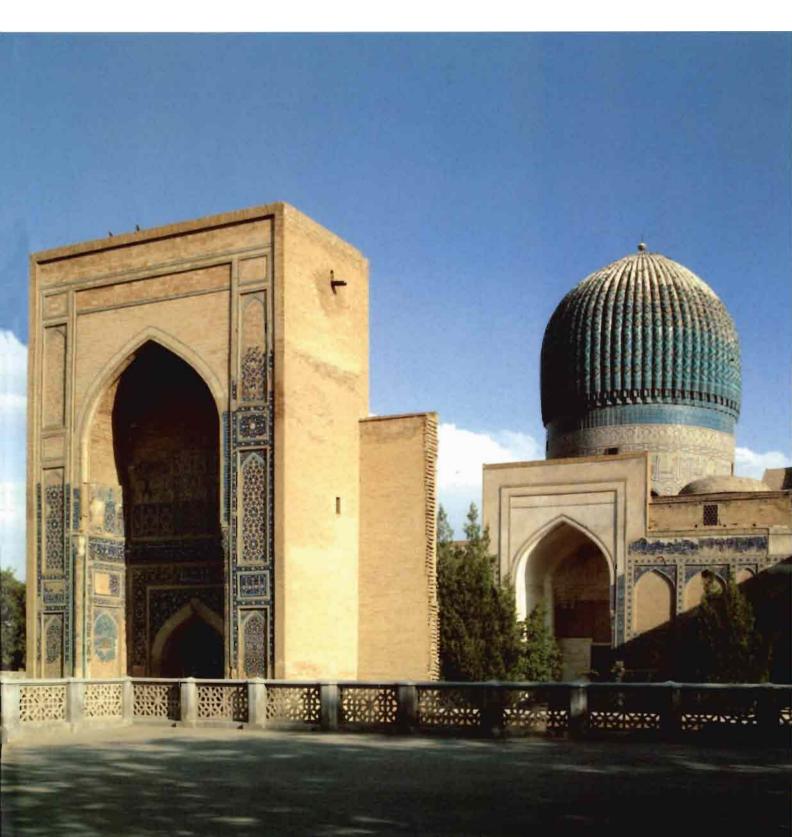
# Historic Cities Support Programme

PLANNING FOR THE HISTORIC CITY OF SAMARKAND



THE AGA KHAN TRUST FOR CULTURE

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Cover: The main portal and ribbed dome of the Gur-i Emir, Timur's funerary mosque and tomb, restored upon the occasion of Timur's Jubilee in October 1996.

amarkand, of all the historic cities in the world, has always had a very special appeal due to the city's pivotal position along the fabled Silk Route, an early and major crossroads between East and West. Merchants, monks and diplomatic envoys from the courts of Europe visited the Central Asian empires from the thirteenth century, and left fascinating accounts of meetings between two accomplished but very different peer civilisations. Over the centuries, Samarkand has been able to conserve the heritage from its Timurid heyday, a period which has gained new significance in the context of the recent resurgence of Uzbekistan's national identity. The re-shaping of this identity is coupled with its opening up to the world at large, facilitated by easier communications and matched by a rising interest in Uzbekistan's current development on the part of foreign countries, institutions and individuals.

On the premise of such renewed cultural exchange, the Aga Khan Trust For Culture, based on an understanding between His Excellency Mr. Islam Karimov, the President of Uzbekistan, and His Highness the Aga Khan, started a number of initiatives in Samarkand in close co-operation with national and local authorities. The first product of this involvement was the 1991 international idea competition for re-structuring the historic city centre between the Registan and Timur's citadel, followed in 1992 by the prize-giving ceremony of the Aga Khan Award for Architecture in the Registan. Two years later, the Trust's Historic Cities Support Programme joined the Municipality of Samarkand in a long-term co-operative effort to review and update the 1980 masterplan vis à vis the historic city, and prepare more detailed rehabilitation proposals for certain key areas in the old centre.

The intention of this initiative, carried out with the help of two international consultants, is to set up a deeprooted co-operative institutional structure, involving the technical offices of the Municipality and key staff within the State Institute for Planning and the State Institute for Restoration, drawing on the resources of the Samarkand School of Architecture, and providing new opportunities for young Uzbek architects and planners.

