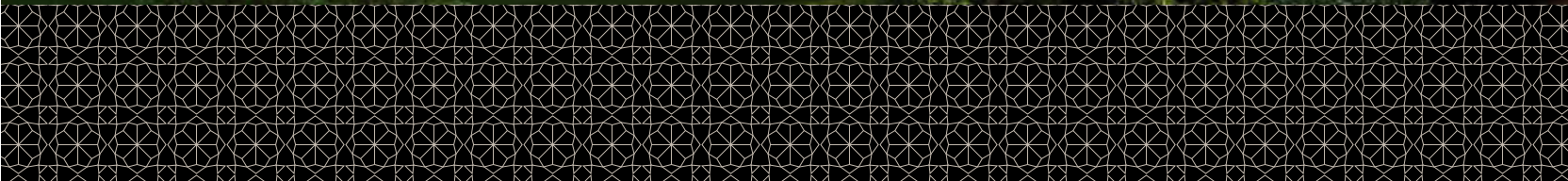




The Aga Khan Historic Cities Programme

STRATEGIES FOR
URBAN REGENERATION





Adaptive Reuse

FRANCESCO SIRAVO AND
JOLYON LESLIE

The restoration of historic sites and monuments and their adaptation for community and cultural uses can be seen as a keystone to the successful urban rehabilitation of historic settlements. Steps in this process are the definition of stakeholder needs, the interface between conservation and sustainable community reuse, and the training requisite to carry out the programmes. Perspectives on these issues, written by members of the Historic Cities Programme (HCP) team, are presented here.

BRINGING TANGIBLE HERITAGE BACK TO LIFE

Operating as a sub-domain or area of engagement, adaptive reuse projects within the Historic Cities Programme (HCP) are consequential acts following decisions to undertake an Area Development Project (ADP). Adaptive reuse of historic sites or buildings can be categorized according to their status as monuments or listed buildings or simply sites representative of a past era. In accordance with existing preservation law, 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 the past but otherwise can often permit new uses, public or private, and, 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.

Monuments and Listed Buildings

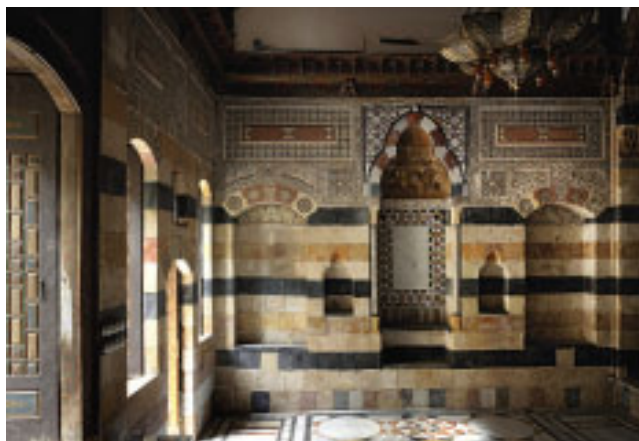
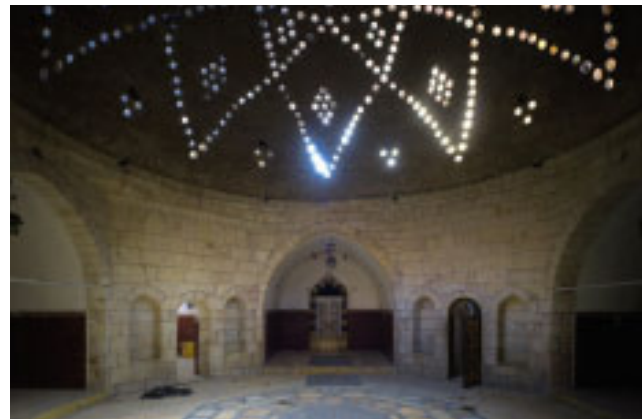
HCP is accustomed to working closely with international agencies and national authorities in the determination of the proper levels of access and usage of monuments by the public.

While monuments until recently have long been considered restrictive in terms of their use following preservation, these restrictions are increasingly being worn down by changing public awareness of the advantages of unique settings for leisure, residential, community functions or tourism. At the minimum, increased public visitation to preserved monuments along carefully selected routes can both protect the monument while lifting the revenue stream so critical for proper maintenance. The often surprising benefit of the attention devoted to given monuments or buildings is the vastly increased level of interest on the part of the local and regional community in what was previously an overlooked relic. This reaction is in fact critical to building an important base of civil society support and appetite for further projects of this nature.



