The Aga Khan Historic Cities Programme

STRATEGIES FOR URBAN REGENERATION
Gilgit-Baltistan, spread over 69,900 square kilometres, brings together a land of majestic mountain ranges and deep gorges with raging rivers and a heterogeneous population of a million whose origins are lost in the myths of antiquity.

Defining the region are the Karakoram Mountains and the Indus River with its several tributaries, with the Himalayas extending in the south and the Hindu Kush range in the east while the Pamirs cordon the north.

It is home to the high mountain valleys of Hunza and Baltistan, located in the upper catchment area of the Indus River and deep within the Karakoram, where nature with its peaks, glaciers, rivers and streams is omnipresent. Terraced fields draw water from a great distance through extremely well-engineered irrigation channels, attesting to efforts to make the best use of nature under harsh living conditions.

The location of the region is sensitive and strategic because of its boundaries with Afghanistan (Wakhan territory), with China and with Indian-held Kashmir. The construction of the Karakoram Highway (KKH), connecting Islamabad with Kashgar over the Khunjerab Pass (over 4700 metres), added to its importance, while the construction of further roads connecting Skardu with the KKH has given this region even more significance. The hydroelectric power potential of the Indus river system in Gilgit-Baltistan is another reason for the region’s significance.

The area may be perceived as impenetrable, but it has historically provided conduits for trade between Central Asia and South Asia, with some of the strands of the Silk Road passing through it. This vast mountainous region is populated by heterogeneous communities and tribes of fairly distinct ethnic and linguistic groups, deriving their origin from Aryan, Scythian, Mongolian, Tibetan, Turanian and Caucasian stock.

The earliest forms of religion reaching this region seem to be Hinduism, in time supplanted by Buddhism, before the spread of Islam between the ninth and the fourteenth centuries. The languages spoken in the region are Shina around Gilgit, and Balti, a form of Tibetan in Baltistan. People of Hunza and Nagar speak Brunukasii. Other languages or dialects spoken in Gilgit-Baltistan are Wakhi, Khowar, Turki, Kashmiri and Gujri. Urdu is understood and spoken in almost all areas, while English is gaining ground, particularly with the young.
Over time these peoples developed life styles that meshed fully with local environmental conditions. Frugality, self-dependence, optimal use of resources, and community endeavour emerged as their bedrock. The mountainous terrain is such that barely 1.5 per cent of the land is available for habitation. Water, though running in mighty rivers, was too far down to be readily harnessed. Streams were tapped and brought to parcels of land such as alluvial fans for seasonal crops through ingenious water channels. Only ‘useful’ trees were planted and looked after, with the apricot being a favourite, while quick-growing poplar was preferred for use in construction. The insufficiency of precipitation and the consequent lack of natural forests, particularly in Hunza, coupled with the burden of creating stone from huge rocks and the scarcity of available land resulted in the construction of multi-purpose single-room dwellings. These, typically, have a storeroom attached, and are made of mud and stone with no chimney or window, only a square hole in the centre of the roof over a fireplace where the cooking was done. Walls are tied in at various levels by wooden beams. A typical Hunza house presents a unique architectural design combining space, security and comfort, with a second storey for summer use. These houses clustered together to form settlements built on barren land that was of no use for the cultivation of crops. Their small size helped conserve energy required for heating as well as other resources. The cluster was also intended to provide security, as protective walls and watchtowers witnessed.

The first habitations in Hunza are reported to be those of Ganish, Altit and Baltit (since 1960 Karimabad), where khuns (fortified settlements) were formed, and water from the Ultar was taken to irrigate land. Over time watchtowers were added and the forts at Altit and Baltit took their present form. Skilled artisans from Baltistan reportedly carried out the work.

With easier access to and from Kashmir and having historical links with Tibet, Baltistan developed at a faster pace than Hunza. It generally also has bigger open spaces compared to Hunza, and has better resources in terms of land, or tree cover. Of the five valleys of Baltistan, Shigar is perhaps the most attractive. The valley is fertile with abundant water. Situated at an elevation of over 2440 metres, Shigar and the Shigar River drains the waters of the glaciers, feeding into the Indus. The Baltoro glacier, one of the largest in the Karakoram, begins at the north-west end of the valley. This is the main route for mountaineers headed to K2 and the Gasherbrums.

The other important valley in the area is Khaplu, which has borders with Ladakh (Indian-held territory). The average elevation of this valley is 2740 metres. Mountaineers on their way to the Masherbrums and the Saltoro range have to pass through Khaplu. Traditional housing here shows a great range in the use of timber, and has larger spaces as well as two-storey structures that use innovative wooden pillars. The palaces and forts are better developed and places of religion also testify to the rich architectural heritage that is regionally standard. A number of these forts or palaces, though relocated to lower sites during the Dogra regime, offered opportunities for restoration and adaptive reuse.

Our inventory of important cultural buildings in Gilgit-Baltistan includes eight major forts and palaces and nearly twenty minor ones, forty-five khangahs (Sufi retreats), 150 mosques, over fifty archaeological sites, thirty important tombs and fifty traditional polo grounds. Gilgit-Baltistan contains a very rich and pluralistic heritage – representative of Muslim cultures, but also of Buddhist and Hindu influences.

As mentioned, strands of the Silk Road passed through the Hunza and Indus valleys. Commerce, art, skills, ideas, religious faiths, languages and technology passed between East and West through these mountains. The cross-fertilization that occurred facilitated...
The revival of traditional crafts, such as weaving and embroidery, has been an important part of the socio-economic programmes. Trades such as carpentry have been fostered, and the handing down of household traditions has been encouraged.

Cultural development necessitating the involvement of local partner organizations, such as the Town Management Societies, the Karakoram Area Development Organization and the Baltit Heritage Trust, proved essential to building ownership and sustainability in the future for these projects.

Between 1992 and the present, not only have the three forts of Baltit, Altit and Shigar been conserved and put to use for the benefit of the communities, but work on Khaplu Palace is continuing, with completion expected in 2012. Sixteen historic settlements have been rehabilitated, a number of monuments and houses have been stabilized, and seven public buildings built, demonstrating traditional construction techniques and the use of local building materials. Two major enterprises were established: one in Hunza for embroidery and rugs, and one in Baltistan for apricot kernel oil and production of wood products (carving, construction and furniture). These efforts were backed up with the establishment of a number of new institutions.

Phasing 1991 – ongoing

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Background
BRIEF HISTORY OF PROGRAMME AREA
Hunza, nesting in the shadow of the Karakoram, first gained notoriety and fame from its location, the passa-
ge of which was coveted by the two expanding rival
empires during the 18th century in Asia: Russia under
the czar in Central Turkistan advancing towards the
Indian borders, and the British Indian empire expand-
ing to the north. In 1842 Sikhs who held Kashmir as
part of their domain entered Gilgit, opening the way for
the Dogra rulers to get a foothold in the region. The
latter had acquired Kashmir after the British had bro-
taken the Sikh power in the Punjab and the treaty of
Amritsar was signed, in accordance with which Kashmir
(which included the territories of Baltistan and Astore)
was transferred in 1846 to Maharaja Gulab Singh, the
Dogra chief from Jammu. Realizing its strategic impor-
tance, in 1876 this area was taken away from the maha-
Dogra chief from Jammu. Realizing its strategic impor-
tance, in 1876 this area was taken away from the maha-
raja under a treaty by the British. The region was directly
administered by the British, while Baltistan continued
to be administered by Khaplu Sial as part of Ladhik,
which was conquered by Sikh and Dogra troops before
1842. In December 1891 a successful campaign was
conducted against Hunza/Nagar. The main battle was
fought at a place called Hing-i-Harg. In 1925 the Govern-
ment of India arranged with the maharaja of Jammu and Kashmir to lease an area of 98 by 80 yards whereby the territory except Baltistan and Astore areas would be adminis-
tered by the British Raj. In 1947 Independence of India and Pakistan the whole area was returned under the
control of the maharaja of Jammu and Kashmir who
appointed a Governor in Gilgit with military governorate
in Gilgit and Baltistan. On 31 October 1947 the control
of the Jammu and Kashmir administration was vested
in the maharaja’s representative in Gilgit and his
troops were evicted by a successful War of Liberation
in favour of Pakistan. On the request and invitation
from the area of Gilgit-Baltistan, the Government of
Pakistan took over the administration in mid November
1947 which in 1948 was extended to Baltistan following its Liberation.

Significant Issues and Impact
MASTER PLANNING PROCESS
In Hunza, the process was based on participatory inputs. Meetings and detailed follow-ups by experts with the
community and with government planning depart-
ments were held and options explored, resulting, in the
case of Karimabad, in the ‘Karimabad Conceptual Devel-
opment Plan’. In Shigar, with the community and govern-
ment representatives on board and in collaboration with
other agencies such as World Conservation Union (IUCN), land-use plans were generated.

BASELINE STANDARDS
These relied on Agra-Khan Rural Support Programme’s
(AKRSP) surveys in most cases for data on the socio-
economic conditions. For physical surveys, teams were trained locally and employed. Some of these
teams, especially women-based ones, were further
supported and have since 2005 been carrying out excellent survey work.

SOCIO-ECONOMIC INITIATIVES
The first initiative was the Swiss-funded ‘Karakoram
Handicraft Development Programmes’ (KHDP), with a
focus on reviving the traditional art of embroidery work,
which has since been subsumed by the Karakoram
Area Development Organization (KHADO). The KHADO
was initiated in 1996 as an action-research pro-
gramme, when the community in Hunza, the Swiss
Development Cooperation Agency (SDC) and AKCS-P
decided to revive crafts and promote enterprise and
economic development with a special focus on women.
The success of the action-research phase in 1996 and
the formation of a regional body – KHADO as a local
institutional body representing Hunza Valley – offered
AKCS-P the opportunity to transfer the operational re-
sponsibility for KHADO to KHADO in a staggered manner.