The first results of this joint working process, which will be deepened and expanded in the coming years, are presented in this brochure, produced upon the occasion of Timur's Jubilee in October 1996. Whereas the Trust's long-term objectives in Samarkand go beyond the time limits set by the Jubilee, the team used the period defined by this deadline to prepare a number of detailed planning proposals for the Gur-i Emir area. The implementation of such complex projects will, however, require a more generous time frame. Therefore, the Trust looks at the Jubilee as a starting point for a whole series of future rehabilitation projects to be carried out by the Samarkand authorities in co-operation with the Trust, through the proposed new "Centre for the Revitalisation of the Historic City of Samarkand." Notwithstanding the support of external donors, who will certainly need to be mobilised for special projects, the implementation process must rely as much as possible on local resources and capabilities.

It is perhaps appropriate to introduce this report with a few remarks about the general philosophy underlying the collective approach employed by the working group. In essence, historic Samarkand's attraction stems from the subtle interaction between three contrasting yet complementary factors: the grand scale and splendour of the city's monuments, the intimate qualities of the closely knit residential fabric as defined by

its traditional low courtyard houses, and the beauty of the irrigated gardens which complement and occasionally penetrate the urban tissue. Each one of these three elements has to be balanced with the others in order to preserve the harmony of Samarkand's urban fabric as a whole. If individual monuments are exhibited at the expense of the surrounding urban fabric, their isolation can be detrimental to the unique character of the historic nucleus without really adding to the appreciation of the monuments themselves. It may also blur the necessary distinction between historic and modern parts of the city — especially when combined with the introduction of major axes of vehicular traffic. Similarly, the creation of large gardens inside the urban fabric, unless incorporated in an appropriate architectural framework, may destroy the experience of the historic city, while being of limited benefit to the actual users. In preparing the concepts and proposals described in this report, the team made an attempt to re-establish the balance between these three interrelated elements, and follow up-to-date international principles of urban conservation.

The work of our joint team of professionals would not have been possible without the support of the Uzbek authorities. Our gratitude goes to His Excellency Mr. Ismail Jurebekov, First Deputy Prime Minister and Chairman of the Timur Jubilee Committee, to His Excellency Mr. Alisher Mardiyev, the Province Hokim of Samarkand, and to His Excellency Mr. Aziz Nasirov, the City Hokim of Samarkand who has supported this project from its very beginning.

Important encouragement to the team was also provided by Mr. Botir Usmanov, Chief of the National Board of Monuments, Professor Rustam Holmuradov, Rector of the Samarkand State Institute for Architecture and Construction, Professor Muhammad Ahmedov, Dean of the Faculty of Architecture, and Professor Nematjon Sadikov whose links with the Trust go back to 1989. In addition, the Uzbek Union of Architects under its president, Firouz Ashrafi, has supported the project team in its tasks and was of great help to the Trust in setting up the Samarkand project.

Finally, I would like to thank all the Uzbek and expatriate professionals who have carried out the work contained in this report. In particular, I would like to acknowledge the generous contribution provided by Professor Galina Pugachenkova to the historical analysis of the project area. Further, Mr. Alexander Alexandrovich of the State Planning Institute in Tashkent contributed his great experience and knowledge of Samarkand and co-operated closely with Francesco Siravo and Amir Pasic, who brought their expertise gained in the historic cities of Italy and the Award-winning Mostar project in the former Yugoslavia. Izhar Hunzai outlined the community and economic development opportunities of the Gur-i Emir project, and Dr. Mona Serageldin assisted the group in defining the structure and function of the future "Centre for Revitalisation."

Special mention is due to the three young Uzbek architects, Farhod Bagirov, Shavqat Kurbanov, Ulugbek Tojiboyev, who, as part of a larger group of students, prepared the surveys and architectural projects for the Gur-i Emir pilot area, with assistance from Hugh Patterson and under the guidance of Dr. Amir Pasic and their former teachers, Professors M. Ahmedov and N. Sadikov. The co-operation of the students from the Aga Khan Program for Islamic Architecture on the initial surveys, under the leadership of Professor Attilio Petruccioli, is also gratefully acknowledged.

## AN OUTLINE OF THE CITY'S HISTORICAL DEVELOPMENT



A map of Central Asia showing Samarkand located in southeastern Uzbekistan. S amarkand lies in a vast oasis on the edge of the Kizyl-Kum desert in the valley of the Zarafshan river, in today's southeastern Uzbekistan. Protected by high mountain ranges, and endowed with an abundant supply of water, rich agricultural land and game, the valley was the region's ancient heartland, and attracted human presence from earliest times. Neolithic arrowheads dating from the fourth millennium BC were found at different locations along the Zarafshan river, while evidence of permanent occupation in the area goes back to the bronze age, possibly as early as 1500 BC. Urban life is known to have existed near the site of the present city from the first millennium BC, making Samarkand one of the earliest centres of civilisation in Central Asia.