Rehabilitation of the former Darb Shouglan School, seen here in its early stages, offered an opportunity to introduce a community centre into a context that sorely lacked public facilities.

Opposite page:
The former Darb Shouglan School, located at the edge of the Aslam neighbourhood and close to the Historic Wall in Cairo, functions today after its restoration and conversion as the Darb Shouglan Community Centre.



A number of hotels have been developed or are planned through the adaptive reuse of existing buildings. Clockwise from top left: a telecommunications building in Zanzibar; a *hammam* in Aleppo; an old palace in Damascus; and a fort in Shigar, northern Pakistan.

Several of the ADPs that the Programme has been associated with are in a number of World Heritage Sites which have called for special treatment: Humayun's Tomb complex in Delhi, Babur's Garden in Kabul, the Stone Town in Zanzibar, Darb al-Ahmar in Historic Cairo, and the Walled City in Lahore.

Non-Listed Sites and Buildings

In many of the Programme's ADPs the overwhelming percentage of building stock, protected by statute or not, is non-listed and therefore affords more forms of adaptive reuse. Reuse at its minimal level can involve the insertion of modern services in housing and other buildings to support current activities and improve the quality of life. While maintaining the authenticity of the original design or features, the site or building value is enhanced by making it reusable as a part of private or community life. Much of the building stock in Darb al-Ahmar (Cairo), Nizamuddin Basti (Delhi), Lahore Walled City, Old Kabul and Herat, and the Stone Town (Zanzibar) falls into this category. As a group of (mostly) uniform and coherent building morphology, once rehabilitated and brought up to date in terms of building services and their associated public spaces, this stock can be reused if vacant and its usage extended if occupied with much improved standards of living.

ADPs with important adaptive reuse components create a call on funds that are typically not available in the community. In many of the ADPs of the Aga Khan Trust for Culture (AKTC), the per capita household income does not exceed \$2 per day. These neighbourhoods are all too 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 (Darb al-Ahmar in Cairo is an example), the number of eligible buildings still represents a minority of the cases.

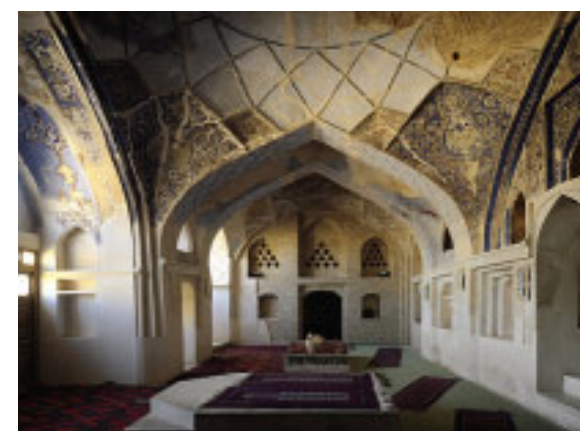
Adaptive reuse occurs when the original building fabric remains intact with only structural repairs or improvements to consolidate the envelope. Too often opposing market forces are at work. A building owner may wish to see his building decay and be demolished so that the site can be sold or redeveloped in an inappropriate way to yield a capital gain. Determining what is appropriate or inappropriate is a labour-intensive process usually requiring public hearings, involvement of civil society groups, and development of building planning and design guidelines. The latter are intended to prevent new developments that represent unacceptable or overly intensive commercial or other uses or introduce building scale or stylistic signatures which are alien to an otherwise harmonious urban environment. Whether highly urban or rural in setting, the same principles and risks are faced by any community that is subjected to change without proper controls and safeguards.

REDEFINING FUNCTION AND SYMBOL

The 'adaptive reuse' of buildings, a term coined by architects in recent periods to demonstrate a design choice, in fact describes a process of which there is evidence in the earliest human settlements. Long after the original function or symbolism of a building may be forgotten, the material investment in construction can serve succeeding generations, rather than razing it. In most cases, this process of reuse is born of necessity. In the modern sense of the term, however, 'adaptive reuse' describes a conscious choice to retain a building of intrinsic value and to give it a new life, usually through a function that differs from that imagined by its builders.