Capacity building for KHADO during the early phase of
the project, especially in administrative and financial
skills, facilitated this handover. KHADO allowed 3000
women, working out of their homes, to enhance their
income through production of embroidery work – a
work that Hunza women had prided themselves on
for centuries but which was dying out. In Balti-
yan, a similar organization, the Baltistan Enterprise
Development and Art Revival (BEDAR) was set up by
the Baltistan Culture and Development Foundation.

funding from the SDC. BEDAR is the Urdu word for
‘awakening’ and was chosen to parallel the symbolic conne-
cctions with regard to the resurrection of traditional values.
Initiated in July 2003, BEDAR selected a number of produ-
cut lines. Of these, woodwork has achieved the best re-
sults, while responding to a local and regional demand using the comparative advantage strategy to effect. In woodwork, woodcarving and production of skill (remark-
skilled) – a traditional skill that was recently on the
verge of extinction – have been revived by apprenticing
young trainees with masters (mehtars) and the products
are being sold in the markets. The small workshop was
expanded and new furniture and construction carpentry
are in the main products. The allow for substitution of im-
ported goods, since furniture items were trucked in all the
way from Islamabad, a real journey of ten days. Produ-
cutting local wood furniture of a medium of a reasonable standard
in Baltistan helps the local economy. The large numbers of projects attempted with the help of AKCS-P are becoming
an economic resources, and plenty of wood-related em-
ployment opportunities are emerging.

QUALITY OF LIFE
In order to meet the ever increasing needs for proper
infrastructure projects, an initial project was conceived
and launched in Karimabad to cater for the needs of people living in the historic settlements. Based on
positive results, these efforts were extended and
through a community-based initiative the historic villages
of Karimabad, Ghanit and Attab now have these facilities.
In Baltistan, the Shigar community ordered to use trad-
tional community halls; these have been improved
through better design and better locations. In Attab,
Shigar and Khaplu clean drinking-water projects were launched that provide water for the ancient landmark monument
while also supplying water to the adjoining settlements.

Challenges
DEMOGRAPHICS
In 1991 the general population for Gilgit-Baltistan was
estimated to be half a million, now estimated be one
eighth. The rise in population growth is estimated to
be 2.5%. Gilgit and Skardu are the main towns with
populations estimated at 150,000 and 30,000 each.

ENVIRONMENTAL CONCERNS
The construction of the Karkoram Highway (KKH),
which connected Islamabad to Karakoram, and the con-
struction of other roads linking all the major towns with
Gilgit also opened the area up to outside influences.
The ease of having construction materials at hand, such
as cement and corrugated iron sheets, had a major
negative impact, as, rather than relying on local materials such as stone, propir wood and mud bricks that were
suitable for the extreme climatic conditions, these so-
called modern constructions started to encroach into
the area. Arising this trend and seeking design and con-
struction to respect local materials and traditional
construction techniques is an area of focus for AKTC
work in Hunza and Baltistan.

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Authoritative Framework
Frameworks – known as ‘Terms of Partnership’ (TOP) – were negotiated for each of the project interventions
with the beneficiary community. These TOPs laid down the roles with AKCS-P’s mandate having technical respons-
sibility, while the community would be responsible for the social aspects and for subsequent use of the project.

Partners
COMMUNITY PARTNERS
Khaplu Town Management Society, Attab Town Man-
agement Society, Ghanit Khun Heritage and Social
Welfare Society, Shigar Town Management and Devel-
opment Society, Khaplu Town Management and Develop-
ment Society, Baltistan Area Development Organis-
ation, Baltistan Culture and Development Foundation.
Project Scope / Objectives

The physical conservation of Baltit Fort was conceived for several interrelated objectives. The first of these was to restore and reuse the Fort as a museum and cultural centre and to protect and manage the built environment of Karimabad. A second objective was to train local people in conservation and related disciplines, establishing a pool of professionals capable of undertaking future restoration projects. Third, the project is meant to serve as a demonstration of excellence in conservation and to stimulate awareness and understanding of the significance of restoration and reuse of similar monuments.

Baltit Fort not only towers over Karimabad, but is also the sentinel of the Hunza Valley. Under the protective presence of the Fort, the houses of the traditional settlements of the old Baltit (now Karimabad) Village are gathered along the slopes beneath it. The Fort forms the backdrop and the focus to these settlements. Restoration and reuse of the 700-year-old Baltit Fort as a cultural and historical museum, and the conservation of its context, the historic settlement of Karimabad, are best seen within the perspective of changes that started in the second half of the twentieth century with the independence of Pakistan and accelerated from the 1970s onwards.

Many of the traditional social conventions that held the community together in the past had been weakened first with the abolition of the mir in 1974 and then when Hunza, which had remained largely insulated from external forces, was opened up in 1979 with the construction of the Karakoram Highway (KKH) that links Islamabad to Kashgar.

It was recognized that, if not managed properly, forces of change resulting from development could spoil the impressive natural setting and the cultural heritage that was Karimabad's major resource. Preservation of the outstanding physical and environmental qualities was deemed essential to the well-being of central Hunza. The peaks of the Ultar, Rakaposhi and others, the terraced fields, the irrigation channels, the clustered settlements, the wealth of historic buildings and the rich cultural heritage needed to be protected and made to act as drivers for development.

The rapid change from a secluded rural area into a semi-urban one, with the attendant issues of infrastructure, traffic, commercial activities, tourism and new construction modes, all affected the physical environment and charm of Karimabad. These facts needed to be taken into account as part of the programme that had started with the restoration of Baltit Fort.

Baltit Fort had been abandoned in the early 1950s and a new palace constructed where the mir had moved with his family. In the 1980s the Fort was fragile and if it had been permitted to collapse Hunza would clearly have lost its major landmark and an important part of its cultural identity. However, before conservation work could be started, it needed to be transferred from private to public ownership. In 1985, with the assistance of the World Bank, the Fort was purchased by the Pakistan Government and handed over to the Gilgit-Baltistan Area Programme.
public ownership. The mir on behalf of his family graciously decided to gift the Fort and the land surrounding it to the newly formed Baltit Heritage Trust (BHT) enabling a physical programme of works to be initiated.

From the beginning it was intended that the conservation should retain the historic character and appearance of the Fort. The restoration of missing features would be based on sound archaeological evidence. It was also realized that if the restored Fort were to enhance and promote cultural values of a living culture it needed to contribute to economic opportunities for the residents and to generate sufficient income to sustain operation and maintenance costs. Accordingly, the main uses selected for the restored Fort were those of a museum and active cultural centre.

While work started on Baltit Fort, a strategic framework for the orderly physical growth and development of Karimabad, and for the maintenance of its environmental and cultural assets, home to a population of around 5000, was developed, resulting from the analysis of its situation in 1992, and leading to the development of the ‘Karimabad Conceptual Development Plan’ (KCDP).

Although the plan for Karimabad, as conceived in the KCDP, is still not enforceable by law, it increased the awareness of the community about the issues at stake, leading to a participatory development process and the need for a community-based institution. In order to anchor this process in the local community, the Karimabad Town Management Society (KTMS), a democratically elected body, was formed and registered under the Social Welfare Societies’ Law. The KTMS promotes community involvement in planning efforts in Karimabad and also exerts influence on development projects that advance the KCDP land use, infrastructure and road planning components. The KTMS has also attracted donor funding for a sanitation project that has enabled full coverage to Karimabad and the lower village of Ganish. This was in line with the earlier pilot project of rehabilitation and sanitation project for a portion of Khurukshah Village that had succeeded in bringing people back to old settlements that were being abandoned.

With increased interest from the community and awareness about the need to plan for development and channel change, Karimabad is in far better shape now than it would have been without the KTMS. There is a new attitude towards the local environment that helps to preserve the farming terraces and encourages the introduction of improved standards of health and hygiene, while reviving sound traditional construction techniques.
The Karakoram Handicraft Development Project, which was set up to complement the Baltit Fort project, and since 1999 managed by the Karakoram Area Development Organization (KADO), produces small embroidered gift items, shawls (local woolen rugs) and hand-knotted carpets, allowing for increased incomes for thousands of women. KADO also operates a solid-waste disposal programme in central Hunza.

By mobilizing community resources, providing incentives, and demonstrating evidence of short and long-term benefits, the restored Baltit Fort has transformed Karimabad into a focus of interest in northern Pakistan, while giving local culture a renewed legitimacy in the face of powerful factors of recent change. The project has helped to renew the residents’ pride in their heritage. The restoration of Baltit Fort within its setting of the historic village of Karimabad demonstrates the ability to integrate conservation issues in the larger context of community and regional development.

**Background**

**BRIEF HISTORY OF PROJECT SITE**

Balti Village is one of the three oldest known settlements in Hunza, the others being Garnah and Altit. Under the protective presence of the Fort, the houses of the traditional settlements of old Balti (now Karimabad) Village are gathered up the slopes beneath it. Balti Fort is dramatically located at the top of a natural amphitheatre formed by terraced slopes, and the site was carefully chosen to control the irrigation channels that emanate out of Ulta. It is a remarkably complex building resulting from more than 700 years of organic growth, starting possibly from a watchtower and an adjoining building. Traditional stories mention that it was never captured by outside powers until the advent of the British in 1911 after having defended the joint Hunza-Nagar forces at NAR, when Balti Fort was opened up and the British took control.

**Significant Issues and Impact**

**DATA COLLECTION/SURVEYS**

A number of surveys were completed for the ‘Karakoram Conceptual Development Plan’ in the mid-1990s, in the physical and housing realms, as well as building typologies, demographics and economic conditions. For protection needs, surveys to determine sizes and future needs were carried out. After restoration and its opening, Baltit Fort attracted large numbers of visitors (around 20,000), which, though, have declined sharply after “9.11” (11.09.2001). However, since 2000 around 3500 foreign visitors and 8000 domestic visitors paid for access to Baltit Fort.

**MASTER PLANNING PROCESS**

The ‘Karakoram Conceptual Development Plan’ was commissioned in 1992, when it was realized that the traditional settlements were being abandoned, with the consequent implication of building new houses in the terraced land, resulting in the charm of the belt of Balti being stymied with unsightly new constructions in concrete and at the cost of the farming terraces and orchards. New unpaved road constructions were being planned that would destroy old settlements and also Karimabad open to all sorts of commercial exploitation, taking away its charm and balance. The multiple-saving planning processes had a number of objectives, including establishment of a representative local institutional body – the Karimabad Town Management System – allowing for conservation of both the traditional settlements and the scenic environment and establishing an adequate road and service infrastructure to provide for appropriate land-use patterns while responding to a growth in population and changing economic trends.

