilions in crisp, modern versions of the local vernacular. Each is differentiated through their specific design responses to site, purpose and style. By intention, they are integral to the overall landscape design. Their internal play with light and shade is sophisticated, but playful. As all good park pavilions do, they frame viewpoints and complete view compositions. They are prominent, but perforated, becoming less dominant as the complementary plantings of trees and shrubs in their vicinity mature.

The hard landscape connecting the built elements with the formal landscape is luxurious in quality and elaborate in pattern. It is an energizing element by day and even more so by night, when subtle area lighting design changes the visitor’s perception of the Park and creates an exceptional, festive environment, but as safe as in daylight. The Park at night is cool and bright and so increases the confidence of visitors and the available hours for beneficial access and relaxation.

The buildings are strategically placed to intersect with axes and connect with the subdued, freeform landscape of sinuous paths on various circuits. The Park itself is a rambling, stroll garden; paths weave around, up and down the gently transversable slopes and connect the many attractions like the play park, while eateries are to be found embedded in the more densely wooded areas, orchards and plantations.
Prominent axes and plazas in the paving pattern are surfaced with polished cut granite and marble tiles and show splendid workmanship, where the shared luxury benefits the self-esteem of both the Park and its visitors. It is noticeable on the ground that visitors behave very respectfully in such enclaves, thoroughly enjoying an extraordinary level of quality and detail in their environment. The same is true of the Park’s furniture, which is dignified and dignifying at the same time. This is most significant in a shared environment when good park manners are a prerequisite of easy coexistence.

**WATER**

The waterworks of the Park, both irrigation and ornamental, are responsible not only for the survival of the plantings in an inhospitable growing environment, but also for creating an engaging and holistically healthy green space. By spray and by drip the Park is well watered and washed. In their turn, the grown trees and shrubs now effectively filter the dust and pollutants from the air – a small gesture, but welcome in Cairo. The microclimate is benevolent, as much for the people as for the plants. It is touching that the waters of the Nile now water these hilltop gardens, just as the gardens of antiquity were once watered.

Water for horticulture is unobtrusive; on the other hand, water for amusement and spectacle is a clear, connective element in the layout and flamboyantly exhibited, specifically along the Grand Axis in rills, pools and fountains. The Park’s lake is the
focal terminus of the water system and most rewarding in its scale and outlook. It is totally convincing and creates a restful atmosphere for strollers and those who choose it as a prime site for picnics. The clarity and purity of these water features invite physical contact, and are irresistible to children and even adults of all ages. Clean water for play in the Park is a great luxury and a joy that is emotionally charged.

HORTICULTURE
Refined standards of horticultural practice were tried and tested during the construction of al-Azhar Park. The soil mechanics are noteworthy; the shaped rubble and fill was topped off with an impervious membrane. On top of this a 4.5-metre-thick layer of selected subsoil was spread and this covered with a further 500 millimetres of good topsoil, compost and additives. Despite the technical difficulties of fixing soil, specifically wet soil on steep slopes, all technical impediments were eventually overcome, as seen today.

Combinations of native (local) and xerophytic (drought-adapted) exotic plants and trees were trialled and tested. High-salt tolerance was a parameter in final plant selection. Massive numbers of plants, trees and palms were either propagated or grown and collected in off-site nurseries and today this continues on a smaller scale on site. The planting design was deliberate in its reinforcement of the spatial intentions of the layout and the desired visual character and function of the Park. Moreover, it is beautiful! Since the original plantings were made, pragmatic, purposeful adaptations...
have been carried out and the ensemble is producing fine horticultural results. The scale of the structure plantings in avenues, orchards and woodlands has been highly successful, and the palm groves are especially outstanding. For a young park, al-Azhar Park already shows an impressive planting character and quality.

**LANDSCAPE MAINTENANCE AND MANAGEMENT**

Park maintenance and management may sound dull, but, as with a living landscape, are possibly the most important aspects of success.

A park is fragile, a place in which wear and tear, normal attrition, not necessarily vandalism, must be offset by proactive recuperative management. The Park must, above all, remain inviting and hospitable. Major efforts go annually into the creative pruning of partial shade trees – canopies are lifted for access and surveillance – and the creation of space. Many trees around the slopes are topped to preserve the quality of the panoramic views. It is always calculated and conservative, as good growth is precious and not to be squandered.

The horticultural finesse is repeated annually when the exhausted lawns are top-dressed and over-seeded with Winter Rye grasses to re-green them. These rejuvenated lawns are bright green and confirm that quality management is in place and proactive. This technique is normally reserved for elite golf courses, not public parks. Physically cleaning the Park – paving, water features, furniture and all – is carried out quietly and scrupulously, with the ongoing work seldom noticed.

While landscape maintenance simply requires repetitive care for the gardens, management of people in the landscape requires patience, a clear vision and purpose. Al-Azhar Park has such a management team, whose expertise and dedication to the quality of the Park’s green space are evident in its appearance and its success.
SOCIAL MOTIVATION
To integrate meaningful and sustainable green space into city planning, the lifestyle aspirations of city dwellers, especially in stressed cities, like Cairo, have been championed in recent times and so created a humanitarian agenda for “liveable cities”. Hence the motivation for city parks to fundamentally improve city living conditions. In addition, planners and engineers had recognized that green spaces in cities can seldom be dedicated to just a single function, be it practical or recreational. Efficient cities demand multi-purpose spaces that can serve several functions and roles simultaneously and compatibly. Al-Azhar Park competently assimilated the three new potable water reservoirs in its grading and planning.

Over time, as the Park has grown in, it has established a certain dignity of place, further enhanced by the quality and diversity of the green spaces it offers. However, the prime purpose of parks is not a horticultural one but a social one. They offer respite from crowded cities. They promote interaction in a mannered environment; civility among visitors one to another is demonstrated and encouraged, taught by example. The elderly and children, parents and families, schoolchildren and students, lovers and the lonely all mix, part of a passing show. While the other physical benefits of park-based activities have long been recognized, the fundamental upliftment of uninhibited socializing is often overlooked.

Sitting out of doors in the shade, conversation, eating and socializing with family and friends, and even greeting strangers in passing, are very much part of the Cairo culture. A vital part of a greater social cohesion and communication. In many families’ histories, the Park has become the venue of choice for family picnics and celebrations. The Park landscape is both the stage and the backdrop for shared memories (the intangibility of nostalgia) and the frequent photography of this age (the tangible selfie!). In formal wedding photographs to casual snaps, al-Azhar Park and Cairo’s historic skyline are instantly recognizable and accepted as an aspirational landscape.

CONCLUSION
Al-Azhar Park is a modern multi-purpose and multifunctional planned project. Comprehensive and inclusive planning and programming were clearly the seeds of its success and underpinned its sustainability and relevance to the community. A pay-to-enter policy was not an impediment. Parks can create both a sense of well-being, goodwill and value in desperate communities by becoming common ground. If the economy of a park can likewise generate and support economic diversification and sustainability in its neighbourhood, and beyond in its offering to its host city, then it becomes social and economic infrastructure and an example to all of a “green alternative”. Only with a ‘Public-Private Partnership’ in place does al-Azhar Park confer such confidence and sustainability.

Taken together, all the components and details of architecture, landscape architecture, horticultural science and human psychology have been considered, manipulated and managed to make a better microclimate and a better mental and physical environment for visitors. Comfort and peace together in the Park. In the future, the Park has capacity for further elaboration and amenity.

So how does one complete a review of a park like al-Azhar? It is probably best done by popular expression; though once considered intangible, it is now entirely tangible. The turnstiles tell the truth: two million people a year, and at peak 40,000 visitors in a single day, now enjoy the Park on major festive occasions. In addition, the Internet guru, Trip Advisor, proclaims in its website Top Tourist attractions for Cairo, the Pyramids as No. 1 and al-Azhar Park as No. 15. Quite remarkable!
THE HISTORIC WALLS – BRIDGE AND BARRIER
THE HISTORY OF AL-DARB AL-AHMAR

SEIF EL RASHIDI

"Qu’espérer de ce labyrinthe confus, grand peut-être comme Paris ou Rome, de ces palais et de ces mosquées que l’on compte par milliers? Tout cela a été splendide et merveilleux sans doute, mais trente générations y ont passé; partout la pierre croule, et le bois pourrit. Il semble que l’on voyage en rêve dans une cité du passé, habité seulement par des fantômes, qui la peuplent sans l’animer."

“What to think of this confused labyrinth, as large, perhaps, as Paris or Rome, of its palaces and its mosques that one can count by the thousand? Without a doubt, all of this had once been splendid and marvellous, but thirty generations have passed on; everywhere the stone crumbles and the wood rots. It appears that one is travelling in a dream in a city of the past....”

Gérard de Nerval, Voyage En Orient (Journey to the Orient), 1842.

In AD 969, following the Fatimid conquest of Egypt, a new urban settlement was founded specifically to house the Fatimid court and those related to it; originally called al-Mansuriyya, its name was later changed to al-Qahira – Cairo. Although essentially designed as a royal precinct, Cairo was not totally inaccessible to the public. Thriving markets catered to the population at large, most of which lived to the south-west, in Fustat, an urban settlement located close to the Nile and developed following the Arab conquest of Egypt in the seventh century around the Roman fortress of Babylon. As an extended palatial complex, Cairo, although physically separate, was socially and politically part of the earlier settlement, which even then remained the nucleus of urban agglomeration in economic, administrative and religious terms.

Accounts of the elaborate rituals and festivals of the Fatimid court stress the importance of sites outside the walled city, even in early times. This, as well as the existence of other earlier settlements to the north, such as Matariya, meant that there was a populated zone stretching from Fustat all the way north of the city walls, comprising distinct areas that were nevertheless interconnected.

The area now known as al-Darb al-Ahmar (ADAA) is located just outside the southern walls of the Fatimid palace-city and had originally been cemetery grounds for its residents. In the eleventh century, a period of drought and famine led to the impoverishment of Fustat, and the exodus of most of its population to the area around Cairo. By then, the city had already expanded, and a reconsolidation of the city walls
between 1087 and 1092, during a period of civil strife, involved the enlargement of the original walled precinct to incorporate these newly developed urban areas.

As the area lying immediately outside Bab Zuwayla, Cairo’s main southern gateway, al-Darb al-Ahmar was one of the first zones of urban expansion. Thus, in 1160, the Fatimid vizier al-Salih Tala’i, fearing Frankish desecration of the shrine of the prophet’s grandson al-Hussein in Ascalon, built a mosque outside Bab Zuwayla in order to house al-Hussein’s relics, indicating that al-Darb al-Ahmar was no longer a truly peripheral zone.

The rise of the Ayyubids in 1171, under Salah al-Din, marked the beginning of a radical change in the urban development of Cairo: Salah al-Din constructed a citadel on a rocky spur slightly south of the walled city. Intended from the onset as the sultan’s residence, it was only to become the real seat of power in 1206 under Salah al-Din’s nephew, al-Kamil, thereby stripping the original Fatimid settlement of its royal status. It was the construction of the Citadel, more than anything, that shaped the urban development of al-Darb al-Ahmar as we know it today. The transfer of the seat of power outside the city walls created a clear stretch of urban development to the south, connecting the new seat of power to the old, and giving rise to al-Darb al-Ahmar (the area in between Fatimid Cairo and the Ayyubid Citadel).

One of the most striking features of the Fatimid city had been its qasaba, the main north-south thoroughfare, which formed an uninterrupted route between the city gates. The qasaba, lined with palaces and other caliphal buildings, was the site of elaborate royal processions, cornerstones of a dynasty that had developed complex courtly etiquette. During the Ayyubid period, the qasaba was extended southwards to reach the Citadel, thus adding a new, equally prestigious stretch to the road whose buildings were to define elite Cairene society up until the mid-nineteenth century.

The construction of the Citadel also brought about a second, equally important urban development: the extension of the city walls to create an enlarged walled city, known appropriately as “al-Qahira al-Mahrusa” (Cairo the protected). The extension of the eastern city wall to the Citadel served to define the eastern edge of al-Darb al-Ahmar. It marked the boundary between the urban area of the new elite, for whom proximity to the seat of power was essential, and the peripheral activities that were equally important for the functioning of the city, but less desirable. Among these were markets for animal fodder and dumping grounds for the city’s rubbish and, a century later, cemeteries.

The location of the cemeteries followed a constant trend in the history of Cairo – established on the peripheries of the metropolis, as the city expanded, they were removed to make way for new urban development. In contrast, the dumping grounds remained a permanent feature of the eastern edge of the city – in a sort of vicious cycle, the mounds of rubbish that accumulated outside the city walls served as a barrier towards eastward urban expansion, which, in turn, encouraged more and more dumping. This practice continued for centuries, resulting in the creation of formidable mounds of debris, closely resembling natural formations, which dwarfed the city walls and eventually buried them. The Aga Khan Trust for Culture (AKTC) has now converted these mounds into al-Azhar Park, while the eastern city wall has been exposed and has been restored.

The persistence of the Citadel as the seat of power ensured that al-Darb al-Ahmar remained a prestigious area, and a centre of economic and political life during the Mamluk period (1250–1517). In 1250, immediately following the fall of the Ayyubid dynasty, a power struggle at the Citadel led to a group of seven hundred Mamluk princes, in opposition to the then-ruler Aybak and thus fearing for their lives, deciding...
to flee to Syria, from where they would later regroup and return to take over power. The night-time escape took place from one of the eastern city gates, Bab al-Qarratin (burned in the process and consequently renamed Bab al-Mahruq “the burned gate”).

As an area whose urban importance spanned many generations, most of al-Darb al-Ahmar’s early residential buildings were destroyed to make way for the buildings of later patrons seeking to build houses, palaces or mosques in an area whose location remained prime. However, a few residential structures remain from medieval times, among them Alin Aq Palace, a building whose monumental scale is still evident despite its ruined condition, and parts of a house built during the reign of Sultan Qaytbay (1468–96), incorporated into a later residential structure called Bayt al-Razzaz.

Institutional buildings fared better; maintained by an elaborate system of endowments, waqf, and, in the case of religious buildings, considered to be sacred spaces and therefore indestructible except by the force of time, most still stand today. The bimaristan of al-Muayyad, a large hospital built circa 1420 in the vicinity of the Citadel, exemplifies the attention paid to the founding of civic institutions by members of the court. Al-Darb al-Ahmar’s steady urbanization can best be observed through changes in the form and size of religious buildings constructed in the area between the thirteenth and fifteenth centuries. In response to the increasing scarcity of land in the centre of the city, mosques evolved from large, symmetrical structures with accommodating open courtyards, to much smaller buildings with ground plans cleverly adapted to fit onto awkward-shaped plots of land. By the end of the Mamluk period, mosque construction in the area was primarily a pious and prestigious act: given the sheer number of mosques that already existed, there was no real social need for new religious buildings.

The construction of important architectural complexes often included the building of multi-family residential units, usually for the poorer classes. This ensured that while al-Darb al-Ahmar remained a prestigious area, it nevertheless housed a very mixed community. It was also an area in which quiet residential cul-de-sacs existed alongside vibrant commercial streets and markets. Some of the latter, especially those catering to the military establishment, such as the weaponry and horse markets, had been transferred from the centre of the Fatimid city to al-Darb al-Ahmar for the sake of proximity to the Citadel.

The Ottoman conquest of Egypt in 1517 marked a new phase for al-Darb al-Ahmar. The rulers of Egypt were now Ottoman governors, posted to Egypt for a limited period of time, and thus with political aspirations in Istanbul rather than in Cairo. As such, while the seat of power remained at the Citadel, the transformation of Cairo from the capital of an empire to an Ottoman province meant that the sponsorship of the large-scale complexes that had characterized al-Darb al-Ahmar decreased considerably. Architectural patrons found new, more resourceful ways of leaving their mark upon the city. The appropriation, and subsequent “Ottomanization” of the fourteenth-century Aqsunqur Mosque by an Ottoman official, Ibrahim Agha Mustahfazan, in 1650, is a case in point. Instead of constructing a new mosque, the patron simply added Turkish tiles, a distinctly Ottoman feature, to a well-located Mamluk building on al-Darb al-Ahmar Street, thereby symbolically transforming it into an Ottoman building – his own.

While the founding of monumental religious buildings declined, the high value given to charitable work ensured that the patronage of smaller-scale projects continued. The Ottoman answers to the expansive Mamluk foundations were sabîl-kuttabs (water fountains surmounted by Qur’anic schools), which were relatively inexpensive.
to build, required tiny plots of land, and served a social need. In parallel, the building of residential structures in al-Darb al-Ahmar proliferated to meet the demands of an expanding population. Thus, Ibrahim Agha Mustahfazan, the same patron who appropriated a Mamluk mosque for reasons of economy, had no qualms about constructing a series of residential and commercial buildings on al-Darb al-Ahmar Street – a decision probably grounded in an understanding of the considerable value of such property in light of its excellent location.

Despite new political allegiances, the architecture of Ottoman Cairo remained by and large true to a local tradition that had developed over centuries to meet the specific conditions of a dense urban fabric. By the eighteenth century, open spaces within the city walls were few and far between. Even the city gate, which in 1250 had permitted the flight of the dissenting Mamluk princes, had been blocked by residential construction.

The aftermath of a French invasion of Egypt in 1798 led to the rise of Muhammad Ali, an Albanian general in the Ottoman army, as pasha – giving him virtual autonomy, though nominally a vassal of the Ottoman Court in Istanbul. This resurgence of local power spearheaded by a dedicated reformer, coupled perhaps with an openness towards new ideas following three years of French presence in Egypt, heralded a
cultural revival for al-Darb al-Ahmar. Important members of Muhammad Ali’s army were granted plots of land in the area, which led to the construction of palatial mansions and palaces. These were often a synthesis between local spatial tradition, the architecture of the Balkans and Turkey, which was familiar to Muhammad Ali and his entourage, and the decorative vocabulary popular in Europe at the time. A few examples from this period still remain intact, including an extensive house known as Waqf al-Girissi, owned by the Ministry of Awqaf.

This cultural revival was short-lived, however; in the 1860s Muhammad Ali’s grandson, Khedive Ismail, visited Paris and, amazed by the development of the city since his days as a student there, returned to Egypt with visions for a new, European-style capital. Ismail moved the seat of power from the Citadel to Abdin Palace, constructed in his newly created Ismailiya quarter west of the Historic City, thus effectively ending Darb al-Ahmar’s seven-hundred-year-old role as a centre of political, cultural and economic activity.

The effects were not immediately apparent, yet a building boom in the 1880s must have marked the influx of bourgeois merchants eager to live in the area – a move due in part to Darb al-Ahmar’s still-illustrious reputation, and facilitated by the gradual exodus of the city’s political elite to the new Ismailiya quarter. Al-Darb al-Ahmar still retained a sense of economic vitality, however, and even the most grandiose houses of the late nineteenth century had shops built along their main facades. Despite widespread eclecticism, architectural standards remained high; attention to space, proportion and architectural detail was evident, even in the more modest buildings. In keeping with local historic urban trends, the grandest houses were generally located on main thoroughfares or adjacent to popular shrines, especially those associated with members of the prophet’s family, such as Fatma al-Nabawiyya. Poorer families tended to live in the narrow alleyways abutting the eastern city wall.

The first few decades of the twentieth century saw al-Darb al-Ahmar attempting to emulate the new quarters of Cairo. Sporadic urban-development schemes involved the subdivision of large estates into regular grid-like blocks, totally alien to the area’s
traditional urban fabric. Yet, fortunately, urban projects of this type remained rare. In the 1950s and 1960s the rise of large-scale industrialization meant that areas such as al-Darb al-Ahmar, whose commercial activity was based on small-scale enterprises and workshops, were no longer seen as the basis of the city’s economy. While many local industries did, in fact, continue to function, the new trend was for mass production in huge factories located in newly developed industrial areas.

New construction techniques, using reinforced concrete, began to replace traditional building materials, and “modernist” urban design policies came into effect. While innovation had always been an important factor in Darb al-Ahmar’s development, earlier modernization attempts had still maintained strong links to the past. The new mindset, however, saw little value in tradition, and the impact of this was profound.

**THE FATE OF AL-DARB AL-AHMAR**

The last century has been a paradoxical one in as far as Darb al-Ahmar’s development is concerned. On the one hand, diligent efforts to conserve historic buildings by the Comité de Conservation des Monuments de l’Art Arabe (an Egyptian government body founded by khedival decree in 1881) and its institutional successors ensured the preservation of the area’s most significant historic buildings, many of which had fallen into a state of disrepair. Encroachments on derelict property (resulting from a demand for housing or work space) were common, and the idea of clearing these encroachments from prominent historic buildings, erroneously considered as isolated monuments, developed. Such a policy, which at the beginning of the twentieth century saved many valuable historic buildings from disappearance, was codified into an article in the Egyptian Antiquities Law, with unfortunate results. It gave rise to a misguided idea that all listed buildings should be free-standing, prompting widespread demolition of buildings abutting “monuments”; an idea especially inappropriate in a city whose entire architectural tradition developed in response to high urban density, and whose most ingenious buildings were designed as part of a closely knit urban fabric.

The negative consequences of a conservation policy that failed to see the larger urban picture were exacerbated by planning policies that overlooked the specificities of historic areas – a detrimental combination. In general, over the last century, planning schemes were developed by government officials poorly acquainted with the character of historic areas like al-Darb al-Ahmar, and unaware of their value as unique urban environments. Plans to widen existing streets, usually developed by drawing lines across a map of the area, with little thought given towards the social and urban consequences of such decisions, were common. Such schemes, developed with the intention of improving accessibility, contributed to the destruction of Darb al-Ahmar’s urban fabric, a problem compounded by a proliferation of new buildings with neither architectural nor typological links to the area’s traditional forms.

In the late 1990s and early 2000s an ambitious rehabilitation scheme by the Aga Khan Trust for Culture’s Historic Cities Programme was instrumental in demonstrating that Darb al-Ahmar’s urban fabric had both great value and potential, and that it was possible to preserve it alongside the conservation of medieval monuments such as the city wall. A programme to restore the traditional housing stock through a grant-and-loan scheme was particularly successful, with the huge demand by local residents impressively exceeding available resources to carry out the work. What became clear was that local residents were deeply rooted to the area and eager to invest their own resources into physical improvements to help ameliorate physical living
conditions. For just over a decade, al-Darb al-Ahmar began to witness positive change in its urban environment.

Unfortunately, the political events of 2011 created a lapse in municipal administration, which saw rampant construction by “quick and dirty” developers who seized a golden opportunity to capitalize on the panoramic views created by the paradisiacal al-Azhar Park. The outcome was that incongruous multi-storey apartment buildings sprung up on the plots of land closest to the Park, in flagrant contravention to the law. Many of these replaced Darb al-Ahmar’s historic buildings. For the first time in decades, even medieval monuments, normally zealously guarded by the antiquities authorities, saw towering buildings constructed abutting them. A grey area between the jurisdiction of the Ministry of Antiquities and the National Organization for Urban Harmony (NOUH) may have played to the favour of developers. More philosophically, it is debatable whether none of us or all of us are to blame.

All of this has highlighted the weaknesses in the urban conservation dynamic in Cairo – firstly, that, unfortunately, the political will to preserve al-Darb al-Ahmar was weak, and the beneficiaries of this uncontrolled development far outnumbered those who cared about Cairo’s heritage. As a result, developers could act unchecked, and unnoticed. More worryingly, while government investment post-2011 to preserve the wealthier and more celebrated Gamaliyya district of the medieval city has been substantial, the transgressions in al-Darb al-Ahmar have not witnessed punitive action.

In hindsight, while the AKTC’s urban conservation initiatives were valiant, a sense of custodianship over the heritage of al-Darb al-Ahmar may not have effectively been transferred beyond the officials of the Trust. Perhaps a scenario that actively nurtured carefully managed private investment in the Historic City, as per the model of comparators like historic Damascus, could have created a community of resistance, motivated by threats to their economic interests. What is disappointing is that there was no resistance, and no real response.

The outcome is that al-Darb al-Ahmar risks sliding out of public and official consciousness as an area of heritage value. In fact, it is hard to see how the recent detrimental construction can be reversed short of waiting for these buildings to crumble a century or so from now.

A few courses of action appear to be the area’s only hope – one crucial one is the reinforcement of the building regulations, which had curtailed development since the 1990s when they were put in place. This could break the cycle of destruction and development. Other avenues could be the creation of hubs of cultural/preservation-related activity through what are effectively the area’s most prominent assets: Al-Azhar Park and the Citadel, both of which rub shoulders with al-Darb al-Ahmar, but have not made permeable the formidable medieval walls isolating them from the neighbourhood.

As the throngs of young Egyptians soaking up the evening atmosphere in the upgraded Gamaliyya district make clear, there is public interest and enjoyment in the experience of a clean and restored medieval city – a free, manicured, attractive public realm, open to all.

In an ideal world, a far deeper public understanding of al-Darb al-Ahmar’s heritage would be desirable, albeit very difficult to attain. A more realistic alternative is for combined private and public investment to increase the appeal of the area, so that, gleaming and slick, it too finds a place in the consciousness of the average Cairene in an age flirting with notions of an Egyptian renaissance.
Above, excavations of the Fatimid mud-brick wall in Darassa (Archaeological Triangle).

Right and below, a section with the facade of the mud-brick tower built over a late-10th-century Fatimid garden and fountain.
DISCOVERING THE FATIMID WALLS

STÉPHANE PRADINES

INTRODUCTION

In 2000, the French Institute for Oriental Archaeology (IFAO) and the Aga Khan Trust for Culture (AKTC) launched a programme of study, excavation and conservation of the medieval city walls of Cairo with the institutional and administrative support of the Supreme Council of Antiquities (SCA; nowadays the Ministry of Antiquities). Our excavations were located on five sites: the Darassa Car Park (2001–09), Bab al-Tawfiq (2004–05), Bab al-Nasr (2012–14), Burg al-Zafar (2007–16) and al-Mashtal (2016). Our first concern was the study of the Ayyubid enclosure wall, that is, Salah al-Din’s city wall (1169–78); subsequently linked to our new discoveries, we turned our attention to the Fatimid city walls of Badr al-Jamali (1087–92) and Jawhar al-Siqilli (969–971).

Before our excavation, the Fatimid fortifications were known only from three monumental gates, the descriptions of the renowned British architect Keppel Creswell and the works of Paul Casanova, who mainly followed the descriptions of al-Maqrizi. Apparently, the Fatimid Walls were built in two periods. A first enclosure wall made of mud bricks in 969–971 and a new enclosure wall built of limestone from 1087 to 1092. Our recent research allows us to rediscover and highlight this unknown Fatimid military architecture. Some of these fortifications were built of limestone, others of mud brick, and yet others – the oldest – of rammed earth (pisé).

THE MONUMENTAL STONE GATES OF BADR AL-JAMALI (1087–92)

Badr al-Jamali, who was of Armenian origin and who went on to become governor of Damascus and then of Acre, led many victorious battles in the north of the Fatimid territories. Following his success, and at the request of the caliph, al-Mustansir (AD 1035–94 / AH 426–87), he arrived, with his Syrian troops, in Egypt in AD 1073 / AH 465. In order to restore order in the country, he was appointed “Supreme Commander of the Armies” and was known as Amir al-Guyushi.

