UNCOVERING AND RESTORING THE AYYUBID CITY WALL

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

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

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

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

Conservation work in progress on the Ayyubid wall and, in the background, the old district of Darb al-Ahmar.
Map of Cairo around 1800 as surveyed by the French expedition under Napoleon. Clearly visible are the hills of Darassa. It is also clear that 200 years ago the old city already abutted the Ayyubid wall.

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

**Philosophy of Conservation**

Given the above circumstances, the approach adopted – as well as the specific work carried out in a pilot project area along the wall since the beginning of 1999 – relies on the concept of the Historic Wall as part of the living heritage of Cairo. Moreover, the questions of how best to consolidate and protect it were instrumental in establishing a clear policy of intervention for the historic urban fabric attached to the wall, and enhancing the wall’s role as a potential attraction for future visitors to the new Azhar Park.
The concept of living cultural heritage implies notions of value, birthright and obligation. Each of them establishes a moral imperative in the treatment of any collective inheritance. In response to this, modern conservation practice has developed a set of principles, namely:

- To research and document all evidence, including physical, archival, and historical information, before, during and after any intervention;

- To respect the cumulative age-value of historic structures, by recognising the stratification of physical records of human activity, displaying the passage of time and embodying different materials and techniques, as well as changing cultural beliefs and values;

- To safeguard authenticity as a cultural value associated with the original making (or re-making) of an object or site by recognising human authorship or the record of time and place;

- To avoid harm to historic structures, either by minimising physical interference when reestablishing structural and aesthetic legibility and meaning, or by intervening in ways that will allow other options and further treatment in the future.

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

More recent charters, such as the Burra Charter of 1981, established by ICOMOS Australia, stress that the ultimate aim of conservation is to retain or recover the cultural significance of a place and must include provision for its security, maintenance and future survival. In most cases this is based, first and foremost, on respect for the existing fabric and involves minimal physical intervention, especially as this relates to the traces of additions and alterations related to its history and use. The conservation policy appropriate to a place must first be determined by an understanding of its cultural significance and physical condition.
This, in turn, should determine which uses are compatible with the formal and material reality, not the reverse.

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

**Preserving the Historic Wall in its Given Context**

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

The general survey provided an analysis of the masonry and identified areas of significant deterioration, distinguishing between loss of facing stone to the rubble core and total loss of the wall. It also documented the presence and extent of previous repairs. The detailed condition survey provided a fuller quantitative analysis, complemented by a qualitative assessment of the causes and effects of deterioration. Severity of loss, for example, was classified according to extent and depth, as well as to whether the process was still active or inactive. In addition, samples were taken for laboratory testing to ascertain the exact nature of the materials and their conditions and problems.
Together, the field survey, graphic documentation and laboratory work yielded a comprehensive record of the construction of the wall and its present state, as well as the diagnostic tools needed to formulate an intervention programme. Suggested measures include recommendations and procedures for archaeological investigations, emergency stabilisation, masonry treatment (including cleaning, removal of salt and biological growth, grouting, consolidation of deteriorating stone and selective stone replacement) as well as limited reconstruction for reasons of structural stability or visual continuity. The policies and guidelines for masonry intervention, as summarised on page 62, were designed to achieve maximum retention of the original historic fabric while ensuring the visual and functional continuity of the wall as an urban element.

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

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

Below: The most prominent tower of the Ayyubid wall (Bab al-Mahruq) still buried in debris (1994).
craftsmen. The work accomplished has helped in establishing a methodology and operational procedures for the eventual treatment of the entire wall. It has also provided the information for estimating the nature, extent and cost of future interventions.

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

Special attention was given to recording all cases where adjoining buildings pose a specific threat to the structural integrity of the wall,
either through damaging industrial activities or water seepage from plumbing installations. Finally, in an analysis of the wall structure, the project documented the interior defensive system, as well as past and present points of access, in addition to other connections with Darb al-Ahmar and the rest of historic Cairo – particularly the former city gates, such as the now-vanished Bab al-Mahruq and the recently discovered Bab al-Barkiyya.

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

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<thead>
<tr>
<th>Status</th>
<th>Condition</th>
<th>Action</th>
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<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>• stabilise core as is</td>
</tr>
<tr>
<td></td>
<td>• partial loss of crenellations</td>
<td>• anastylosis only</td>
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<tr>
<td></td>
<td>• total loss of crenellations</td>
<td>• replace in-kind</td>
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<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 original</td>
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<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>
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### Specifications

- **Replace in-kind**: Replace using similar stone, dimensions and coursing; construction installation methods may vary from the original masonry.
- **Repair in-kind**: Repair using similar stone, dimensions and coursing; construction installation methods may vary from the original masonry.
- **Stabilise as is**: Preserve existing form and fabric; stabilise as necessary using traditional or modern construction methods.
- **Anastylosis**: Re-erect form using only existing original fragments in original position.
- **Repair with new masonry**: Construct missing wall for structural and visual reintegration in a manner which is visually similar and technologically compatible but distinctive from the historic original.
of housing conditions to avoid the displacement of residents. The recommendations seek to differentiate and selectively modify the current Antiquities law which requires the clearance of any building or structure within immediate proximity of a monument. They seek a formal acknowledgement of the need to protect the structural integrity of the Historic Wall, to preserve the surrounding historic fabric and to maintain the current inhabitants. (See example on page 46.)

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

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

Axonometric view of tower 4, showing typical components of the Historic Wall, including interior galleries, chambers and curtain wall.
Together, the conservation of the original structure of the wall and the preservation of the living city fabric around it should be seen as the best antidotes to further decay and the potentially destructive commercialisation that can be induced by excessive numbers of visitors and uncontrolled tourism. Certain risks for the wall and Darb al-Ahmar can be foreseen following the opening of the Park in 2003. Too often, cultural resources around the world have often become mere commercial commodities for mass tourism, with the result that genuine historic places have been compromised and emptied of meaning. Local residents have often become overly dependent on an unpredictable tourism service economy.

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

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

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

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

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

4. Ensuring the future management and long-term sustainability of the wall through the establishment of permanent repair and maintenance programmes, and the monitoring of future changes and transformations: As with any historic resource, the wall cannot be physically re-generated, but only retained, modified or totally lost. Sustainability thus means valuing and ensuring the survival of the
continuing contribution heritage can make to the present through the thoughtful management of changes that are responsive to the historic environment. In order to be successful in the particular context of the Historic Wall, sustainability must be considered as a dynamic process of public participation, achieved through dialogue and consensus, which ultimately leads to better stewardship of the monument. Future programmes must therefore ensure that the long-term benefits are also understood and enjoyed by the surrounding community, as it is one of the principal stakeholders in ensuring the continued life and appropriate use of the structure. In future, measures such as a garbage collection, open space maintenance, repair of the wall, and rehabilitation of the surrounding buildings, should not be implemented against the will of the community, but through its direct involvement and participation.

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