**PLANNING ISSUES**

Abolition of Hunza State in 1974 led to an institutional vacuum, as no proper authority took over the responsibilities of the Mirdom that had existed since then. Further, the anomalous status of Balti and Ghulkin in Pakistan has not allowed for a system of governance that responds to local needs. This was ameliorated by the fact that Karimabad was not treated as a town or municipality, further affecting planning or its development. Thus, patchwork development projects implemented through annual development plans have been the norm. It is only in late 2008 that a deputy commissioner has been placed in Karimabad, and a more formal planning process is expected to start.

**HISTORIC BUILDINGS/MONUMENTS CONSERVED**

In addition to Baltit Fort, five historic houses in its vicinity, two mosques – including the Hanging Mosque on the pathway to the Fort – and the historic waterfall that used to be the ground artery of the watchtower, as well as another watchtower, have been restored. For the Fort, remains were found by putting a temporary protective cover on the roof, while structural problems of the foundations and load-bearing walls were tackled first, allowing for conservation of the architectural fabric and dressing stones. Timber elements were processed and reinstated at the critical intervention points, while modern interventions were also inserted for extra structural strengthening, such as synthetic polyester reinforcement materials and polymer anchor cables. Additional importance was given to preserving the timber framing and cobbled work, as a means of demonstrating the value of this unique engineering and construction system in resisting earthquakes and of rewinding traditional local skills and crafts.

**CONTRACTING METHODS**

The Aga Khan Planning and Building Services (APBS), then known as the Aga Khan Housing Board, was contracted to carry out work on Baltit Fort under the supervision of ARTC. Work on Baltit Fort and the rehabilitation of the historical settlements around it engaged over 200 unskilled people.

**QUALITY OF LIFE**

With support from the community a modern sanitation system has been laid in order for all the residents of Karimabad as well as Garnah, covering 1000 households. Piped water schemes have also been implemented, while the local community is encouraged to move animals to their fields.

**LESSONS LEARNED**

This being the first conservation and rehabilitation project brought about a wealth of learning to other projects that were taken up subsequently. The major development was the bringing together of the conservation and rehabilitation processes as that planning and implementation were further improved.

**Challenges**

**PROJECT RISKS**

This was the first major project of its kind ever in Gilgit- Baltistan, wherein traditional expertise was called in for the conservation.

**DEMOGRAPHICS**

The historic settlements immediately below the Fort were being abandoned as households realized that neither they nor their children could ever hope to continue the traditional way of life.

**AVAILABILITY OF DRINKING WATER AND SANITATION FACILITIES**

Traditionally the sources of water are the irrigation channels that tap the Ulta. The water in these channels was very carefully monitored to ensure judicious distribution, particularly during early spring when new crops were in need. Also it was ensured that these channels would not be polluted and no direct washing of clothes, bathing or throwing of rubbish would occur, as also from septic tanks from these channels. However, with changes leading to the abandonment of the first piped water lines and the abolishment of the Mirdom, the new inhabitants of the fort for the restoration in the water channels no longer being cleaned. Also the traditional system of sanitation was being abandoned for modern systems by setting up crude cesspits.

**ENVIRONMENTAL CONCERNS**

A road was planned to go through the historic settlement that would affect most of the households and women had to lead to the total abandonment of the settlement.

**BUILDING CONDITIONS**

Balti Fort was in a state of advanced decay, with the roof becoming a patchwork of holes. Rainwater was able to get into all parts of the building and even down to the lowest levels, moist of the embankment had indeed, while renders were reduced to piles of soil collected on the floors. Many walls were tilting and others had settled because they did not have foundations or protective cover on the roof. The architect formed by terraced slopes, and the site was carefully chosen to control the irrigation channels that emanate out of Ulta. It is a remarkably complex building resulting from more than 700 years of organic growth, starting possibly from a watchtower and an adjoining building.

**Authoritative Framework**

Agreement signed in 1991 with the Baltit Heritage Trust for the restoration of the Fort and its return to the Baltit Heritage Trust for its future upkeep and use.

**Partners**

**PUBLIC PARTNERS**

Government of Pakistan represented on the Baltit Heritage Trust.

**COMMUNITY PARTNERS**

The community of Karimabad.

**Donors**

**PUBLIC PARTNERS**


**COMMUNITY PARTNERS**

The community of Karimabad.

**PUBLIC PARTNERS**

Altit Fort

**GILGIT-BALTISTAN, PAKISTAN**

Altit Fort is another of the great landmark monuments of Gilgit-Baltistan. Indeed, the shikarī (watchtower) is some three hundred years older than the first phase of Baltit Fort, making it the oldest surviving standing structure in the western Himalayas. Arguably, it is also the most spectacularly sited fort, built on the very edge of the main Hunza gorge. It sits above 200-metre-high sheer cliffs and precipitous slopes that cascade down towards the river. Its importance stems from the control it exercised on the upstream communication routes.

The conservation strategy for Altit Fort was to preserve it in its ‘found’ state. Most conservation works therefore related to mending structural defects, stabilizing existing walls, realigning render to the wall substrates, replacing some roofs, treating wood decay and providing a nominal amount of lighting. However, for the walls that were too unstable, the infill was removed to allow them to be jacked back to more vertical positions and the stone and/or adobe soil blocks replaced in their original positions – making use of detailed survey drawings and photographs. This rather purist concept, an exciting objective in its own right, is significantly different from solutions applied to Baltit Fort, Ganish Village and Shigar Fort.

The conservation strategy for Altit Fort also extended to the associated historic garden, to the north of the Fort. Today, the garden is being kept as it is. When one enters the garden it is like stepping back in time.

But before starting conservation of Altit Fort, it was decided to first rehabilitate Altit settlement, in order to allow for heritage-related values to take root more firmly, while reducing negative commercial pressures. The formation of the Altit Town Management Society (TMS), with a general body including forty per cent of women members and long deliberations about the impact of development, led to a clearer realization by the Altit community of the need to be proactive and involved in the cultural development process. As a result, the interventions in the environmental context, that is, in relation to the historic settlement, the ancient Fort and the built-up or agricultural land, took place under a citizen-managed land-use programme, prior to the monument conservation project.

Built on rocky, unproductive terrain, the settlement reflects traditional values of land use and conservation in a region scarce in agricultural land. Its historic

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**Project Scope / Objectives**

The scope of activities in the case of Altit Fort included documentation of the highest standards and development of a conservation plan that followed a strategy aimed at preserving a ‘found’ approach. An additional goal was to fully tie the surrounding Altit Village to the Fort through social and economic bonds.
dwellings exemplify indigenous architectural forms, building techniques and materials well adapted to an environment whose hazards include earthquakes and bitterly cold winters. In addition, the historic settlement, with its compact design and common spaces, supports a culture of cooperation, respect and mutual interdependence that is one of Hunza’s most unique and valuable assets.

By the late 1990s, the core settlement of Altit was abandoned by its residents, largely because of unsanitary living conditions and the inadequacy of houses to support modern life. A consequence of this process was the building of new houses in the surrounding farmland, where families with the financial means could create dwellings with modern facilities and greater living space. The newer houses, with their cement-block construction and rudimentary sanitation systems, contributed to an increase in pollution and a decrease in social cohesion. Moreover, the new construction came at the detriment of the verdant farming terraces and centuries-old fruit orchards that cover the surrounding hillsides. The physical condition of the Khun became increasingly dilapidated and its common spaces and historic houses were neglected.

Keeping in view the historic, cultural and architectural value of the village, an intervention was conceived that would enhance the value of the old settlement and demonstrate that people can sustain life at contemporary standards in harmony with the traditional built environment. The rehabilitation process included the piped of clean drinking water into each dwelling, the introduction of a modern sanitation system in difficult mountain terrain and the underground electrification of the settlement. In addition, the project undertook the revitalization of common public spaces, improvements to the exterior of the historic houses and the paving of lanes and cul-de-sacs with stone. The project was accomplished with a high level of community participation, and succeeded in changing the attitudes of the people towards the settlement, bringing many families back into their historic residences. It also created a new attitude towards the natural environment, and has thereby slowly stopped the demolition of historic buildings and the random construction of new houses in the scenic farming terraces. In addition to establishing new standards of health and hygiene, it has revived traditional crafts and building techniques developed over centuries.
The four-hundred-year-old Shigar Fort was selected for adaptive reuse and restoration as a major strategic investment that would re-establish community identity and confidence by conserving and putting into use one of the major heritage assets of Baltistan, in the rugged high desert mountains of the Karakoram in northern Pakistan. The current function of the Fort/Palace complex as a heritage guest house and museum is having ripple effects in terms of economic benefits for the community, generating employment and training, both in artisanal skills and in tourism. The project provides an income stream for future maintenance of the Fort and to sustain local institutions. The value of cultural heritage has become evident in the region. Community-based planning and rehabilitation of the three traditional settlements of Khlingrong, Chinta and Halapa surrounding Shigar Fort accompanied the restoration, with three additional villages – Giangpa, Champaq and Agapa – benefiting from similar rehabilitation efforts subsequently. The upgrading of the Shigar public bazaar and the construction of a community school building using traditional techniques and local materials at Sainkohore were also undertaken.

Built on a massive boulder, Shigar Fort is locally known as Fong Khar – literally the Fort on the Rock. Located on the right bank of a mountain stream, slightly elevated above the nearest hamlets of Shigar, it is at the foot of a steep rock formation, a hundred or so metres high, on top of which lie ruins of the original fort.

Raja Hassan Khan, the twentieth ruler of the Amacha dynasty, ascended the throne in 1634, but lost his kingdom to invaders. He managed to regain his throne with the help of forces of the Mughal emperor Shah Jahan. The raja brought various artisans including shawl weavers, carpenters, goldsmiths and stone carvers from Kashmir to Shigar and proceeded to build the Fort/Palace. Fong Khar was gradually abandoned in the 1950s in favour of more recent annexes, built in its immediate vicinity.

Shigar Fort in its ‘received’ state was an abandoned and neglected building that had undergone many changes. But it was also a wonderfully preserved statement of history. The idea of promoting a new type of environmentally conscious cultural tourism was decisive for the reuse design of Shigar Fort, both in

Project Scope / Objectives

The objectives for the Shigar Fort project were the renovation and reuse of the monumental heritage monument in Shigar, leading to a revival of pride, identity and skills for the community. Two main tasks were heightening the awareness of the importance and relevance of cultural and architectural heritage in the present, the initiation of conditions for socially responsible tourism and economic development of the area, and finally, the creation of revenues for the maintenance of the Fort, as well as for the community.
was refurbished and extended to offer seven additional guestrooms that are more ‘conventional’ and modern in character, that is, larger and more practical than the average guestroom in the Fort. However, most of the rooms overlook the garden and therefore have a charm of their own. Offering two alternate accommodations enables the complex to cater for different tastes and types of clients.