Badr al-Jamali was not only a state ruler, but also a great builder, endowing Cairo with new fortifications. Undoubtedly, the most notable of the vizier’s buildings were the large gates of Cairo (AD 1087–92 / AH 479–84): Bab al-Futuh, Bab al-Nasr and Bab Zuwayla. The northern side of the city is pierced by two gates: Bab al-Nasr to the east and Bab al-Futuh to the west. The construction of Badr’s enclosure wall is, in fact, dated by the epigraphy of the inscriptions in situ and historical sources. The works were commenced to the north with Bab al-Nasr in 1087 and were completed to the south with Bab al-Zuwayla in 1092.
Bab al-Nasr is a straight entrance that measures 24 metres wide, 20 metres deep and 21 metres high. The entrance is protected by two towers that are square in shape measuring 8 metres on each side. The tower has three storeys, two of which are filled in, and only the upper sections, which were used for defence, are equipped with firing chambers. Bab al-Futuh is also a straight entrance that is protected by murder holes. It is flanked by semicircular, oblong towers 7.5 metres wide, projecting forward 7.5 metres. The entire gate measures 23 metres wide, 25 metres deep and 22 metres high. According to al-Maqrizi, Bab al-Nasr and Bab al-Futuh were preceded and protected by mud and wooden barbicans (bašhura). Bab al-Tawfiq and Bab Zuwayla were protected differently, by means of a glacis. Bab Zuwayla is the gate of the southern facade of the city, and it is located exactly on the north-south axis of Bab al-Futuh. With their semicircular, oblong towers, these two gates are similar without being identical. Bab Zuwayla measures 26 metres wide, 25 metres deep and 24 metres high.

These three monumental gates possess elements that could be classified as exogenous from an architectural viewpoint. Many of the elements are reminiscent of northern Syria, including the arrow slits that appear to be influenced by the regions of Edessa and Antioch and are thus proof of a direct and clear link, according to Fourdrin. Armenians were an essential component of the Fatimid army. Badr al-Jamali arrived in Egypt, with his Syrian troops and his Armenian master builders. They brought with them their arms and their art of war, including the art of building fortifications. It was alleged, at the beginning of the thirteenth century, by Abu Salih in his book *The Churches and Monasteries of Egypt* and confirmed by al-Maqrizi that three Armenian engineers each built one of the Cairo gates and that they had collaborated with a Coptic monk. However, although Abu Salih was quite precise in his reference to the geographical origin of the three brothers, namely the city of Edessa/Urfa, he never made mention in his text of their social class or their religion. The tradition of three Armenian brothers having each built one gate not only reflects the plurality of the construction engineers that were involved in these monumental works, but it is also a myth, as Badr’s city wall was pierced with numerous gates, of which at least two others were in stone. The first was located to the north-west of the city and was known as Bab al-Qantara, built in front of a bridge that crossed the canal (khalij) and that was destroyed by the Cairo Governorate in 1878. According to Ali Mubarack, the gate had been removed and there was, apparently, an inscription in Kufic over the gate, but unfortunately this was not examined, and all that remains is a plan that, nevertheless, shows a straight entrance surrounded by oblong semicircular towers.

Although smaller, there is another Fatimid gate known as Bab al-Tawfiq and located in the centre of the eastern facade of the city. It measures nine metres high and is more commonly known by the name of Bab al-Barqiyya, according to Fouad Sayyid. Above the entrance is an inscription of five lines in floriated Kufic carved on a white marble panel. The gate is protected by a ramp made of granite slabs that we uncovered in 2005. This ramp resembled the glacis (sallaga) that was used as a defence for Bab Zuwayla but which was dismantled by the Ayyubid sultan al-Kamil. Bab al-Tawfiq was flanked by two quadrangular, mud-brick towers. The plan of this gate is not dissimilar to that of Bab al-Nasr.

The northern and southern facades of the city were built partly in stone. Out of the southern enclosure wall, only Bab Zuwayla remains, and a small section of the curtain wall, with the city enclosure having been invaded and gradually destroyed by the mosques and the Mamluk and Ottoman dwellings that were installed between this zone and Bab al-Wazir to the footsteps of the Citadel. The northern curtain wall between Bab al-Futuh and Bab al-Nasr was built in stone and, up until now, has not
been adversely affected by urbanization, due to the fact that the extramural space was only surrounded, to the north, by a necropolis. From all our observations, both archaeological and bibliographical, there are certain stylistic constants regarding the Fatimid fortifications of Cairo. The Badr al-Jamali stone wall is endowed with quadrangular towers and buttresses, and only the towers of the gates of Bab al-Futuh and Bab Zuwayla are oblong and semicircular in shape. As from 1891, Van Berchem had already confirmed this layout. The southern stone facade, to the side of Bab Zuwayla, consists of a rectangular tower measuring 8 × 7.7 metres and two buttresses measuring 4 × 3.4 metres. The northern facade comprises two towers located between Bab...
al-Futuh and Bab al-Nasr, one measuring 5 × 4.7 metres and the other 8 × 4.7 metres. The two towers that flank the Bab al-Nasr entrance can also be added to this list.

THE FATIMID MUD-BRICK WALL OF THE ELEVENTH CENTURY

In 2001, we made an extraordinary discovery in Darassa Car Park (the Archaeological Triangle): a new town wall for Cairo. We found a huge mud-brick tower dating back to the Fatimid period and preserved up to four metres high. In fact, we found a mud-brick wall preserved on all the sites that we dug in Darassa Car Park, at Bab al-Tawfiq, Bab al-Gedid, Burg al-Zafar in eastern Cairo and at Bab al-Nasr and al-Mashtal to the north. All the signs are that Badr al-Jamali’s workers used mud brick to protect the entire city of Cairo. This is also the reason why there are no longer any discernible remains, given that this material is more fragile than stone and the wall was progressively covered by the Mamluk city.

The town wall discovered to the south of al-Azhar Street on the Darassa Car Park comprised a tower that stood on a funerary compound with a garden and a fountain dating from the early eleventh century. Therefore, it is not possible that this was the Jawhar city wall, which dates from the second half of the tenth century. Later, Sultan Salah al-Din decided, between 1173 and 1177, to leave Badr al-Jamali’s city wall behind his new stone wall. The old mud-brick city wall was to be used in the Ayyubid defensive system as a second rampart and was to mark a chemin de lisse, which was to become the famous bayn al-surain of al-Maqrizi.\(^\text{10}\)

The Fatimid mud-brick wall that was discovered in Darassa was connected to the north to a stone gate, Bab al-Tawfiq, and it had the same foundations as the gate and the paving. This mud-brick city wall is perfectly linked to the stonework to the south of the gate. Our digs have shown that the eastern mud-brick city wall is
contemporaneous with the erection of the Fatimid gate, namely from 1087 to 1092. Mud-brick walls connected to monumental stone gates were well-known structures in Egypt since the Pharaonic period. It is important to stress the fact that the use of mud brick is primarily a vernacular phenomenon. Local technologies were used and this was probably because of the influence of the Egyptian contingent of the Fatimid army, soldiers from Upper Egypt and Aswan called “the black army”.

The Fatimid mud-brick wall was flanked by huge quadrangular towers measuring seven to eight metres on the sides alternating with buttresses from two to four metres on the sides. The city walls and the towers are plain on the bottom storey, with the firing positions located on the upper storey. Although, now, it has been significantly levelled, the mud-brick city wall has an estimated height of six to seven metres. The height has been calculated using various criteria, such as the height of the smallest gate, Bab al-Tawfiq, which is nine metres. As the curtain walls are always lower than the gates, the city wall could not have been higher than seven metres. Furthermore, the width of the Fatimid curtain wall measures 3.7 metres, which is quite close in thickness to Salah al-Din’s city wall, which measures four metres thick and reaches a height of nearly six metres. The Fatimid city wall must have been impressive, with its appearance being reinforced by a yellowish rendering that covered the brick masonry. Thus, the Cairo fortifications were smooth, massive and uniform in appearance.

A TENTH-CENTURY RAMMED-EARTH WALL

Ten years later, in 2011, we made another major discovery at the Burg al-Zafar site, another massive wall that was parallel to the two fortifications, one of Badr al-Jamali and the other of Salah al-Din. This wall was made of rammed-earth or pisé technique.

The discovered rammed-earth wall is 30 metres long, an average of 1.80 metres wide, and has preserved a maximum elevation of 1.20 metres. This wall was laid directly on cob foundations of 50 centimetres thick. A meticulous dig enabled us to find imprints of the wooden beams that held the formwork of the wall in place. These square-sectioned beams were positioned crossways in the thickness of the wall and were spaced out at an average of 45 centimetres. Moreover, the vertical cracks in the facades indicate that the wooden formworks used were between 1.6 and 1.9 metres in length. Finally, we found seventeen postholes run all along the structure. They are spaced, with relative regularity, from 0.40 to 1 metre from each other. These holes were used to position the posts that supported the wooden formwork.

The stratigraphy allowed us to date this wall from a period prior to the wall of Badr al-Jamali as we noticed. A small quadrangular basin, made of red bricks, was constructed against the internal facade of the rammed-earth wall. Later on, the basin was cut by the mud-brick buttress of the Badr al-Jamali city wall. It is thus clear that the rammed-earth wall was older than the fortification of the end of the eleventh century. The width and length of the structure preclude us from thinking that this had the function of a dwelling. In 2016, we found the same wall on a site called al-Mashtal and located in between Bab al-Nasr and Burg al-Zafar. The length, the monumentality of the structure and its \textit{ex nihilo} installation fuel speculation that the rammed-earth wall constitutes a section of the first Cairo city wall. Three elements aroused our interest: first, this wall is very old; second, it follows an east-west axis that marks the northern limit of the Fatimid city; finally, it is built using the rammed-earth (\textit{tabiyya}) technique, something which was rarely used in Egypt but frequently used in the Maghreb. For all these reasons, this wall could be identified as the first Fatimid city wall of Cairo: that of Jawhar. It would, thus, be dated between AD 969 and 971.
Above, the location of the Fatimid Walls.

Below, the sites of Bab al-Gedid and Burg al-Zafar (detail).

Fatimid Walls (1087–92)
Ayyubid Walls (1171–77)
Napoleonic Wall (1799–1801)

Old medieval and modern settlement
Contemporary town extension
Post-1950s buildings
Archaeological sites
Ayyubid Walls (1171–77)
Fatimid Walls (1087–92)
Areas excavated
Number from the Service of Egyptian Antiquities

Areas excavated
Number from the Service of Egyptian Antiquities
This leads to the question of why Badr al-Jamali may have chosen to build his wall intramurally, behind that of Jawhar. This archaeological discovery would significantly throw into question the widespread belief about the very first Fatimid city wall and, in particular, its location. However, there is very little known about this city wall, even from texts. According to Nasir Khusraw, who visited Cairo in 1046–49, Cairo was an open city; there were no traces of the first Fatimid city wall. Nasir Khusraw indicates that the wall was in such a state of decay that it could not be preserved intramurally. This is why, consequently, Badr al-Jamali left fragments of this old city wall in front of his own wall, as a sort of fauxsebraye.

The rammed-earth construction technique is extremely unusual in Egypt and very unique for the medieval period. The origin of this technique lies most probably in the Maghreb. It is very tempting to say that the rammed-earth wall that we found was built by the Berber component of the Fatimid army, maybe the famous Barqiyya tribe. The tabiyya construction technique is often reserved for city walls or for monumental architecture. Tabiyya denotes the material that is enclosed within the mould, which is essentially rammed earth. The word toûb refers to the “brick”. “Mud brick” is called libn according to al-Bakri or toûb laban according to al-Maqrizi. Al-Bakri uses the word tûb to refer to mud brick, and he uses this word quite consistently, so it might encompass other architectural realities, whereas al-Maqrizi generally uses the terms toûb or laban to describe earthen architecture. Because of this, extreme caution is required when reading historical sources, as the vocabulary used by the medieval chroniclers is often linked to their place of origin and knowledge; it does not necessarily reflect the techniques used. Thus, the rammed-earth wall that we discovered could have been described by al-Maqrizi as being a mud-brick wall.
THE FIRST BAB AL-NASR (969–971)

Three missions were carried out on a site located to the south-east of the monumental gate of Bab al-Nasr. It was necessary to dig this site in order to understand the different phases of construction of the Cairo city fortifications since several enclosure walls had been recorded here. First, there is an Ayyubid Wall connected onto a north-south wall that adjoins the Bab al-Nasr gate and that dates from the Badr al-Jamali era. This wall is connected to a mud-brick wall identical to the one described. This mud-brick city wall is built against an east-west stone wall located between the Badr city wall and the Salah al-Din city wall. This wall is flanked by small quadrangular towers, except for the one furthest to the west, which is semicircular in shape.

The mysterious curtain wall measures two metres thick. Three arrow-slit embrasures were identified conclusively on the curtain wall between two towers. The wall is flanked by small-scale, almost buttress-like, quadrangular towers interspersed at 15-metre intervals. Four towers are visible on the site, three to the west of al-Bakri Mosque and one to the east. All the towers measure 4.8 metres wide and all, except the one on the far west of the site, are quadrangular in shape. These towers are very close together, which is not a characteristic that we saw on the Badr al-Jamali or the Salah al-Din city walls. Another unprecedented characteristic of this wall is the very small size of the facing slabs on the external facade. In fact, the curtain wall, the quadrangular walls and the upper level of the semicircular tower are made of tiles and header bonds measuring 40 and 18 centimetres wide respectively and which form 20-centimetre-high courses. The facing of the curtain wall is decorated with a single, magnificent, large, V-shaped motif consisting of small header columns on the facing. This motif is situated between two towers. There are five white marble columns in all, the lowest being located three metres above the level of the passageway. Two are circular-section columns, the other three are octagonal-section columns that measure between 16 and 19 centimetres in diameter. This decorative motif on
the facade is the only one found on the Cairo city walls and is quite unique in the medieval Near East. Of course, this use of header columns is reminiscent of the Badr al-Jamali city walls and its gates, or of the corner towers of Zafar and Mahruq built by Salah al-Din when he was vizier of the last Fatimid caliph al-Adid (1169–71). However, in the cases cited, it only concerns the columns that are arranged equidistantly and on the same course. The Fatimid city wall of Badr al-Jamali is also flanked by quadrangular towers: only the gates of Bab al-Futuh (1087) and Bab Zuwayla (1092) do not follow this rule and are flanked by semicircular oblong-shaped twin towers on a rectangular base. This is why the last tower of the mysterious wall immediately captured our attention. This tower, semicircular in shape, rests on a square base and has a moulded salient on its eastern side, identical to that of the Bab al-Futuh gate. The similarity between this tower and the mighty Fatimid gates leads us to believe that this tower was linked to a gate. This was the same pattern used for the twin towers that protected the entrance at Bab al-Qantara gate. Added to that is the fact that the passageway from the original door was blocked later by the Badr al-Jamali city wall.

The stratigraphy clearly indicates that the undated wall was built before the wall of Badr al-Jamali. A mud-brick platform was discovered between the semicircular tower and the Badr al-Jamali city wall. This thick level was built using the waste material from the fabrication of the mud-brick city wall dated AD 1087. It covered a level of waste material of limestone blocks, undoubtedly linked to the quarrying of the facing blocks of the Badr city wall. The mud-brick platform seals the foundation trench of the stone wall dated AD 1087. The foundation trenches of the Badr al-Jamali enclosure wall are extremely deep, almost 3.6 metres. This digging exposed the foundation of the earlier structures including the previous town wall.
The results of our excavations seem to indicate three distinct periods of defensive networks. First, General Jawhar al-Siqilli built a first wall dated from 969–971 to protect the city of Caliph al-Muizz, al-Qahira, “the Victorious”. This wall was made of rammed earth and stone gates with semicircular towers. The size of the blocks of Jawhar’s wall is very similar to those of al-Hakim Mosque. It comprises quadrangular towers that are positioned very close together and have small facing and header columns, which create a geometrical motif and one single semicircular tower. The semicircular tower would be the twin tower of the original Bab al-Nasr. This semicircular tower appears to be linked to an entrance that may have been cut and blocked by the second Fatimid city wall. Badr al-Jamali built a new city wall and the gate of Bab al-Nasr, dated to 1087. This wall started at Bab al-Nasr towards the south and makes a sharp bend towards the east, blocking the ancient gate. The composition of the Badr al-Jamali city wall switches from large stonework bond to a small mud-brick bond. This wall backs onto the older wall and is twice as thick as that one. Finally, Salah al-Din built a new city wall in front of the two Fatimid fortifications. The Ayyubid Wall possesses unusual and archaic characteristics that most probably date from 1171 to 1173, indicating that this section of the wall pre-dates the eastern city wall of Sultan Salah al-Din, from Bab al-Gedid up to the Burg al-Mahruq (1173/74 to 1177/78).

The presence of three city walls to the south of Bab al-Nasr confirms Creswell’s hypothesis, namely that Badr al-Jamali sought to connect his fortifications to the primary boundaries of the city established by Jawhar in 969. Our findings will, undoubtedly, have a major impact on our understanding of Cairo’s urban history. If our observations prove to be correct, that would mean that al-Hakim Mosque was built over both sides of the Jawhar city wall. In fact, the mosque must have straddled a section of the wall and was not extra-muros. Moreover, it is important to note that if al-Hakim Mosque was built over both sides of the city wall, eighty per cent of the building remained outside the city walls and therefore, as far as the medieval chroniclers were concerned, this meant that it was outside the walls. In Tunisia, the mosques of Kairouan, Sousse and Mahdiyya were used for military purposes. The two Fatimid mosques of al-Mahdiyya and al-Hakim share certain common characteristics: they straddle the city wall and are flanked by heavily buttressed towers.

CONCLUSION: THE LIMITS OF THE FATIMID CITY

After eighteen years of excavations and fieldwork, we have been able to demonstrate that stone and earth were used equally by the Fatimids during the same period and for the same project: the city walls of Cairo. Earth was used to build the curtain walls and stone was reserved for the construction of the prestigious city gates. Based on the study of historical sources, we have proposed an interpretation of the architectural technologies used. This interpretation is not based on natural resources or technical knowledge, but on the ethnicity of the different corps composing the Fatimid army. We noticed three main techniques and groups at the origin of these technologies: rammed earth, mud brick and stone – used respectively with the Berbers/north
Africa, the Nubians/Upper Egypt and the Armenians/northern Syria. Badr al-Jamali certainly called experts who were from his milieu and his region of origin Edessa/Urfa, particularly for the construction of the gates. Nevertheless, there were other contingents in the Fatimid army. One of these was made up of people from Upper Egypt and Nubians from the Aswan region. These people built, and continue to build, a mud-brick architecture. It is these construction techniques that have been used for part of the city wall. The Cairo fortifications, therefore, are a total social fact in that they reflect the society and hierarchy of the people living at that time. In fact, the monumental stone gates are not only reminiscent of the power of the caliph, but also of the Armenian officers; while the mud-brick city wall is more rooted in the vernacular traditions of Upper Egypt.

For Creswell, the city wall of Badr al-Jamali was merely an extension to the north and the south of the original city and, according to him, the entire city wall was made of stone, as were the monumental gates. This erroneous interpretation, which was linked to an incorrect reading of the boundaries of the city to the east, misled generations of researchers who studied Cairo. The eastern boundaries of Cairo were represented by following the Napoleonic fortification on the map of the Description de l’Égypte. Unfortunately, this fortification follows the outline of the Ottoman city and has nothing to do with the extension of the city during the Fatimid era.

Our archaeological excavations have proved that the layout of the eastern city wall covered an area which was greater than that which was generally described and that this Fatimid city wall was made up solely of mud brick, with a gate, Bab al-Tawfiq, in stone. The sections of the mud-brick city wall that were discovered show that the Badr al-Jamali fortification continued all along the eastern flank of Islamic Cairo, from Burg al-Zafar to Burg al-Mahruq. Even the northern facade was, in part, protected by a mud-brick city wall. This city wall was found at an indentation of the Fatimid city wall, to the south-east of Bab al-Nasr. This indentation in the stone wall was made to ensure its integration into the old layout of the mud-brick city wall, which then runs towards the east in the direction of Burg al-Zafar. Finally, our recent discoveries with the first Bab al-Nasr gate and a rammed-earth wall at Burg al-Zafar prove that the original Fatimid city was much larger than the model described by historians.
5
6
4
3
2
1

Bab al-Futuh
Burg al-Zafar
Bab al-Gedid
Bab al-Tawfiq
Ayyubid Wall
Jawhar’s Wall
Badr al-Jamali’s Wall
Bab al-Nasr
Al-Mashtal
Bab al-Sha’riyya
Bab al-Qantara

The historic walls – bridge and barrier

DISCOVERING THE FATIMID WALLS

Location of the sites excavated (2001–16) and the limits of the Fatimid city.

Sites where the Fatimid mud-brick wall has been identified.

1 Parking Darassa
2 Bab al-Tawfiq
3 Bab al-Gedid
4 Burg al-Zafar
5 Bab al-Nasr
6 Al-Mashtal

First Fatimid period, AD 969–1073
Second Fatimid period, AD 1073–1169
Ayyubid period, AD 1173–87
Our excavations have completely changed our vision of the Fatimid city’s northern and eastern boundaries.

Today, it is possible to see the Fatimid mud-brick wall on the Archaeological Triangle, in front of al-Hussein hospital, next to al-Azhar Street and the Darassa Car Park. The Fatimid mud-brick wall was restored by AKT from 2010 to 2012. It is the only place in Cairo where it is possible to see this impressive eleventh-century wall still preserved up to four metres high. The mud-brick wall is also present on all the sites that we excavated, at Bab al-Tawfiq, Bab al-Gedid, Burg al-Zafar in eastern Cairo and at Bab al-Nasr and al-Mashtal to the north. Hopefully, in a near future, all these parts will be protected by a conservation project and exhibited to the public. Meanwhile, further remains of Fatimid fortifications are still buried under several metres of debris, waiting to be discovered by future archaeologists.

CONSERVING THE AYYUBID CITY WALL

FRANCESCO SIRAVO

The historic urban wall located below the Darassa Hills is the south-eastern segment of Cairo’s Ayyubid fortifications, exposed during the work carried out by the Aga Khan Trust for Culture (AKTC) in view of the creation of al-Azhar Park. The Wall measures over 1300 metres in length, running north from Bab al-Wazir to al-Azhar Street, and today forms the boundary between the Darb al-Ahmar district of Islamic Cairo and the new Park.

Built as part of the city’s fortifications in the twelfth and thirteenth centuries by Salah al-Din and his successor, this portion of the city wall was Cairo’s eastern boundary for centuries. Over time, the Wall’s role changed. Although it continued to be a defining element for the city, it long ago ceased to serve as a defensive structure. This shift in function meant that the city gradually spread to the very edge of the Wall, following an accretive process common to historic cities.

From the fifteenth century onwards, the area just outside the Wall began to be used as a dumping ground and the Wall was gradually buried under debris, where it remained protected from the ravages of time and weather. Today, following the interventions to create the Park, the outer face of the Historic Wall is once again exposed to view, while, on the city side, lack of public controls and building pressures have raised complex urban development issues.

Because of these issues, the restoration and presentation work carried out on the Historic Wall between 1999 and 2011 had to consider not only its preservation as a historic monument, but also its integration in the more general context of al-Azhar Park and the surrounding urban context. Thus, consistent design policies had to be put in place for the residential fabric abutting the Wall and the pedestrian promenade along the western edge of the new Park, while effective planning solutions had to be identified for the points of access to and from the adjacent district of al-Darb al-Ahmar (ADAA). These interventions brought into the forefront the complex questions often associated with urban archaeology: in particular, how to present the ruins in a contemporary, living context and what role the newly exposed Ayyubid Wall should play within the wider context of Historic Cairo.

HISTORICAL BACKGROUND

Other parts of this publication examine the history of urban expansion in the eastern sector of Historic Cairo and the vicissitudes of its medieval fortifications prior to the end of Fatimid rule in 1171. The construction of the new Wall along what is today the edge of al-Azhar Park began in 1176, following the accession of Salah al-Din, a Kurd opposite page, restored drawbridge above the moat at the gate of Bab al-Barqiyya.

Above, portions of the Historic Ayyubid flank wall before restoration, with houses behind.
of the Ayyubid clan. The particular significance of the defensive system initiated by Salah al-Din was the ambition to contain Cairo, its Citadel and the pre-Fatimid settlements of Fustat, al-Askar and al-Qata’i within a single wall circuit. These new fortifications were stronger and more far-reaching than the earlier Fatimid Walls, which had been limited to enclosing the Fatimid palace and were more ceremonial than defensive. Although Salah al-Din’s best-known architectural achievement in Egypt is the Citadel he built on a spur of the Muqattam Hills, his idea of a single wall surrounding a much expanded city would prove a long-lasting legacy and a defining element in the consolidation of the whole settlement of Cairo in pre-modern times.

Salah al-Din’s project incorporated rebuilt portions of the Fatimid fortifications and added extensive new sections: he expanded the northern city wall west towards the Nile, and the eastern wall south to the Citadel, from where it continued south-west to incorporate Fustat, the settlement developed by the Arab conquerors who invaded Egypt in the seventh century. The new city walls were built entirely of stone and made use of innovative advanced defensive techniques imported from Syria, with bent entrances and arrow slits reaching to the floor.

The east wall seems to have remained important for about two centuries after its construction. Soon after, as the threat posed by Crusader armies and other invaders declined, so did the importance of maintaining the defensive walls. The result was that, where urban growth was vigorous, the city walls were rapidly obliterated and replaced by subsequent construction, as was the case on the western side of Cairo. Conversely, on the eastern side, where urban expansion virtually stopped, the walls continued to mark the limits of the Old City and were never replaced by subsequent urban expansions. Already during the late Mamluk and early Ottoman periods, the area outside the east wall became a dumping ground, a practice that continued unabated during the following centuries.

As early as 1658, a description by the French traveller Jean de Thévenot mentions the Wall’s general state of neglect. He also noted the height of the debris, which nearly hid the high walls of the city:

“[these walls] are at present all covered in ruins which are so high that I have passed over some places where they wholly hide the walls, and are much above them; and in these places one would think that there were no wall […] and though it would be very easy to clear the rubbish, and, by repairing what is wanting, make the walls appear beautiful and high, yet the Turks make no reparations; but suffer all to decay […]”

A century and a half later, the maps drawn at the time of the French occupation, around 1800, show that buildings in the adjacent neighbourhood of al-Darb al-Ahmar were generally built right up to the edge of the city. Many buildings actually abutted the Ayyubid Wall and additional rooms were constructed into, and indeed on top of, the one-time fortifications, an accretive process common in many Middle Eastern and European cities where the old defensive systems had lost their significance.

During the nineteenth century, an increasing number of travellers came to Egypt. They sketched and photographed what they saw. In 1839, the artist David Roberts drew the southernmost portion of the Walls: it appears partially buried and with numerous houses constructed along the city side. A series of panoramas taken by French photographer Pascal Sebah in 1880 provide one of the most valuable visual documents of the eastern Ayyubid Wall, showing that much of the original stonework, including the crenellations, still existed at that time.

In December 1881, Khedive Tawfiq’s government established the Comité de Conservation des Monuments de l’Art Arabe to preserve Egypt’s Islamic and Coptic
Plan (above) and cross section (below) of Bab al-Mahruq after restoration.
architectural heritage. Although the Comité repaired the city walls from time to time during the first half of the twentieth century, it was not until 1950 that it undertook a major campaign. This consisted of a reconstruction of the two towers no longer standing (Towers 3 and 4) along with extensive replacement of the missing facing stonework in several areas of the flank wall. This work was documented with photographs taken before, during and after the interventions.

For the next almost fifty years no further repairs or restoration were undertaken. The Ayyubid Wall remained, as it had been for centuries, the eastern boundary of the densely built-up Darb al-Ahmar district of Islamic Cairo. The continued dumping of rubbish meant that the mounds of debris, now known as the Darassa Hills, had buried the outer face of the Wall all the way up to the level of the crenellations. It was only after AKTC began moving earth for the future al-Azhar Park that the accumulated debris was removed. The re-grading brought to light not only the buried section of the Wall known through early photographs and historic maps, but also the northern section, unrecorded even on Napoleon’s map of 1807, and probably buried since Mamluk times.
PRINCIPLES OF CONSERVATION FOR THE WALL AND ITS CONTEXT

The restoration of the exposed walls presented from the beginning a complex set of issues regarding appropriate forms of intervention in a living context. In particular, it was immediately recognized that any conservation activities performed on the Wall would have a significant impact on the adjacent district, as well as on the use and fruition of the monument along its dual edge, respectively on the city side and along the face bordering the Park. In this case, issues and principles normally associated with the conservation of monuments had to be considered in parallel to the long-established integration of the Ayyubid Wall within the urban fabric and contemporary life of al-Darb al-Ahmar. In addition, consideration had to be given to the creation of opportunities for Park visitors to explore the city fortifications.