The Dangers of Construction

While the beauty attributed to certain historic buildings is subjective, and not always a value shared across a society or community, a degree of understanding of collective history is common in most nations. In Afghanistan, as in other conflict-prone countries, the disruption of systems of formal education over decades has meant that many have been denied the opportunity to learn about their own history. One of the most visible manifestations of this situation since 2002 has been the transformation of urban centres, where concrete and glass buildings now surround the surviving historic fabric. The rapid inflow of population and external resources has increased demand for urban property, which has soared in value, prompting speculative building on an unprecedented scale. This construction boom, driven in part by external aid, is arguably causing more extensive damage to both the built heritage and archaeology of Afghanistan than decades of neglect or conflict. This process of transformation is one that many historic cities have witnessed, but the speed with which destruction is being wrought in Afghanistan, particularly at a time of relative peace and prosperity, is disturbing and now poses the single greatest



Above, a guest room in Shigar Fort Residence in northern Pakistan, a unique heritage conservation project that offers guests the opportunity to experience the restored original architecture of a 17th-century raja's fort-palace.

Below, the Yu Aw is one of four synagogues in the Old City of Herat which, after decades of abandonment and neglect, has been restored to provide a much-needed space for an infant school.



As its name implies, the restored Chahar Suq Cistern in the centre of the Old City of Herat lies at the intersection of four bazaars. It is now used for events such as photography exhibitions and musical performances.

challenge to urban conservation initiatives, such as those being implemented by the Historic Cities Programme (HCP) in the cities of Kabul and Herat.

A Demonstrative Approach

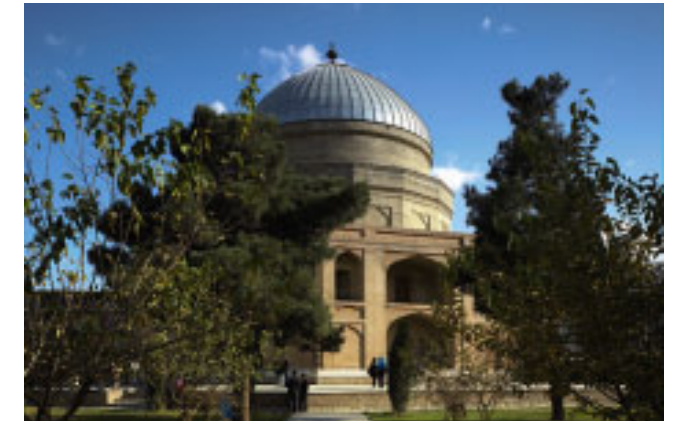
Working within communities that may be ambivalent about the intrinsic value of their environment, with officials unwilling to enforce even the most basic form of legal control, it has been vital for the Programme to build confidence in the notion of conservation by showing results. By inviting community leaders to witness at first hand craftsmen at work on mosques and shrines that held special religious or social significance, it has been possible over time to rally residents behind a process from which they benefit directly, in terms of improved public facilities or living conditions. Such initiatives also instil a sense of collective identity and pride. Media attention on the conservation process has also contributed to building public awareness of the value and sheer beauty of what survives, and thereby helped to shift the public debate beyond a stage where the demolition of such buildings or areas might be admissible. As well as creating awareness, this 'demonstrative' approach is driven by the need to create a new reality on the ground. The fact that scaffolding is in place and teams of workmen engaged around a historic public building is a useful deterrent against those who might wish to 'modernize' it. So, too, investments in upgrading can effectively obstruct ill-conceived intrusions into the historic fabric, such as the widening of streets in Kabul or the demolition of covered passages in Herat.

Framework Agreements

In a context where a historic building may be close to collapse, or pressure is building for its 'redevelopment', there may be little time to negotiate the eventual use of a public building in advance with officials who may not be in a position to define the eventual programme. Working within the confines of framework agreements signed with central or local authorities, the initial conservation of public buildings has taken place in parallel with consultations with custodians or community representatives as to the eventual functions of a building. While clearly unorthodox, this 'exploratory' approach to the adaptive reuse of historic property has enabled the Programme to maintain momentum, while responding to the fast-changing economic and institutional environment that prevails in Afghanistan. Certain aspects of this approach are outlined in the three examples that follow.