#### EARLY DEVELOPMENT

Samarkand is a later mediaeval extension of a settlement, just north of today's city, called Afrasiab, which lay on the banks of the Siab, the "black river." The vast archaeological area northeast of the present city, covering some 220 hectares, continues to be known by this name. Still largely unexcavated, Afrasiab was the ancient capital of Sogdiana, one of the eastern satrapies of the Persian Achaemenid empire conquered by Alexander the Great in the fourth century BC.

Quintus Curtius Rufus, the first-century AD historian who wrote a history of Alexander the Great, provides the first documented references to the city, known to the Greeks as Maracanda. In the fourth century BC, it was already a well fortified city, surrounded by a ten-kilometre-long wall and defended by a brave and noble people. The Greeks crossed the Hindu Kush in the Spring of 329 BC and initially took the city without a struggle. Alexander said "everything I have heard about the beauty of the city is true — except that it is even more beautiful than I could have imagined." This did not prevent him from destroying it after a rebellion by the city's Sogdian ruler, Spitamen, which delayed the Greek conquest for eighteen months. Maracanda then became the capital of the satrapy of Sogdiana under the Seleucids, the dynasty founded by Alexander's general Seleucus, but was eventually re-absorbed by the local kingdoms which struggled for control over the region in the following centuries.

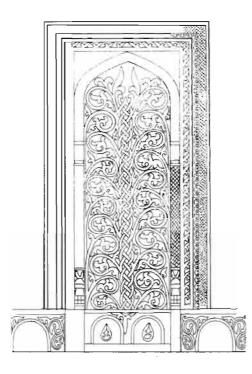
From the second century AD, the city entered a long period of prosperity at the centre of the different trading routes from western China,



Afghanistan, Iran, India, the Caucasus and Byzantium. Afrasiab was at the crossroads of the trade for silk, whose manufacture was a jealously kept Chinese secret for centuries. In spite of the volume of the caravan traffic, no written descriptions survive from this period, though a glimpse of the city's life and prosperity may be gained from seventh century AD wall-paintings excavated in Afrasiab. One of the scenes depicts a caravan bringing gifts to the city's ruler. Leading the caravan is a princess on a white clephant from Surkhandaria, followed by ladies-in-waiting on horseback, torch bearers riding camels, sacred geese, long-haired Turks, pig-tailed Koreans, and Chinese silk traders.

Even after the secret of how to make silk had reached the West in the sixth century and the flow of silk along the legendary Silk Route gradually declined, Afrasiab remained a crossroads of international commerce. In the seventh century AD, the city attracted the attention of the rising Arab conquerors, and, from this time, recorded references to the city become more frequent.

The wall-painting found in Afrasiab of a caravan bearing gifts for the city's ruler in the seventh century.



A drawing from S. Chmelnizkij showing a reconstruction of the mihrab in the Afrasiab mosque based on archaeological remains found during Russian excavations of the site at the beginning of this century.

#### THE ARAB CONQUEST

The Arabs first crossed the Oxus river, today's Amu Darya, in AD 654, but it was not until AD 712 that Qutaiba ibn-Muslim, an Umayyad general, occupied the city. He built a mosque in the western corner of Afrasiab and appointed a governor, thus establishing a first Muslim outpost in the region. In AD 751, the Arabs won an important battle on the banks of the Talas river against a large Chinese army of 50,000. Chinese designs of penetrating Western Turkestan were, as a result, effectively stopped and the predominance of Muslim civilisation in the region assured.

In spite of the early Arab victories, Muslim rule in Afrasiab was not consolidated for another 150 years. The local people resisted the Arab presence, and it was not until the ninth century that the city regained its former stability and prosperity under the Samanid empire. The Samanids, a family of governors who established their power base in Khurasan after gaining their independence from the Abbasid caliphate, elected the city as their capital for a time, which resulted in its further growth. The Samanids were followed by local rulers of Turkish origin under whom the city continued to prosper.