Overall, the principles underlying the conservation of the monument can be summarized as follows:

‣ **documentation**: to research and document all records, including physical, archival and historical information, before, during and after intervention;

‣ **evidence**: to respect the cumulative age-value of the structure by highlighting the stratification of human activities through time and the evidence of changing uses and values;

‣ **authenticity**: to safeguard authenticity as a cultural value associated with the actions determining the original making and transformations of the site, and their significance as the embodiment of authorship or the record of a specific time and place;

‣ **minimum intervention and reversibility**: to avoid harm to the monument, either by minimizing physical interference to ensure structural and aesthetic legibility, or by intervening in ways that will allow other options and further treatment in the future.

Accordingly, the intervention guidelines applied by AKTC generally expressed a preference for compatible repairs and retention of the original fabric over reconstruction. These tenets are rooted in internationally recognized and accepted standards of conservation, namely the Athens Charter (1931) and the Venice Charter (1964). The Venice Charter, in particular, emphasizes the importance of respecting the context, the discouragement of reconstruction except in cases of anastylosis – the reassembling of collapsed elements found *in situ* – 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, recognize that the ultimate aim of conservation is to retain or recover the cultural significance of a place and provide for its security, maintenance and future survival.

With respect to the treatment of the surrounding urban context, particularly where this was closely interconnected with the monument, AKTC’s recommendations advocated respect for the changes accrued over time in order to preserve the integrity, scale and significance of the Wall in its configuration and context. As further discussed below (see “Intervening on the Adjoining Urban Fabric” on p. 133), rather than establishing predetermined principles governing the retention and/or demolition of the living accretions to the monument, AKTC’s approach was based on a case-by-case evaluation to identify the preferred course of action. This took into consideration not only the historic and physical evidence, but also the likely outcome of possible alternatives from the functional and social points of view. A delicate balance had to be struck between respecting the intrinsic values of the monument and retaining the current residential uses and associated social fabric. Ultimately, the proposed
interventions promoted continuity rather than transformation in an effort to integrate and harmonize the remnants of a valuable past with present realities and future needs.

**DOCUMENTATION AND CONSERVATION ACTIONS**

The restoration works carried out by AKTC started in 1999 with a comprehensive study of the Wall and the launching of pilot interventions on limited sections of the structure. It gradually extended to increasingly greater portions of the monument, until the conservation of the entire Wall bordering the Park was completed in 2011. Throughout this process, documentation and conservation actions were strictly related and interdependent.

The first step was a comprehensive study of the Wall’s physical condition followed by a detailed assessment of each part of the monument subject to intervention. The general conservation survey (Level 1) documented the Wall’s overall condition, including an analysis of the masonry and identification of areas of significant deterioration, distinguishing between total or partial loss of the structure, loss of facing stonework, structural instability and basal erosion. It also documented the presence and extent of previous repairs.

The subsequent detailed condition survey (Level 2) provided a fuller quantitative analysis, complemented with a qualitative assessment of the causes and effects of deterioration. Severity of loss, for example, was classified according to its extent and depth, as well as 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 measured drawings, field surveys and laboratory work yielded a comprehensive record of the construction of the Wall and its state of conservation, as well as the diagnostic tools needed to formulate an intervention programme. Recommended measures included targeted archaeological investigation, emergency stabilization, and masonry treatments (including cleaning, removal of salt and biological growth, grouting, consolidation of deteriorating stone and selective stone replacement), as well as limited reconstruction where needed to maintain the structural stability or visual continuity of the Wall. The resulting policies and guidelines for masonry intervention 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.

The table below summarizes the guidelines applied to masonry works in response to the different conditions found along the Historic Wall:

<table>
<thead>
<tr>
<th>Status</th>
<th>Condition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original wall – Extant</td>
<td>• partial loss of facing stones</td>
<td>• replace in kind</td>
</tr>
<tr>
<td></td>
<td>• substantial loss of facing stones</td>
<td>• replace in kind</td>
</tr>
<tr>
<td></td>
<td>• total loss of facing stones</td>
<td>• stabilize core as is</td>
</tr>
<tr>
<td></td>
<td>• partial loss of crenellations</td>
<td>• anastylosis only</td>
</tr>
<tr>
<td></td>
<td>• total loss of crenellations</td>
<td>• replace in kind</td>
</tr>
<tr>
<td>Original wall – Repaired</td>
<td>• partial loss of repair</td>
<td>• replace/repair in kind</td>
</tr>
<tr>
<td></td>
<td>• substantial loss of repair</td>
<td>• replace with masonry similar to the original</td>
</tr>
<tr>
<td>Original wall – Replaced</td>
<td>• partial loss</td>
<td>• assess/repair in kind</td>
</tr>
<tr>
<td>Original wall – Missing</td>
<td>• total loss</td>
<td>• repair with new masonry</td>
</tr>
</tbody>
</table>
The survey, assessment, and conservation treatments along the entire Wall were carried out with the help of professionals and conservators 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 craftsmen to establish the know-how and capabilities to carry out the periodic repairs and sustained maintenance of the monument.

**INTERVENING ON THE ADJOINING URBAN FABRIC**

Over the centuries, the houses and monuments built up against the Wall on the city side have become an integral part of Cairo’s urban and social history. In fact, part of the significance of Cairo’s eastern wall comes from its relationship with the adjoining urban fabric, where many of the accretions not only contribute to the Wall’s historical interpretation, but have also become an integral part of the monument and its urban context. As such, the Wall accretions were considered an inherent component of the decision-making process associated with the conservation of the structure and were thus included in the general survey of the monument.

A careful plot-by-plot assessment of the fabric along the Historic Wall was carried out in order to identify appropriate modes of intervention for each structure within the larger framework of the Darb al-Ahmar conservation and rehabilitation plan (see also the chapter entitled “Urban Renewal”). In particular, the extent and configuration of the abutting houses and structures were recorded and assessed with regard to the presumed date of construction, use, condition and architectural significance. This was the basis for the decisions concerning the retention and rehabilitation of selected structures. Conversely, special attention was given to recording all cases where adjoining buildings posed a specific threat to the integrity of the Wall. This was the basis for the removal of incongruous, detrimental or structurally unsound accretions. These various analyses were complemented by an in-depth investigation of the social
and housing conditions along the Wall, leading, whenever possible, to the retention and improvement of housing in that location in order to avoid the displacement of residents. Eventually, these various investigations formed the basis of the work carried out at the interface between the Wall and the urban fabric, and provided the rationale for the intervention guidelines outlined in the table below:

<table>
<thead>
<tr>
<th>Nature of Accretion</th>
<th>Condition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>High architectural or historic significance</td>
<td>various</td>
<td>• retain and repair</td>
</tr>
<tr>
<td>Moderate rating of significance</td>
<td>ruinous/poor</td>
<td>• demolish and re-establish wall continuity</td>
</tr>
<tr>
<td></td>
<td>fair/good</td>
<td>• retain and repair</td>
</tr>
<tr>
<td>Nil or low architectural significance</td>
<td>ruinous/poor</td>
<td>• demolish and re-establish wall continuity</td>
</tr>
<tr>
<td></td>
<td>fair/good</td>
<td>• determine on a case-by-case basis</td>
</tr>
<tr>
<td>Structurally, visually or functionally detrimental</td>
<td>various</td>
<td>• demolish and re-establish wall continuity</td>
</tr>
</tbody>
</table>

While the selective removal of accretions was judged necessary in several cases, wholesale demolition would have contradicted international conservation philosophy and practice, as well as introduced undesirable development pressures in the areas where demolitions had occurred. It would also have proven destructive.
for the stability of the structure itself, as demonstrated in 1998 during the excavation of the northern city wall, where the clearing of accretions and structures built in proximity of the Wall over time resulted in the destabilization of the structure and its subsequent partial collapse. Contrary to this approach, the plans and interventions carried out along the Historic Wall adjacent to al-Azhar Park pursued a model of conservation and harmonious integration with the traditional urban fabric and contemporary life of al-Darb al-Ahmar.

SPECIAL PROJECTS ALONG THE BOUNDARY OF AL-AZHAR PARK

The work on the archaeological areas, ramparts, interior passageways, towers and gates exposed as a result of the Wall’s excavation complemented the conservation activities carried out along the flank wall and interface with the adjoining city fabric. The nature of these activities differs from the more general conservation work in being primarily oriented towards the reactivation of significant archaeological remains in a contemporary urban context. Here, the results of stratigraphic excavations, often related to different archaeological layers and time sequences, had to come together into a coherent system designed to respond to new visitation, presentation and planning requirements. In particular, issues of connectivity, relation between the archaeological and contemporary levels, conservation, landscaping, interpretation and museology had to be harmonized in a number of special projects to achieve a better understanding of the past of the Historic Wall and of the living networks that animated this section of medieval and pre-modern Cairo. These included the following components, described here from the west to the east ends of the Historic Wall bordering the Park:

‣ The so-called *Archaeological Triangle*, a triangular-shaped archaeological site north of Burg al-Zafar that came to light when a sizeable portion of the Ayyubid Wall facing the city was uncovered, together with other important remains from the Fatimid and Mamluk periods. The plans developed by the Supreme Council of Antiquities (SCA) and AKTC take into account these recent archaeological discoveries and call for enclosing the area to provide a protective buffer between the Wall and the city, thus avoiding the risk of future development in this sensitive archaeological area. The evolution of this part of the city and the Wall’s relationship to the historic urban fabric can be explained and illustrated for the visitors of the Park.

‣ *Bab al-Barqiyya*: this important Ayyubid gateway, built under Salah al-Din himself in 1187, is located at the east end of the Archaeological Triangle. Following excavation, the gate’s archway was found in a ruinous state and partially collapsed. A decision was made not to rebury it, but to use it as an opportunity to re-establish its use as a functioning gate and offer visitors a sense of the full scale of the monument, including moat, drawbridge, bent entrance and interior passageways. On the Park side, a double ramp allows visitors to descend into the moat and walk under the drawbridge, as well as enter the city walking over the bridge and passing through the gate as pedestrians would have done centuries ago. The gate’s intended purpose is to draw visitors and residents of Historic Cairo towards the Park and, in turn, encourage Park visitors to explore the adjacent historic quarter and its monuments.

‣ *Burg al-Mahruq*: this three-storey tower, the largest and most visible feature of the eastern Ayyubid Wall, together with its interior spaces, has been fully restored as a potential exhibit area accessible from the Park through one of the breaches found at the base of the tower. This same entrance also provides access to the archaeological remains found behind Burg al-Mahruq, including the old street paving and remains of a cemetery and Ottoman archway located on the city side, at the...
original and much lower street level. On the Park side, at the foot of the Park’s slope, a new stepped amphitheatre is in use for open-air performances, with the Mahrug tower and the eastern Ayyubid Wall as dramatic backdrops.

‣ **Bab al-Mahrug**: a second gate was discovered between Tower 6 and Tower 7, mid-way along the Ayyubid Wall bordering the Park, four metres below the level of the city and seven metres below the level of the Park. Although larger than the Barquiyya gate, the Mahrug gate works similarly, with a right-angled bent entrance and two guard towers. Unlike the Barquiyya gate, however, it was found incomplete, buried under multiple layers of later constructions, with no evidence of moat and drawbridge. Because of the gate’s fragmentary condition, a full reconstruction could not be justified. Accordingly, the gate was preserved and presented as found, where the foundations, still complete and in place, help understand the original shape and configuration of the structure. The final plans take into consideration the different levels and constraints of the site to re-establish the functionality of the gate as a passageway into the city. The project required the underpinning of the lived-in houses surrounding the gate, and a system of ascending and descending ramps that, from the city side, brings the visitors down to the gate’s original level, allows them to go through the gate as people would have done in the past, and takes them up to the present level of the Park.

‣ **A visitor promenade** along the rampart and interior galleries was conceived as a complete circulation system along the Historic Wall, of which a 120-metre-long prototype has been implemented out of a total of one thousand metres that can potentially be reopened to the public. The prototype section was planned to allow for movement on the ramparts and within the towers and archers’ passageways below.
The existing breaches in the Wall were used as entry points from the Park and allow for the circular movement of visitors above and inside the towers and curtain wall, a system that can be expanded in future to link with the rest of the rampart promenade. The interior galleries are intended as exhibit spaces equipped to serve as a didactic opportunity for visitors and residents who want to learn about the history of the Islamic city and the use of the fortifications.

The special projects along the boundary of al-Azhar Park, considered as a whole, are a good demonstration of how archaeology and heritage can serve as an underlying framework capable of organizing and orienting planning decisions in ways that reflect a better understanding of the city and its transformations. In a historic urban setting, this can only be achieved through the close integration of archaeology, architectural conservation and planning work, coupled with a good grasp of the existing social dynamics and expectations. Ultimately, it is through this multidisciplinary effort that the urban environment can be reconnected to its past, and our collective city experience truly enriched.

**THE WALL AS A CULTURAL RESOURCE AND VISITOR DESTINATION**

Together, conservation of the original Wall structure and preservation of the living city fabric in and around it should be seen as the best antidotes against further decay and the destructive development and commercialization that comes with inappropriate transformations and uncontrolled tourism. Too often cultural resources have become mere commercial commodities to be consumed by hasty and inconsiderate
development or engulfed by mass tourism. The result is that genuine historic places are compromised and emptied of meaning, and that local residents are either pushed out to make room for new development or become overly dependent on an unpredictable tourism service economy.

Contrary to this scenario, the intention pursued in the presentation of the Historic Wall bordering al-Azhar Park was to create a resource and opportunity to deepen the public appreciation of the city's cultural heritage. Paramount was also the objective of integrating the Wall’s presentation into Darb al-Ahmar’s social fabric and the lived-in traditional buildings. In pursuing this alternative, some questions became immediately relevant to envision the role and function of this important landmark: how can a forgotten and long-buried monument be reintroduced into a rapidly evolving new context without losing its significance? How can it be reinvented as a living component of today’s Historic Cairo? And, more generally, how can tourism generated by al-Azhar Park be reconciled with the traditional life of the Darb al-Ahmar community? Answering these questions is not an academic exercise, but part of a pragmatic search for new meanings, functions and activities around and within the Wall. In particular, ongoing and future actions to ensure that the Historic Wall maintains its original significance and be properly reintegrated into its contemporary context were anchored to two principal notions:

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. The proposed access and circulation system identified the locations of the former city gates as the natural and historically appropriate connections between the Park and al-Darb al-Ahmar. Three gates or entrances were revived: Bab al-Barqiyya, close to the main traffic artery of al-Azhar Street, serves as the main access from the north-western edge of the Park; Bab al-Mahruq, the former vanished gate, now fully exposed, constitutes the mid-point entry; and Bab al-Wazir, at the south-western corner of the Park, provides an access close to the main religious sites and historic monuments along the southern stretch of al-Darb al-Ahmar Street. In addition, two
more connections were established in conjunction with the visitors’ exhibits and circuits at Darb Shoughlan and Burg al-Mahruq. All these links are intended as meeting points to foster visitor and community interaction and sustain carefully planned venues into the daily life of Darb al-Ahmar.

2 Establishing didactic programmes and experiences that enhance the appreciation of the Wall as a monument and as an important urban feature of Islamic Cairo, explain its changing role in the development of the city, and introduce visitors to the life of the community that inhabits the adjoining district.

As discussed, planned initiatives include visitors’ circuits and exhibits along the ramparts and interior galleries. They can feature the presentation of the archaeological, historical, military, cultural and social aspects related to past and contemporary
Restored rampart in proximity of the former Darb Shoughlan School.

uses of the Wall. In addition, the archaeological park planned for the northernmost area, along the stretch between Towers 14 and 15, provides a unique opportunity to explore the archaeological remains along the city side of the Wall, which had been buried since Mamluk times and contains rare surviving remains of the ancient Fatimid Wall. Finally, the establishment of a space for exhibits and other cultural activities in the Khayrbek complex, next to the west end of the Historic Wall, will provide visitors with a better understanding of the local culture and traditions.

More than five years after the completion of restoration and presentation works on the Historic Wall, the future role of the monument and fate of the adjoining Darb al-Ahmar district hang in the balance. As discussed elsewhere in this publication, the lapse of municipal controls and resulting uncontrolled developments that followed the political events of 2011 have inflicted a severe wound to the scale and integrity of the low-rise, closely knit fabric of the area. The outcome is not only visually and physically
disruptive. It also constitutes an unfortunate setback in the implementation of a model of controlled, socially attentive development that was beginning to bear fruit and show its results in an area that had been largely neglected and overlooked for too long.

In spite of these momentous, negative transformations, however, the Wall itself and the work accomplished to date have remained largely unscathed. The restored flank wall abutting the Park is secured and solidly preserved; the pedestrian promenade above the ramparts, although in need of maintenance and upgrading, is potentially expandable to the entire stretch of the Wall, as originally intended; the exposed and restored gates are ready to function as connectors with the city beyond; and the various potential exhibit areas that exist in the Archaeological Triangle, Burg al-Mahruq, within the defensive wall, and inside Alin Aq Palace are ready to be turned into interpretive and display spaces.

In the face of the unfortunate recent developments in the Darb al-Ahmar district, the entire Historic Wall and its associated spaces should be seen today as a unique opportunity to raise awareness about the distinguished history of the area. Moreover, the city-side areas surrounding the special projects outlined above can become models of genuine urban conservation activity and act as a positive counterpoint to the negative transformations of the district. Ultimately, it is only through greater public awareness about the value of the area that it will be possible to restore the building controls needed to enable effective policies of social inclusion and urban conservation.

Even more than before, it is now necessary to modify the common perception of the Historic Wall as an isolated monument to its reinvention as part of a larger urban programme and its associated presentation plans and activities. Only this shift in perception can turn this obsolete structure, buried for centuries and removed from the city’s mainstream development, into a cultural asset and vital component of Darb al-Ahmar’s rescue. The challenge ahead lies in safeguarding the remains and true significance of the historic Ayyubid Wall, while shaping its new urban role in the years to come.

The work on the historic Ayyubid Wall and the contents of this chapter are greatly indebted to the contribution of Professor Frank Matero, Director of the Graduate Programme in Historic Preservation, University of Pennsylvania. Professor Matero acted as the scientific advisor throughout the development of the project, with special reference to the establishment of conservation principles, review of the findings and identification of methods of intervention on the historic Ayyubid Wall.

6 Replace using similar stone, dimensions and coursing; construction technique and methods may vary from the original masonry.
7 Preserve existing form and fabric; stabilize as necessary using traditional or modern construction methods.
8 Re-erect form using only existing original fragments found in situ.
9 Construct missing wall for structural and visual reintegration in a manner that is visually similar and technologically compatible, but distinct from the historic original.
AL-DARB AL-AHMAR – URBAN REHABILITATION
THE RATIONALE FOR REDEVELOPMENT
In 1950, the Survey of Egypt published a detailed map of central Cairo’s historic monuments, listing a total of 622 major historic buildings in an area measuring less than three square kilometres. More than twenty per cent of all the monuments documented in this area were located in the Darb al-Ahmar neighbourhood, including at least three Fatimid monuments (later found to be four), one major Ayyubid monument (consisting of an uninterrupted stretch of 800 metres of Cairo’s historic eastern wall, which was later found to extend for another 500 metres underground), fifteen early and at least thirty-five middle-to-late Mamluk-period monuments, as well as eighty-five monuments dating back to the Turkish and post-Turkish period.

When the Aga Khan Trust for Culture (AKTC) decided to become engaged in the rehabilitation of al-Darb al-Ahmar (ADAA), fifty years after the 1950 map was published, many of the monumental public buildings that had been listed had fallen into disrepair. The same fate had fallen on a high number of residential buildings in the area. The rapid dilapidation of al-Darb al-Ahmar between 1950 and 2000 is believed to have been caused by a combination of factors that include Egypt’s post-World War II drive for modernity, Cairo’s rapid urban growth during the 1950s (at a rate of 4% per year), as well as the outcome of the 1952 revolution that brought Gamal Abdel Nasser to power. As the historic centre of Cairo lacked the necessary infrastructure associated with modern life, al-Darb al-Ahmar saw a gradual exodus of its wealthier residents – keen to move to new suburbs that offered adequate infrastructure. The departure of long-term local residents was followed by an influx of newcomers, generally poorer and with limited levels of education, who were attracted by the relatively low prices of real estate and low rents. The latter was a consequence of the 1952 revolution that had given way to experiments with socialism that had led house rents to be frozen. Considered a major disincentive for housing maintenance, the freeze on rents led to further decay, causing yet more long-term residents from al-Darb al-Ahmar to move out and migrants without steady jobs to move in. Non-regulated small family industries and services were gradually becoming established in erstwhile residential parts of the neighbourhood. Meanwhile, collapsing buildings were abandoned and left as permanent ruins, while vacant lots became accumulation points for garbage. Historic monuments did not fare better, due to seemingly permanent budget shortages for maintenance by their owners, whether the Supreme Council of Antiquities, waqf, private individuals or private institutions. The earthquake that hit Cairo in 1990 aggravated an already precarious situation and caused a new outflow
of residents, while many newly established small industries moved to the cheaper, easternmost end of al-Darb al-Ahmar, which subsequently became one of the poorest and least desirable parts of the city to live in. Not surprisingly, the general lack of law enforcement in this area provided an ideal environment for illegal drug trafficking.

By the time AKTC started its first major intervention in al-Darb al-Ahmar in the year 2000, it found that just 16% of the residents had been living as a family in the neighbourhood for sixty years or more. The other 84% were relative newcomers, although a substantial number of these had been resident for at least thirty to forty years. The challenge AKTC faced would not just be to reverse the trend of degradation of the neighbourhood by restoring monuments and improving the situation for residents, but also to ensure that gentrification on a scale as had happened in nearby al-Khan al-Khalili would not occur and that livelihoods could be maintained or even increased. The main objective for redevelopment, therefore, was not just to help increase the number of residents, but also to ensure that some of the non-polluting small industries and services would remain in the area and that the most positive elements of the local economy, albeit recent and newly added, could be kept operational or could possibly even expand.
HOLISTIC PLANNING
The first step towards improving the quality of life for communities living in a dilapidated historic environment such as al-Darb al-Ahmar was to analyse the deeper causes of poverty and define ways of creating an enabling environment in which people’s standards and resources can be uplifted. Having understood the main causes of the downward spiral in the development of community life in this part of Cairo, as described in the previous paragraph, AKTC proposed a development framework based on three principles, all of which are believed to lie at the root of poverty eradication: (i) to address the provision of basic social services, (ii) to provide the community with access to means that can provide welfare, and (iii) to provide a secure physical and social environment. Ahead of any intervention, it was immediately clear that in an open urban environment with a target population in excess of 30,000 and a secondary group of beneficiaries of more than 90,000 people, significant positive change could only come from successful interventions in designated and discreet action areas. Only then could positive outcomes stimulate replication in the wider Darb al-Ahmar area – and possibly beyond. Three such action areas were identified. Furthermore, for strategic planning purposes the earlier mentioned development framework for poverty eradication was populated with six tangible domains for community development:

Tablita market, located in the north of al-Darb al-Ahmar.
1 Improving the physical infrastructure such as housing stock and public open space.
2 Providing access to basic social services through support for health and education (including vocational training).
3 Ensuring economic well-being by helping increase family income through employment and entrepreneurship.
4 Supporting local organizations tasked with the creation or maintenance of social and cultural assets.
5 Providing linkage with the nearby green environment of al-Azhar Park.
6 Ensuring representation and influence of community members through services provided by local or regional civil society organizations that champion their cause.

IDENTIFICATION OF COMMUNITY NEEDS AND PROJECT IMPLEMENTATION

In line with the six domains for community development mentioned above, AKTC carried out a first needs assessment of the area in early 2000 on which it based its initial intervention programme. Implementation of the first phase of its socio-economic Revitalization Project for al-Darb al-Ahmar was started the same year and continued until late 2005. Based on the three demarcated action areas within the
poorest, easternmost section of al-Darb al-Ahmar that borders the Ayyubid Wall, the socio-economic intervention activities that AKTC carried out through its locally registered Community Development Company (CDC) initially focused only on the first two domains that had been identified for community development. During the course of 2003, detailed socio-economic research was carried out, which included extensive baseline surveys of local households and local businesses, as well as focus group meetings and neighbourhood walks with members of the local community. Based on the information collected, the CDC began adding more components to its programme for community engagement along the earlier identified six domains. The surveys had found that on average more than half of the family incomes in the area were spent on food (an indicator for abject poverty). Furthermore, that family income was often used to pay teachers in order to improve children’s school performance and that many children dropped out of the education programme (boys in particular) in order to start as apprentices in local workshops earning additional money for the family. Visits to private medical facilities, in lieu of governmental services that were considered to be of poor quality, also added substantially to household expenditure. As a result of these findings, the CDC’s activities were expanded and soon covered all six domains for community development. From an administrative perspective, all urban development activities were henceforth clustered into the following three programmes:

1. **The Built Environment Development Programme**, comprised of: (a) the Housing Rehabilitation Programme (HRP), that is, the renewal of occupied structures and development of vacant lots; and (b) the Built Environment Programme, which also included conservation and/or restoration of existing historic buildings, construction of new public buildings to serve community needs, upgrading of open space, and improvement of infrastructure and public thoroughfares (street paving, sewerage, lighting, signage, etc.), as well as development of tourism for the district.
The Economic Development Programme, which included: (a) counselling and job placement; (b) vocational training; (c) crafts development; and (d) offering business development services (BDS) for increased and improved employment in the project area. It also incorporated cross-cutting elements including promotion of gender equity, child protection and environmental improvement.

The Social Development Programme, which concerned: (a) health initiatives to improve the health status of the most vulnerable members of the community (specifically women in the reproductive age and children under five) and implementation of health promotion interventions; (b) education initiatives (early childhood development, education and life skills development of children and youth at risk [6–18 years] and adult literacy classes); (c) linking of the population of al-Darb al-Ahmar with the newly created al-Azhar Park; and (d) a Civil Society Programme aimed at building technical, institutional and organizational capacities of up to eight local CSOs to deliver high-quality socio-economic programmes in Darb al-Ahmar.

The Built Environment Development Programme, through the Housing Rehabilitation Programme, targeted residential buildings (later redefined as housing units of sixty-three square metres on average), public buildings, one major public square (Aslam Square), a substantial part of the primary and secondary sewage lines along al-Darb al-Ahmar Street, as well as street and alley paving – not to mention installation of street signs and public lighting. A more detailed description of the CDC’s Built Environment Development Programme, and the Housing Rehabilitation Programme (HRP) in particular, can be found in the chapter below entitled “Urban Renewal”.

The Economic Development Programme focused mainly on the future employability of individuals, on the understanding that this would lead directly to an increase in the incomes of local households. Subsequently, the vocational training programme was constantly adapted in conformity with the findings of the CDC’s Labour Market Intelligence unit. In order to avoid job market saturation for specific professions within al-Darb al-Ahmar, the vocational training programme diversified over time, covering subjects such as electrical engineering, plumbing, masonry and stone carving, basic computer skills, advanced computer skills, secretarial training, telephone maintenance and repair, taxi driving, bookkeeping skills, as well improvements in the quality of locally made handicrafts.

In May 2014, the CDC started providing micro-credit to local entrepreneurs via a restructured existing NGO called Al Nahda. Here the CDC worked in close collaboration with designated key staff of the future Aga Khan Agency for Microfinance’s local subsidiary: the First Microfinance Foundation of Egypt (FMF). The entire project portfolio of Al Nahda was eventually taken over by FMF, causing the Micro-Credit Programme to become further professionalized, with the added advantage of the staff already having in-depth knowledge of the reach and scale of its local credit programme in al-Darb al-Ahmar.