Chahar Suq Cistern

Once the major source of domestic water for inhabitants of the Old City of Herat, the Chahar Suq Cistern became redundant with the introduction of piped water in the 1980s. The Cistern soon began to fill with waste from the surrounding bazaars and, by the time that it was surveyed in 2004, it was clear that what had been an important public facility only twenty years previously had been forgotten. Largely invisible due to encroachments, the central domed space, which measures twenty metres across, seemed at that time to have potential for a range of public functions. Rather than trying to define these in any detail, however, the priority was to stabilize the structure, parts of which were in a precarious state.



In a setting where conservation works on this scale are unusual, there were many visitors to the city-centre site over a period of three years, during which time it was possible to explore a range of uses for a facility that seemed to belong to everyone, and to no one. It was not until the internal scaffolding was dismantled, lights were installed and an impromptu public meeting was held in late 2008 in the space that had once served as a reservoir that the true potential of the venue became clear to local officials. After years of negotiations with municipal officials and a spirited campaign in the local media, this event opened the way for the relocation of dozens of shops that had been built in front of the main entrance of the Cistern. With the reclamation of a small urban square on the land that was previously occupied by these shops, new possibilities have opened up for the use of the Cistern and adjoining bazaars, which have also been restored. Pending the finalization of an operational agreement, the Chahar Suq Cistern is in regular use for exhibitions, seminars and receptions, which generate income now used to meet the costs of upkeep of the complex.

After conservation (left) of the Timur Shah Mausoleum in Kabul, the monument and its park is now used for cultural events.

Timur Shah Mausoleum

Although a very different type of building, the conservation of Timur Shah's Mausoleum in Kabul (see p. 86) between 2003 and 2007 provides a further example of this 'demonstrative' approach towards reuse. Built in the late eighteenth century within a formal garden originally laid out in Mughal times on the banks of the Kabul River, the massive brick Mausoleum remains one of the largest built landmarks in Kabul. Historic photos indicate that the Mausoleum underwent a series of repairs and 'improvements' in the nineteenth and twentieth centuries, before the uppermost of its two domes was damaged during factional fighting in 1993–94. The partial collapse of this brick dome posed an immediate threat to the integrity of the Mausoleum. The priority from the start was to stabilize the structure. Given the religious and historic significance of the building, there was at this early stage no discussion as to possible adaptive reuse. It was not until the closing stages of the conservation work that the main domed space of the Mausoleum, which served at this time as a carpentry workshop, came to be used for occasional lectures for students of architecture. This led to a discussion about formalizing the use of the building and the park (reclaimed after hundreds of informal traders had been relocated) for appropriate cultural events.



Left, the Queen's Palace in Bagh-e Babur in Kabul was looted and burned during inter-factional fighting in 1992 and only the ruined walls were left standing.

Right, now the Palace is fully restored and its courtyard often serves as the venue for musical and theatrical performances.

The crypt, in which the grave of Timur Shah and others lie, remains accessible for visitors who wish to pay their respects, while the main space above has, since 2007, been used for a regular series of public lectures, as well as for occasional seminars and exhibitions. Without a *waqf* (an elaborate system of endowments) to contribute to the cost of upkeep of the Mausoleum, resources could be raised through the use of its magnificent central space, as well as the newly landscaped park, for appropriate public events. Although this is an unfamiliar concept in the Afghan context, a draft agreement for the complex to be operated as a cultural venue is under discussion with the relevant authorities.

Queen's Palace

A more deterministic approach towards adaptive reuse was employed in the restoration of the Queen's Palace in Bagh-e Babur, Kabul (see p. 78). Built in the late nineteenth century as a residence for members of the royal household inside a Mughal garden, the complex was destroyed during factional fighting in the early 1990s. At the design stage, a balance had to be found between respect for the form and surviving details of this important historic monument, and the needs of future users of the Palace. It proved necessary to allay the fears of Afghan officials with limited experience of adaptive reuse, who urged that the building be faithfully restored to its original form and converted into a 'museum'. In the end, a compromise was reached whereby modern services were introduced to the Palace with the least possible intrusion. Collapsed sections were rebuilt, and the major reception areas restored in a manner that retains the proportions and details of the original, enabling them to serve a variety of functions, including exhibitions, meetings and a cafeteria. It is foreseen that such a range of activities will, in time, generate sufficient revenue to meet the costs of the upkeep of the restored Palace and the garden as a whole.