Beyond its architectural and environmental merits, this project is the first attempt to achieve a wider cultural development initiative in Gilgit-Baltistan based on the promotion of a new type of culturally and ecologically sensitive tourism. The location of Shigar on the access route towards some of the highest mountains in the world and the metalled road between Skardu and Shigar facilitates marketing of the guest-house complex. Guests have the opportunity to engage in short treks in the vicinity, or to indulge in trout fishing. They can climb Shigar rock, visit the hot springs at Chutron (two hours from Shigar), visit monuments in Shigar and Skardu, or take day-tours to Khaplu, Kiris and Karmang, or Deosai.

The development of local institutional capabilities has been vigorously pursued by the Aga Khan Cultural Services-Pakistan (AKCS-P), resulting in the formation of the Shigar Town Management and Development Society (TMDS), an active partner for all projects and activities in Shigar. The TMDS as an institution that consolidates and brings together the thinking of the Shigar community on matters related to culture and tourism has been an essential mechanism, acting as a bridge and allowing for the articulation and discussion of views, while also allowing for information and news to reach the community in a considered and comprehensive manner.

The project provided an opportunity to act as a catalyst for a comprehensive improvement of the local economy, generating direct and indirect employment opportunities. Situated in the immediate proximity of a poor and unskilled village population, it was thought the Shigar Fort Residence project could raise the quality of life in the villages surrounding it, and boost economic enterprises in the bazaar area. This process was accompanied by a proactive village upgrading and rehabilitation programme that has reached almost twenty-five per cent of the households of Shigar’s two union councils.
Background

**BRIEF HISTORY OF PROJECT SITE**

Fong Khan is the last remaining structure associated with the ruling Amacha family, which claims to have ruled Shigar for 32 generations. Sources describe the Amachines as having their origin in the "Hamacha" tribe of Garnish, Hunza. The present rajah, Mohammad Ali Shugh Taloo, believes that the Amachas originally belonged to China. Buddhism runs in the vicinity of Shigar Fort heavily to the lengthy human occupation of the site.

**PROJECT RISKS**

Since this was the first major project of its type in Baltistan, in order to create credibility and trust with the local community and demonstrate the procedures and benefits of culturally relevant rehabilitation, the restoration of the Amachas Mosque in Shigar, selected in consultation with the community, was carried out in 1998. The result of the conservation impressed the community, significantly, paving the way for the restoration of Shigar Fort.

**DEMOGRAPHICS**

Like other valleys, provision of clean drinking water remains a major issue of concern. Although there are a number of piped water systems, these carry untreated water.

**HISTORIC BUILDINGS/MONUMENTS CONSERVED**

During the past two to three centuries Shigar Fort had already undergone many modernization and adaption. As found in 1998, it was in a partially ruined condition, with some of the former rooms serving as cow-sheds and a new ramp access leading directly into the former reception room.

**PHASING 1999 – 2009**

<table>
<thead>
<tr>
<th>Year</th>
<th>Project Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>Gifting of the Fort by the owner RAj Azam Khan</td>
</tr>
<tr>
<td>2000</td>
<td>Start of physical conservation work</td>
</tr>
<tr>
<td>2001</td>
<td>Rehabilitation work in the settlement of Khpling, Chimp and Halapa</td>
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<tr>
<td>2002</td>
<td>Work on Shigar Bazaar</td>
</tr>
<tr>
<td>2003</td>
<td>Rehabilitation work in settlements completed</td>
</tr>
<tr>
<td>2004</td>
<td>Competition of Shigar Fort restoration and opening to visitors</td>
</tr>
<tr>
<td>2005</td>
<td>Work on Shigar community school started and rehabilitation of three more settlements, Shigar Fort Residence under TPS management</td>
</tr>
<tr>
<td>2006</td>
<td>Rehabilitation works completed</td>
</tr>
<tr>
<td>2007</td>
<td>Work on school completed</td>
</tr>
<tr>
<td>2008</td>
<td></td>
</tr>
</tbody>
</table>

**BUILDING CONDITIONS**

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**Significant Issues and Impact**

**PLANNING ISSUES**

A combined museum/guest-house option was selected for Shigar Palace that allowed ARCS-P to develop a different restoration philosophy, complementing the approach applied to Baltit Fort. The reuse aims helped to carry out a more proactive policy of consolidation, restitution and reconstruction based on the evidence uncovered during the consolidation process. All efforts have been made to preserve the patina of older elements, and newer elements and finishes have been executed to be in sympathy with this age value.

**DEPENDENCIES/INCOME CONSERVED**

The positive impact of the conservation of Shigar Fort translated into practical action by the Shigar community. In one case the shrine of one of the saints in Shigar was restored by the community itself winning a UNESCO award of merit. The larger community has started work on a James Mequl using traditional design, materials and construction techniques.

**NEW BUILDING FACILITIES**

The Abruzzi Higher Secondary School Building has been built, designed to be compatible with local conditions and continues to carry out a more proactive policy of consolidation, restitution and reconstruction based on the evidence uncovered during the consolidation process. All efforts have been made to preserve the patina of older elements, and newer elements and finishes have been executed to be in sympathy with this age value.

**AUTHORITATIVE FRAMEWORK**

Raja Azam Khan and his father Raja Mohammad Ali Shugh Taloo after the main Fort building and the local it allies to ask ARCS in 1998, while the Old House and lands around it were purchased. The Garden House was taken on a six-year lease with access to the Amacha garden in exchange for building a house built for the Raja. The Tourism Promotion Services has been managing Shigar Fort Residence as a guest house since 2008.

**Donors**


**Community Partners**

The Community of Shigar.

**Lessons Learned**

In order for local community institutions to have sustainability, the resources to viable restoration and reuse projects, such as Shigar Fort Residence, are critical. Also utilizing the strengths of AKDN agencies provides synergies. The role of Tourism Promotion Services (TPS) in managing the Residence exceedingly well is a case in point.

**Table: Key Benefits**

<table>
<thead>
<tr>
<th>Category</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tourism</strong></td>
<td>Additional 2000 visitors in 2005, 60% of whom were international</td>
</tr>
<tr>
<td><strong>Economy</strong></td>
<td>Minor Construction jobs were undertaken to carry out the restoration of Shigar Fort</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>The conservation of Shigar Fort had a significant impact on the local community and the preservation of heritage</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td>The restoration of Shigar Fort had a positive social impact on the local community, particularly in terms of education and community engagement</td>
</tr>
</tbody>
</table>

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**Donors**


**Community Partners**

The community of Shigar.
Khaplu Palace

GILGIT-BALTISTAN, PAKISTAN

Khaplu is the easternmost part of Baltistan, with the Shyok River, a tributary of the Indus River dividing the valley. The steeply sloped valley has less land available than other valleys in Baltistan. However, in terms of architectural heritage and cultural expression it arguably has more treasures than Shigar, possibly as a result of its proximity to both Leh in Ladakh and Srinagar in Kashmir.

In Baltistan, a region rich in cultural heritage, Khaplu Palace is the finest surviving royal residence. Built by the Yabgo Raja Daulat Ali Khan in 1840, it replaced an earlier fort constructed 600 metres above the present location, of which little now remains. As a former seat of royal government, the Palace is exemplary in terms of its building typology and aesthetic and structural qualities.

Following the inauguration of the restored Baltit Fort in 1996, His Highness the Aga Khan visited Baltistan where he emphasized the role of culture in development and environmental management in an address to a large gathering. This led to an invitation to the Aga Khan Cultural Services-Pakistan (AKCS-P) to extend its activities to Baltistan. An exploratory expert mission was sent to Baltistan in 1997 to visit over eighty sites. This was followed up by systematic inventories in 1998 and following years establishing that the cultural heritage of Baltistan was worthy of international recognition.

Among the pilot projects that were implemented by AKCS-P in Baltistan, in Khaplu the upgrading of a typical traditional house, the construction of a community building and the restoration of the astana (prashad house or tomb and shrine of a venerated saint) of Syed Mir Mohammed were initiated in 1998. The surveys had established Khaplu Palace and Shigar Fort as the two landmark buildings with outstanding historic and architectural merit. While work following a successful dialogue with the raja of Shigar and the community was started on Shigar Fort, in the case of Khaplu the understanding for its restoration was reached when the benefits of restoration and reuse of Shigar Fort became visible in 2005.

Rehabilitation of the historic settlements of Hunduli and Bani was initiated in 2003, using simple, low-cost interventions such as improved composting, the creation of community latrines and of places for washing clothes, as well as bathrooms for men and women. Piped water delivery was improved and stone paving of the pathways and streets was put in place. Meanwhile the establishment

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Project Scope / Objectives

The Palace complex is being conserved or developed as part of a reuse project that will turn the property into an up-scale hotel – a 21-bed residential retreat. The aim of the project is to create a tourism circuit based on cultural heritage and to generate economic and employment opportunities for locals.
Top, distinctive features of Khaplu Palace are the rooms projecting out from the north facade (left) and the wooden balconies on the south facade (right).

Left, carpentry workshops prepared workers for erecting house frames.

Right, a stone floor is being laid in one of the complex’s buildings.

Left and above, an extended elevation of the complex and a north elevation of Khaplu Palace.
The complex of Khaplu Palace building; beginning of the project work December 2006 and ancillary buildings

BACKGROUND

BRIEF HISTORY OF PROJECT SITE

Until the creation of Pakistan in 1947, the territory of Baltistan region had just fallen under the control of the Dogra ruler, spices, and changing their specifications. Related also to future employment opportunities, which infrastructure services have aimed at providing clean drinking water from the filtration unit established for the village.

INFRASTRUCTURE

This village.

CHALLENGES

SITE CONDITIONS

The site is a series of agricultural terraces that long pre-date the construction of the Palace and its ancillary buildings. The histonomy of these terraces was a value that had to be protected and enhanced through appropriate treatment of the vegetation contained by them.

HISTORY OF ECONOMY

In general household economy depends on agriculture, with some seasonal tourism-related activities when local produce and animal products are available.

AVAILABILITY OF DRINKING WATER AND PROPER SANITATION FACILITIES

The downstream village of Doksa will be provided with clean drinking water and it is expected, as demonstrated in Shigar, that water borne and gastro-intestinal diseases will be reduced to statistical insignificance in this village.