The Social Development Programme was in the first instance limited to Mother and Child Healthcare (MCH), provided by a visiting gynaecologist and using rented facilities near Bab Zuwayla. Although located in the heart of al-Darb al-Ahmar, visitation numbers of patients remained initially low due to poor accessibility of the premises and the limited opening hours. In 2004, MCH shifted to a new location in a former Ottoman house, adjacent to the Khayrbek monument – both of which had just been restored by the CDC. As the number of services provided for MCH grew, so did the number of patients. Supplementary activities related to healthcare were introduced, such as prevention of female genital mutilation, installation of a help line
for people in mental distress, counselling sessions for abuse at home and care for the elderly.

AKTC’s involvement in education included early childhood development and literacy classes for adults, with special emphasis on women above the age of thirty-five – a group that is no longer of interest to the government, but which wields importance at home. Involvement with children and youth at risk included a supervised children’s library with reading classes, education of working youth and a programme aimed at reducing dropout rates for school-going youth.

The Aga Khan Foundation-Egypt (AKF-E), which was only created and registered in 2006, eventually became responsible for all of the CDC’s health and education activities. Both of these basic social services were continued up to 2010, when the second phase of the CDC’s socio-economic outreach programme came to an end. A third phase, implemented jointly by the CDC, AKF and FMF between 2010 and 2013, focused mainly on vocational training, crafts development, micro-credit, livelihoods and employment through a Canadian-sponsored initiative entitled “Cairo Economic Livelihoods Programme” (CELP). The CDC formally ceased operating as the main development arm of AKTC by July 2013. Responsibility for its core activities in al-Darb

Community healthcare provided in a clinic established in a historic Ottoman house restored by AKTC.
al-Ahmar for vocational training, crafts development, employment and environmental issues was taken over by Mezala, a newly registered local entity which is responsible for its own resource mobilization, but which also receives regular annual grants from Park surpluses, in accordance with a standing agreement between Aga Khan Cultural Services-Egypt and the Cairo Governorate.

Strengthening the link between the local community and al-Azhar Park, one of the domains for community development identified early on, only started from March 2005 onwards when the Park formally opened. Direct access for community members to the Park via the Bab Mahrurq gate in the historic Ayyubid Wall was made possible. Furthermore, local community members were given a substantial discount on entry tickets, a practice that continues to this day. Focus group meetings held in 2015 with the local population indicate that scepticism regarding the presence of a well-maintained and managed park next to an impoverished neighbourhood had all but evaporated over the years. There is clear evidence that the community has embraced the Park and that trust levels regarding security and cleanliness are very high, prompting Darb al-Ahmar families to allow their teenage daughters to visit the Park unaccompanied.
Support for social and cultural activities of local charitable institutions included mini grants provided by the CDC. These were allocated following periodic evaluation on a locally developed NGO maturity index. The importance of the CDC’s investment in the support of local institutions in which local community members are represented became apparent in 2013, after the CDC formally ceased functioning as AKTC’s local community development entity and responsibilities were handed over to Mezala.

**MEASURING PROGRESS**

Baseline surveys not only yield information concerning community needs, but also provide benchmarks along which future progress can be measured. Having embarked on a large number of community initiatives, AKTC was obliged to carry out regular follow-up studies for progress measurement. It also commissioned three end-of-project evaluations for phases 1, 2 and 3 and it commissioned one major independent evaluation by an international team in 2007, halfway during the implementation of phase 2. This independent evaluation also provided a number of guidelines for the preparation of phase 3.

Data from the October 2003 baseline study of 198 households indicated that, on average, 53% of household expenditure was used for procurement of food items, 16% on non-food items, including health and clothing, and 14% on education. When the same households were visited again in February 2009, expenditure on food items was down to 51% of the household budget, the percentage for expenditure on non-food items, including health and clothing, had increased to 21% and expenditure on education was more or less the same at 13%. Meanwhile, family income levels had doubled over the preceding period, leading to a net gain in income of 11% when taking into account the average inflation level of 10% per year. While the dropout levels for girls had more than halved as a result of the education programme, that for boys had only been reduced marginally – leading to the realization that many boys are still taken out of school at around the age of fifteen in order to start work in any of the small industries and services.

The overall size of the households and the useful surface of the dwellings had not changed between 2003 and 2009. However, there had been a significant increase of more than 10% in the number of rooms per dwelling – indicating higher levels of privacy for members of the household.

A study carried out in late 2010, almost three years later, showed a further drop in expenditure on food items to 48% of the disposable household income. Furthermore, it noted a sharp decline in expenditure on education (predominantly due to a drop in payment from parents to teachers for out-of-school education of their children), an increase in expenditure on non-food items and a substantial increase in expenditure on transportation and entertainment.

AKTC also noticed that the food-and-beverage outlets in al-Darb al-Ahmar had more than doubled between 2007 and 2015, indicating increased spending power of local households on food and entertainment outside the dwelling.

The independent evaluation carried out in 2007 recommended that, in order to achieve significant and lasting impact for phase 3, the project’s architecture would need to be strengthened by establishing a strong and united governing board of senior managers, representing AKTC, AKAM and AKF, to which the CEO of the CDC would report. Starting in 2009, both the governing board and CEO for the CDC were put in place. This new arrangement led to a successful ending of phase 2 and a new series of activities planned for phase 3, as well as a strategic assessment with focus on a life cycle approach.
The third phase, however, had a difficult start due to civil unrest all over Egypt that led to the January 25 revolution in 2011. This event was followed by a period of more than two years during which law enforcement in al-Darb al-Ahmar was sketchy at best. As a result, unapproved new residential buildings were erected in direct violation of building standards and without observing any safety protocol. The area of al-Darb al-Ahmar bordering the Park was most affected. New but rather unsightly apartment blocks of up to eight storeys are now offering uninterrupted views of al-Azhar Park. Although these buildings are unsafe and aesthetically unacceptable for a historic neighbourhood, they do epitomize the economic development that has taken root in al-Darb al-Ahmar. Furthermore, it has become evident that al-Darb al-Ahmar has started to attract people again and that the outflow of residents has been stemmed. This last development appears to be unequivocally linked to the success of the ADAA Revitalization Project and the continued presence of the Park. Seen from this perspective, the combined interventions appear to have delivered what was initially expected.

Vendors in the streets of al-Darb al-Ahmar.
MONUMENTS CONSERVATION PROGRAMME IN AL-DARB AL-AHMAR

CHRISTOPHE BOULEAU

In spite of its inscription as a World Heritage Site in 1979, Historic Cairo was not given enough attention: not only the urban fabric in general, but individual landmark buildings were suffering from neglect, serious deterioration and lack of maintenance. During the early phases of development of al-Azhar Park, new light was projected onto the adjacent neighbourhood of al-Darb al-Ahmar (ADAA) as the Park hills provide views of a number of magnificent heritage buildings, mainly dating from the medieval Mamluk period.

As part of the Aga Khan Development Network, the AKTC’s Historic Cities Programme (HCP) has placed monument conservation as a high priority within a preservation-based community redevelopment approach to historic settlements. Unlike other agencies that restrict themselves for internally valid reasons to the site of a specific monument, the Aga Khan Trust for Culture (AKTC) has decided to intervene not only on a monument and its site but also with its associated community or district wherever possible. This is done purposefully on the assumption that monuments without inhabitants adjacent to them are actually archaeological sites. This holistic approach to conservation is based on the principles of “living heritage”. Preservation of tangible heritage goes hand-in-hand with community development. While archaeological issues have featured in a number of AKTC projects in Cairo, more often than not these sites are found in living, historic settlements. At the same time, while carrying out area development projects around key monuments, HCP’s Programme has been keen to avoid the creation of districts that are actually outdoor museums, where activities are orchestrated for the visiting public but which, by the same token, lose their own intrinsic local rationale or basis.

The Darb al-Ahmar area was one of the first urban expansion areas outside the earlier Fatimid city walls and thus, being outside them, used to be a place for cemeteries. This feature was substantiated during conservation projects by the number of tombs found during archaeological investigation. With the construction of the Citadel as a seat of political and military power at the south end of the eastern city wall connecting the Citadel to the pre-existing Fatimid city walls, the Darb al-Ahmar district expanded rapidly. The density of monuments along the main north-south street spine increased during the fourteenth and fifteenth centuries as the sultan and court officials used this axis from the Citadel to the city’s historic core. As a result, sultans and important amirs of the Mamluk court started to have their mausoleums and waqf foundations constructed along the main spine.
The conservation projects of the Aga Khan Trust for Culture in al-Darb al-Ahmar started with the two minarets of the Umm al-Sultan Shaaban Mosque (1368–69) and Khayrbek Mosque (1502–03). Both had lost their upper top section as a result of the devastating 1884 earthquake, which caused similar damage to many other minarets, and they had not been reconstructed. On the contrary, the minaret top section of the nearby Aqsunqur Mosque and the minaret top of Maridani Mosque had been reconstructed in 1925.

The technical challenges of those initial projects required multidisciplinary input from foreign and local consultants, historians, conservators and engineers to study Mamluk architecture, especially minarets, in order to carry out professional historical research and develop appropriate designs. These activities included regular conservation practice, such as documentation, condition assessment, structural strengthening of the minaret’s bases, architecture and fine conservation. The initial stage of the monuments conservation programme required a significant effort to revive traditional crafts, such as stone carving and masonry, and train conservators (Umm al-Sultan...
Shaaban Mosque minaret), as well as carpentry work and lead-coat roofing, together with stucco-plaster conservation (Khayrbek Mosque minaret).

The successful reconstruction of these two minarets signalled the potential for social change brought about by conservation and was followed by a multi-year plan for the conservation of the Umm al-Sultan Shaaban Mosque and the Khayrbek complex based on an analysis of deterioration. Because of the original quality of their stone-masonry building techniques, and probably thanks to the mild climate in Egypt, the buildings had undergone long periods of neglect and lack of maintenance without having lost significant parts. While in Umm al-Sultan Shaaban Mosque, religious activities involved a certain level of maintenance in the prayer areas, other unused areas had not been subject to maintenance for years and were deteriorating. The high-quality workmanship of the Khayrbek Mosque and Mausoleum made structural issues almost inexistent. Very different was the condition of both Ottoman houses immediately adjacent to the Khayrbek Mosque. Built between 1632 and 1657, one of

Below, a general view of the restored Aqsunqur Mosque.

Following pages, Aslam al-Silahdar Mosque after conservation, with al-Azhar Park in the background.
the houses (named House no. 27) had lost its upper storeys and its ground-floor walls were at the point of collapse, while the brick walls of the second house (named House no. 25), constructed on top of a Mamluk sabil, were subject to severe cracks due to earthquake movements.

In 2006, AKTC embarked on new conservation initiatives at both the Aslam Mosque and the Tarabay al-Sharif complex. Both monuments had in common their position at critical locations concerning the re-establishment of historical gates between the Darb al-Ahmar district and the newly opened al-Azhar Park. The Aslam Mosque conservation was followed in 2009 by the open space upgrading of the square in front of it and the subsequent opening of the historical Bab al-Mahruq gate from the community to al-Azhar Park. The conservation of the Tarabay al-Sharif complex made it possible to upgrade the immediate open space adjacent to it and reopen the southern Park entrance of Bab al-Wazir. Upon completion of those projects in 2009, the internal teams moved on a final stage of monument conservation at Aqsunqur Mosque (also

Carpenters at work in the carpentry workshop established on the Khayrbek site to supply quality products for the conservation projects.
named the Blue Mosque due to its seventeenth-century tile decoration. This large courtyard mosque had been vacated by its religious user following damage caused to its structure by the 1992 earthquake. Vaults of the prayer hall were supported by shoring and a structural assessment was critical in starting the conservation. The Aqsunqur Mosque conservation was completed in 2012. Simultaneously, the team undertook the conservation of the Fatimid mud-brick structure discovered in the archaeological excavations launched jointly with the French Institute for Oriental Archaeology (IFAO). Not only did the initiative deal with the protection of archaeological remains, it also included creating visitor circuits and peripheral retaining structures to protect the site.

Apart from compliance to World Heritage Site and international conservation norms (as outlined in point 1 below), maximum effort was made to develop a conservation strategy and approach that stress the following key principles, which explain the methods and approach followed in conserving monuments in Cairo:

1. Close coordination with all relevant local and international agencies with jurisdiction. Local government stakeholders have prime jurisdiction over the historic monuments. The Programme provides technical support to local authorities dealing with monument preservation and establishes references for quality work to be replicated elsewhere. Like the majority of historic cities in which the Historic Cities Programme is active, the Historic City of Cairo has been listed on the UNESCO World Heritage List since 1979, as part of the first series of World Heritage Lists, outlining significant obligations that Egypt was expected to comply with.

The criteria set forth in the international standards published by the International Council of Monuments and Sites (ICOMOS) govern works related to the conservation of historical sites and monuments, among which the most significant are the 1931 Athens Charter for the Restoration of Historic Monuments and the 1964 Venice Charter for the Conservation and Restoration of Monuments and Sites. Supplementary guidelines were developed to reflect the evolution of conservation practice, such as the Burra Charter, in 1981, and the Washington Charter on conservation of historic towns and urban areas, in 1987. While recognizing that the set of pre-existing norms had a bias against reconstruction, the 1982 Dresden Declaration and the Riga Charter on authenticity and historical reconstruction, in 2000, stated that, in exceptional circumstances, reconstruction of cultural heritage lost during disaster, whether of natural or of human origin, may be acceptable.

2. Detailed research based on meticulous surveys and planning. Architectural documentation is essential. This is the process of data collection and critical interpretation of information dealing with various sources, such as archives, archaeological excavations and analysis, material science, architectural and structural surveys, drawings and photographs. This process is based on a multidisciplinary method allowing an appropriate analysis. The Programme has developed up-to-date documentation of sites that had never been documented before. Methods employed include survey techniques ranging from manually collected data, topographic measurements with optical and electronic total stations, Global Positioning Systems, photogrammetry and three-dimensional scanning. Project documentation is instrumental in developing damage assessments and a conservation programme of work. At the end of the implementation phase, a set of as-built drawings is developed to be conserved in local archives.
3 Development of detailed conservation strategy work plans and partnerships.

In many countries, conservation activities still involve only the restoration and replication of the given historical fabric using traditional building crafts. But an increasing number of problems affecting historic buildings require introduction of new reinforcement techniques, calling for meticulous damage assessment and planning. In Cairo, the Programme has introduced in the professional field a methodological approach to conservation, involving multidisciplinary strategy and inputs.

Institutional partnerships related to monument conservation also include government partnerships and private funding. While the Aslam Mosque benefitted from co-funding with the American Research Centre in Egypt, Umm al-Sultan Shaaban Mosque and Khayrbek Mosque minarets, together with the Tarabay al-Sharif complex and the Aqsunqur Mosque conservation projects, were carried out thanks to co-funding contribution from the World Monuments Fund. Those organizations embarked with AKTC on multi-year projects supervised by internal AKTC-managed technical services. Obviously, AKTC as a single agency could not master all the requisite technologies and sub-techniques involved in the conservation of such buildings and has solicited external specialist consultants and other partner agencies in many of these projects.

Conservators retouching the Mamluk painted ceiling in Khayrbek Mosque.
4 Commissioning of pilot conservation projects and prototypes. The value of experimentation in the field via pilot projects was verified in various projects in Cairo to test remedial solutions on a small scale, and to subject them to accelerated weathering process, in order to better develop suitable conservation techniques. Associated with preliminary studies and damage assessment, the implementation of small-scale prototypes has proven critical in defining adequate solutions.

5 Using traditional craftsmanship and introducing a modern approach. The conservation was guided by a materials-based approach, resulting in varying levels of intervention, which respond to the range of damage suffered. The rigorous conservation process is combined with the application of modern scientific techniques and traditional crafts and materials. The removal of unsympathetic additions and the introduction of new infrastructural services makes adapted reuse possible. In Khayrbek complex, the Ottoman houses were subject to reuse as a health centre and planning offices, while preserving the authenticity and integrity of their exquisite

Left, a carpenter at work in the Khayrbek carpentry workshop.
Above, vocational training courses in woodwork.
Below, a skilled craftsman at work restoring gypsum windows with stained glass.
architecture. The historic evolution of the site will be captured by respecting the various significant periods of the complex in the conservation work.

6 Close control of conservation activities creating and relying on internally organized and supervised work forces that can be trained to required standards. In Cairo, when AKTC started its activities, well-established contractors had recently gained interest in the field of conservation but they were still lacking the appropriate qualification and any previous experience in conservation. However, on specific occasions, contractors have been invited by AKTC to offer their services, mainly when liability was at stake. This has been the case in the reconstruction of Umm al-Sultan Shaaban and Khayrbek minarets and in the implementation of civil works and retaining-wall structures. However, in most other cases, and especially in fine conservation, AKTC has created its own local team of craftsmen and conservators, ensuring training with international experts and building internal services associating implementation specialists, management and back-office support, with the aim of guaranteeing close quality control.

7 Involvement of international conservation specialist expertise with available local professionals. Building the capacity of technical staff in the field is key in achieving quality work and ensuring sustainability. In many countries, the field of conservation is new and local professionals need exposure to international specialists to develop their own practice. When starting a new initiative, AKTC ensures that a transfer of knowledge is initiated between international specialists and local professionals. The projects are designed and implemented by highly specialized and skilled operators. The conservation effort establishes references for conservation practices; the team of experts transfers knowledge and trains a team of local professionals and artisans, contributing to the sustainability of conservation practice in Cairo.

8 Adaptive reuse. Critical to post-construction management and maintenance is ensuring the use of vacated buildings by establishing adaptive reuse plans and empowering local citizens’ committees to maintain their asset. Such an adaptive reuse follows closely established conservation guidelines and the functional and space-use scheme of the adaptive reuse proposal meets the criteria of compatibility with the existing fabric. Particular attention will be focused on placing into the existing fabric the necessary services for fulfilling modern-day living standards, such as bathrooms, electrical wiring and outlets, air-conditioning ducts and fittings, in ways that do not disturb the historical areas.

9 Development of post-conservation maintenance plans with associated financial projections of the running costs involved. Assistance to local government agencies or community leaders includes post-conservation plans. This comprises the development of a technical-maintenance guidelines manual, training of local maintenance teams, and the formation of governing bodies for cultural heritage, and involves the preparation of financial projections to assist in identifying solutions for sustainability. The periodic monitoring of the stability and condition of structures and the implementation of routine maintenance measures is a form of intervention intended to guard against the need to undertake major interventions in the future.
Throughout the entire duration of a conservation project, surveys and documentation material are collected to form a source of valuable information on the building condition before work started, the nature and areas of conservation interventions implemented and, finally, a set of documents describing the building in its restored status. Such technical information is given to local archives in soft and hard formats and is being made available on a central web-accessible data bank.

The AKTC mandate of promoting cultural expression finds one of its best applications in the role played by monuments to boost cultural tourism and local development. Developing visitor circuits linking restored monuments to the most important areas of interest of a historic city have a dual impact. They not only bring visibility and accessibility to neglected parts of a city but also boost the community’s economy and opportunities. Permitting adaptive reuse and visitation of monuments makes education and interpretation of cultural heritage possible for the entire range, from school pupils to university graduates. The improved visitation by local, national and international groups, and utilization of the completed projects also act as an educational asset.

The final section of this book provides a more detailed insight into a number of case studies depicting individual project descriptions, work undertaken and special technical challenges. Each case study is illustrated with drawings and photographs of the site prior to restoration and after the work was completed.
Restoration of historic sites and monuments and their adaptation for community and/or cultural uses as a keystone in rehabilitation; defining stakeholder needs, the interface between conservation and sustainable community reuse.

**URBAN RENEWAL AS A CORNERSTONE OF THE HISTORIC CITIES PROGRAMME**

Operating as a major area of engagement, urban renewal projects within the Programme are sets of well-calibrated socio-economic and physical interventions following an agreed strategy to undertake an urban area redevelopment project in a spatially defined area. Urban renewal in historic districts inevitably involves choices and criteria for the purposeful reuse of historic sites and/or buildings along with structures of non-historic designation, but nonetheless valued as an integral part of an existing urban environment. In accordance with existing preservation laws, statutes or conventions, national or international, acceptable uses of monuments and listed buildings are restrictive in nature and meant to safeguard rare examples of heritage or fragile sites. Period architecture and districts require protection to ensure their survival as identifiable, coherent and authentic examples of a cherished past, but otherwise can often permit new uses, public or private. Indeed, often such new uses are the principle means of safeguarding these elements of the urban fabric by allowing for self-sustainable forms of occupancy and maintenance.

While monuments until recently have long been considered restrictive in terms of their use following preservation, the restrictions are increasingly being worn down by changing public awareness of the advantages of unique settings for leisure, residential, community functions or tourism. The often-surprising benefit is the vastly increased level of interest on the part of local and regional communities in what was previously an overlooked relic, which is critical to building a base of civil society support and appetite for further projects of this nature.

Al-Darb al-Ahmar (ADAA) in Historic Cairo, as this publication attests, is a remarkable example of a resilient historic district, which has only begun to tap the potential of its urban heritage for the benefit of its community and Greater Cairo. As explained in the following pages, it is an important case study in itself as it has served as a reference point for many of the urban renewal and redevelopment projects that the Programme has undertaken in a number of World Heritage Sites: Humayun’s Tomb complex in Delhi, Babur’s Garden in Kabul, the Stone Town in Zanzibar, and the Walled City in Lahore.

Opposite page, the former Darb Shoughlan School under restoration to be reused as a Community Centre for socio-economic outreach.

Above, the dire condition of housing in the neighbourhood before AKTC’s interventions and waste deposit in an abandoned lot.
In many of the Programme’s urban area development projects, the overwhelming percentage of building stock, protected by statute or not, is non-listed and therefore affords more forms of adaptive reuse. Much of the building stock in al-Darb al-Ahmar, Nizamuddin Basti, the Lahore Walled City, Old Kabul and Herat, and the Stone Town of Zanzibar falls into this category. Once rehabilitated and brought up to date in terms of building services and their associated public spaces, this stock can be beneficially reused and its usage extended under much improved standards of living.

Such types of area development projects with important adaptive reuse components create a need for funds that are typically not available in the community. These neighbourhoods are frequently overlooked by banks, considered ineligible for loans due to low income, uncertain property ownership or tenancy, and lack of collateral. While micro-credit combined with house-owner investments and grants have succeeded at a certain level (al-Darb al-Ahmar is an example), the number of eligible buildings still represents a minority of the cases. Building ownership is a complicating factor, as often a building may be owned in title by an extended family.

At the same time, all too often, opposite market forces are at work: a building owner may wish to see his building condemned and be demolished so that the site can be sold or redeveloped along inappropriate lines to yield a capital gain. Determining what is appropriate or inappropriate is a labour- and energy-intensive process, requiring iterative public hearings, involvement of civil society groups, and development of building planning and design guidelines to prevent new developments that are alien to an otherwise harmonious urban environment. These risks are faced by any community subjected to change without proper controls and safeguards. In this regard, urban renewal in historic districts faces the same pressures and challenges of non-historic districts but with additional constraints. However, the rewards, as al-Darb al-Ahmar demonstrates, can be significant.
URBAN RENEWAL IN THE DARB AL-AHMAR DISTRICT OF HISTORIC CAIRO

The creation of al-Azhar Park in Historic Cairo provided opportunities and a strong impetus for urban renewal efforts in al-Darb al-Ahmar, the densely built-up, low-income district that borders the western edge of the Park. The district lies south of the prestigious al-Azhar Mosque and the popular Khan al-Khalili, Cairo’s principal tourist bazaar. With a surface of 1.2 square kilometres and over 100,000 inhabitants, the district, one of the wealthiest in Cairo less than two centuries ago, by the early 2000s had one of the lowest per capita incomes in the Cairo Governorate, estimated at less than USD 200 a year.

The development of the area had, in fact, lagged behind other parts of Cairo: here, urban conditions had worsened since the 1970s, leading to high levels of emigration that resulted in an overall 50% decrease of population. This was the outcome of a lack of maintenance in public infrastructure and services, coupled with the severe deterioration of neglected residential structures, which was made worse by outdated planning constraints, widespread insecurity of tenure, unrealistic rent control and limited access to credit.

Contrary to common perception, however, AKTC social surveys carried out in the area from 1999 onwards showed that over 35% of the male population was gainfully self-employed and crime rates in the district were fairly negligible. Over 60% of the people had lived in the area for thirty years or more, and almost 20% for more than fifty years. Length of residence was found to be the result not of necessity, but
of choice. Most inhabitants felt comfortable and safe in their neighbourhoods. They cited 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 that were said to be lacking. Most importantly, residents viewed al-Darb al-Ahmar as their permanent home and were ready to invest their own resources to improve living conditions. The surveys thus demonstrated that the essential pre-conditions for the implementation of a comprehensive rehabilitation and economic revitalization programme existed in the area, and that such a programme could be firmly based on the district’s social setting and local resources.

**General Strategies**

In tackling the physical rehabilitation of the district, AKTC believed that the downward spiral of disinvestment and deterioration could be stopped, and that preconditions existed for a full regeneration of the area. The formula advocated by AKTC consisted in improving the area’s physical assets through greater public and private investment, and the raising of family incomes through small business loans and employment generation programmes. No large, all-encompassing projects and no far-fetched social engineering agendas were required; rather, what was needed was a gradual improvement of what was already in place and the parallel strengthening of the existing social capital and positive economic trends.
This formula is radically different from conventional planning approaches, often based on impractical schemes, that call for the demolition of the historic fabric, the displacement of residents and their economic activities, and their substitution with new functions and automobile-oriented modern development. As demonstrated by many unfortunate examples, these massive interventions not only destroy the physical character of an area, they also deprive it of the social base that sustains the life of the community.

Other aspects were also determinant in shaping the AKTC strategy for the district. Paramount was the consideration that the creation of the new Park, with its green expanses and appealing views from al-Darb al-Ahmar, would eventually represent a powerful attraction and a potential catalyst for uncontrolled urban development. Unless held in check and properly channelled through a conscious planning effort, speculative pressures could soon determine the expulsion of the residents, with their enterprises and activities, and pave the way for the total substitution of the traditional urban fabric.

Thus, work on the Park and the Historic Wall along the critical western edge of the Darassa site raised the urgent issue of how best to harness the dynamics unleashed by the Park project onto the adjacent urban area of al-Darb al-Ahmar. As a result, since the year 2000, AKTC developed a series of initiatives and interventions on the eastern edge of the district. These consisted of providing credit for business development, housing rehabilitation and employment generation, as well as direct investment on the restoration of monuments, recycling of historic buildings and improvements in small-scale infrastructure and open spaces. This strategy is consistent with AKTC’s belief that synergies between physical improvement schemes and community development are crucial to launching a genuine process of urban rehabilitation.

District Plan and Pilot Project Areas
A fundamental step towards the establishment of an effective physical rehabilitation programme was the preparation of a general plan for the four shiyakhas (administrative zones) in the eastern portion of the Darb al-Ahmar district. The plan, prepared in coordination with the district authorities, was based on an in-depth survey and achieved the level of detail necessary to identify the types of interventions required for individual buildings and plots in the area. It also provided infill criteria and guidelines for the reintegration of missing historic fabric. The formulation of this plan was an important precedent as it established the planning tools necessary for the rehabilitation and management of a historic district in Cairo for the first time.

Implementation of the plan was sought through three pilot projects in specific locations within al-Darb al-Ahmar, each with its special character, needs and possibilities:

- the blighted Burg al-Zafar Street and its immediate surroundings, located in the north-east corner of the district and closely linked to the main vehicular artery of al-Azhar Street, called for both public funding and external private investment aimed at comprehensive urban development to reverse the existing decay, raise housing standards and introduce new commercial uses and economic activities;
- Aslam neighbourhood required a combination of private local financing and limited public and donor funding towards small, targeted interventions to improve housing, upgrade the infrastructure and develop community based initiatives;
- the Bab al-Wazir area, and its extension along al-Darb al-Ahmar Street, in the south-east sector of the district, called for public and donor funding to improve
the infrastructure and revitalize dormant assets, particularly the area’s outstanding monuments, to serve as catalysts to encourage increased visitor presence and the more general economic development of Bab al-Wazir.