Abulkasim ibn-Khakal, an Arabian traveller described the city in the middle of the tenth century. From the ramparts of the Afrasiab citadel he saw:

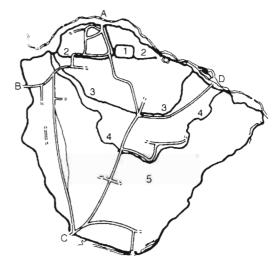
one of the most beautiful views that man has ever gazed upon: the fresh greenness of the trees, the glittering castles... All of this is reflected in the canals running with water and the artificial ponds... It is a city with large market places, blocks of dwellings, bath-houses, caravanserai... The running water flows through canals that are partially made out of lead... With few exceptions there is not a single street or house where there is no running water, and very few houses do not have gardens.

Another quotation from this period by al-Mukaddasi, a reliable geographer who wrote a compendium of the Islamic world, lists the merchandise found in the city markets:

...from Bukhara, soft fabrics and prayer carpets, woven fabric for floors, copper lamps, and horse girths; ...from Khorezmia, sable, minever, ermine and the furs of the steppe foxes, martens, beavers, spotted hares and goats; also from Khorezmia, grapes, many raisins, almond pastry...; ...from Bulghar, arrows, birch, high fur caps, fishglue, walrus tusks, castoreum, amber, horse hides, honey, hazel nuts, falcons, swords, khalanj wood, Slavic slaves, sheep and cattle; (and from the city itself)...silver coloured fabrics ...and paper. This is one of the first references to paper, whose manufacturing had started in the city in the eighth century, another by-product of the region's early contact with China. Arabic sources relate that paper craftsmen among the prisoners taken in the aftermath of the battle at the river Talas introduced this important industry to the city "from whence it was exported to all countries." Soon it became renowned throughout the Islamic world and beyond for its paper made from cotton rags.

The city described by the Arab travellers of the tenth century was a large manufacturing and commercial centre organised, like other urban settlements of Central Asia, into three well defined parts: the *ark*, or area containing the high citadel, the fortress commanding the city, which was protected by ravines overlooking the river, high walls and a moat; below, the walled city called the *shakhristan*, with its representative and aristocratic quarter and the Friday mosque, which was enlarged several times as may be surmised by the two circles of town walls; and, beyond the *shakhristan*, the *rabat*, or suburbs containing bazaars, baths, *caravanserais*, and artisans' workshops — especially ceramists for which the city was well known — and possibly a new Friday mosque.

Eventually, in the eleventh century, a new circular fortification was built to protect the *rabat*. Water was brought to the town by a network of canals lined with lead, feeding the residential areas and gardens through a system of open air basins. Streets are said to have been paved with stone, and kept clean and in good repair by the inhabitants of each quarter. Common houses were built of sun-dried brick and the richer ones of baked brick, while decorations of high quality were found on important buildings. By the late eleventh and early twelfth centuries, the city had begun to spread to the site of present-day Samarkand as a southern extension of Afrasiab.

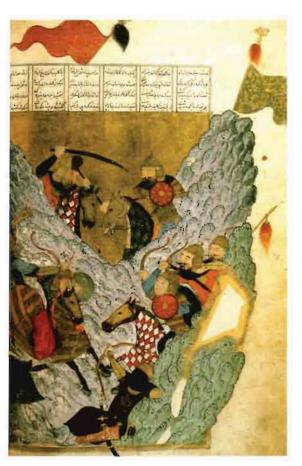


A map of Afrasiab in the seventh to eighth century (from S. Chmelnizkij).

- I Citadel
- 2 Walls around the Ark
- 3. 4 Walls around Shakhristan
  - 5 Rahat
  - A Bukhara gate
  - B Naubechar gate
  - C Kesh gate
  - D China gate



Approaching the massive pre-Mongol mud brick walls of Afrasiab.



A fourteenth century Persian manuscript of a battle scene depicting Mongol warriors wielding bows and arrows, lethal weapons in the hands of these exceptionally skilled horsemen.

### MONGOL INVASION

By the middle ages, the city was an irresistible temptation in a turbulent region. The glittering castles noted by Abulkasim were the fortified houses of Afrasiab's prominent families who sought to protect themselves from the permanent threat of invasion from the nomadic peoples of inner Asia. From the end of the tenth century to the beginning of the thirteenth, the Seljuk Turks vied for control over the area with the Khorezmshahs and then the Kara-Khitai nomads. Then, in the year 1220, the city was overrun by Genghis Khan, the non-Muslim Mongol conqueror from eastern Asia.