INFRASTRUCTURE

Infrastructure development has raised issues of conflict, related also to future employment opportunities, which were realised by realignment, relocation of certain services, and changing their specifications.

BUILDING CONDITIONS

Most buildings that tend to the 'monument' status are built in stone or mud-block infill in a framework of timber elements. More modest buildings are built generally in masonry or mull-block construction reinforced with horizontal timber tie and vertical poplar ties (columns embedded in masonry) or Khewprang (vertical columns traversing more than one floor). Internally walls are provided with a thick plaster render of mud and straw which provides buildings with adequate insulation during the bitter winter months. Typically these techniques are not used any longer at the popular level, having been replaced by concrete blocks, reinforced concrete and corrugated sheet steel – all without any insulation – leading to numerous health and social issues.

Significant Issues and Impact

PLANNING ISSUES

As elsewhere, a voluntary civil society organization, the Khaplu Town Management and Development Society (TMDS), was helped into existence. Community-related issues, including land-use control, are partially regulated by the help of the Khaplu TMDS. However, since Khaplu is the headquarters of the Ghizer District, the Town Council mandated by the local Government Act also exists, and works in the same deficient manner as many such institutions in the public sector do. The Khaplu TMDS acts as a civil society balancing institution for staff, and the standby power building, which will house the standby generators, the transformer substation, government of Norway, government of Japan. The main Palace building and the Darbar was bequeathed to AKDN. The ancillary buildings and the ancillary residential buildings.

NEW BUILDING FACILITIES

The main buildings on the complex comprise Rastar Khang and the services block. Rastar Khang will offer nine of the 15 guestrooms outside Yabgo Khar, and has been designed as a new functional building, but in the traditional material of natural stone and earthen mortars, and filled with lime for seismic stabil- ity. The less service blocks are located on land removed from the main complex, and comprise the laundry building, which also includes a small cafeteria for staff, and the standby power building, which will house the standby generators, the transformer substation as well as being accommodation for some staff.

COMMUNITY INVOLVEMENT/PROGRAMME

Through the Khaplu TMDS, the community is benefitting from employment and skills training at the construction site of the project. The Tourist Promotion Services has already started the process of selecting a cadre of employees who will work as trained staff in the complete project.

VOCATIONAL TRAINING/CAPACITY BUILDING

About 30 staff drawn from the community are being trained in the hospitality trade as cooks, waiters, housekeeping staff, and ward staff in mechanical equipment operation and maintenance, and other miscellaneous roles. During construction, hundreds from the local community have been employed as skilled and unskilled workers, many being trained as masons, carpenters, plumbers and electricians.

PARTNERS

The community of Khaplu.

DONORS

Government of Norway, Government of Japan. One of the prime civic leaders has been bequeathed for 25 years to retain control over further development. Additional land was purchased in the vicinity to establish service facilities. The project will be managed and operated as a residence guest house by the Tourist Promotion Services.

AUTHORITATIVE FRAMEWORK

The main Palace building and the Darbar was bequeathed by AKDN. The ancillary buildings and the open land was purchased by AKDN. One of the prime civic leaders has been bequeathed for 25 years to retain control over further development. Additional land was purchased in the vicinity to establish service facilities. The project will be managed and operated as a residence guest house by the Tourist Promotion Services.
While conservation of Baltit Fort, the first project of the Aga Khan Trust for Culture (AKTC) in the area, was undertaken it was determined that in order for the socio-economic benefits to be fully realized, thus allowing for community ownership of the process, the living conditions and overall welfare of the inhabitants of Karimabad would also have to be improved. Thus the Karimabad project undertaken as of 1992 was the first AKTC initiative using multiple inputs for community-based rehabilitation, village planning and area development.

Subsequent to the loss of the traditional institutional structures in 1974, with the abolishment of the Mirdom and the opening up of the KKH road that linked Pakistan with China in 1979, the physical environment in Hunza experienced a negative phase. Traditional wisdom called for the use of scarce land for agriculture, fruit growing and cash crops while ‘dead’ land was employed for housing, but these lessons were cast aside. This negative development had started to affect Karimabad as the traditional settlements in the neighbourhood of the Fort were being abandoned, mostly because of prevailing unsanitary living conditions and the inadequacy of the houses to support the desired standard of modern life.

New housing built on the open farm terraces with only rudimentary sanitary waste disposal was not only marred the physical scenic beauty but also reducing productive farm land. To steer this development away from these negative aspects, following discussions with the inhabitants of Karimabad, a framework for physical growth and for the maintenance of its environmental and cultural assets was formulated. This called for: the establishment of a representative local institutional base, the Karimabad Town Management Society (TMS), which could resolve upcoming social and community issues; the rehabilitation of the traditional settlements and their architectural heritage; a more balanced land-use development catering for future growth either by enlarging the existing settlements or by developing new sites suitable from an environmental and cultural sensibility; and the planning and setting up of service infrastructure to support the proposed land use.

Hunza Villages Rehabilitation

GILGIT-BALTISTAN, PAKISTAN

An aerial view of a settlement in the Hunza Valley.

Opposite page: Elders dancing in the rehabilitated jajaj, or community space, in Ali Village.
The rehabilitation programme was extended to the historic village of Ganish initially and then spread to the villages of Chumerkhun, Sherez and Aliatt. To sustain improvement in the quality of life brought about by these projects, Town Management Societies (TMS) were instituted following the Karimabad model in Ganish and Aliatt, with the charge of taking full responsibility for the rehabilitation projects in the settlements. In addition to the restoration and rehabilitation efforts, focus on reviving traditional skills, generating new employment opportunities through revival of arts and crafts, and training in non-traditional skills for women was also implemented. Revival of the marketing of traditional crafts, such as weaving, embroidery and rug making, was also made possible through partnering with local organizations, such as the Karakoram Area Development Organization (KADO). Other KADO activities include the Hunza Environmental Committee which looks after the collection and disposal of waste in central Hunza. Another initiative is the Hunza Arts and Culture Forum, established to revive and promote music through apprenticeship of young students with masters in the old traditions, and production of indigenous musical instruments.

At the request of the Ganish community, the rehabilitation programme was extended to Ganish, one of the oldest villages in Hunza, an example of a traditional fortified settlement. Initiatives started with the conservation of an architectural ensemble of the four family mosques of Yankut, Rupklut, Kuykut and Manikut, organized around a historic open community space, the jallay – formerly the site of ritual and ceremonial activities. The programme was then extended to cover the whole historic village with its three other mosques, two shrines (watchtowers), the historic village water reservoir and a number of historic houses. Sanitation and water supply schemes were also installed. A consolidated electric supply system was installed and the village lanes were stone-paved to complete the environmental upgrading.

Residential development outside the historic areas has allowed for the revival of sound building techniques based on tradition, drawing upon the experiences and research into appropriate forms of traditional cluster housing. This helps to provide a viable social setting, where inter-generational interaction is possible and encouraged, and where security of the individual and the family is ensured.

**Background**

**BRIEF HISTORY OF PROJECT SITE**

The historic settlements of Ganish, Aliatt and Baldi are in central Hunza. A street of the historic Silk Road runs through Ganish where walking-distance access is found to the Sacred Rocks of Habibabad, testimony to the many cultures, traders and travellers that traversed this route. The human effort to carve out a living in this incredibly beautiful yet harsh terrain, in harmony with the natural environment, led to the development of a mountain culture among the Balti tribe which is visible in many forts and fortified villages, the terraced farming lands, the irrigation channels that were constructed, the intricate water supply systems that were implemented, the traditional houses that were adopted, the folklore and the language – ‘Balti’, music and dance and the arts and crafts. The combination of the cultural heritage and the physical environment provide an archetype that is worthy of recognition as a world heritage site.

**Challenges**

**DEMOGRAPHICS**

The three villages of Karimabad, Ganish and Aliatt with their many settlements have a population of 11,000 with 1,400 households.

**ENVIRONMENT CONCERNS**

The centuries-old harmony of human habitation and natural environment is being eroded by the construction of scattered housing in the productive terraced farmlands. A large number of these new houses use concrete blocks and large glass windows, alien to the traditional wisdom of using local materials, such as stone, poplar wood, mud slate bricks and small-wood accents, appropriate to the local environment, as well as importantly, being built on an eroded land that could be made productive.

**ACCESS TO OPEN SPACE**

Karimabad is located on an arid location and most of the houses have been built as single storey buildings with small verandas. These buildings cover the open spaces and, as the population increases, the open spaces are being utilized. The karimabad bowl-shaped land configuration enabled the historic settlements of Karimabad and Aliatt. The historic settlements of Karimabad and Aliatt have been conserved. The fortified settlement of Ganish has been fully rehabilitated, including recently the Altit Fort, which is so too the historic settlements of Karimabad and Aliatt. The ancient conservation and rehabilitation projects have set a new international standard in cultural heritage.

**NEW BUILDING FACILITIES**

In an attempt to demonstrate the modern usage of traditional construction techniques and materials, a number of new buildings have been constructed. These are the Amm Khan House, the Amm Aliatt building, the Darbar in Aliatt, the building office in Karimabad, which houses the Karimabad TMS, and the model house in the ‘Cluster Housing Project’. The latter and some other buildings that have used traditional building materials and construction techniques, relying on local materials and thus also supporting the local economy, have been much appreciated by the community. Already one sees greater use of locally available poplar wood, thus cutting down on deforestation, as well as use of local building materials in some of the new buildings.

**VOCATIONAL TRAINING/CAPACITY BUILDING**

The decision to renovate the historic Baldi Fort as a museum and cultural centre in the early 1990s was the first major step that triggered the process of revival of traditional construction style and skills. The local master masons and carpenters then available were included, together with young apprentices under the supervision of international consultants and professional staff. This strategy of developing technical and skilled capabilities in conservation and rehabilitation has been followed since the beginning of the Baldi Fort restoration with 14 master carpenters and 23 master masons now practising, some with 10 years of experience in conservation and rehabilitation. The Women Social Enterprise (WSE) has enabled 12 young women with critical education, previously trained in technical documentation of heritage assets, now to work with master carpenters, joiners, electricians and plumbers. These young women trainees are receiving both on-the-job practical training from master artisans as well as basic theoretical understand- ing from professional staff, such as engineers, architects and consultants.