As further detailed below, within the framework of these pilot areas, rehabilitation work concentrated on four mutually complementary sectors: open space upgrading, tourism development, adaptive reuse of significant, non-listed buildings, and housing improvements.

**OPEN SPACE UPGRADE**

Public open spaces were found to be poorly maintained and deteriorating throughout al-Darb al-Ahmar due to a lack of planning and investment in public infrastructure. In an effort to reverse this trend in the pilot project areas, AKTC’s plans targeted not only major and highly visible spaces, but also secondary locations, namely:

- **commercial streetscapes**, where improvements ranged from basic space planning to accommodate conflicting activities, to upgrading street paving, public lighting and signage, as well as facades 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 required comprehensive reorganization 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**, found throughout the inner blocks of al-Darb al-Ahmar, often associated with tombs of saints and community mosques. These spaces were targeted for simple low-cost improvements designed to encourage informal contact and community life.

Aslam Square is an example of a small neighbourhood square selected for improvement by the AKTC team. Interest in this area stemmed from its proximity to Bab al-Mahruq, one of the historic principal gates along the eastern side of the Ayyubid city wall. With the creation of the new al-Azhar Park, this old connection was 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.

**STIMULATING THE DEVELOPMENT OF TOURISM**

Closely related to the upgrading of public open spaces was the development of tourist circuits and the creation of tourism-related activities in the pilot project areas. AKTC considers tourism not just as a major tool for helping to preserve and celebrate Cairo’s rich Islamic heritage, but even more so as the key to local socio-economic development. Since mid-2013, the responsibility for continued engagement with the local community in al-Darb al-Ahmar has been passed on to Mezala, a locally managed and registered development organization that AKTC helped to set up and with which it has continued to collaborate closely ever since. Mezala’s main role is to pass technical and managerial capacities with regard to the development of crafts that are related to the tourist sector on to local entities. Furthermore, its mandate also includes provision of marketing skills and training in tourism-related services.

The tourism programme was originally scheduled to start in 2013, but was postponed indefinitely because of continued unrest and the absence of law and order in the district. Although security has gradually improved since then, international
tourism remains absent. As a result, AKTC decided to focus instead on national tourism and visitors from the Middle East.

The development of three clusters of activities for stimulating tourism – notably the rehabilitation of a core section of the fourteenth-century Maridani Mosque, the development and operation of guided tours along four circuits in al-Darb al-Ahmar and the training by Mezala of the inhabitants of the district in preparation of tourism – is the logical continuation of AKTC’s engagement in this part of Cairo over the past seventeen years.

The opening of a total of four visitor circuits through al-Darb al-Ahmar, as is currently foreseen, takes visitors to a series of unique Islamic monuments, including the Maridani Mosque, while also allowing them to come into contact with local crafts and the living culture of the area. All visitor circuits commence from a reception centre at a newly created drop-off/pick-up point near the parking garage that AKTC created in 2014, along the northern border of al-Azhar Park. Visitors walk along, inside and on top of a 1.3-kilometre stretch down Cairo’s twelfth-century Ayyubid Wall, visiting Bab Mahruq and Aslam Square and its fourteenth-century Aslam al-Silahdar Mosque en route to Maridani. The latter monument is also included in the other circuits along al-Darb al-Ahmar Street, such as itineraries that lead to Cairo’s Museum of Islamic Art, the eleventh-century internal gate of Bab Zuwayla, and the fifteenth-century mosque of Sultan al-Mu’ayyad Shakh.
In parallel to the initiatives outlined above, training of local stakeholders predominantly focuses on improving existing and introducing new elements of goods and services that are key to tourism development. Local manufacturers and shopkeepers are trained formally and informally in issues ranging from behavioural attitudes, presentation and showcasing of products, improvements of product quality and improved hospitality, to safety procedures and maintenance of hygiene and cleanliness. Mezala implements training sessions targeted at owners or employees of workshops, restaurants and retail outlets, with a target of covering 40% of all small and medium enterprises in the district, and collaborates with small- and medium-enterprise financing organizations, such as the First Microfinance Foundation of Egypt and similar institutions. Of particular interest are the training sessions involving food-and-beverage outlets, small restaurants, families offering bed-and-breakfast and people interested in establishing small- to medium-size boutique hotels.

**ADAPTIVE REUSE OF SIGNIFICANT BUILDINGS INTO COMMUNITY FACILITIES**

The restoration and adaptive reuse of historic buildings into community facilities played an important role in the overall rehabilitation plans for the district. Al-Darb al-Ahmar contains sixty-five registered buildings representing some of medieval Cairo’s finest and most admired historic structures, whose restoration is discussed in other parts of this publication. It should however be mentioned here the fact that their restoration is the result of special agreements between AKTC and the Supreme Council of Antiquities (SCA) to develop and implement innovative and realistic solutions towards the preservation of Cairo’s monuments, ranging from identifying appropriate restoration techniques to introducing compatible new uses, thus establishing an important and innovative precedent.
Equally significant has been the work carried out on a few of the several hundred unregistered but architecturally significant buildings, which, together, determine the quality of al-Darb al-Ahmar’s urban context. Their long-term preservation should also be seen as an opportunity to revive dormant assets and introduce much-needed facilities and services. These need not necessarily be associated with poverty and neglect. On the contrary, once rehabilitated, they can still play a significant role in contemporary life for many years to come.

The former Darb Shoughlan School, an early twentieth-century residential building located along the Historic Wall, later converted into a school, is a good case in point. It represented the first major historic building renovation completed by AKTC in the area. The project took advantage of the former school’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 reusing this large structure as a combined community facility, visitor centre and AKCS-E office space. The programme introduced much-needed services in a context that sorely lacks public facilities.2

The success of the Darb Shoughlan project led to the conversion of other historic, non-listed buildings into public facilities. In all these cases, the philosophy of intervention adopted by AKTC in its rehabilitation and adaptive reuse initiatives has been:

- to respect the existing fabric, including alterations to the building over the course of its evolution. In cases where evidence of a different, earlier condition is found, the relative advantages and disadvantages of the observable transformations are carefully assessed, and, if justified, the original configuration is re-established;
- to conserve rather than replace any salvageable component of the building. In cases where replacement is unavoidable, to use techniques and materials that are compatible with the original ones;
- to improve through new interventions the quality of the fabric and its long-term conservation whenever intrinsic structural faults are detected. In these cases, the original techniques are improved, using techniques that can be easily replicated with the technology and skills available locally;
- to fit the proposed new uses around the original fabric so as to avoid any disruption, loss or disfigurement of the traditional fabric, as well as avoid any alteration of the building’s established patterns of use. Preference is given to a functional programme that is useful and relevant for the community concerned, self-sustainable and non-disruptive.

In conclusion, the philosophy of intervention applied by the HCP aims at recognizing that historic, pre-industrial buildings, whether monuments or simple traditional structures, are no longer replicable. Discretion appears to be the best course of action, in order to reintroduce meaningful life to old buildings and allow these structures to convey across time an experience and forms of production different from those prevailing today.
THE ADAA HOUSING REHABILITATION PROGRAMME (HRP) (2004–09)

The blighted condition of residential structures, with 16% of the housing stock in ruinous condition, was seen as a priority from the beginning and prompted action to be taken at an early stage of the ADAA Revitalization Project. The surveys carried out in 1999 and 2003 along the eastern boundary of al-Darb al-Ahmar showed that average occupancy was equal to 2.5 persons per room, with 32% of residents living in spaces lacking direct ventilation. In addition, 22% of the dwellings had no private lavatory, with more than one family sharing minimal toilet facilities, while a good 51% of the households had no direct water supply reaching kitchens. Worse still, most of the residents interviewed complained of health problems resulting from the poor condition of their lodgings.

If the existing pattern of disinvestment and abandonment were to persist, it would pave the way for further deterioration and the eventual demise of irreplaceable social, economic and cultural assets. Such an unfortunate course would deprive the district of the critical mass of inhabitants needed to sustain its social and economic life.

Upon completion of the initial survey, AKTC initiated with a grant from the Ford Foundation a pilot study of 125 plots and buildings in Darb al-Ahmar’s Aslam neighbourhood. The results of the study showed that a reasonable portion of the rehabilitation costs could be met by the residents themselves, without needing to depend on very limited public resources.²

Starting in 2002, financial aid was provided by the Egyptian-Swiss Development Fund and the Social Fund for Development, complemented by revolving loans to the residents made available by the Aga Khan Agency for Microfinance (AKAM) and later the First Microfinance Foundation of Egypt (FMF). AKTC launched a pilot rehabilitation housing credit scheme near the Historic Wall, comprising approximately fifty residential buildings. The scheme spurred considerable local interest and was extended to other housing blocks in the three pilot project areas.

By the end of 2009, approximately 200 houses had been enrolled in the housing credit programme, with eighty-five buildings fully rehabilitated and returned to the original occupiers. In addition, through parallel institutional efforts, approximately 285 households had a secure tenure status.

As organized and gradually refined, prior to the events that unfolded in Egypt after 2011, the housing programme was set to deliver approximately fifty rehabilitated houses per year, with increased amounts of cost-sharing contributions received directly from the owners or occupiers. The process of housing selection, technical implementation and repayment system was gradually but constantly improved through practice and the issuing of periodic guidelines. In 2007, the National Organization for Urban Harmony (NOUH), the Egyptian institution in charge of urban quality and heritage, recognized the Housing Rehabilitation Programme (HRP) and its guidelines as the “best practice model” in the rehabilitation of traditional housing in historic areas.³

CONCLUSION

As discussed in other parts of this publication, in the aftermath of the 2011 events, the breakdown of municipal services led to rampant and hasty new construction characterized by high-rise structures substituting or sometimes built on top of existing traditional structures. In the short span of a few years, the face and scale of al-Darb al-Ahmar have changed dramatically and underline, once more, the importance of sustained public controls and safeguards needed to protect the fragile and highly threatened historic setting along the edge of al-Azhar Park.
It is difficult to predict the long-term fate of the area except to recommend that former planning safeguards against multi-storey developments and wholesale demolition be put back into effect to avoid overcrowding, environmental pollution, the breaking down of aging and undersized infrastructure, and the dramatic collapse of superstructures hastily built on precarious foundations. It is, however, important to underline the significance of the Darb al-Ahmar experience as a planning model worth pursuing and replicating in distressed historic urban areas.

The Action Plans and pilot interventions in al-Darb al-Ahmar sought practical and sustainable alternatives to the current dilemma confronting officials and planners in Historic Cairo: 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. Contrary to these two scenarios, the alternative pursued in al-Darb al-Ahmar built on the direct involvement of residents and local institutions towards a gradual rehabilitation and 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 for achieving lasting results.

This alternative is both achievable and wise: it is far less costly over time than either abandonment or radical intervention; it actively engages the existing social setting and it does not disrupt or alienate those concerned; and it keeps the historic fabric of the district alive, thus preserving a significant portion of Historic Cairo for future generations. The result of AKTC’s work is relevant beyond the Darb al-Ahmar setting as it offers a living model of old-city rehabilitation that may be applied throughout Historic Cairo and, indeed, in many other historic cities in the Islamic world.


CHANGE AND CONTINUITY IN A HISTORIC URBAN SETTLEMENT

GEOFFREY SALKELD

INTRODUCTION
This chapter reviews the recent history of al-Darb al-Ahmar (ADAA) and the achievements and legacy of the ADAA Revitalization Project (2000–11). It is based on surveys, evaluation reports from 2003 to 2011, and more recent studies and observations made during a short visit to al-Darb al-Ahmar in January 2017.

From its origins as a pre-Fatimid-era cemetery to the present day, the demography, economy, infrastructure and appearance of al-Darb al-Ahmar have evolved continuously. However, change has not been total. Time-travelling visitors from the Mamluk period or even earlier would today recognize the more than sixty Islamic and medieval buildings that have survived centuries of adaptation, and neglect. They would celebrate the continuity of religious observance and culture. There has also been a significant degree of social, demographic and economic continuity. In 2003, 70% of families had lived in the same house in the district for at least twenty years, and many for more than forty. The majority of the working population were engaged in traditional production and commercial activities and employed in small family businesses, suggesting inter-generational continuity.

THE ADAA REVITALIZATION PROJECT
Historically, most of the changes affecting the district have been driven by official or commercial priorities, or because of neglect by public authorities. Residents have had little power to affect these forces. However, in 2000, an effort was launched to revitalize the district by engaging with the community. This was the ADAA Revitalization Project, funded by Egypt’s Social Fund for Development, the Aga Khan Trust for Culture (AKTC) and other donors. A series of survey and evaluation reports tracked some of the changes in the lives of the people of al-Darb al-Ahmar during the first three phases of the Project. These reports provide quantitative and qualitative data about changes in the district’s physical infrastructure, household economy, business life and social services, and they are the main sources for much of this chapter. There is little systematic documentation for the period from 2011 to the present, following the premature closing down of the Project in 2011. Project reports and other studies referred to are listed at the end of this chapter.

The People of al-Darb al-Ahmar
In 1976, al-Darb al-Ahmar had a total population of nearly 150,000. Twenty years later the population had decreased dramatically to less than 80,000. By 2006 it had
recovered to more than 90,000. The Revitalization Project focused on seven of the district’s thirteen shiyakhas (neighbourhoods), which had a total population of 22,000.

Between 2003 and 2009, there was a slight decrease in the below fifteen years population, suggesting that the number of newly formed nuclear families with young children was not increasing. Other data indicated that young adults – especially young males – were moving out of the district. During the same period, the percentage of households with between one and four people increased slightly while the percentage of households with seven or more people decreased. The 2009 survey noted “an influx of new residents [...] some of them originally from al-Darb al-Ahmar who had married, moved out and were now returning, and some from other popular districts of Cairo. This phenomenon may be related to a perception of improvement in the district, namely the visually evident rehabilitated housing and open spaces visible, even from al-Azhar Park.” However, this trend was not uniform across the district: in 2009, al-Batniyya (which was in the Project’s action area) was losing residents, perhaps because of deteriorating housing stock.

Habitat: the Built Environment
The built infrastructure sector of the Revitalization Project included housing rehabilitation and related infrastructure, solid-waste management and the protection and renovation of historic monuments. Between 2000 and 2010, the Housing Rehabilitation Programme (HRP) made a significant contribution to the Revitalization Project. Following a careful and consultative pilot phase for ten houses, the HRP enabled 144 houses to be fully or partially rehabilitated, through structural repairs, facade improvement, plumbing, electrical connections and internal decoration. At the time of the HRP’s close in 2011, fifty applications for new projects had been registered and many more had been posted on line. Financing was through a mixture of subsidy from AKTC, loans (from the Aga Khan Agency for Microfinance-AKAM and later the First Microfinance Foundation-FMF) and partial self-financing by residents, both owners and tenants.

Until the post-2011 building boom, most apartment buildings were divided into an average of six dwellings. Between 2003 and 2009 there was a slight decrease in the number of buildings with ten or more dwellings. However, subdivision within dwellings increased. This benefitted family life by reducing the need for teenage brothers and sisters to sleep in one room. The perception of crowding, which had also been a concern for respondents to the 2003 survey, had also decreased by 2009. The downside of increasing the number of rooms for each dwelling was a deterioration in ventilation, as some of the new rooms had no external windows.

In 2003, half the survey respondents rated toilets and bathrooms as urgently needing installation and improvement. The 2011 Quality of Life survey reported that 97% of households had their own toilet, 99% had access to safe drinking water and 98% had an electricity connection. But while internal conditions had improved significantly, the number of residents dumping waste in open spaces had increased to nearly 50% in 2011. Paradoxically, the number of residents employing someone to collect domestic garbage also increased during the same period. This may suggest a growing social and economic divide between neighbourhoods or possibly between the attitudes and habits of old and new residents in apartment buildings.

The rooftops of the district’s apartment buildings provide some opportunity for fresh air, a view of the Park, socializing with neighbours and rooftop gardening. By 2009, 79% of rooftops were accessible, though this was partly due to the
rehabilitation of a number of rooftops that had collapsed since 2003. Use of open spaces was limited. Most children played at home (indoors or on the rooftop) or on the street, and only seven per cent had visited al-Azhar Park. But by 2015, according to the Parks Impact Measurement System (PIMS): “Almost all residents […] have been to the Park […] Most common users of the Park are teens; girls and boys. Younger teens go regularly, even on school days. Most girls are allowed to go to the Park unaccompanied by parents, mainly because parents feel it is a safe place and close by.”

**Al-Darb al-Ahmar’s Historic Fabric**

With sixty-five registered monuments and several hundred unregistered but architecturally significant buildings, al-Darb al-Ahmar houses some of medieval Cairo’s finest historic structures. The AKTC focused on three representative monuments: the restoration of the Khayrbek complex and the Umm al-Sultan Shaaban Mosque, and the rehabilitation and adaptive reuse of the former Shoughlan Street School. Other works included the Tarabay al-Sharif complex, the Aslam al-Silahdar Mosque, Zawiyet Ozdamar, part of the Ayyubid Wall and the Aqsunqur (or Blue) Mosque.

Following an agreement with the Supreme Council of Antiquities in March 2016, AKTC undertook to maintain eight historic monuments, including Alin Aq Palace, the tomb of Prince Tarabay al-Sharif and the Aqdumur Cemetery, Umm al-Sultan Shaaban Mosque, the Aqsunqur (or Blue) Mosque, the east Ayyubid enclosure and Fatimid enclosure, and the Khayrbek complex.
Environment and Solid-Waste Management
The Revitalization Project made considerable progress in clearing the targeted open spaces, but maintenance was an uphill struggle. The quantity of waste produced in al-Darb al-Ahmar was not very attractive commercially and the private sector contract had changed hands four times. Residents pay for rubbish collection through their electricity bills but, at mid-project (2007), some collectors were still demanding *baksheesh*. The Project’s other main environmental contribution was the encouragement of rooftop gardening. There were some three hundred rooftops suitable for “urban agriculture” and the Project targeted one hundred (while only budgeting for twenty). Residents were expected to renew compost, seeds and other requirements after the initial supply. This project was reinstated on a small scale in 2015.

Economic Life
The Revitalization Project’s reports from 2003 to 2011 present a mixed and not always consistent picture. While incomes for many households rose from their 2003 levels (even after allowing for inflation), the climate for workshops and small businesses was unfavourable. There was a slight increase in the proportion of economically active residents and the number of families with no income earner decreased. Overall unemployment dropped from 15% in 2003 to 8% in 2009. However, the Project’s 2006 annual report observed that under- and low-skill employment were more serious problems than unemployment. By the time of the 2011 survey, mean monthly household income stood at EGP 1,037 (USD 174), double the 2003 figure and higher than that for 2009. After allowing for inflation from 2003 to 2009, real incomes rose by almost 20% during the first decade. However, very high food prices in 2010 and 2011 brought real purchasing power in 2011 back down to 2003 levels.

A high percentage of household expenditure on food can indicate poverty. Between 2003 and 2009, the average percentage of household expenditure on food dropped only slightly from 54% to a still high 51%. There was considerable variation between neighbourhoods. Percentage expenditure on food in al-Batniyya (within the Project area) rose from 44% in 2003 to 46% in 2009. There was significant change in al-Ghorriyya (outside the Project action area), where food expenditure was 63% in 2003, dropping to 46% in 2009. It is significant that the 2009 survey was conducted before the steep rise in food prices in 2010, suggesting an endemic poverty level in at least some of the neighbourhoods.

The Revitalization Project and the associated AKAM Microfinance service provided small loans, business advice, vocational education and employment services. In 2006, AKAM established the First Microfinance Foundation (FMF-Egypt), which took over the microfinance and business development component of the Project. The 2007 mid-term evaluation found that the microfinance programme was positively rated while there was criticism of the business development component. The employment service had enabled 676 job seekers to find work by 2007, against a target of 1440 for the second phase. Women job applicants had increased from 25% to 35%. The same report drew attention to concerns about the Revitalization Project’s lack of policies and safeguards regarding workplace safety, facilities for women employees, child labour and harmful environmental practices.

In 2009: “...production-based businesses were suffering more of what they were suffering in 2003: competition from Chinese products, slow markets, no vision or access to new markets and limited vision regarding product development”. The 2010 business survey of businesses in five neighbourhoods found that the majority of respondents felt that their economic status had declined – mainly due to high prices.
Workshop and business practices remained unchanged and most businesses continued to dump their rubbish in the street or open spaces. The 2011 survey reported that “after the 25 January 2011 revolution, the earning members in the household adopted different strategies to try and increase their income and face the economic depression”. They were “…working more hours per day or skipping holidays. Workshop owners […] saved money by reducing the number of their employees, exploring possible venues to exhibit their products beyond the usual shops in al-Ghoriiyya and al-Khalili”.

Health and Education Services
The Revitalization Project sought to raise health standards in al-Darb al-Ahmar through a health centre and outreach activities. The health centre was initially housed in a small, unsafe building and attracted small numbers of patients. Following a community assessment in 2005, the health centre was reopened in the Khayrbek complex. The programme reached out to local health providers and experimented with cost recovery through fees and a short-lived health insurance scheme. The 2007 mid-term evaluation found that the services were popular with patients and that the quality of services was good. However, data collection was underdeveloped and it was not possible to evaluate the programme’s impact on the health of the community.

The quality of educational provision in al-Darb al-Ahmar at the start of the Project was poor. By the time of the 2007 mid-term evaluation: “Progress has been made in improving and providing educational opportunities in the area. There are indicators to show that these opportunities are leading to improved knowledge and skills […] and there are some signs of impact in terms of income and quality of life.” Illiteracy among residents aged above five years decreased, though more sharply among men than among women and the combined illiteracy level was still a high 29% in 2009.
Primary education dropouts decreased significantly among females – from 13% failing to complete primary education in 2003 to 7% in 2009.

The Revitalization Project was also making progress in vocational education and training. Problems included low retention rates and adolescent behaviour. As in the health sector, record keeping and data analysis in the education programme was problematic.

Key social issues revealed in the 2007 report included the prevalence of female genital mutilation, child labour and child protection, which the Project was attempting to address. Along with housing rehabilitation, the Project’s health, education and vocational training work came to an end in 2011, well before the planned closure of the Project.

THE POST-2011 BUILDING BOOM

Al-Darb al-Ahmar has suffered two of the most salient effects of the political unrest that followed the January 2011 revolution. The first was inflation, which led to sharp price rises, especially for food and other essentials and business supplies. The second effect was uncontrolled building and demolitions after planning and building regulations were no longer enforced.

Following the January 2011 revolution, the district witnessed uncontrolled development: new buildings, demolitions, alterations and additional storeys to take advantage of the view of al-Azhar Park. The 2015 report of the Parks Impact Measurement System mapped the distribution of real-estate prices across the catchment area of al-Azhar Park. Apartments in buildings along the Ayyubid Wall, commanding views of the Park, cost between EGP 1,488 and EGP 2,916 per month, with a down payment of between EGP 40,000 (USD 2,000) and EGP 60,000 towards rent (figures from June 2015). Rent for apartments in 2003 ranged between EGP 100 and EGP 150 in 2003 and more than EGP 300 in 2009. Even allowing for inflation, the rental income for owners of apartments close to the Wall has increased significantly. Some apartments are being rented out to visitors. In January 2017, the UK Airbnb website was listing 115 apartments or single rooms in al-Darb al-Ahmar with prices ranging from GBP 10 to GBP 100 per night: the equivalent of EGP 200 to EGP 2,000.

According to the 2012 URHC report: “All construction post-January 2011 exceeds allowed building height flagrantly”. The report describes the “rather complicated process” involving the building owner, the local contractor (usually one of three major contractors), the district authority, which can impose fines (but cannot stop the construction), and individual officials, some of whom take bribes. The aesthetic and other effects of the new buildings along the Ayyubid Wall are very damaging. Their height and very close proximity to the Wall destroy the view of al-Darb al-Ahmar from the Park. Some residents have taken to tipping their rubbish over the Wall into the Park. And, more seriously, the addition of multiple storeys poses danger in the event of even a mini earthquake.

THE LEGACIES OF THE REVITALIZATION PROJECT

The ADAA Revitalization Project had the potential to be a living example of AKTC’s vision of a fusion between the renovation of the historic built environment, the revitalization of the social and economic infrastructure and cultural renewal. As Luis Monreal wrote in 2004: “The project will have a significant cultural impact, as it may help its own inhabitants to rediscover the historical values of the city” and “bring forth a new element of development and cultural pride that is expected to endure the test of time.”
At its height, between 2005 and 2011, the Project was indeed playing a dynamic and catalytic role in al-Darb al-Ahmar, providing a comprehensive range of services. It was beginning to sensitize some residents – especially women, children and youth – to the opportunities and benefits of active participation in community life. For these people at least, their horizons were beginning to expand beyond their cramped apartments, the workshops and the alleys. Improved health, education and training services were demonstrating their potential to make an impact. Some public bodies and individual officers were learning better practices in urban planning and the adaptive reuse of architecturally valuable historic buildings. Project staff were able to intervene with local authorities to prevent illegal demolitions and there was at least a prospect of establishing better governance to secure the protection of the area’s historic fabric and character.

The Built Infrastructure
The Khayrbek complex and other historic monuments that benefitted from AKTC’s work with local architects and craftspeople are the Project’s most tangible and visually impressive legacy, along with the 144 houses that were rehabilitated – though some of these same houses have added illegal, unsightly and dangerous additional storeys. Reviewing the legacy of the ADAA Revitalization Project in Égypte/Monde Arabe in 2014, Karim Ibrahim points out that “despite the fast deterioration and widespread building violations […] this project is still considered as a milestone in the alternative urban development paradigm in Egypt”. He ascribes this to the participatory planning and design, and the integration of physical interventions with socio-economic development that characterized the Project. Through the training and employment of young architects, planners, designers, craftsmen and women, the Revitalization Project’s vision and professionalism have been disseminated to individuals and institutions across Cairo and, indeed, beyond Egypt.

However, planning policy has not developed sufficiently to take the challenges, and the implementation of regulations has collapsed. The 1973 Master Plan has not been replaced or updated. Nevertheless, in 2006, the government did cancel plans for large-scale demolition in the Historic City. In 2008, the Cairo Governorate ratified the new Conservation Plan for al-Darb al-Ahmar, the first of its kind in the Egyptian context, allowing for active community involvement while maintaining realistic conservation measures. In 2014, the boundary of Historic Cairo was defined – itself a historic milestone.

The Social Infrastructure
In 2007 the Revitalization Project announced that “during the third phase (2009 to 2013) the Project is expected to reach maturity. By then, serious efforts will have been made to hand over most, if not all, responsibilities to a number of local entities”. The Aga Khan Cultural Services (Egypt) continues to manage al-Azhar Park and has sponsored an NGO – Mezala (umbrella) – which is housed in the Darb Shoughlan building. Mezala is making an effort to continue some of the work of the Revitalization Project. Core funding comes from the Park revenues but Mezala is largely dependent on single, short-term projects funded by external donors. A brand has been created – Heraf Khan (Craft Market) – to provide training and outlets for the khayamiyya (tapestry and tentmaking), carpentry and ladies’ accessories. A pilot e-learning project is running from 2016 to 2018 to train young carpenters and entrepreneurs. The management of al-Azhar Park is offering training in hospitality services to young men and women from al-Darb al-Ahmar.
While these initiatives are commendable, the contrast between the energy generated by the Revitalization Project in its heyday and the present situation in al-Darb al-Ahmar is striking. No successor community organization would have been able to prevent or resist the uncontrolled building that followed January 2011. However, the premature ending of the Project’s engagement with the community, without a phased transition, meant that the potential civic value that the ADAA Revitalization Project was beginning to demonstrate before 2011 has not yet been realized.

On-the-job training activities in the conservation of Darb al-Ahmar’s monuments.