Genghis Khan first cut the city's lifeline, damming the canals which supplied Afrasiab with water from the Zarafshan river. Then, according to the contemporary historian lbn-Ak-Asir, "the flames of the massacre spread far and wide, and evil covered everything like a cloud driven by the wind." The Mongol horsemen were ruthless, driving out the inhabitants, slaughtering all who remained, and raising the buildings to the ground. The population was reduced to a quarter of its former size, which in the aftermath was all the severely damaged irrigation system could sustain. Afrasiab never recovered, and its largely unexplored mounds remain to this day, a silent reminder of the city that was.

Yet, the newer settlement south of Afrasiab gradually recovered, and, in the middle of the fourteenth century, the city, now known as Samarkand, is described by the famous Arab traveller, Ibn-Battuta, as "one of the largest and most perfectly beautiful cities in the world." In the later part of the fourteenth century, the city would experience a startling period of growth and splendour as the capital of the empire of Timur the Lame (Tamerlane), the great conqueror who claimed descent from the Mongol khans and left in Samarkand a permanent legacy of his conquests.

#### SAMARKAND UNDER TIMUR

Born near Samarkand in 1336, Timur belonged to the Barlas, a Turkic clan who had recently converted to Islam. In 1369, he took Samarkand from the Mongol rulers, and, from here, consolidated his rule over Transoxiana. After 1381, Timur swept across the continent as far as Damascus and Ankara to the west, as far south as Delhi, and up to the gates of Moscow. He was on his way to China with an army of 20,000 at the time of his death in 1405. In the span of a few intense years, Timur unified and ruled over a territory of vast dimensions and consciously set about to make Samarkand a world capital.

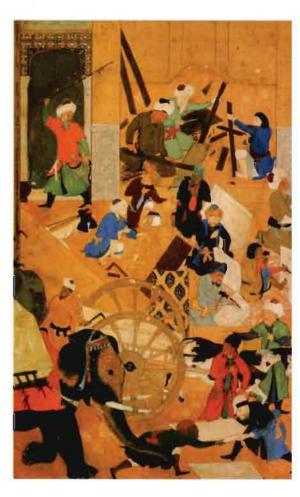
The re-organisation of the city proceeded at incredible speed. Timur brought from the regions he conquered, by force if necessary, the most gifted builders of the time, in order to concentrate the foremost talents and most advanced technical skills on his beloved capital city. The city's irrigation system was overhauled and expanded, and its centre moved south of the abandoned Afrasiab, incorporating parts of the one-time suburbs. New city walls were constructed, shaped as an irregular polygon with six gates which led into six principal commercial streets that converged at the centre of the city. Here Timur ordered the construction of a domed market structure, which stood in the place of the present *Cahar Su* pavilion, a commercial structure built in the eighteenth century and still in use today. Within this simple town scheme, large representative buildings, including mosques, *madrasas, caravanserais* and bathhouses, were built to celebrate the ruler and his family, and impress the citizenry and visitors with their massive scale and rich detail.

Ruy Gonzales de Clavijo, the envoy of the King Henry III of Castile, who was in the city at the time of these transformations, at the very beginning of the fifteenth century, describes the completion in record time of one of the principal bazaar streets. Flanked by a double row of shops, the commercial street cut across the entire city of Samarkand passing through the centre. It is said to have been built in just twenty days, a clear indication of the extraordinary pace of Timur's building programme.

East of the commercial centre, Timur built a large fortified citadel, protected by deep ravines and overlooking the entire city. Here stood, among numerous other buildings, the Kok Saray or "Blue Palace" where, as narrated by Clavijo, Timur kept his treasure and up to a thousand prisoners employed in the manufacture of weapons and armoury. At the southern edge of Afrasiab, Timur and his aristocracy expanded the necropolis that had existed there since the eleventh century, and built their own city of the dead, Shah-i Zinde, an extraordinary ensemble of richly decorated tombs preserved to this day.

Contemporaries were impressed not only by the speed, but also by the scale of Samarkand's new architecture. The largest and most admired among them, was the new Friday Mosque, named after Bibi Khanum, Timur's favourite wife. Located near the main city gates in the northern section of the city, the complex remains one of the largest in the Islamic world, organised around a large inner courtyard and surrounded by four L-shaped galleries. The entrance portal and three *iwans* gave access to three domed halls on each side of the courtyard, and the prayer hall was topped by a tall double dome. Begun at the end of the fourteenth century,

The construction of the Bibi Khanum mosque, completed in 1404, was recorded ninety years later by the famous Persian manuscript painter Bihzad. Timur brought craftsmen from the far corners of his empire and used 95 elephants to build the immense congregational mosque.