**Significant Issues and Impact**

**DATA COLLECTION/SURVEYS**

Surveys and data collection were carried out on Karimabad. The programme spread, village surveys and topographic surveys have also been done, through locally trained men and women.

**MASTER PLANNING PROCESS**

The ‘Karmac isla Development Plan’ was formulated through a very interactive process with the community, village organizations and government depart- ments. Expertise and research work was also done through field work carried out by the Aga Khan Program for Islamic Architectural Heritage, where students from MIT and Harvard participated in the early 1990s.

**HISTORIC BUILDINGS/MONUMENTS CONSERVED**

The major role of Baldi and Aliatt have been conserved. The fortified settlement of Ganish has been fully rehabilitated, including recently the Altit Fort, which is so too the historic settlements of Karimabad and Aliatt. The ancient conservation and rehabilitation projects have set a new international standard in cultural heritage.

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**QUALITY OF LIFE**

Health indicators are much improved with the provision of proper modern sanitation systems through the coverage of the 1400 households of Karimabad, Ganish and Aliatt. Interestingly the treated effluents are being used for growing crops in the areas of the Hunza River bank with excellent harvests reported.

**Partners**

**COMMUNITY PARTNERS**


**Donors**

Governments of Norway, Japan and Spain, Swiss Agency for Development Cooperation, Aga Khan Foundation, European Union.

**Authoritative Framework**

The underlying agreement for all community-based rehabilitation and enterprises projects in the communities would drive the project implementation, while ANCSAP would provide technical assistance and financial over- sight. On completion the communities would take responsibility for the management of the concerned individual projects.
This once fortified city is located in the north-west area of metropolitan Lahore, the capital of the province of the Punjab, and measures about 2.5 square kilometres. This historic core of Lahore has a concentration of monuments and buildings that reflect cultural diversity in architecture. Despite a dynamic and tumultuous past spanning several centuries, this area has retained much of its historic urban form.

The Walled City of Lahore project was initiated in 2006 by the Government of the Punjab and the World Bank. The following year the Aga Khan Trust for Culture (AKTC) entered a ‘Public-Private Partnership Agreement’ (PPP) with the provincial government to provide technical and financial assistance for the project and to undertake to build capacities in urban heritage conservation. In early 2008 AKTC signed a ‘Memorandum of Association’ with the World Bank. The Historic Cities Programme (HCP) has provided strategic planning services for the entire historic city while extending professional assistance for a pilot urban rehabilitation project that is integrated in a city-wide strategic framework for conservation and redevelopment.

The World Heritage Site of Lahore Fort (the Shahi Qila) and other equally spectacular monuments from the Mughal period, such as Badshahi Mosque (1683), Wazir Khan Mosque (1634) and the Wazir Khan Hammam, lend their splendour to the city. Additionally, several structures from the Sikh period and British colonial sites add to the city’s charm, highlighting the importance the city held for a sequence of empires that ruled over South Asia. At present, the city possesses nearly two thousand buildings of significant architectural merit. Despite the lack of appropriate regulatory mechanisms pertaining to building demolition and construction, the Walled City is physically distinct, marked off from the surrounding colonial period city by the Circular Garden and the Circular Road.

In 1959 an excavation at Lahore Fort revealed the city’s pre-Muslim occupation, dating back almost 1500 years. In the early eleventh century AD, Lahore became the seat of Sufi learning under Ali ibn Usman Hajweri, known as Data Ganji Bakhsh, by his devotees. Lahore was subsequently conquered by the Ghaznavids under Sultan Mahmud in 1026, commencing the Muslim phase of its political history. Under the Mughal dynasty (1526–1789), Lahore flourished as an important provincial city periodically substituting for the Mughal capitals at Agra and Delhi. From 1789 onwards, Lahore was ruled by the Sikhs until the
British annexation of the Punjab in 1849. In 1947 a substantial part of the Old City was destroyed as a result of communal strife and arson associated with the Partition of the South Asian subcontinent. This area is now home to intense commercial pressures resulting in the piecemeal demolition of the historic residential fabric.

The ‘Strategic Plan’ developed by HCP for the Walled City aims to redefine the city’s role as a heritage site within Metropolitan Lahore. Promoting heritage-sensitive urban design, infrastructure improvement and residential land use, the Area Development framework integrates both landmark monuments and historic neighbourhoods. The framework provides for increasing residents’ capacities to engage in the revitalization of the city and for generating opportunities for income. These broad priorities are being pursued at three levels.

The Walled City is surrounded by regional transportation functions that support local commercial markets. The ‘Strategic Plan’ proposes the gradual relocation of such metropolitan functions to more suitable sites elsewhere in Lahore in conjunction with associated land use such as wholesale and warehousing. This is being considered by the Punjab Government.

The Plan promotes the re-establishment of residential and other functions compatible with the city’s historic character and makes provisions for reclaiming green areas in and around the Walled City. Special attention is being given to the restoration of the monumental complexes (and open spaces associated with them) and other architectural heritage as well as upgrading and expanding public utilities in neighbourhoods.

A legislative initiative is now underway to develop new planning and regulative processes. The framework also outlines building regulations in order to check the uncontrolled demolitions of historic building stock and their conversion into commercial entities. The Plan outlines strategies for consolidating residential use and rehabilitating building stock. The overriding focus of attention concentrates on revalorizing mohallas in their historic and topographic context. Pilot initiatives integrate facade improvement, infrastructure upgrading and (historic) home improvement. Community-driven initiatives are also encouraged through training of local youth in spatial mapping and building trade skills as well as incentives for home improvement to owners through technical support.

Accompanying these efforts routine advice has been given to the Government of the Punjab on planning, legislative and administrative issues. Baseline surveys comprise a topographical map at the scale of the Walled City, an inventory of all 22,800 properties and a socio-economic survey of 1757 households across the city. An operational Geographic Information System (GIS) is in place.
Background

BRIEF HISTORY OF PROGRAMME AREA

Lahore Walled City is the historic core of Lahore and began on the banks of the River Ravi at least 1500 years ago. In the early 11th century AD, Lahore became a part of Muslim Sulṭan learning under Aḥmad Ḥafṣu. Not long after, in 1026, Lahore was conquered by the Ghaznavids under Sultan Mahmud. The conquerors under the Delhi Sultanates (1187–1526) were turbulent, and physical evidence of the city’s entrance from the period is scarce. Under the Mughals (1526–1707), Lahore was an important provincial city and several important monuments were built, including the World Heritage Site of Lahore Fort, the Mosque of Wazir Khan (1634) and the Badshahi Mosque (1671). From 1768 Lahore was under the control of the Sikhs until the British annexation of the Punjab in 1849. The colonial period saw the destruction of the city’s fortifications and its gates, and the establishment of important institutions and the architecture associated with them outside the historic core. In 1947 significant areas of the Walled City were destroyed by arson and looting, leaving an indelible mark in the form of commercial developments that replaced what was lost. The new markets continue to expand aggressively at the cost of the historic fabric; however, some 2000 non-monumental buildings of architectural merit still survive.

Challenges

PROGRAMME RISKS

The project seeks to address many existing conditions – physical, socio-economic, cultural and administrative. The single most important challenge it faces is the continued lack of an enabling administrative and governance apparatus, being mitigated by certain legislative and administrative steps being taken by the Government of the Punjab. Other challenges are related to this, such as the unplanned demolition of the historic building stock and its replacement by commercial structures.

SITE CONDITIONS

The historic city is an artificial mound, 2.6 km in area, with a ratio of 1:30 metres. The city is already crowded with nearly 25,000 parcels of land, and gross residential density is in the range of 550 persons per hectare. The city is surrounded by major interregional road and rail transportation functions in a symbiotic relationship with the riverine areas that make the historic precincts.

DEMOGRAPHICS

According to the last census conducted in 1998, the Walled City’s population stood at 160,000. However, a declining trend is in place due to increasing commercialization and loss of the residential fabric. In spite of this, the Walled City remains one of the most densely populated localities in the metropolis.

HOUSEHOLD ECONOMY

The Walled City is home to some of the poorest people in metropolitan Lahore and the lack of suitable job opportunities is a major concern amongst households – especially those who continue to educate their children. Common sources of income include employment as salaried, vendors, daily wage earners and/or owners of small shops.

STATUS OF HEALTH AND EDUCATION

Common disease-related ailments and blood pressure, asthma, hepatitis B and typhoid. AKTS-P has introduced monthly health awareness sessions to address frequent concerns among women. Most public-sector schools are overcrowded, and lack playing areas and adequate exhibition facilities.

AVAILABLE OF DRINKING WATER AND PROPER SANITATION FACILITIES

Drinking water is of poor quality with high traces of faecal contamination. Lack of appropriate measures to treat the water supply cause further exacerbation of the problem. During the summer, significant parts of the Walled City suffer from water scarcity.

ENVIRONMENTAL Concerns

Prevailing environmental conditions negatively impact the quality of life of residents. Improvement in the service infrastructure and the enforcement of land-use controls are expected to improve the current unacceptable health and environmental conditions.

INFRASTRUCTURE

The 150-year-old network built at the city’s highest point and some of the water mains of the old water supply network are still relied upon, and are part of a pressurized grid augmented by some 16 tube wells, located around the city. Failure of pressure in the system results in contamination and insufficient supply, leading to consumers installing small centrifuge pumps on the supply lines. The drainage system is mainly covered; over open drains, many large open drains on one or both sides of the main thoroughfares, and main sewers in some areas because it’s a mixed sewage and storm-water system. The electrical and the telecommunication distribution systems need much reorganization and updating to acceptable standards. A city-wide programme of infrastructure development and guidelines for implementation have been prepared. These aim to improve the water supply system, introduce a new drainage system separating storm-water from sewage, and rationalize the electrical and telecommunication distribution system, all at standards well above the prevailing ones.

ACCESS TO OPEN SPACE

The Circular Garden, established in 1912, has been heavily encroached by public and private sector unauthorized buildings, and by strip-commerce along Circular Road. Urban squares have also been over-taken by unauthorized commerce.

BUILDING CONDITIONS

Most buildings are founded on cultural debris and structural failure is endemic. To some extent, it is proposed to provide a new drainage system that stops the percolation of water into the foundation-bearing soil.

OPEN SPACES

The Circular Garden along the Walled City serves as the main open space. However, it has been subverted to routine encroachment by commercial enterprises as well as public institutions.