DOCUMENTS REFERRED TO
IMPACT EVALUATION –
THE PROJECT TEN YEARS ON
A PANOPLY OF POSITIVE HUMAN DEVELOPMENT OUTCOMES

YUDHISHTHIR RAJ ISAR

What differences have the al-Darb al-Ahmar Revitalization Project and the adjacent al-Azhar Park made to local people’s lives? How have the two projects complemented and reinforced each other in human development terms? What positive (or negative) synergies have emerged between the two? A decade after the opening of al-Azhar Park, how can the multiple impacts, in economic, sociocultural and conservation terms, of these interwoven endeavours be evaluated?

Such people-oriented questions come naturally as regards the work of the Historic Cities Programme (HCP), whose methodology is widely recognized for its uniquely wide-ranging, truly holistic cast, and when it is seen in the perspective not just of historic conservation and landscape architecture, but also of social anthropology, international cooperation and development.1 One realizes immediately, as a corollary, that any evaluation of success or failure has to be multidimensional and multivariate – the latter as much in a qualitative as a quantitative sense however, for the Aga Khan Trust for Culture’s “integrated urban rehabilitation”2 approach and ethos sit perfectly with the “human development” paradigm. Their developmental outcomes have to be assessed and appreciated in social and cultural terms equally, if not more than, according to economistic metrics alone. They are also resolutely “bottom up”, based as they are upon interventions that are genuinely community based. While such a holistic approach in historic city conservation is frequently advocated and fulsome lip service is often paid to it, it is rarely put into practice. AKTC’s efforts stand out precisely because they do put these principles into practice. And nowhere do they do so as clearly as in Historic Cairo and al-Azhar Park.

As previous chapters have revealed, the interdependent strands of this singular AKTC approach include, apart from conservation and reuse of historic buildings, systematic documentation and interpretation of cultural assets, comprehensive mapping and infrastructure planning, the provision of housing, as well as facilities for education and health, employment and enterprise development and the forging of institutional support systems rooted in the local community.3 In all these areas, the record is not so much of extraordinary achievement, but rather of new pathways taken and consolidated, of human attitudes transformed and energies mobilized. The early success of the many-stranded ADAA Revitalization Project largely inspired UNESCO’s World Heritage Centre to launch its Urban Regeneration Project for Historic Cairo (UHRC) in 2010. The goals of UHRC were naturally different, focusing on the delimitation of the World Heritage Site and on associated measures of conservation and management. Yet the “Final Report” of the project saw fit to observe that

Preceding pages, walking to Azhar Park’s viewpoint overlooking the panoramic skyline of Cairo.

Opposite page, families in al-Azhar Park.

Above, a street with workshops in al-Darb al-Ahmar.
al-Darb al-Ahmar exemplified “the use of globally acknowledged best practices for urban regeneration”.

The interconnections that warrant such judgements will be fully explored in the two chapters that follow (and have been alluded to already in the preceding chapter by Geoffrey Salkeld). The outcomes of the different strands of the Darb al-Ahmar project have also been explored in detail by Jurjen van der Tas. The second chapter in this section will provide figures on Park footfall, ticket sales and sponsorship that indicate positive trends; these quantitative metrics can stand on their own. The third chapter, on the lessons learned, will stress the qualitative. Rather than provide a gloss on these findings, which would be superfluous, several positive human development outcomes that strike the present writer as significant in the human development context will be presented here.

Many of the impacts noted in the “First Report” of AKTC’s Parks Impact Measurement System (PIMS) of 2015 (on which Dina Shehayeb draws in her chapter below) are highly meaningful in human development terms. For example, the report describes the Park as a “breathing space”, as a “place to feel free”; that for teenage girls and young women it has become a refuge from the scrutiny of their parents and local community, whereas older women frequent the Park unaccompanied by their husbands, something that would rarely happen if they were going to any other park, while the men, as husbands, find that the Park’s presence reduces family disputes as it acts as an outlet for their wives, its spaciousness and openness being a rare quality in the increasingly congested and crowded city. Not surprisingly, the report also finds that al-Azhar Park functions as a venue that promotes social cohesion, thus directly contributing to the quality of life in the context of “a continued upward surge of the local economy” (albeit not all of this progress can be attributed directly or alone to the presence and use of the Park). Shehayeb underlines how heavily the Park is used, indeed “owned”, by local residents as a venue for social encounters of many kinds. Concomitantly, she stresses how the methodology of the Housing Rehabilitation Programme (HRP) promoted community trust, and raised awareness of key issues and of needed behavioural changes. She also underlines the heuristic value of other programmes, such as those offering micro-credit, or the Small Enterprise Programme that opened up new horizons, especially for women. Or the current efforts by Mezala, the local NGO that works on handicraft production and sales, notably in the wake of the disruptive events of 2011, which reduced tourism sharply, and whose most significant benefit is to show craftsmen how to reach potential markets (al-Azhar Park serves as the main showcase for these crafts goods).

So how exactly does such a panoply of benefits become meaningful in the human development paradigm espoused notably by the United Nations Development Programme (UNDP) and inspired by the “capabilities approach” first articulated by the economist and philosopher Amartya Sen in the 1980s? This approach made it possible to capture processes of transformative change that are based on dimensions broader and more diverse than just growth in per capita income. Sen’s concerns were several. First, that when evaluating well-being, the focus cannot be merely on means, in other words just on “how much” of some additional resource has been provided, but must also consider what particular people can do or have done with those means. In other words, that individuals can differ greatly in their abilities to convert the same resources into valuable “beings” and “doings” – or what Sen called “functionings”. A second concern was that any evaluation that focuses on subjective mental metrics alone would be inadequate. When the experience of deprivation is internalized by poor people, for example, we must also consider what a neutral observer would
perceive as their objective circumstances. Whether or not people take up the options they are offered, the fact that they have the options in the first place is significant. In other words, evaluation must be sensitive to both actual achievements (“functionings”) and effective freedoms. It is these effective freedoms that afford people various capabilities, notably the capacity to achieve the kinds of lives they have reason to value.\(^5\)

The twinned Cairo projects appear to have succeeded in generating just these sorts of effective freedoms. Their programmes have unfolded without either the forced removal of the local inhabitants or a laissez-faire approach that allows commercial developers to set the priorities entirely, outcomes that are common when it comes to historic city conservation. The emphasis on the local economy and the well-being of local residents has contributed to ensuring that only minor gentrification has occurred. The key question now is whether the dynamic set in motion by the projects will continue to favour rehabilitation without displacement and allow the residents themselves to identify the real priorities and take practical steps to address them. So far, judging from both the PIMS report and the lessons proffered by Dina Shehayeb, the projects have succeeded in preserving community continuity;
they have been successfully participatory in their design and management; perhaps most importantly, they have secured the commitment of young people, not just the girls referred to above, but also teenage boys. “To many families in al-Darb al-Ahmar, the Park serves almost as their backyard”, writes Shehayeb. These and other considerations allow her, while recognizing that the projects also have many observable shortcomings, to conclude that they have attained previously unattainable milestones.

Yet there has also been a downside. As the Park offers a new vantage point with spectacular views of Historic Cairo, it is also beginning to attract both foreign tourists and the inhabitants of Greater Cairo to what earlier was a neglected area. It is in this connection that the phenomenon of *path dependence* has operated, with negative consequences that even the most rigorous project planning could not have averted. Despite the previous avoidance of gentrification in al-Darb al-Ahmar, the political events of 2011, which swept aside the existing and albeit fragile regulatory and administrative frameworks, led to uncontrolled construction of incongruous multi-storey apartment buildings by real-estate developers keen to cash in on these panoramic views. Many of these high-rise buildings even replaced some of al-Darb al-Ahmar’s historic buildings. As Seif El Rashidi has written in his chapter: “For the first time in decades, even medieval monuments, normally zealously guarded by the antiquities authorities, saw towering buildings constructed abutting them”. Yet these new high-rises are mostly inhabited by locals who have benefitted from the economic improvements and have opted for better housing. In other words, they have been offered options, and they have had the effective freedom to choose what they wanted to do with the new means and conditions available to them.

Yet at the same time, AKTC’s legacy ought to be the inculcation of a robust urban conservation dynamic across government and civil society in Cairo. It ought also to include strongly established local ownership of the projects at all levels. Here the picture is not as positive as it might be. As in countless other settings across the world, political commitment and will are still lacking; there is no “community of resistance” at the grassroots level. Moreover, cultural governance everywhere relies on three dimensions or layers: transversal or inter-departmental governance, multi-stakeholder governance and multi-level governance. As regards the first, the record leaves much to be desired, while as regards multi-stakeholder governance the picture is far more encouraging, given the commitment of the local community and civil society organizations. Multi-level governance concerns the interface between municipal provisions and those of the central government, for which special negotiation and coordination mechanisms are always required. But these are to be found in very few cities indeed, and certainly not in Cairo.

Nevertheless, al-Darb al-Ahmar has shown that the adaptive reuse of historic monuments is cost-effective and helps rejuvenate the economic base, generating both income and employment, as well as tapping into increasing tourism flows. It has obviously not been an elitist commercial operation that disrupts both neighbourhoods and their monumental heritage, drives out the poor, dislodges the delicate relationships between prevailing economic levels, neighbourhood life, and “the monumental fabric that has existed nestled within it, albeit precariously”. Al-Darb al-Ahmar and the Park also appear to occupy a central place as a defining urban landscape of the city, as major assets to be recognized, preserved and enhanced through attentive public policies and public participation. They are mutually reinforcing their role in the preservation of memory, the conservation of architectural achievements and the valuing of places of significance and collective meaning.
New and high-rise buildings erected since 2011.

Newly built plot
- Less than 5 floors
- 5–6 floors
- 7–8 floors
- More than 8 floors

Other
- Added top floors (1, 2 or 3 extra)
- Newly built or high-rise building
- Street
- Monuments and Historic Wall
- Shiyakha
Greenery in al-Darb al-Ahmar.
In cities such as Cairo, however, it is crucial that there be a present-day urban planning imagination that can contribute to the sense of belonging and identity of each local population. In this sense, city form is as much an idea as it is an artefact, for it helps answer the questions: “Who are we? And where do we want to go?” Yet it is also important to remember that, in sites such as Cairo, the design of the built environment is largely informal and often unplanned. It is often a question of “architecture without architects”. Under today’s conditions of extremely rapid urbanization, notions of cultural belonging and sense of place are too often absent from the manner in which livelihoods and development are thought about. Newer imaginations of the urban need to incorporate dimensions of place on the one hand, complex histories and rhythms of life on the other. Citizens’ memory initiatives, oral histories of displaced, transient populations, snatches of conversation and footage with artisans of the everyday (the domestic help, the plumber, the carpenter, the electrician, the house painter, the oral storyteller) are all innovative ways of understanding, commemorating and celebrating the cultural everyday in our common lives. Such new imaginations of the urban also require thinking more deeply about the place of the citizen in public space, and in terms of the idea of the “commons” – of its meaning, location and dimension as lived experiences, as AKTC has sought to do in both al-Darb al-Ahmard and the Park. Enhancing the quality of urban life requires that the social and physical fabric need to be transformed in ways that are complementary to one another. Yet how difficult this is to achieve, when so much urban redevelopment goes forward in the absence of any true ethic of public investment and is dominated by the inequitable and the unsustainable. As the visionary sociologist and urban planner Patrick Geddes pointed out many decades ago, town planning is not merely place planning, nor even work planning. If it is to be successful, it must be folk planning. It is local communities that make places, not just architects or designers. The broader developmental challenge is thus as much about social patterns and cultural traditions as it is about built form.

Ten years after the opening of al-Azhar Park, there are solid grounds to expect principles such as these to endure in Cairo. It is the implementation of these principles that will be the lasting legacy of AKTC’s work, whose wide-ranging participatory approach has made it possible for such notions to be taken on board by a sufficient number of local people, activists, conservators and officials to constitute a critical mass of ownership, aspiration and commitment. It has been a record of good practice that is likely to inspire many others as well.

1 Posing such questions has also proved to be a valuable learning experience for the present writer, who, in early 2017, began work as Education Director for the Aga Khan Trust for Culture, tasked with developing a range of pedagogical products that distil the key lessons and learnings from its long and wide-ranging experience.


AL-AZHAR PARK
THE GREEN HEART OF CAIRO

SHERIF ERIAN

Al-Azhar Park has truly become the green heart of Cairo, with commanding views of monuments dating from the Fatimid, Mamluk and Ottoman periods, while its lakes and fountains are a centre of attraction for Egyptian visitors and foreigners alike. The creation of this Park may be ranked among the most important social and environmental projects carried out in Egypt in the last three decades. Its inauguration in 2005 marked a turning point in the lives of Cairenes as it offered them unique green spaces and architectural features in the middle of this busy metropolis and, over its twelve years of existence, it is hoped that it has gained a place in the heart of every visitor. Created as a development project for the district of al-Darb al-Ahmar (ADAA) and Historic Cairo, the Park has become a main venue for events for individuals and private, governmental and international entities. The goal of the Aga Khan Trust for Culture (AKTC) and the Park management is to offer the city a fusion of entertainment, culture and education.

Azhar Park can be considered to be a vast cultural asset that adheres to a consistent set of values offering its visitors the best available service in an atmosphere of tranquillity and security, all in cooperation with specialized services, and fully respecting the importance of human resources through continual training of the personnel and development of the Park.

THE PARK IN THE LIVES OF THE NEIGHBOURING COMMUNITY
The Park plays a vital role in the lives of Darb al-Ahmar residents, who enjoy its lush grounds and have access to its services at reduced rates. The Park management targets the community with awareness campaigns and capacity building programmes that offer training in life skills, soft skills, entrepreneurship and small business management courses for residents in the district seeking new skills, as well as initiatives for rooftop agriculture and crafts training. As a result of this commitment to the development efforts of the Park in the local community, thirty per cent of the Park’s personnel are recruited from neighbouring al-Darb al-Ahmar.

The Park is not a stand-alone project; it is part of a major programme encompassing many other initiatives aimed at enhancing the quality of life in the Darb al-Ahmar district. As the contents of this volume attest, the programme includes health services, mother and child services, training, career development and empowerment programmes for young people and women, in addition to rehabilitation and restoration of the built environment.
The Park project has illustrated how “cultural tourism” can play an effective role in transmitting messages about heritage and development. With a view to conveying this important message to the Park’s visitors, tours are organized in Fatimid Cairo that allow visitors to learn more about restored and reused mosques and the other monuments, together with the renovated infrastructure. These tours are guided by a group of trained employees who are al-Darb al-Ahmar residents. Aiming to maintain its role in the social and economic development of district residents, AKTC and the Park management helped create the Mezala Foundation for Social Development in late 2012. This service organization has since been receiving some core financial support from Park surplus.

**CULTURAL ACTIVITIES**

Among the cultural venues, the El Genina Theatre, built in an open-arena style facing the Ayyubid Wall, has played an important role in propagating art forms that help to enrich the cultural scene of Cairo. The management of this theatre was entrusted to a specialized organization. Several embassies organize festive events reflecting their own cultures, thus allowing local residents to be exposed to diverse cultures while raising awareness and nurturing mutual tolerance. Among such events:

- the annual festival of the Austrian National Day in cooperation with the Austrian Cultural Centre;
- the Chinese Spring Day in cooperation with the Chinese Cultural Centre;
- the National German Day in cooperation with the German Embassy;
- International Music Day in cooperation with the French Cultural Centre in Cairo;
- concerts in cooperation with the American Embassy.

Aside from these activities, various awareness events are organized in cooperation with local and international agencies with the goal of increasing knowledge about diseases and prevention programmes:

- Annual World Day for kidney patients;
- Annual World Day for diabetes patients;
- Annual World Day for liver patients;
- quarter annual awareness campaign for Hepatitis C patients in cooperation with the World Health Organization;
- quarter annual awareness campaign for Women’s Health in cooperation with the Ministry of Health;
- World Climate Day in cooperation with the Ministry of Environment and the Wisk Foundation.
COMMITMENT TO SOCIAL SERVICES
Regular social-service activities have acquired a major importance in the life of the Park. Every Tuesday, the Park opens its door free of charge to host NGOs caring for the aged, disabled or orphans, and patients with psychiatric problems. The organizations concerned plan activities that are appropriate for each category of guest. The Park offers a two-hour daily period before opening hours when Cairo residents can exercise without an admission charge. It also organizes free weekly training sessions for contemplation, meditation, energy boosting and physical fitness. For school students from all over the country, the Park offers its grounds for trips and picnics all year round and organizes free weekly workshops for children to learn and practice drawing, recycling, rooftop cultivation, play dough and clay. It also offers its premises for Egyptian TV channels to film their programmes on a tri-weekly basis. In addition, regular celebrations of a social nature are organized, such as the annual Orphan Day in cooperation with the Governorate of Cairo, NGOs and non-profit organizations. The Park also hosts university students from the Faculty of Engineering and the Faculty of Fine Arts for their graduation projects and provides them with needed support.

HUMAN RESOURCES
The Park has always paid careful attention to human resources and personnel so as to better achieve its goals. Park personnel are offered training and skill upgrades; two-way communication channels are always open; team spirit and teamwork are nurtured and encouraged; and delegation and empowerment are practiced at all levels. This attention to human resources has been reflected in the increased loyalty, low turnover and long tenure of employees. As for qualifications and selection, since the services and activities in the Park are essentially cultural and touristic, most employees in key
positions are selected with a background in tourism management, which means that they are competent in operational and hospitality aspects and capable of maintaining high-quality services.

**Al-Azhar Park Organizational Structure**

- Operations Department
- Horticultural Department
- Security Department
- Internal Supervision Department
- Maintenance Department
- Accounting Department
- Human Resources Department

**DEVELOPMENT AND UPGRADE IN SYSTEMS AND PROCESSES**

Over its twelve years of operation, the Park administration has modernized operating systems, improved many facilities and adopted cost-saving measures such as:

- an automated system for entrance gates to facilitate visitor entry;
- multiplying the number of public WCs to serve the number of visitors, which has reached two million annually and average 5500 per day;
- upgrading the children's play area and providing it with toys and games appropriate for different ages;
- constructing an extra entry gate on the northern side to facilitate visitor entry from al-Azhar Street and the newly built garage;
- providing Park visitors with three electric buses for visitor convenience;
- transforming a large portion of the irrigation network to a drip-irrigation system to save on water consumption;
- transforming ordinary lighting bulbs to LED bulbs;
- turning agricultural waste into organic fertilizers.
Although the maximum capacity of the Park is fifteen thousand visitors, it has had to accommodate crowds exceeding forty thousand on festive days, placing a heavy burden on management, maintenance and security personnel.

**CHALLENGES ALONG THE PATH OF EXCELLENCE**

No similar or equivalent parks have ever existed in Egypt. The lack of any previous local model represented a managerial and operational challenge. The Park management had to answer such fundamental questions as which strategies to adopt to achieve the Park’s goals; which management processes to follow to maintain the uniqueness and diversity of the project; and which qualifications to seek in its key personnel.

Another set of challenges was occasioned by the location of the Park, surrounded by the populous residential districts of al-Darb al-Ahmar, al-Gamaliyya and Manshiet Nasser, whose inhabitants may sometimes not be in tune with the goals of the Park. The question was how to preserve and develop such an asset within an environment that may not always be considerate to its value. Moreover, the Park management had to pay a good deal of attention to the issue of catering to the diverse needs of the mix of social strata frequenting the Park, without distinction or discrimination.
Youths watching a cultural event taking place in the plaza, located on the main spine inside the main entrance.

Maintaining the peacefulness and security of the Park has always been a top priority. This task is entrusted to competent security personnel together with external security companies, who cooperate to ensure the safety of visitors. This has been manifested in visits of VIPs and international personalities: repeated visits from the former first lady of Egypt, the presidential electoral conference of 2005, regular visits by ministers, visits by royalty and presidents, including His Royal Highness the Prince of Wales, His Royal Highness the King of Spain, Her Royal Highness the Queen of Belgium and the President of the Czech Republic.

WEATHERING FINANCIAL CONDITIONS
Despite the economic challenges that Egypt has faced since 2011, the Park never relinquished its commitment to remain the place of recreation for the modest-income populations of Cairo and for Darb al-Ahmar residents in particular.
The curfews imposed between 2011 and 2013, lasting for nearly six months, caused a notable decrease in the Park’s revenues. During this time, the Park management used the accumulated surpluses of previous periods to cover the deficit until the situation stabilized after the 30 June 2013 revolution. Since 2011, the economic situation obliged successive governments to increase the rate of the value-added tax together with a real-estate tax. In addition, subsidies on utilities have been reduced and hence prices of electricity, water and fuel increase regularly. Recently, at the end of 2016, the flotation of the Egyptian pound caused a surge in prices of all goods and services, raising all cost elements of the Park’s operation by 30% to 50%. However, the Park has managed to overcome these issues by controlling expenses.

To overcome the limitation in resources and revenues, the Park management is capitalizing on these uniquely beautiful premises and on creative potential to generate income from diverse sources. It has contracted a specialized
Above, shaded lawn in the vicinity of the Lakeside Café.

Right, visitors enjoying a late afternoon on the bridge giving access to the Lakeside Café.
A restaurant-management company to operate the Qal’a (Citadel View) Restaurant so as to target an upper-end clientele for higher profit margins. It has received sponsorship from various organizations, targeting multinational corporations for their marketing events and renting sales outlets to provide services to Park visitors. An area of five thousand square metres is allocated for non-permanent fairs, concerts and special events. The film and theatre industries were also approached to encourage them to use the Park facilities for their productions. Recently, the Park management has started constructing three large billboards overlooking Salah Salem Road to be rented to advertising agencies.

THE PARK IN THE AFTERMATH OF TWO REVOLUTIONS

The events that followed the revolution of January 2011 placed a heavy burden and considerable challenges on all sectors of the Egyptian economy and society. The Park was no exception. The breakdown in security services necessitated stronger oversight over visitors who did not abide by Park rules. Changes in visitor behaviour led to a number of verbal and physical disagreements that were dealt with by Park security personnel. The Park’s management provided more advanced training programmes to its personnel to improve skills in dealing with such situations. Courses in communications and crisis management skills, as well as customer service, were included in the programme, which has proven very effective in boosting the personnel’s competence.

In response to the escalation of strikes and labour demands that spread throughout the country during post-revolutionary times, the Park prevented actions that might have instigated strikes by opening direct communication channels with the personnel and updating them with the reality of the situation in full transparency. Furthermore, the Park administration did not follow the example of many Egyptian employers who reduced their personnel or decreased wages.

In addition, the Park management quickly adopted the minimum wage law and the annual increases stipulated in Social Insurance Law No 79 for the year 1975, which increased the social insurance bill for both employer and employee.

COOPERATION OF AL-AZHAR PARK WITH THE EGYPTIAN GOVERNMENT

After the Aga Khan Trust for Culture created al-Azhar Park, and based on the cooperation protocol of 2004 with the Cairo Governorate, a strong relationship was established with the deputy governor for the Western District and the Mid-Cairo District. After changes in the Park’s administration in 2009, and during the following eight years, this relationship has witnessed further improvement and there is full clarity in terms of each party’s role. This came as a result of the Park’s effort to improve the relationship and to underline the necessity of non-intervention in the Park’s management. Hence, the administration was successful in maintaining the Park’s elegance and unique outlook as compared to other parks in Egypt, as well as increasing its financial revenues, which, in turn, provide sums to the Cairo Governorate Services Fund.

After the revolution of January 2011 and in the midst of changes and drastic alterations in the state’s leadership, the Park maintained strong and positive relations with the different Cairo Governorate departments, to the extent that the Park was considered among the safest places for the Governorate to store some of its assets and vehicles during intervals of tension and unrest.

After the revolution of 30 June 2013 the situation improved considerably. The leadership was aware of how important the Park’s role was in the cultural, entertainment and social domains for Darb al-Ahmar residents in particular and Cairo residents
at large. The Park has thus maintained close ties with most Egyptian government authorities and ministries.

The relationship with the Ministry of Antiquities has developed since that time, and has included many agreements and protocols aiming to restore Mamluk monuments overlooking al-Azhar Park. Lighting systems attached to minarets help create a remarkable panorama for Park visitors. Upon completion of the works, the monuments are handed over to the Ministry of Antiquities’ personnel to be put to use for residents after years of closure. This cooperation was crowned by a protocol with the Ministry of Antiquities at the end of 2015 to undertake the maintenance of all the monuments restored by the Aga Khan Trust for Culture to ensure their sustained protection from damage or abuse. A new project with the Ministry of Antiquities is currently in its initial phase; it involves the restoration of al-Maridani Mosque (phase 1), which is among the largest Mamluk monuments in the Darb al-Ahmar district.

Several protocols were signed with the Ministry of Endowments to cover the handing-over of mosques restored by AKTC in order to resume religious practice in them after years of closure. In addition, a protocol was signed with the ministry granting a right of use for the building at 69 Darb Shoughlan as premises for the First Microfinance Foundation (FMF) and the Mezala Foundation.

Cooperation is proceeding with the Ministry of Culture in the domains of festivals and cultural events, the most recent of which was the inauguration of a mobile bookshop in the Park, which has been operational since July 2017.

A robust cooperation was started with the Ministry of Trade and Industry through agreements between the Industrial Development Agency (IDA), the Industrial Training Centre (ITC) and the Egyptian Crafts Project to support the Mezala Foundation’s work in its aim of developing and marketing traditional crafts. The agreement covers the provision of Egyptian and foreign trainers to the Foundation and the placement of graduates of general crafts training programmes (plumbing, carpentry, etc.) in jobs within industrial enterprises. In addition, various development projects for al-Darb al-Ahmar were executed by the Park in cooperation with the Social Fund for Development (SFD).

The cooperation with the Ministry of Education is ongoing through the revision of training programmes, curricula in traditional and general crafts and the endorsement of relevant certificates by the ministry.

Reference should be made to the Park’s cooperation with the Ministry of Social Solidarity following up on Mezala Foundation activities related to development plans set in al-Darb al-Ahmar and the organization of crafts fairs and activities inside al-Azhar Park.

A most notable cooperation is the one established with the Ministry of the Interior, represented by the Cairo Security Directorate, establishing a fixed security point that has been crucial in preserving security. This activity usually intensifies during public holidays and festive events.

Furthermore, al-Azhar Park coordinates with the Ministry of Finance in remitting new taxes imposed on the Park and resolving any problems in this area. And last but not least, the Park operates in coordination with the Ministry of the Environment, which considers the existence of al-Azhar Park – one of the largest green areas in the urban metropolis – instrumental for climate preservation in Cairo. Mezala Foundation is also involved in environmental enhancement with its programmes in favour of rooftop agriculture. It supports the environmental awareness of Darb al-Ahmar’s residents and cares for the cleanliness and preservation of their environment and the important monuments in their district.
UBERAN REDEVELOPMENT LESSONS LEARNED

DINA K. SHEHAYEB

Through its project in Historic Cairo, the Aga Khan Trust for Culture (AKTC) offered a model for future interventions based on socio-economic sustainability of the intangible heritage instead of the more conventional approaches to heritage conservation. While most scenarios only see the modest residents and artisans as obstacles to urban growth, with gentrification as the only solution to economic revitalization, in this project the value of the historic area included people’s vocation and lifestyle as part of the identity of the place: part of the “living” heritage. The synergy between people and place was considered an asset and one of the challenges was to make the local community realize that as a value. With hardly any visible societal appreciation of Historic Cairo’s heritage, the local community perceives little more than the social value of the neighbourhood. Institutional support to safeguard the historic fabric was missing, and higher tiers of Egyptian society hardly ever visited al-Darb al-Ahmar (ADAA); the message to the local community was that both the people and the place were unworthy of attention. This was one of the biggest challenges facing the AKTC project; a challenge that could only be overcome by tangible evidence, and that is what the project provided to the local community.