WHY ADAPTIVE REUSE IS RELEVANT

HCP's approach to the reuse of historic buildings has developed as a result of the Programme's involvement in preservation planning and conservation projects since its inception. There can be no doubt that this is one of the most pressing issues in decaying historic areas throughout the world, and certainly no less so in the context of Islamic cities.

A first question is why adaptive reuse is relevant in the effort to preserve historic areas. It is in this light that HCP's approach and practice can be best understood, particularly with regard to the choice of a functional programme and its philosophy of intervention, as well as the implementation modalities followed.

Inexorable Decay and Rapid Development

Two opposites – inexorable decay and rapid development – reinforce each other and bring about a vicious cycle that is very hard to break in historic areas. Because the old fabric is so fragile – sometimes on the verge of collapse – urgent intervention appears justified. But when intervening, the only alternatives considered in most cases are radical modernization or total substitution. There are numerous reasons for this.

Global changes caused by rapid urbanization and development have brought about social displacement as well as the loss or transformation of historic places and natural sites around the world. New building models and materials that are associated with progress are used extensively in new and old areas alike, in spite of the fact that they are often expensive and ill-suited to local conditions. The gradual disappearance of traditional builders and artisans, and the emergence of contractors who are often unable to cope with old structures is, of course, another difficulty. They find it easier and more lucrative to demolish and rebuild.

Inside the Queen's Palace in Kabul there is an exhibition and performance space. The skills of a sizeable team of Afghan craftsmen in a range of building techniques were developed in this reconstructive and adaptive process.



A dancing lesson under way at the Darb Shouglan Community Centre in Cairo, which serves the residents of the Darb al-Ahmar neighbourhood. The Cultural Programme provides an excellent example of young people expressing themselves and developing a sense of pride.

An Alternative to Radical Destruction and Change

In the face of this unfortunate state of affairs, the rehabilitation and adaptation of old buildings for new uses can be a powerful means of demonstrating that there is an alternative to radical and destructive change and that old buildings, particularly those that still hold a symbolic significance for the communities concerned, need not be associated with poverty and neglect.

Such buildings are, in fact, still capable of playing a useful role in contemporary life. Their reuse can help stimulate the revitalization of traditional crafts and create new employment, and they can offer a strong attraction for residents and visitors alike.

In sum, adapting old buildings to new uses can be a source of pride, as well as economic and social benefits for the surrounding communities. For this reason, the exemplary, demonstrative value of successful rehabilitation and reuse projects can inspire the community and serve as a tangible demonstration that old is far from bad.

Definition of the Functional Programme

In adapting an old building, the first question is what to do with an old structure, often underused and sometimes derelict or abandoned. HCP's approach has always been to identify a functional programme that will be useful and relevant, self-sustainable, and not disruptive.

HCP's approach has been that of researching and promoting discussion within communities to identify uses that are relevant and that benefit residents. Libraries, health centres, adult education facilities, recreational and children's day-care places are but a few among the functions that can find a place in structures awaiting rehabilitation, particularly in declining historic areas where services are rare. The more these structures can be made part of the life of a neighbourhood, the more they will be appreciated and cared for, and the more they will serve as a demonstration that old buildings can continue to have a useful purpose.

Income-Generating Components

Once rehabilitated, if buildings are not maintained, within the span of just a few years they will be back where they started. Ensuring financial support for their continued maintenance is thus essential. However socially relevant they may be, such new uses per se cannot guarantee a building's long-term sustainability. In fact, socially relevant uses may bring in little revenue. A mix of activities is thus essential, some not or less profitable, others definitely to generate revenue. HCP therefore seeks to identify income-generating components for its adaptive reuse schemes, dedicating between one third and one half of the usable space to this purpose. Depending on the specific situations and the results of preliminary market studies, the inclusion of spaces that can be rented out for commercial or office use or as studio accommodation has proven an effective means of ensuring that revenue for the operation of the buildings is available. A further strategy that has proven effective in ensuring sustainability is adaptive reuse schemes that are not overly specialized. Spaces that are versatile and adaptable over time are more likely to remain occupied. If a given use fails or is no longer profitable, it can be replaced with another. Uses that are not overly specialized are also less likely to disrupt a historic structure.