Significant Issues and Impact

DATA COLLECTION/SURVEYS

Topographical surveys using EDM/CAD technology could only be carried out at night, owing to traffic conditions. Inventory of 22,800 individual buildings, recording some 172 attributes, is now part of a GIS database.

MASTER PLANNING PROCESS

Strategic Plan completed in February 2005, now due for a review and update.

PLANNING ISSUES

Ownership titles for properties are non-existent owing to land subdivision not having been recorded during colonial times; absence of land-use regulations; collapse of municipal governance; lack of clear demarcation of the municipal limits of the historic area; metropolitan and regional planning inadequacies negatively impact on Lahore Walled City.

HISTORIC BUILDINGS/MONUMENTS CONSERVED

AKTS and AKCS-P are conserving the conservation of Wazir Khan Mosque. A home in one of the lanes of the Old City has been converted as a demonstration project.

NEW BUILDING FACILITIES

A new urban infill building has been designed and site access is being negotiated.

COMMUNITY INVOLVEMENT/PROGRAMME

Community-based organizations have been formed based on decadal components of the urban morphology. One of the communities is currently directly involved in the preservation and upgrading of its neighbourhood. The programme provides on-the-job training for local youths – both male and female.

CONTRACTING METHODS

For large projects, national competitive bidding process material and labour contracts for intermediate and small projects; labour only contracts with material purchased by AKTC; employed labour and hired unsubsidized labour with material purchased by AKTC.

NEW TECHNOLOGIES INTRODUCED

GIS; EDM/CAD real-time surveying and documenting techniques, with photo-orthophotography software, SIPS analysis.

RELEVANT CODES/STANDARDS ADOPTED

International codes being recommended by consultants engaged by AKTC; Recommendations and guidelines prepared by AKTC being introduced.

LESSONS LEARNED

This is the first HDP project based on a ‘Public-Private Partnership Framework Approach’. While the Government of the Punjab facilitates many aspects of the project that would otherwise be extremely difficult, the project has been characterized by changing levels of mutual understanding of its nature, purpose and philosophy, owing mainly to varying political and administrative personalities that AKTC has had to work with.

Partners

PUBLIC PARTNERS

Government of the Punjab.

COMMUNITY PARTNERS

Several community-based organizations at the scale of micro neighbourhoods.

Authoritative Framework

‘Public-Private Partnership Framework Agreement’ was signed between AKTC and the Government of the Punjab on 2 July 2007 ‘Memorandum of Understanding’ between the World Bank and AKTC was signed on 6 March 2008.
The ‘Pilot Urban Rehabilitation and Infrastructure Improvement Project’ is being jointly implemented with the Government of the Punjab in one section of the Walled City of Lahore and constitutes eleven per cent of the Old City’s footprint. The project, as initially conceived by the World Bank and the Punjab Government, aimed to rehabilitate a historic thoroughfare (starting at the Delhi Gate – one of the city’s thirteen entrances and leading up to the Royal Fort) by putting services underground. Presently, this route comprises some of the major commercial centres serving the metropolis and the region. With the collaboration of the Historic Cities Programme (HCP), the project now has a broader set of goals. It comprises comprehensive regeneration of the area as heritage urbanism with special emphasis on the conservation of the historic residential areas associated with the bazaars, and includes the conservation of the main monuments and urban open spaces associated with them. This entails urban design, infrastructure upgrading, monument conservation and historic urban fabric rehabilitation with participation by the communities that constitute the residential areas.

Part of the site also represents a significant expansion of the area of the fortified city brought about by the addition of a new wall in the sixteenth century by the Mughal emperor Akbar (1542–1605). The site of Wazir Khan Mosque (see p. 160) used to be outside the old walls, and when the Mosque was constructed in 1634 it was one of the first to be inside Emperor Akbar’s new walls. The urban open spaces associated with this monument are to be rehabilitated as part of the project.

The urban design aspect focuses on improving the visual and sensory features of the urban environment in conjunction with the rationalization and improvement of the visible elements of services infrastructure. The Aga Khan Trust for Culture (AKTC) is facilitating the improvement of bazaar facades (1.5 kilo-metres in length) and street surface improvement, the design and development of open spaces that have been heavily encroached upon by commercial entities, the provision of civic amenities and tourist facilities, urban landscaping, street furniture and related facilities including signage.

Regarding services infrastructure, AKTC has prepared an integrated infrastructure conceptual design for the Walled City as a whole. This conceptual design provides guidelines and parameters for the detailed design of infrastructure and

**Project Scope / Objectives**

This project aims to rehabilitate the main bazaar thoroughfares as well as residential urban fabric in an integrated manner. This entails urban design work, infrastructural upgrading and historic building stock rehabilitation. Urban open spaces are to be unencumbered and key landmarks and monuments located in the main thoroughfares are also to be restored as individual projects. The neighbourhood demonstration project meanwhile holds up of proposed designs on which basis the larger pilot project will be implemented.

**Intervention Corridors**

1. Delhi Gate
2. Wazir Khan Hammam
3. Neighbourhood Rehabilitation Programme
4. Muhammad Mohallah
5. Shahi Guzargah
6. Wazir Khan Chowk
7. Wazir Khan Mosque
8. Begum Shahi Mosque
9. Shahi Sharif
10. Sonehri Mosque
The rehabilitation strategy involves intensive social and technical extension work, and aims at setting a precedence for urban environmental rehabilitation. It addresses the socio-economic dynamics of the context with on-the-job training in various traditional building trade skills targeting local youth in the project area, who work alongside master craftsmen in masonry, carpentry, plumbing and electrical works.

The programme has three well-defined but interlinked components. First, facade improvement: since infrastructure elements such as electricity and telecom lines can only be attached to rehabilitated facades that can effectively bear the stresses of physical support, facade rehabilitation is considered an investment in the public realm. Intervening in house facades entails a modicum of structural consolidation and necessarily means engaging with the inner workings of a house too. A close relationship is thus developed between the owner-occupant of a house and the implementing agency, in this case AKCS-P, one that also encourages homeowners to make their own investments in undertaking home repairs. Second, infrastructure upgrading: this provides for improved waste and storm-water disposal where possible, systems for improved solid waste disposal, subsurface layout of gas pipes and new (re)organized electrical, telephone and television cable distribution networks. It is expected that better drainage facilities will reduce the extent of leakage or seepage into the bearing strata of the soil, therefore complementing efforts at structural consolidation of the surrounding buildings. Third, home improvement: this component addresses building problems in the internal spaces of a house and includes, to varying degrees, structural repairs and consolidation, replacement of dilapidated and/or dysfunctional installations, non-structural architectural intervention and finishes.
Background

BRIEF HISTORY OF PROJECT SITE

The project site comprises those neighbourhoods of the historic city through which the route taken by Mughal royalty, from the entrance to the city to the gates of the royal palace, passes. This route now consists of some of the major commercial centres of the metropole.

Challenges

SITE CONDITIONS
Neglect and inadequacy of the existing services infra-structure and the task of transforming it to meet ac-
ceptable standards is one of the biggest challenges of the project, particularly when seen in relation to the complex morphology of the Walled City. The scale of the historic building stock is another key challenge, as a vast majority of the buildings reflect structural failure, traceable to foundation failure and bad planning which results in water seepage into the building fabric.

HOUSETY ECONOMY

Lahore Walled City is home to some of the poorest people in metropolitan Lahore and a lack of job oppor-
tunities is a major concern. Common sources of income include employment as saleem, vendors, day-labour
ers, piece-rate workers (especially in the case of service), and small shops owned by residents. Socio-economic profiles of residents in Gali Surjan Singh and Kooba Chashan Gan are not much different from the rest of the Walled City.

STATUS OF HEALTH AND EDUCATION

Common illnesses comprise diabetes and blood pres-
sure, asthma, hepatitis B and typhoid. In collaboration with the Aga Khan Health Service, AKCS-P has intro-
duced monthly health awareness sessions and medical camps for residents in the project area and surrounding localities. Most public-sector schools are overcrowded, and lack playing areas and adequate sanitation facilities.

AVAILABILITY OF DRINKING WATER AND PROPER SANITATION FACILITIES

Drinking water is of poor quality with high traces of faecal contamination. Lack of appropriate measures to treat the water supply at source further exacerbates the problem. During the summer, significant parts of the Walled City suffer from water scarcity.

ENVIRONMENTAL CONCERNS

Improvement in the services infrastructure and the en-
forcement of land-use controls are expected to improve the currently unacceptable living conditions.

ACCESS TO OPEN SPACE

No open spaces suitable for women and children exist in the immediate vicinity of the Shahi Guzargah project area.

Significant issues and Impact

DATA COLLECTION/SURVEYS

A full inventory of buildings has been completed and made a part of the GIS system. A topographical map of the area has been completed. Buildings displaying architectural merit are in the process of being docu-
mented. A 12% sample of households has been surveyed for establishing income and poverty levels and prevailing quality of the conditions. For the purposes of the demonstra-
tion project, detailed home documentation for all the houses in the two streets has been carried out along with the survey of existing services infrastructure. Base-line data pertaining to the socio-economic profile of all the households in the two streets have been compiled.

MASTER PLANNING PROCESS

The demonstration project is one of several ‘Local Development Frameworks’ that have been planned for the Walled City. It represents the full range of policies and interventions envisaged at this scale in the ‘Strategic Plan’ prepared by HPZM.

PLANNING ISSUES

Governance, land use and zoning control are lacking. Necessary legislative frameworks to regulate building construction are not in place. Traffic reorganization is in need of planning. Heritage conservation, urban design and rehabilitation of neighbourhoods and open spaces require an integrated approach.

HISTORIC BUILDINGS/ MONUMENTS CONSERVED

A number of monuments are part of the project area. Monuments being targeted for conservation include Wazir Khan Mosque, the Sonehri (Golden) Mosque and the Maryam Zamani (Begum Shahi) haveli. A single historic house (just over 100 years old) in Kooba Chashan Gan – the neighbourhood demonstration project area, was conserved in 2008. Rehabilitation of five additional historic houses are underway in the same locality.

NEW BUILDING FACILITIES

An ‘urban infill’ building has been designed and is part of the project. This will give back the scale and physical volume of a missing portion of the streetscape; create opportunities for appropriate level of commerce of a type suited to existing and house certain infrastructure elements such as transformers and one (sub) well. Other new buildings are planned to manage the urban space outside the city’s perimeters.