The Housing Rehabilitation Programme (HRP) was one of the pioneer programmes in the area, aiming to secure tenure, improve living conditions and preserve the valuable urban fabric. The initial phase of research revealed that the project should aim to keep the existing community and attract back residents who had previously left, rather than adopt the more conventional compensation and relocation scenario followed in other parts of Historic Cairo. It taught us that economic and social sustainability depend greatly on keeping the higher-income tiers of the local community from moving out to remote areas, whether formal or informal neighbourhoods. Their presence – living and working in the area – sustains the livelihood of the more modest residents and preserves the shared lifestyle that all income tiers share together. The HRP was the most well-received and highly appreciated programme in the project.¹ Several reasons lay behind its success. It was founded on a solid scientific basis of studies that explored the lifestyle of the area’s residents, revealing the everyday life activities of different age groups, as well as what residents value most in their homes and neighbourhood. This was important to know: first, so that none of the valued tenets would be accidently disrupted by any intervention; and second, to reveal elements and activity patterns that residents would want to contribute to improving. The outcome of these studies sensitized the project team towards the integrative nature of the built environment and people’s behaviour; and it permanently made the
project team respectful of people’s activity patterns, considering them in all spatial interventions, whether in the refurbishment of public spaces or in the rehabilitation of the housing stock. This was one of the biggest lessons learned, guaranteeing both relevance and appropriateness of the interventions to the local community, as well as sustainability of the results after the project lifetime.

Participatory design was applied at different stages of the HRP during the design phase as well as during implementation. Adopting this approach reinforced people’s sense of ownership towards the improved environment, assuring once again the sustainability of the interventions, as well as gaining community trust. The second advantage of the participatory approach was that communicating with the residents was used as a venue to raise their awareness to the benefits of minor interventions that enhance health, such as introducing ventilation in windowless rooms, or adding kitchenettes with a clean water source. It also helped by way of advising residents as regards some behavioural changes that would minimize building deterioration, and provided the physical solutions to support this change.

There are three other lessons to carry away from the HRP as it was implemented in al-Darb al-Ahmar: matching funds granted rather than giving out “freebies”, demand-based intervention, and a bottom-up approach to programme development. Adopting a matching funds strategy as a financing mechanism rather than full-grant covered rehabilitation was yet another way to guarantee sustainability of the interventions. The studies conducted provided information concerning the residents’ ability and willingness to contribute to improving their homes. Exploring the problems that residents perceived in their buildings, previous investment in home improvements and services needed from the project helped determine which items residents cared about – and therefore would pay for – among the scope of work and which, instead, would be left for the grant to cover (people cared more about interior
finishing and functional aspects, such as plumbing and electrical wiring, while grant money covered external facade finishing and hidden structural repair. The only case in which housing rehabilitation was implemented solely on a grant basis, it was subsequently utterly transformed and not sustained. This happened to a string of deteriorated unoccupied buildings in a dead-end alley along the Historic Wall (Atfet Asaad) that AKTC project management decided to rehabilitate as a “showcase”, to convince the Supreme Council of Antiquities (SCA) then of the virtue of keeping the heritage buildings along the Wall rather than demolishing them. Because speed was a necessity and those buildings were abandoned, rehabilitation did not follow the HRP process outlined above. Today, these houses are now heavily encroached.

Another special feature of the HRP was that rehabilitation was effected upon demand: it would be requested by occupants of the building, whether tenants or partial owners, who would come forth and, collectively, sign an application for rehabilitation. This demand-based approach ensured desirability and relevance and, most importantly, increased the possibility of resident compliance and commitment to paying their shares, as well as the actual amount they contributed towards the repair costs. This difference is evident when comparing occupant contribution in the first ten buildings in which housing rehabilitation was still being introduced to the community (initiated and selected by the project: contributions were 8%–14%), and the remaining 109 cases where occupants paid for up to 50% of the repair cost. Other programmes in the project – such as the Micro-Credit Programme, Training and Skill Enhancement Programme, and Small Enterprise Programme – were available to HRP applicants to assist them in repaying the loan portion of the repair costs in monthly instalments.

The HRP manual was developed incrementally, delineating the financing mechanisms that covered the various possible scenarios of resident contribution to building rehabilitation costs, and procedures of implementation covering the legal, social and administrative aspects of the process. This bottom-up approach to programme

Above, a craftsman at work in al-Darb al-Ahmar Street.

Left, drawing classes for al-Darb al-Ahmar children in the Darb Shouhlan Community Centre.
development succeeded in developing a programme that is feasible and sensitive to the local conditions of property ownership and tenure arrangements at community and institution levels. Unfortunately, long-term funding for the HRP was not secured and it was subject to the short-term procurement of changing donor funding. The programme was terminated in 2009 while there was still a flood of applications coming in from the local community. During its lifespan from 1998 until 2009 more effort should have been spent by the project in institutionalizing the process and mainstreaming it into the operating urban management and finance systems of influential state actors, such as the Cairo Governorate, Ministry of Housing, Utilities and Urban Development, Ministry of al-Awqaf (endowments) and SCA.

There was a missed opportunity here to have government institutions develop regulations that encourage the process of the HRP as a housing policy for addressing existing housing stock suffering similar conditions in historic city cores nationwide; the potential replicability was high. Rehabilitating the housing stock could easily have been an engine for economic revitalization of the entire area if it had been more widely implemented. Occupants of rehabilitated buildings recognize their economic benefits compared to modern construction: saving energy consumption thanks to passive heating and cooling, sustaining neighbour relations that translate into free childcare and other solidarity activities, as well as efficient utilization of space. At the area level, if a large portion of the heritage urban fabric had been rehabilitated so that it would be visible to outside visitors, it would have served as an attracting, instead of a repelling, factor. In the absence of all this, current mandates of al-Awqaf, the weakness of local government in enforcing zoning regulations, the unharnessed financial gains of demolishing and replacing heritage buildings with modern apartment high-rise buildings are all too tempting. Consequently, landowners, encouraged by the housing demand from the local community (for housing their children), along with resourceful local contractors, have led the rapid transformation that set a precedent, and makes it harder to stop neighbouring properties from doing the same.

Apart from housing, there is a heuristic value in reflecting upon the implementation of the other programmes ventured by the project. The Micro-Credit Programme was an enabler as long as loans were utilized in income generating, or income-enhancing activity. It worked well coupled with the Small Enterprise Programme that widened the horizons of the already practiced Home-Based Enterprise tradition, especially for women. For business owners, it was closely tied to the Training and Skill Enhancement Programme that opened up their scope of work through enhancement in technical know-how, as well as in business administration and marketing domains. These programmes were well grounded in baseline surveys and post-implementation surveys that included quantitative and qualitative measures of gains and impact. Those studies were a built-in feature of the AKTC project and they helped in identifying problems, needs and priorities. The project leaders had the self-confidence to listen and learn; to revise directions and adjust programmes to better meet the articulated needs; and to more effectively address the reasons behind problems.

The current efforts by Mezala, the NGO founded to sustain some of the project activities, are channelled towards saving the traditional handicraft production and sales. The sharp decline in tourism witnessed by Egypt since 2011 hit workshops hard in al-Darb al-Ahmar, where most of the traditional handicraft products sold in the renowned Khan al-Khalili Bazaar are produced. The handmade production of furniture, woodwork, forged metalwork, leather shoes and bags, as well as miscellaneous clothing, is also suffering a decrease in the buying power among Egyptians in general. The spatial transformation of the city, with peripheral growth away from city centre,
widens the divide between upper-income Egyptians and Historic Cairo. This has led to a shift in production to suit the local market in the vicinity, starting a spiral effect of reducing quality in order to reduce price, so as to be affordable to the impoverished local community with continually decreasing buying power. Efforts in seeking and creating remote marketing venues for high-quality products needs to be better supported by Mezala and the circle of beneficiaries widened to include all high-quality producing workshops to avoid the current downward spiral.

Showing craftsmen how to seek and reach potential markets is still one of the biggest contributions of the project. Al-Azhar Park serves as a main venue for showcasing the handicrafts produced in neighbouring al-Darb al-Ahmar. The local business community perceives multiple economic values in al-Azhar Park. Business owners can see how advertising can serve the “living” heritage in al-Darb al-Ahmar. In a study about the Park impact, they proposed that the Park advertises craftsmen and workshops, as well as monuments, with the aim of drawing visitors to walk through the district, not just act as a selling portal. Suggestions to achieve this goal included:

- developing a visitor’s map that is distributed in the Park;
- activating the gates and developing several connecting visitor routes between the Park and the Khan al-Khalili Bazaar passing through al-Darb al-Ahmar, encouraging Park visitors to interact with the Historic Ayyubid Wall;
- and finally, multimedia displays of al-Darb al-Ahmar in the Park (projections on the Historic Wall, or on LCD screens).
However, the potential of the Park to contribute to neighbourhood economic revitalization has not yet been fully exploited and the reasons deterring that are beyond the project, lying in local and central government views. The fear of SCA to jeopardize the renovated Historic Wall and monuments, coupled with the tendency to limit access between the Park and the neighbourhood on unfounded security concerns, has thwarted many possible ideas, such as open museum walks, boutique hotels, rooftop restaurants and traditional cultural activities in that interface zone between Park and community.

However, many more positive lessons can be drawn from the AKTC project implementation in al-Darb al-Ahmar. Programmes oriented towards services, such as education and health, raised the awareness of local community members to a large extent. Discussions with community members highlighted that the problems
are more qualitative than quantitative in nature. Strategies tried out in different programmes provided frequent lessons, either in the provision of an alternative service, or simply in the innovative ways of providing it. For example, in the Health Programme, the most significant tool was the hotline for rapid anonymous advice in any domain of well-being. This instrument met an unanswered need that radically changed the health-seeking behaviour of women and girls. They asked about issues they would never have raised otherwise, many of which were related to sexual health.\footnote{Programmes tried out in the education sector refuted myths about parents restricting their children, especially girls, from participating in recreational, cultural and social activities. Because the programmes were well organized and administered by qualified and trustworthy individuals, girls were free to do many activities inside and outside the neighbourhood as long as parents perceived that their children were safe from harassment or any form of humiliation.}

One main strength of the project was the belief in incremental piecemeal intervention. This approach fits perfectly with how the local community actually operates; buying, selling, maintaining or sharing takes place incrementally and continuously. The local community has the potential and desire to participate in improving and saving its heritage lifestyle and the places that mean something to it, in kind and financially. A monument, such as al-Maridani Mosque, esteemed by the local community, is where initiating participation in monument conservation can start. It is with pride that Hagg Atta, the upholstery maker, working and living in al-Darb al-Ahmar since birth, shows me around the mosque, pointing out the intricate woodwork and painted ceiling. This sense of collective ownership towards a place can be capitalized upon and, if restoration work is packaged in modules and well articulated, community participation can be mobilized whenever the conditions are there to implement them (political, financial, administrative). The coordination between the different modular, ready-to-implement interventions should be clear at the central level of governance, where policy, accompanied by a resilient overall management plan, enables such participation, and helps survive the turnover of high-level officials so typical in Egypt. Another lesson learned is that monuments differ in their perceived value among Literacy classes in al-Darb al-Ahmar.
the local community, some because of their association to a revered religious figure (Fatma al-Nabaweyya Mosque), some as an aesthetic backdrop for daily life (Umm al-Sultan Shaaban complex), and others for their function as a community centre (al-Maridani Mosque). This domain is yet to be explored in depth in order to raise awareness and unblock the potential for adaptive reuse and other venues for social and economic sustainability.

AKTC has the chance once again to influence city-scale enabling policy towards heritage conservation. Now that several monuments have been restored, AKTC is again assisting the Ministry of State for Antiquities (MoSA, former SCA) in how to manage and maintain these monuments. The time is ripe as, in 2014, UNESCO-WHC presented the government of Egypt with the Historic Cairo Management Plan based on the four-year Urban Regeneration of Historic Cairo URHC project that brought together five of the most influential government actors through institutional reform, capacity building of employees, and setting survey parameters and databases. AKTC can build upon such efforts and target institutionalization of much of its previous efforts in the different domains necessary for conservation and revitalization of historic areas.

Documentation is essential in order to make use of such an epic project. While monitoring and evaluation were embedded in the active phases of the AKTC project lifetime, it did not survive well in the more visible documentation and dissemination venues of the project. Being such an interesting and unique project, AKTC’s work in al-Darb al-Ahmar appears in many academic publications, both locally in Egypt and internationally. However, these publications by researchers who have not necessarily worked within the project do not portray a comprehensive picture and remain fragmented, to say the least, dependent on researchers’ interpretations and limited by the data they gained access to. Regular documentation and systematic monitoring was not transferred as a work culture into Mezala and needs to be reintroduced and activated until it becomes part of the project sustainable legacy. Another important factor that was gradually lost is the acknowledgement of people-place synergy. Those living and working in the neighbourhood feel it and live it, yet it goes unrecognized by the society at large and many who take upon themselves the rehabilitation responsibility. It is important to bring this dimension back to the surface, especially with the rapid transformation of the urban fabric and the drivers behind it.

Whereas the continuing project programmes within al-Darb al-Ahmar need more effort to reach aspired results, the realization of al-Azhar Park has already changed the life of residents significantly. The Park is heavily used by residents of all ages from nearby al-Darb al-Ahmar. Before its inception, residents of popular districts, such as al-Darb al-Ahmar, visited other city parks on certain public holidays, such as the Bairam and al-Adha Feasts, and Sham al-Neseem, the Egyptians’ celebration of the advent of spring, practiced since ancient times. Families would plan those outings weeks ahead, bringing food to cook on expanses of faded greens where children could run and play in unconstrained space. Al-Azhar Park brought with it new meanings to park-going for Cairenes. It introduced beauty, knowledge and respect of nature to the encounter with more “greens”. It offered an “opportunity to meet” that crossed the socio-spatial divides of its twenty million plus population. With its central accessible location, exquisite aesthetic qualities and inclusive management policies, al-Azhar Park provides a formula that is unique and valuable to a wide variety of people. To residents of al-Darb al-Ahmar, the proximity of the Park, the direct access from the neighbourhood and the special reduced fee assigned to its residents nurture a sense of ownership that is much appreciated.
Youth from al-Darb al-Ahmar of both sexes, especially teens, are frequent visitors. Teenage girls are allowed to go to the Park unattended by brothers and parents, who highly appreciate the safe access from the district as an alternative to walking the more public streets, or risking harassment on any means of transportation. Some teenage boys go on a weekly basis, whether after work (for those who are craftsmen), or after school, and in summer there are those among them who go daily. When asked if they participate in any vandalizing actions in the Park, they replied that al-Azhar Park was their mirror to the outside world, to visitors from high-class neighbourhoods,
so that no matter how mischievous they can sometimes be, they would never risk spoiling the chance of being perceived as civilized citizens. One ten-year-old child, who lives in one of the houses along the Historic Wall, related how he knows the different plant species in the nurseries, how he brings flowers to his mother every day in spring, and how he catches frogs in the season. To many families in al-Darb al-Ahmar, the Park serves almost as their backyard. Many families receive their relatives in the Park. One inconvenience is that they are not allowed to bring food in and have to eat from the assortment of food outlets available. The Park management opened kiosk-like stands to provide fast food that is less expensive than the cafés and restaurants it hosts, yet the Darb al-Ahmar residents were still asking for a wider variety of less expensive snacks and free drinking-water outlets.

Al-Azhar Park and the ADAA Revitalization Project were subject to much attention and debate nationally and internationally. There is standing criticism that the Park could have been more accessible and inclusive, that the development projects in the neighbourhood could have been more sustainable, that the historic buildings and heritage fabric conservation efforts should have been mainstreamed. Yet, after all that is said, this project by AKTC has redefined historic area conservation and revitalization; it has applied a new approach of combining physical rehabilitation with
socio-economic revitalization to its fullest; it has integrated tangible and intangible aspects of heritage and strictly avoided gentrification. No matter how sustainable the impact is or not, the milestones that were met in this project had never before been attained in the field. The integrative methods grounded in scientific rigour, yet sensitive to the dynamics of real life, remain avant-garde. Al-Azhar Park, meanwhile, set new standards for urban parks, and new meanings for park-going; not only unprecedented in Egypt, but in many countries worldwide. Yes, there are many lessons to be learned in order to further improvements next time around, but that does not diminish the worth of this project in academic advancement and in worldwide practice. AKTC is already applying many of these lessons in its other ventures in other cities. May they exceed the success they achieved in Cairo in enhancing the value of past and present human endeavour.

6 G. Salkeld, interviews with Mezala staff on 17 January 2017.
7 Shehayeb et al., *Living and Working in Historic Cairo* op. cit.
9 Families who were involved in any of the ADAA Revitalization Project programmes may be using the Park more. See Shehayeb et al., “Measurement of the Park Impact on Catchment Area” op. cit.
Alin Aq Palace

HISTORY OF THE BUILDING

To understand the importance of Alin Aq Palace, built in 1329–30 by the cup-bearer of the long-reigning sultan al-Nasir Muhammad, one must think of its proximity to the Citadel, the Mamluk seat of power, and of the fact that it is prominently located on the main thoroughfare connecting the Citadel and the city. In Mamluk times, this would have been a processional route, well frequented by the court.

Unlike medieval mosques that have been sustained across the centuries through piety, medieval Cairene palaces have fared less well, and although this one survived into the modern period, it did so in a ruined state.

Fortunately, enough of its superstructure survives to enable an appreciation of the original appearance of the building, particularly the gigantic scale of a surviving upper-storey reception hall (qa’a). In its heyday, this must have been a truly magnificent edifice. Evidence of its ownership history can be seen in the surviving entrance-way, which bears the emblem of a cup, referring to the courtly position held by Alin Aq al-Husami (sometimes also referred to as Alnaq).

The lower storey of the structure is constructed of large monolithic blocks, a clear reminder of the political instability of the Mamluk period, which made solidly constructed princely residences a necessity.

Because of the palace’s strategic location, it remained in use for centuries. One of its later occupants was Khayrbek, a shrewd and ambitious courtier who built his religious complex next door in the early sixteenth century.

WORK UNDERTAKEN

When AKTC launched a scheme to restore the building, it was in semi-ruined condition. Its upper storey, which had long lost its roof, was in a particularly precarious state. The soaring central space of the qa’a and its flanking iwan’s required consolidation, and there was a substantial amount of mortar repointing required to ensure its longevity. The sheer scale of the building made this a monumental endeavour.

Although the form of this grand qa’a was clear, evidence of the original appearance of the rest of the building was scanty, as were remains of its finishings and fittings. AKTC’s approach was, therefore, to undertake all measures to stabilize the building but not to reconstruct it.

On the lower storey, what had once been stables and storage areas were generally in better condition, but still required a range of interventions, from basic cleaning and removal of debris, to more sensitive work to remove the effects of long-term misuse and neglect. One area that required fine conservation work was the portal, which retained a high level of decorative detail, lost in the rest of the building.
Above, first-floor residential spaces, prior to conservation.

Below, ground-floor plan with new tiling.
Above, longitudinal section through Alin Aq Palace.

Below, the north facade (left) and the ground floor (right) of Alin Aq Palace after conservation.
The completed scheme has ensured the future survival of this monumental residence, and rendered the building in a usable state.

Conservation design and preliminary studies in Alin Aq Palace introduced the resident conservation team to the challenge of archaeological conservation of a built structure. The remains of the palace were not only ruined, roofless and had lost all decoration, but the monumental Mamluk stone structure was also in bad condition. The approach was based on the criteria of minimal intervention in the objective of bringing back its stability without compromising its archaeological authenticity. Structural stabilization of the remains was carried out using traditional techniques, such as stone masonry with local repairs using a similar type of stone materials, while a system of timber bracing was established at the wall tops to guarantee lateral stability. Historic plaster remains were stabilized via grout injection and no attempt was made to re-establish decoration. A gentle soft cleaning was finally implemented to visually integrate the repairs with historical parts.
Aqsunqur Mosque

HISTORY OF THE BUILDING

This mosque was built in 1346–47 by Amir Aqsunqur, a son-in-law of the Mamluk sultan al-Nasir Muhammad. A mausoleum for some of the sultan’s deceased children already existed on the site, and was incorporated into the structure, resulting in some irregularities in the plan of the building.

This is one of the larger courtyard mosques of Cairo, and the medieval chronicler al-Maqrizi notes that Aqsunqur was so involved in the project that he helped his labourers move mounds of earth on the building site with his own hands. Apparently, he was so absorbed in this process that he would often forget to stop to have his meals.

One unusual feature of the mosque is the fact that some of the arcades comprised cross vaults supported by stone piers, rather than columns and arches as was the convention in Egypt. This detail was almost certainly inspired by the Great Mosque of Tripoli in modern Lebanon, where Aqsunqur had previously been governor.

Unlike most Cairene mimbars (pulpits for the imam), which are in wood, the one in this mosque is made of a number of different types of coloured marble. Classical vegetal scrolls decorating the mimbar are a reminder that Mamluk art was an assimilation of many traditions.

In the mid-seventeenth century, the mosque was appropriated by Ibrahim Agha Mustahfazan, an important courtier who redecorated the building in the Ottoman style, namely by adding expanses of Iznik-style tiles to many of its interior surfaces, especially the qibla (Mecca-facing) wall. Land in the city centre was at a premium, and this sort of intervention was a cheap and easy way of having a large mosque associated with one’s name without having to build anything. Ibrahim Agha Mustahfazan’s tiles have given the building the popular epithet of the “Blue Mosque”, and earned it a place in every Cairo guidebook, as well as on most tours of Historic Cairo. Unfortunately, a serious earthquake in 1992 caused damage to this important landmark, along with many other buildings in the city. It was in need of a comprehensive restoration programme.

WORK UNDERTAKEN

When AKTC began restoration of the mosque, there were serious cracks in many areas, including the main dome above the mihrab and the tomb of Ibrahim Agha Mustahfazan, a lavishly decorated space with coloured marble panelling topped by Ottoman tile work. As stated above, the building had greatly suffered from the 1992 earthquake and some temporary steel shoring had been in place since then. Structural reinforcement using steel anchors was necessary, as was the repair of the...
Above, general view of the roof and minaret after conservation.

Below, a conservator at work retouching the painted decoration in a wooden band.
entire surface of the roof. Recording devices had to be installed to monitor building movement, and damaged areas of stonework were carefully replaced.

One of the successes of this scheme has been the conservation of the architectural detailing and ornamentation. For example, the cleaning of the stonework revealed the original decorative treatment of the facades’ alternating bands of red and white stone. Thorough intervention was also needed in Mustahfazan’s mausoleum, involving the stabilization of the marble and tile work, presenting the beautiful space to its own best advantage.

**TECHNICAL CHALLENGES**

The Aqsunqur Mosque conservation project, implemented between 2009 and 2012, was the ultimate project and largest in size carried out by the conservation team in Cairo. The mosque had been vacated from religious use following the 1992 earthquake. While structural reinforcement of the building was a prerequisite to be able to remove temporary shoring in the main arches, the main scope of intervention concerned the intricate decoration made of polychrome stones and marbles, blue Iznik tiles and painted ceilings. Gentle cleaning of all exterior facades and courtyard elevations revealed the original decorative pattern of the facade alternating bands of red and white stone, including marble incrustations. In the interior, the level of deterioration of the polychrome marble panels in Ibrahim Agha Mustahfazan’s mausoleum due to capillary rising damp made it necessary to dismantle and reassemble a significant number of broken panels. Conserved with grout injections, poultice cleaning and integration of lacuna, the interior decoration is now well preserved and presented in an integrated manner.
Opposite page, the roofed prayer space of Aqsunqur Mosque and the qibla wall adorned with blue glazed tiles in the background.

Top left, the open courtyard of Aqsunqur Mosque and its minaret.

Above, the mausoleum of Ibrahim Agha Mustahfazan after conservation.

Left, the ground-floor plan of Aqsunqur Mosque.
Aslam al-Silahdar Mosque

HISTORY OF THE BUILDING

Built in 1344–45 by Baha’ al-Din Aslam al-Silahdar, the sultan’s sword-bearer, this mosque was constructed during an architectural golden age and bears witness to Cairo’s importance as a magnet for skilled artisans from across the Islamic world. Its most distinctive feature in this regard is the decorative tile work on its dome, the work of craftsmen from Tabriz, in Iran, who came to Cairo for a brief period to work on Sultan al-Nasir Muhammad’s own buildings, and were commissioned by courtiers such as Aslam as well.

A second notable feature is the magnificent marble-work panel above the main entrance, similar to the elaborate textiles that have been made in Cairo for at least a millennium, and are still hand-stitched today in the nearby tentmaker’s market.

The mosque interior is an uncommon combination of two usually distinct typologies in Cairene architecture: the first comprising rows of arcades and the second consisting of four vaults around a central courtyard. Reused Roman columns are a reminder that Cairene builders were as resourceful as they were ambitious.

Like other Mamluk buildings, this one was built in phases, reflecting the patron’s evolving career: the mausoleum was constructed first, followed by the mosque and minaret (although the current minaret is a replacement from the Ottoman period). What is remarkable about this building is its continued use as a community mosque for eight hundred years, thanks, in part, to its location at the intersection of several thoroughfares in the heart of a closely knit residential neighbourhood.

WORK UNDERTAKEN

Untouched by significant conservation work since a campaign by the Comité de Conservation des Monuments de l’Art Arabe in the early 1900s, the Trust identified that the mosque was in urgent need of repair, and launched a comprehensive conservation scheme in 2006.

The preparatory work began with thorough architectural and photographic documentation of the building, followed by detailed analysis and research into its condition and state of preservation. The scheme addressed both the structural issues and the conservation and restoration of all the decorative features, revealing their outstanding aesthetic qualities hidden for years under layers of dust.

A number of highly skilled conservators, craftsmen, architects, engineers and workers were involved in the project, and others trained during the process. The scheme restored the architectural integrity of a fine Mamluk building that had suffered from insufficient funds for repair and a history of small-scale periodic patching up that had detracted from the unified spirit of the imposing edifice.
The ribbed cupola with its circular glazed-tile inscription band after conservation.
Cross section of the mosque looking south, drawing as built.
Above, Aslam al-Silahdar Mosque after conservation in its urban context.

Left, a conservator at work cleaning and conserving an inlaid Mamluk door.
Given the building’s community significance, both as a meeting place and as a place of prayer, this restoration project has been warmly received by local residents, who recognize that they are its primary beneficiaries. The cornerstone of their communal life has been restored, and has subsequently led to the Trust upgrading the whole area around it. Almost a decade after the project’s completion, the mosque is well cared for and maintained by its congregation.

The Aslam al-Silahdar Mosque conservation project, implemented between 2006 and 2009, built upon previous experience gained by the team in transitioning from the Umm al-Sultan Shaaban Mosque project. The religious usage of the mosque was not interrupted during conservation work. Due to the compact dimension of the building, all procedures and stages were performed with great attention to the details. Initial architectural surveys included all secondary systems, such as historical doors and stucco carving, and mapped all deterioration, such as cracking, settlements, losses and modern additions. There was, however, only local structural damage, so work focused on intensive material conservation of the decorative elements. Accumulated dirt and dust were cleaned on the exterior facades using poultice and hand tools. The interior courtyard elevations covered with stucco carvings and plaster were subject to grout injections, stabilization and manual cleaning. Running around the drum of the ribbed dome, an inscription band made of coloured glazed tiling was covered with dirt and was detaching from its supporting wall. After each detached area was stabilized and the inscription band cleaned, missing decorative elements were reintegrated with reversible colours to provide better visual integrity.
Opposite page, Aslam al-Silahdar Mosque south facade and the socially vibrant rehabilitated Aslam Square.

Above, the ground-floor plan of the mosque, drawing as built.

Left, elevations of the Mamluk mimbar adorned with inlaid wood panelling.
Khayrbek Complex

HISTORY OF THE BUILDING

The earliest part of the Khayrbek complex is its imposing mausoleum. This was built in 1502, shortly before the Ottoman conquest of Egypt by a man who was to betray the Mamluks, allowing the Ottoman army to win in return for the governorship of Egypt. It is an elegant structure, the stone dome entirely decorated with a lattice design superimposed on an elaborate vegetal pattern. It was one of the last examples of a tradition that had developed since the early fifteenth century, one of Mamluk Cairo’s most impressive architectural achievements.