In Keeping with the Past

The third prerequisite in defining a successful and acceptable functional programme is that a new use must be compatible with the historic character of the building. This is best achieved by avoiding total transformations. The ideal solution is one where the same use and spatial organization can be reinstated. But this is rarely possible. Even reusing an old house for the same purpose requires modifications and upgrading to accommodate changes in family structure, as well as the need to insert modern utilities. No matter how different the proposed new use may be from the original, the new use of the space should be compatible with the nature of the spaces and the architectural character of the old building. Preservation of the structure's circulation, hierarchy of spaces, decorative features, proportions and scale must inform the brief for its adaptive reuse, and not vice versa. This does not mean that change is excluded, but that it must be compatible in order to allow the building in question to remain true to its essence – both within, so as not to disrupt the interior articulation and significance of spaces, and without, so as not to alter the surrounding context.

Philosophy and Approach

The philosophy of intervention adopted by HCP in its rehabilitation and adaptive reuse initiatives has been to apply internationally agreed conservation criteria and standards, and to identify the best ways in which these can be adapted to the particular conditions of the site in question.

Respecting the existing fabric, including alterations to the building over the course of its evolution, is a major element of the approach. In general, the existing situation is, as much as possible, retained as found, particularly where there is no evidence of the previous



The timber carving on the facade of the Old Dispensary in Zanzibar is unlike any other in the Stone Town in its sheer abundance and vivacity.



A ceremony taking place in front of the new Caravanserai at Bagh-e Babur in the Old City of Kabul. Funds generated through activities at the Caravanserai are one means of making the garden self-sustaining.

configuration. 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. HCP has sought to conserve rather than replace any salvageable component of the building. In cases where replacement is unavoidable, techniques and materials used are compatible with the original ones. In particular, the use of cement is avoided as it is never compatible with traditional mortars. In cases where new components are inserted, such as with sanitary facilities, electrical works and other technical installations, these changes are rendered reversible and do not alter in any substantial way the building's existing configuration. Through new interventions, HCP seeks to improve the quality of the fabric and its long-term conservation whenever intrinsic structural faults are detected.

Back to the Future

HCP seeks to fit the proposed new uses around the original building 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. This approach usually determines the fundamental choices to be made in preparing the adaptive reuse scheme, as well as important decisions to be made before and during intervention. Usually the nature of the interventions

can be grouped into actions aimed at stabilizing and preserving the existing original building materials and features; eliminating accretions and inappropriate changes that are no longer justified; or re-establishing finishes and well-documented components that have been demolished or removed from the building. This occurs primarily in cases where the appreciation and presentation of the historic structure was seriously compromised by past demolitions. Interventions also aim to introduce services and modern conveniences or technical installations needed to enable the contemporary use of the building, without unnecessary emphasis and avoiding excessive juxtapositions. Ultimately, HCP's ambition is to reintroduce meaningful life to old buildings, and leave as few marks as possible.

Implementation and the Role of Training

Experience with local contractors in the contexts where HCP has been operating often reveals that conservation skills and experience are limited and that there is a need to disseminate effective conservation and repair techniques. This makes the development of training and apprenticeship programmes an essential aspect of the implementation of any building works. The complexity of integrating the training component with the building works process, as well as the need to identify and adapt new conservation techniques as the work proceeds, calls for the definition of implementation modalities especially tailored to the requirements and organization of each project.

Flexibility and Control

Often, HCP's project team retains control over the entire development of the construction work and, in different degrees, takes over the combined responsibilities of supervision architect and main contractor. Accordingly, the project team is responsible for planning the nature and schedule of works, coordinating labour and procurement of materials, and supervising the implementation of site activities and training, as well as monitoring the quality of the results achieved. Depending on the particular conditions, the work may be split into a series of separate components and implemented as work carried out by the apprentices, during or immediately following training, under the supervision of the trainers and project staff; through direct recruitment of experienced local craftsmen who are selected on the basis of their abilities and past experience; or by subcontracting discrete packages to specialized contractors selected on the basis of their competence and proven track record.

The combination of these different modalities of implementation makes it possible to maintain flexibility and control at all stages, thus enabling the project team to ensure good quality in the work performed, monitor and reduce costs, and facilitate close integration of the training component into the overall building conservation process.



Above, lime plaster to prevent water seepage is being applied to the dome of the Tomb of Isa Khan in the gardens of Humayun's Tomb in Delhi.

Below, workmen at the junction of the roof and wall on the south facade of the Great Mosque of Mopti, Mali, preparing to position new water spouts.