COMMUNITY INVOLVEMENT/ PROGRAMME

Community-based organizations (CBOs) have been created in small units related to the topo-morphological characteristics of the neighbourhoods. These help in resolving local issues of conflict, in speaking to indi-
vidual stakeholders, and in propagating the desirable values in development participation.

BUILDING CONDITIONS

Most buildings are founded on cultural debris and structural failure is endemic. A majority of the buildings are taken over by commercial enterprises resulting in significant deterioration. Housewives continue to alter houses according to their needs but changes are gen-
erally inappropriate in the light of the age and condition of the buildings.

VOCATIONAL TRAINING/CAPACITY BUILDING

Youth residing in the project area are participating in the ‘Skills Enhancement Programmes’ pertaining to building trades and spatial documentation. The pro-
gramme provides on-the-job training to both male and female.

CONTRACTING METHODS

National competitive bidding under the guidelines of the World Bank. In the case of the neighbourhood demonstration project, material purchased and labour hired directly by AKTC, supervised by AKTC staff.

NEW TECHNOLOGIES INTRODUCED

EDM/CADD real-time surveying and documenting tech-
niques, with photo-ortho-rectifying software; data analysis
with GIS and SPSS. New standards for the infrastructure
distribution network have been introduced.

QUALITY OF LIFE

In collaboration with the Aga Khan Health Service, AKCS-P has introduced monthly health awareness sessions and medical camps for residents in the project area and surrounding localities.

Partners

PUBLIC PARTNERS

Government of the Punjab.

Donors

The World Bank, German Foreign Ministry.

AUTHORITATIVE FRAMEWORK


Above, a bird’s-eye view of Sunehri Masjid (Golden Mosque), Rang Mahal, in the Walled City (left) and a detail of a named facade in Cheshi Bistian Mohalla (right).

Below, elevations of Guzargah neighbourhood rehabilitation projects, before and after intervention.

PAKISTAN

LAHORE AREA PROGRAMME

SHAKI GUZARGAH

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Wazir Khan Mosque

LAHORE, PAKISTAN

Wazir Khan Mosque is the centrepiece of a historic urban ensemble in the Walled City of Lahore. The Mosque was built in 1634 by Hakim Alimuddin who was granted the title of Wazir Khan on Shah Jahan’s accession to the Mughal throne in 1628. It is founded on the site of an old Sufi convent – associated with the saint Syed Islaq Gazruni (d. AD 1284/AH 786) – between the limits of the Old City and the new city walls built a century earlier by Shah Jahan’s grandfather, Emperor Akbar. In this still developing space, the Mosque complex was an ambitious and unprecedented piece of urban design. The grave of Syed Islaq Gazruni was included in the fabric of the Mosque. At the time of its construction it was considered the largest mosque within the fortifications of Lahore and superseded the Begum Shah Mosque (constructed by Emperor Jahangir in 1614) as the congregational mosque of the city.

Wazir Khan Mosque is located at a distance of about 260 metres from the Delhi Gate on the route to Lahore Fort and is surrounded by the thick urban fabric of the Walled City. The physical context comprises the Chowk (a square urban open space), Chitta Gate and the buildings fronting the square and the bazaar. The houses on the south side define the southern limits of the Mosque and street defines the border between the Mosque and the urban fabric on the west side. On the northern side the bazaar opens up at a fork to form the Kotwali Chowk, which was the space in front of the Mughal-period city police station, the Kotwali, no longer existing. Historically, as part of the thoroughfare connecting Delhi Gate and Lahore Fort, Wazir Khan Mosque, together with its square, formed a singularly important element punctuating the urban fabric of the Walled City.

Of the fourteenth-century Sufi establishment nothing but three grave sites remain. Of these the grave of Syed Islaq Gazruni was made part of the fabric of the Mosque, and is accessed by a staircase in the main courtyard, marked by an elaborate pavilion. The original level of his grave is about 2.5 metres below the level of the Mosque’s courtyard.

The Mosque’s layout comprises a large quadrangular plan, with the heavily built prayer chamber housing five in-line domed cells located at the qibla end of the courtyard. The Mosque’s layout comprises a large quadrangular plan, with the heavily built prayer chamber housing five in-line domed cells located at the qibla end of the courtyard. The main building of the Mosque and its inner courtyard is supplemented by a bazaar with two rows of shops – intended for calligraphers and
The chief architectural and artistic characteristic of the Mosque resides in its profuse surface decoration both on the exterior and in the interior. On the exterior, the decoration comprises a combination of fine exposed brickwork and a framework of plaster render with a thin layer of faux brickwork. This forms the overriding frame for dramatically coloured glazed-tile mosaics in floral and arboreal motifs as well as depicting calligraphic quotations from the Qur’an, the Hadith and other verses. Interior surfaces, entirely covered by fresco-work, have been touched up or painted over down the centuries by successive attempts at ‘restoration’, so much so that no original work appears to exist any longer. Of the delicate Mughal surface ornaments and decorative techniques, the most vividly displayed are the glazed-tile mural decoration and calligraphy which, despite its chromatic exuberance, recalls Safavid monuments in Isfahan (Iran), built only a few years before, and earlier Timurid architectural antecedents.

The Mosque has undergone serious damage. Heavy ingress of rain and waste water has damaged the floor of the rooms and the courtyard. Inappropriate commercial activity in the shops on the main facade poses a hazard to the building’s fabric. The four minarets, thirty-six metres in height from the street, have leaned out to varying but not alarming degrees. The movement of the two minarets adjacent to the main prayer chamber has caused cracks in the arches and roof structure of the end bays. Structural investigations suggest successive earthquakes as the cause of this behaviour. That the cracks existed prior to 1971 is confirmed from the record of repair work begun at that time. Since March 2009 major architectural and damage documentation of the Mosque complex has been under way. Detailed electronic documentation of the building provides the basis for examining the nature and extent of damage and for assessing the extent of conservation measures. Geotechnical investigations have been completed and measures to carry out structural consolidation of the monument are being designed. Assessment of the building and the condition of its foundations indicate that major structural cracks are not related to ongoing structural behaviour. A programme for the conservation of the Mosque, to be implemented in several stages, is being developed.
Background

BRIEF HISTORY OF PROJECT SITE

Wazir Khan Mosque was built in 1624 by Hakim Almuddin Ansari, the famous governor of the region under Emperor Shah Jahan. When all P parser-Khun, Shah Jahan had appointed Hakim Almuddin as his court physician. Upon ascending the throne, Shah Jahan appointed him governor of Lahore with the title Wazir Khan. A 14th-century Sufi convent associated with Syed Ishaq Gazruni existed on the site of the Mosque. The monument is noteworthy for its rich glazed-tile decorations.

Challenges

PROJECT RISKS

The minarets of the Mosque have leaned outwardly. The base of the two western minarets, attached to the main prayer chamber, have induced structural cracks in the chamber. Structure investigations suggest that in all likelihood the cracks developed as a result of successive earthquakes. The conservation and restoration of the surface decorations in the Mosque, including its tile revetments, are costly and time-intensive operations and will require sustainable development of the appropriate skills. Pilot projects for key decorative crafts are proposed to be initiated. These are fresco murals, ceramic tiles and lime plasters. For post-conservation monitoring and maintenance, appropriate capacity in the maintenance agency is proposed to be developed.

SITE CONDITIONS

The diagonal connection from Chitta Gate to the gate leading out of the square on the north-eastern corner of the Mosque has now been transformed into a bazaar as a result of encroaching shops. A detailed survey has revealed that most of the shops, grading the square on its eastern and northern sides, have encroached into the square. Some fragments of the original 17th-century shops on the perimeter of the square are now nestled deep within the new structures. The historical openness of the square has been seriously sacrificed to low-value shops and structures that have ultimately distorted the urban fabric, widespread in the Walled City, are equally applicable in the Wazir Khan-Masjid complex. Equally important is how the present capacities for the protection and administration of the architectural heritage and levels of conservation skills presently available can be made more effective and sustainable.

INFRASTRUCTURE

The project aims to improve the existing infrastructure in the Mosque complex. Water supply, rain and waste water disposal, gas supply and electrification have all created serious problems since their introduction during the last four decades has resulted in ill-maintained and recessed utilities. PROTECT 2005, the principal document for the documentation and restoration of the monumental complex.

Significant Issues and Impact

DATA COLLECTION/SURVEYS

Since March 2009 major architectural and damage documentation of the Mosque complex is underway. Geotechnical investigations have been completed and measures to carry out structural consolidation of the monument are being designed.

PLANNING ISSUES

The problems of building control and the regulation of the urban fabric, widespread in the Walled City, are equally applicable in the Wazir Khan-Mosque complex. Equally important is how the present capacities for the protection and administration of the architectural heritage and levels of conservation skills presently available can be made more effective and sustainable.

HISTORIC BUILDINGS/MONUMENTS CONSERVED

The conservation of Wazir Khan Mosque and the rehabilitation of its Courtyard are part of a larger Area Development Project in the Walled City of Lahore. It is part of a local development framework comprising the rehabilitation of the surrounding urban fabric and open space. The thrust of the project is aimed at urban regeneration and the economic uplift of the residential communities living in the neighbourhood of the project and offers lessons in conservation planning and methodology and capacity building.

PLANNING ISSUES

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### Relevant Codes/Standards Adopted

- **The International Charter for the Conservation and Restoration of Monuments and Sites** (the Venice Charter), 1964, is the principal document for the documentation and restoration of the monumental complex.

### Lessons Learned

- Conservation of Wazir Khan Mosque and the rehabilitation of its Courtyard are part of a larger Area Development Project in the Walled City of Lahore. It is part of a local development framework comprising the rehabilitation of the surrounding urban fabric and open space. The thrust of the project is aimed at urban regeneration and the economic uplift of the residential communities living in the neighbourhood of the project and offers lessons in conservation planning and methodology and capacity building.

### Partners

- **Public Partners**
  - Government of the Punjab, Planning and Development Department, Sustainable Development of the Walled City of Lahore Project, Awqaf Department.

- **Donors**
  - Kaplan Foundation Fund.

### Authoritative Framework

- **Public-Private Partnership Framework Agreement** was signed between AKTC and the Government of the Punjab in 2007. In 2009 formal permission to proceed was obtained from the Awqaf Department – the custodian of the property.

- **New Technologies Introduced**
  - Real-time 3D/4D documentation and photo-rectification software has been used for the first time in a protected monument in Pakistan.