The mosque was built in 1520, after Khayrbek had taken the reins of power. It is a most unusual structure, very small in size, probably because there was little land available alongside the mausoleum. The vaulted prayer hall shows a mastery of the art of stone masonry, in some respects refuting the claim that all the good craftsmen of Cairo were taken to Istanbul by the Ottomans. Fine decorative stone panels at the intersections of its vaults reveal an architectural flair on the part of the craftsmen working on this building.

Despite its small size, the Khayrbek complex has retained the attention of artists and photographers for at least two centuries. This interest has left valuable information about the appearance of the building over time. One of the major changes this complex witnessed was the loss of the uppermost section of its minaret in the late nineteenth century, a fate shared with other buildings in Cairo.

By the turn of the twenty-first century, the complex was largely disused, and one of the adjacent residences had been partially destroyed. AKTC sought to breathe new life into this significant ensemble.

WORKUNDERTAKEN

From a conservation point of view, the largest intervention required was the reconstruction of the top of the minaret, whose loss significantly compromised the integrity of the complex. Fortunately, its appearance was well documented, and an accurate reconstruction possible. The same applied to one of the adjacent houses, which had lost its upper storeys in recent decades. Other interventions included a significant amount of fine restoration and cleaning, reinstating the elegance and subtlety of the architectural detailing in a wide range of materials, including stone, stucco, wood and paint. These provided a multitude of training opportunities for conservators, both new and experienced. One of the most pleasing results from the conservation scheme was to reveal the fact that the religious complex had been constructed with two different colours of stone, a pale honey colour accentuated with a reddish orange.
Above, left, a skilled craftsman at work restoring gypsum windows with stained glass.

Above, right, conservators at work retouching the painted ceiling (top) and cleaning the surface of the exterior stone cupola with a micro sandblaster.

Below, Khayrbek complex and Alin Aq Palace street elevation, drawing as built.
Below, cross section of the Khayrbek Mausoleum.

Opposite page, interior view of Khayrbek Mosque after conservation.
The idea underlying the conservation scheme of the Khayrbek complex was not just to restore an important series of buildings, but to integrate them into the life of the community more effectively. The mosque has once again become publicly accessible, while the spaces in the houses immediately to its north have lent themselves to a number of different uses over the years, including a community health centre.

**TECHNICAL CHALLENGES**

Conservation in the Khayrbek complex included a wide variety of types of intervention, ranging from entire building reconstruction in the case of the Ottoman houses, which were at the point of collapse, to the mosque and mausoleum requiring delicate conservation of stone and wood surfaces. Because the reconstruction activities in the Ottoman houses took place at the inception of the Conservation Programme starting in 2001, the Khayrbek complex team gained extensive experience in complex reconstruction challenges, including simultaneous shoring and construction and masonry replacement. A dedicated conservation team also developed stone conservation techniques and painting conservation with the help of foreign specialists to successfully tackle the cleaning and material consolidation of the polychrome decoration of the mosque and mausoleum.
Ottoman-era housing units constructed in the 17th century between the Khayrbek complex and Aqsunqur Mosque. They are now used for community services.
The cemetery has always played an important role in the life of Cairo, in many respects continuing an ancient relationship between life and what comes after it. Visits to the cemetery have been a key part of Cairene life since the founding of the city and, throughout its medieval history, key political figures have invested heavily in funerary structures, which sometimes surpass those of daily life in scale and grandeur.

The mausoleum of Tarabay (1503–04) is such a structure. Constructed just outside the walls of the city on its south-eastern side, it is a truly monumental stone building, befitting the man for whom it was constructed, who was one of the most prominent of the Mamluk amirs in the early sixteenth century. The monumental structure that survives was part of a larger complex, now mainly destroyed. Still surviving is the sabil-kuttab (water fountain and Qur’anic school) and an archway demarcating the boundary between city and cemetery.

Adjacent to the Tarabay complex is another sixteenth-century funerary complex, that of Amir Azdumur al Tawil, originally a Mamluk of Sultan al-Zahir Jaqmaq who rose to hold several high offices of state. A mausoleum, qa’a (hall) and the remains of living accommodation are a reminder that the endowments of charitable foundations like these often made provisions for the poor and destitute, and for religious communities, such as the Sufis, who kept religious complexes alive with prayer and worship.

Surrounding the Tarabay al-Sharif complex is a warren of low walled structures that make up the more modern cemetery, still in use today.

Apart from the towering structure of the Tarabay Mausoleum itself, the rest of the complex was practically inaccessible due to extraordinary quantities of debris that made it impossible to fully appreciate the extent of the area and the range of buildings it once comprised.

Initial stages of the conservation involved removing this debris to expose the historic structures and permit access. This also enabled an understanding of the original configuration of the complex and of its original multi-purpose nature. Prior to the work commencing, it had been impossible to appreciate what had survived, or to comprehend the ways in which the complex had been designed to function.

The conservation project also involved a substantial amount of cleaning, of both the external and internal surfaces of the buildings. Under layers of dust that had rendered many details invisible, it was revealed that the entire inner surface of the mausoleum was decorated with a painted geometric design that complemented the
chevron (zigzag) carving of the exterior. Cleaning also restored to life the striking interior marble panelling typical of the Mamluk period.

The ribat of Azdumur was in ruins, with only a third of the structure standing. However, enough physical evidence remained to enable an accurate reconstruction, and this was the course of action taken, both to preserve the remaining structural elements and to reinstate the original appearance of the building.

The sabīl-kuttāb, although complete, was in poor condition, to the extent that shoring of its vestibule made it totally inaccessible. Severe structural issues necessitated the dismantling of some of the vaults, and these were then reconstructed in place. Other spaces required architectural cleaning and conservation.

The Tarabay al-Sharif complex conservation project, implemented between 2006 and 2009, built upon previous experience gained by the team in both Umm al-Sultan Shaaban Mosque and the Khayrbek complex. Within the wide spectrum of conservation activities that were carried out in the project, structural and civil works played an important role as most of the buildings were in an advanced state of deterioration. A valuable example of such works took place in the large medieval hall adjacent to the sabīl: this was at a point of collapse due to the cross vault’s thrust on its supporting walls and had been shored up for decades. Work procedures included numbering all stones in walls and vaults, cataloguing and careful dismantling. Wall foundations were enlarged and stone walls and cross vaults were reconstructed with salvaged stones. A special timber support system was designed to enable the reconstruction of the cross vaults.

Left, reconstruction of the cross vaults of the sabīl’s adjacent area to address structural hazards.

Right, a conservator cleaning stone using a micro sandblaster on the Tarabay al-Sharif Mausoleum.
Above, cross section through the mausoleum and its adjacent spaces, drawing as built.

Right, existing conditions survey of the remains found of gypsum windows and stained-glass fragments followed by reconstruction shop drawings.
Above, Tarabay al-Sharif Mausoleum and its adjacent buildings after conservation.

Below, the interior of Tarabay al-Sharif Mausoleum and details of its south facade after conservation.
Umm al-Sultan Shaaban Mosque and Madrasa

**HISTORY OF THE BUILDING**

The madrasa of Umm al-Sultan Shaaban, constructed between 1368 and 1369, is unusual in that it bears the name of a woman, “the mother of Sultan Shaaban”, whose name was Khawand (lady) Baraka. As the sultan was fifteen at the time, it is likely that it was Baraka herself who built the complex to commemorate performing the pilgrimage to Mecca – a journey that took place with magnificent pomp and grandeur. Lady Baraka was a prominent and respected figure in Mamluk Cairo, renowned for charitable work and piety, of which this religious complex is an excellent reminder.

Like other madrasas of its period, the building consists of a large courtyard surrounded by four vaults (iwan), with a number of smaller auxiliary spaces, including two domed mausolea, the larger one for Lady Baraka, the smaller one for her son, the sultan. A minaret was placed at the corner of the building to catch the eyes of passers-by on what was the main avenue of medieval Cairo. Achieving this visual prominence in a dense urban fabric was a challenge requiring architectural skill honed to perfection by the Mamluks and exemplified in a building like this one.

Unfortunately, in 1884, a devastating earthquake damaged the upper part of this minaret, which was eventually dismantled. Attempts to reconstruct the minarets of the Umm al-Sultan Shaaban Mosque and Khayrbek Mosque in 1941 by the Comité de Conservation des Monuments de l’Art Arabe were prepared, but funding limitations prevented the project from going ahead. Both minarets eventually had to wait until 2003 to recover their integrity, when AKTC, based on historical analysis, started with the Supreme Council of Antiquities to reconstruct their lost upper sections to their original shape.

**WORK UNDERTAKEN**

When AKTC started its urban rehabilitation programme in al-Darb al-Ahmar, it became clear that reconstructing the top segment of the Umm al-Sultan Shaaban minaret would significantly improve the skyline of Historic Cairo, especially from al-Azhar Park, and restore the integrity of this magnificent building. The technical challenge was twofold: first, to determine the original architectural design; and second, to be able to reconstruct it on top of the towering Mamluk structure.

Historical research revealed evidence of the minaret’s original appearance, while extensive analysis of the Mamluk architecture, together with the physical remains on top of the existing stub, enabled an accurate design based on historic architectural patterns. This ensured visual harmony by paying close attention to the detailing. In-depth surveys in 2001 led to the development of structural strengthening measures using steel connectors to ensure that new stone loads would be perfectly robust,
Above, the south-east elevation after conservation and minaret reconstruction.

Below, left, a historical photograph dating from the end of the 19th century showing the minaret’s top section propped up, following the 1884 earthquake.

Below, right, the interior courtyard of the mosque.

Following pages, left, an aerial view of Umm al-Sultan Shaaban Mosque after conservation and minaret reconstruction.

Right, a low-angle view of the sultan’s mother’s burial mausoleum, after conservation and integration of stained-glass gypsum windows.
Right, the ground-floor plan.

Top, left, the exterior facade of the sultan’s mother’s mausoleum.

Top, right, the interior facade of the mosque.

Bottom, details of the polychrome marble mihrab (left) and the intricate wood inlay of the doors giving access to the prayer area (right).
and the entire structure safe. Implementation started in 2002 as the first phase of a four-year restoration programme to conserve the entire madrasa, preserving its use as a functioning mosque and reinstating community focused activities in its auxiliary spaces. Today’s passers-by would scarcely believe that for over a century this landmark of al-Darb al-Ahmar was bereft of its most memorable feature.

Within the spectrum of conservation activities that took place between 2001 and 2006, the reconstruction of the top section of the minaret has been an important milestone in project development and a visible achievement in the skyline of Historic Cairo. Structural engineering design was critical especially because of seismic codes, as the reconstructed part had to provide sufficient connection to the shaft and resistance. Initial engineering calculations questioned the use of traditional stone-masonry construction techniques as engineers felt they were not able to withstand seismic displacements. Innovative solutions were designed associating traditional stone-masonry techniques with embedded horizontal and vertical metal anchors. Revival of the traditional stone-masonry methods included the use of panels to carve three-dimensional stones to the desired patterns on the ground. Construction of stone courses with lime-based mortar was carried out by skilled stonemasons.
Housing Programme

One of the main qualities of al-Darb al-Ahmar is its late-nineteenth-century housing stock, which reflects older spatial traditions shaped by environmental conditions, cultural values and social conventions. Around 1900, for example, wealthy families would have lived in large courtyard houses, typically comprising grand reception areas on the ground floor and family quarters upstairs. In spatial terms, these were very much the product of a Cairene tradition. In decorative terms, however, they were more eclectic: it was common to find Ottoman and Mamluk-style woodwork with European-style painted scenes, Turkish baths, and stone carving very similar to that of medieval monuments in the neighbourhood. Middle-class homes, though less lavish, were equally representative of a society that combined a strong sense of identity with centuries of exposure to ideas from around the world.

Most houses incorporate features to ensure privacy (for example courtyards and screened windows), while responding to climatic conditions, using typologies designed to capture the prevailing winds, encourage the movement of cool air and avoid strong sun. Many were designed to enable extended families to live together. Over the course of the twentieth century, however, as the area’s economic conditions declined, many of these buildings fell into a state of disrepair, and with the rise of modern construction techniques, the knowledge of how to repair them was lost. There were also no financial support systems to enable residents to access funding required to undertake significant repairs. That said, the sense of community and multi-generational ties in the neighbourhood remained very strong.

AKTC’s housing programme was set up as a means of improving living conditions in the neighbourhood while restoring the dilapidated housing stock. Contrary to some perceptions, local residents were extremely keen to invest in restoring their homes, and a housing loans programme was strongly welcomed. The housing team developed the expertise to rehabilitate the area’s traditional buildings, as well as the design skills to sympathetically remodel existing houses to accommodate the demands of current residents. The most common demand was for additional bathrooms. The programme’s premise was to provide good-quality work using durable, low-cost materials sympathetic to the history of the building stock. Local human resources were used extensively, both in terms of labour and craft skills, such as carpentry and tile work. Vocational training raised the standard of local craftsmanship, creating opportunities in discerning markets in other areas of Cairo. A total number of more than two hundred housing units were restored through this programme.
Left, top and middle, prior to AKTC’s intervention: the deteriorated condition of the housing stock in general, and neglect and lack of investment in houses in Darb Shoughlan Street.

Above, brick masonry work in progress for housing repair and reconstruction.

Below, existing condition survey (left) and repair and colour scheme proposals (right).
Top, Darb Shoughlan Community Centre, the Historic City Wall and al-Azhar Park.

Above and right, housing interventions in the streets of al-Darb al-Ahmar.
The restoration of the late-nineteenth-century housing stock provided different challenges from those of monument restoration.

Before any work could commence, the early stages of the Housing Rehabilitation Programme (HRP) necessitated obtaining permission from the Supreme Council of Antiquities to allow work to take place on houses abutting the Ayyubid Wall, which were seen as encroachments. This was a difficult battle to win, but eventually AKTC succeeded. It necessitated reconfiguring some of the existing buildings to minimize these encroachments. Small plot sizes made this a substantial design challenge.

From a technical perspective, work needed to be very durable but also extremely low cost, given that local residents were paying for it themselves. Significant research was undertaken to identify good sources of appropriate building materials in keeping with the history of these buildings, and robust enough for a demanding domestic environment. Additionally, in many cases, fittings, such as staircase handrails, had been totally lost and needed replacement. Fortunately, traditional workshops in al-Darb al-Ahmar still survived and were able to provide most of what was required.

Other challenges included understanding traditional building renders and replicating these, and accommodating people’s demands for changes to their homes without compromising their historic integrity. For houses overlooking the new al-Azhar Park, formerly a dumpsite, the backs of buildings had suddenly become their fronts, and this necessitated sensitive design intervention to improve the appearance of what had become important facades.

Due to the fact that local residents had to vacate their homes during the restoration process, refurbishment work had to take place at speed. As such, accurate initial assessments of the scope of work required were essential.

**KEY CONSERVATION CHALLENGES**
Open Spaces and Infrastructure

Open spaces in al-Darb al-Ahmar range from public squares at important community nodes to small alleyways used by residents as extensions to their homes. In a poor, largely pedestrian historic neighbourhood with a large number of small businesses, it is hard to overestimate the value of the street as a key space for social interaction. For example, carpenters, one of the neighbourhood’s most common tradesmen, have always used the street as an extension of their workspace. Larger open spaces are rare, and therefore well used for a multiplicity of purposes, ranging from informal meeting areas and play spaces for children, to the setting for games, rides and communal meals during festival periods and Ramadan, and, more practically, as transport nodes and pick-up points for finished items produced in al-Darb al-Ahmar.

Surveys of the area showed the remains of attractive and sophisticated urban landscaping, exemplified in a tradition of paved stone surfaces and elaborate street lights. In more recent years, however, a dearth of resources meant that urban management schemes were limited to utilitarian interventions, maintaining public spaces at a basic level, thereby not making full use of them as key assets of the historic urban environment. Infrastructure systems suffered from the same problem, and water and sanitary systems, in particular, were in poor condition and prone to bursting and blockages. Municipal intervention was usually limited to reactionary measures to fix problems rather than plan for the future, especially in the network of small streets, where deteriorating infrastructure went largely unnoticed.

AKTC’s intervention focused on priority areas where its other initiatives were hampered by the challenges of neglected open spaces and unreliable infrastructure networks. These were adversely affecting living conditions and, in some cases, actively contributing to harming the built environment. One example is Bab al-Wazir Street, al-Darb al-Ahmar’s main thoroughfare, where water pipes frequently burst, causing health risks, damage to valuable historic buildings and traffic jams. Other areas include Darb Shoughlan, an important neighbourhood spine where many houses were rehabilitated, and Asaad Alley, which was developed as a pilot to demonstrate the incredible potential of the neighbourhood. Replacing outdated piping systems and reintroducing stone paved surfaces had both practical and aesthetic benefits. In areas where most of the traditional paving had been lost, interlocking bricks were used as affordable, practical substitutes.

Aslam Square is a particularly good example of how open space upgrading complemented a range of other initiatives, including housing rehabilitation and the
Craftsmen repairing the stone paving in front of the Darb Shoughlan Community Centre.
Right and below, restored housing unit now used as a community serviced cafeteria.
restoration of historic monuments. The vision for how to improve the square was developed through a participatory process in which the aspirations of community members shaped the scheme. AKTC subsequently developed an urban design project that both enhanced community meeting places, such as a local coffee shop and the fourteenth-century Aslam Mosque, while significantly improving the public realm through landscaping and the introduction of street furniture that drew its inspiration from the way local residents used the space.

With regards to infrastructure improvements, one of the key challenges was to identify replicable treatments that were not too costly, to ensure that pilot initiatives could be emulated by others and would not require extensive future maintenance. For example, road paving in pedestrian areas used commercially available interlocking blocks rather than traditional stone blocks, because the latter were almost impossible to obtain, and very expensive. Thus economy and durability were critical factors in the decision-making process.

For open space upgrading, these two parameters were critical as well. Assessments of other urban intervention schemes in Cairo made it clear that long-term urban maintenance was limited, while, at the same time, wear and tear was high, especially in a busy, closely knit urban fabric like al-Darb al-Ahmar. To ensure that pedestrian spaces did not revert back to vehicular use, for example, built street furniture was used to create a permanent barrier between pedestrian and non-pedestrian areas. Robustness was seen as a key factor in the design and selection of materials and built forms, which were purposely functional, meaning that local residents could maintain public spaces with very limited resources.
Acknowledgements

The Aga Khan Trust for Culture would like to acknowledge the teams and individuals who have contributed to this publication on the reading of the Cairo area development project a decade following its substantial completion. Some of these individuals planned the publication, some contributed essays and are listed above, and others contributed to the case studies, which alone represent many person-years of dedication and labour. A more complete list of the teams involved over the years is to be found in the AKTC publication Cairo: Revitalising a Historic Metropolis, Umberto Allemandi & C., Turin, 2004.

AKTC MANAGEMENT GENEVA
Luis Monreal, General Manager; Shiraz Allibhai, Deputy Director; and Lobna Montasser, Archivist.

AKTC’S HISTORIC CITIES PROGRAMME (HCP)
Cameron Rashid, Director, HCP; Jurjen Van Der Tas, Deputy Director, HCP; Francesco Siravo, Senior Conservation Planning Consultant; Christophe Bouleau, Senior Conservation Officer; Roberto Fabbro, Project Manager. AKTC would like to acknowledge the contribution of prior members of its Geneva staff including Stefano Bianca, Director, HCP (1992–2006) and Martin Ovenden, Parks and Historic Sites Manager (2004–12).

AGA KHAN CULTURAL SERVICES-EGYPT
Sherif Erian, CEO, Aga Khan Cultural Services-Egypt; Mohamed el Mikawi, CEO, AKCS-E (2002–08); Ossama Hambazaza, CEO, AKCS-E (1997–2002); Ahmed Helmy, Executive Manager, Mezala Organization for Social Development (ADAA).

HCP PROJECT TECHNICAL TEAMS AND MAIN CONSULTANTS
Amr El Badry, Technical Coordinator (Al-Azhar Park project); Dina Bakhoun, Project Manager (Monuments project); Mohamed Saeed, Ayman El Gohary, Kareem Ibrahim and Ashraf Botros, Senior Architects; Hany Attala and Seif Hassanein, Project Managers 2003–11 (Al-Darb al-Ahmar project); Jeff Allen, Project Planner/Communications Consultant; Elisa Del Bono, Project Manager (Historic Wall project); Robert Pilbeam, Architectural Technical Coordinator.

AKTC and the Historic Cities Programme wish they could individually list the many specialist consultants, staff, contractors and suppliers who have contributed to the realization of the projects presented in this publication. Many such individuals or firms are acknowledged in existing AKTC publications and brochures on specific countries or initiatives. The work in this publication should make manifest the fact that the regeneration of historic cities and sites is a collaborative effort, spanning significant periods of time and relying, besides specialist professionals, on a very wide base of involvement by the public and private sector. The Programme thanks all who have been associated with its initiatives, past and present.

EDITING CREDITS
This publication benefited from a well-proven collaboration between Prestel publication’s art department and a number of individuals under AKTC’s direction who interacted with project teams, photographers, the editor, and essay and case-study writers to achieve the fine balance required for a publication that combines cultural, socio-economic, urban and architectural concerns.

The Trust would like to thank, in particular, Philip Jodidio, Editor; Constanze Holler, Prestel, Editor; Harriet Graham, Copy-Editor; and Torsten Köchlin, Graphic Designer.

Working closely and indefatigably with the Prestel team on AKTC’s behalf, Christophe Bouleau and Seif El Rashidi coordinated graphic, text and case-study materials across the project offices and with its consultants; Lobna Montasser provided photo-management services; Numa Luraschi provided further enhancement and standardization of architectural drawings across case studies.

PHOTOGRAPHY
A publication on a range of sites and communities as dispersed and intriguing as those featured could not succeed without a parallel set of high-resolution photography to complete the story. The photographs displayed in this publication come from a wide array of sources, some more historic and some recent. In 2017, Christian Richters was commissioned to tour and photograph the major sites to be included in the case studies, thus providing a current dimension to the earlier photography of our project work.

DRAWING CREDITS
The underlying architectural drawings throughout this publication derive from the years of highly qualified work by in-house professionals and consultants working on the individual projects. The case-study materials, in the first instance, were prepared by the AKTC project teams and were supplemented, as noted, by a team in the main office. In all known instances, these drawings represent original and field-based surveys and designs originating from AKTC’s initiatives on the sites in question, and thus represent a major investment of time and care. They are an impressive set of assets that the Trust treasures and is pleased to add to the intellectual capital of the already impressive heritage of these sites. AKTC is grateful to Archnet for accepting to store and archive many of the drawings and images in this publication.
Biographies

EDITOR

Philip Jodidio is the author of more than 100 books on contemporary architecture and has edited several books for the Aga Khan Trust for Culture Historic Cities Programme. He was Editor-in-Chief of the French art monthly Connaissance des Arts from 1980 to 2002.

CONTRIBUTORS

Luis Monreal is the General Manager of the Aga Khan Trust for Culture. He is a conservation specialist, art historian and archaeologist. He was previously Secretary General of the International Council of Museums at UNESCO (1974–85), Director of the Getty Conservation Institute (1985–90) and Director General of the Caixa Foundation (1990–2001).

Cameron Rashid is the Director of the Aga Khan Historic Cities Programme. A graduate of Dartmouth College, Pratt Institute and Columbia University, he is a registered architect in the US and the UK. He served as Vice President of Perkins & Will International for European projects prior to joining the Programme in 1994. He has oversight for the development of al-Azhar Park and close interface with AKTC’s projects in Cairo.

Daniele Pini is an Adjunct Professor and Vice President of the School of Economics, Management and Statistics at the University of Bologna. He is a Professor of Urban Planning at the Faculty of Architecture of the University of Ferrara. He took part in the preparation of the UNESCO cultural heritage management plan for Al Ain (UAE), and the UNDP capacity building programme in urban conservation for Manama and Muharraq (Bahrain).

Nasser Rabbat is the Director of the Aga Khan Program for Islamic Architecture at MIT. His interests include the history and historiography of Islamic architecture, medieval urbanism, modern Arab history, contemporary Arab art and post-colonial criticism. He has published several books, most recently a volume on the Dead Cities in Syria (2018) and is working on a biography of the Egyptian historian al-Maqrizi. He regularly contributes to al-Hayat newspaper.

Anthony Wain is a Senior Director of Planning Partners, Cape Town, South Africa. A horticultural scientist and professional landscape architect, trained in the UK, he has thirty years’ experience in twenty-one countries worldwide. He was the first Mellon Resident Practitioner in 2015 at Dumbarton Oaks, USA, and continues his studies in heritage landscapes at the University of Cape Town.

Seif El Rashidi is an architectural historian and heritage management specialist who worked for the Aga Khan Trust for Culture’s Historic Cities Programme in Darb al-Ahmar (1997–2008). He is currently based at the Institute of Historical Research in London, managing Layers of London, a metropolitan public engagement project. He is co-author of The Tentmakers of Cairo, a comprehensive study of one of Darb al-Ahmar’s most distinctive crafts.

Stéphane Pradines is a Full Associate Professor of Islamic Art and Archaeology at the Aga Khan University (Institute for the Study of Muslim Civilisations, London). He earned his PhD in Islamic Archaeology from the Sorbonne (Paris IV, 2001), and was in charge of Islamic Archaeology at the French Institute in Cairo from 2001 to 2012. Dr Pradines’ fieldwork includes the direction of excavations of the Fatimid and Ayyubid Walls of Cairo.

Francesco Siravo is an architect specialized in historic preservation and town planning. He received his degrees from the University of Rome “La Sapienza”, the College of Europe, Bruges and Columbia University. Since 1991, he has worked for the Historic Cities Programme of AKTC with responsibilities for planning and building projects in various cities of the Muslim world.

Jurjen van der Tas is Director of Partnerships and Development at AKTC and oversees the Trust’s engagement in socio-economic development initiatives. From 1991 to 2002, he worked for Oxfam Novib in the Netherlands, where he was responsible for Pakistan, Afghanistan, Bangladesh and the former Soviet Central Asian Republics. In the late 1980s, he was based in Pakistan, working for the Federal Bank for Cooperatives.

Christophe Bouleau is the Senior Conservation Officer of the Aga Khan Historic Cities Programme. He holds degrees from the Swiss Institute of Technology of Lausanne and the Centre des Hautes Etudes de Chaillot in Paris. He has over twenty years’ experience in international projects related to monument conservation, archaeology and urban rehabilitation. He was stationed in Cairo directing the monuments conservation programme (2001–08).

Geoffrey Salkeld graduated from SOAS University of London and pursued a career in international development cooperation, working with the World Bank, the UN and major NGOs. As a consultant, he has

carried out evaluation and strategic planning assignments for the AKTC in India (Nizamuddin), Pakistan (Lahore), Syria (Aleppo) and Egypt (al-Darb al-Ahmar). Now retired, he works as a volunteer.

Yudhishthir Raj Isar is a Professor of Cultural Policy Studies at the American University of Paris, and Education Director with the Aga Khan Trust for Culture in Geneva. He is a Robert Schuman Fellow at the European University Institute and a co-founder of the Cultures and Globalization Series. He was Executive Secretary of the World Commission on Culture and Development at UNESCO (1995).

Sherif Erian is the CEO of Aga Khan Cultural Services-Egypt since 2008. He completed his BA degree at the University of Cairo in 1984 and worked in the hospitality and hotel industry for twenty-five years. When al-Azhar Park opened, Sherif became its General Manager and then in 2012 Chairman of the Board of Mezala, an NGO established in al-Darb al-Ahmar to carry out socio-economic initiatives.

Dina K. Shehaby is a Professor at the Institute of Architecture and Housing, Housing and Building National Research Center (HBRC) in Cairo, and heads her own consultancy firm, Shehaby Consult. She received her PhD in Architecture and Environment and Behaviour Studies (University of Wisconsin, Milwaukee, 1995). She has worked with the Aga Khan Cultural Services-Egypt. Recently she was appointed by the Egyptian Ministry of Social Solidarity to develop design criteria to evaluate service facilities, special user building types, and human and social development projects.