The ruins of the Bibi Khanum mosque as they appeared at the end of the nineteenth century. the complex was built in a hurry, using techniques that proved unsuitable to its ambitious scale. The mosque soon began to show signs of structural weakness, and, shaken by repeated earthquakes, was already no longer in use in the seventeenth century. Its reconstruction is in progress today.

Also from the time of Timur, and built in the same grand spirit of the Bibi Khanum mosque, is the Gur-i Emir complex (see pages 34 - 36). Still standing, it is an imposing octagonal structure topped by a 13-metrehigh ribbed dome made up of 64 separate ribs and covered with blue and yellow majolica bricks in a pattern of ascending lozenges. The entrance to the interior hall is through a deep *iwan* on the north side flanked by tall minarets. Inside, the interior hall is surmounted by an elaborately decorated inner dome. Literally the tomb of the Emir, the mausoleum was built by order of Timur as the tomb for his favourite grandson, the crown prince Muhammad Sultan. The tomb was erected next to the prince's palace as part of a complex that included a *madrasa* and a *khanqa*, built by Timur before his grandson's death. Timur himself was buried in the mausoleum following his death in 1405. The complex was enlarged in the following decades by Ulugh Beg, Timur's youngest grandson, to become the burial vault of the male members of the Timurid family.

The great mosque of Bibi Khanum and the Gur-i Emir exemplify the spirit of early Timurid architecture, which was to be developed in the following decades by his descendants. In spite of the influence exerted by the many craftsmen from various parts of the empire, the architecture of Timur is essentially Persian in its general conception — with hypo-style plans, four-*iwan* courtyards, domed halls and corner minarets — and its use of baked brick covered with brightly coloured, glazed tilework. Timur, however, introduced hitherto unexplored dimensions, uncompromising symmetry, and a love for dimensional and visual effect, which is evident in the monumental *iwans*, portals and double domes that soar over tall drums, and are enhanced by the vivid multi-coloured tiles.

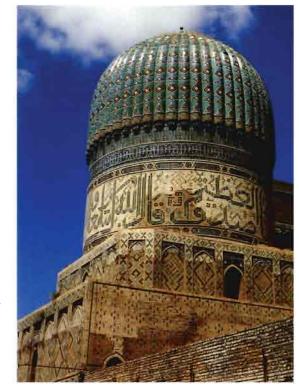
Timurid Samarkand struck its visitors not only because of its monuments and urban qualities, but also because of the abundant green throughout this oasis city, with gardens and orchards punctuated by pavilions and isolated residences, some flanked by luxurious tents, a reminder of the nomadic background of the ruling class. Contemporary sources mention fifteen royal gardens in the suburbs of the city. With names like Bagh-i Behisht (Garden of Paradise) and Bagh-i Booldly (Garden of Contentment), the gardens would have a palace along the main axis and a variety of lawns, groves, pavilions, shaded alleys, canals and water basins based on the Persian tradition of enclosed paradise gardens.

Samarkand's suburban qualities were noted by Clavijo:

The city itself is rather larger than Seville, but lying outside are great numbers of houses which form extensive suburbs. The township is surrounded by orchards and vineyards and between them pass streets with open squares. These are all densely populated and all kinds of goods are on sale with bread-stuffs and meat. Among these orchards outside Samarkand are found the most noble and beautiful houses and here Timur has his many palaces and pleasure grounds.

Beyond the pleasure gardens, large open areas contained the tented encampments of Timur's powerful army, the horde which had sworn allegiance to the ruler and was the back-bone of the empire.

Timur's formidable empire, however, was short-lived. Following his death, the capital was moved to Herat by his son, Shah Rukh, who ruled until 1447 over an empire reduced to its eastern half. Samarkand itself continued to play an important role for several more years under Shah Rukh's son, Ulugh Beg, who administered the city on behalf of his father and is best known as a great scholar and patron of the arts. His school of astronomy and the observatory he built on a hill north of Samarkand were famous throughout Asia and beyond. Today only the huge curve of the sextant remains to mark the position of the circular observatory, an extraordinary three-storey structure much admired by contemporary visitors.

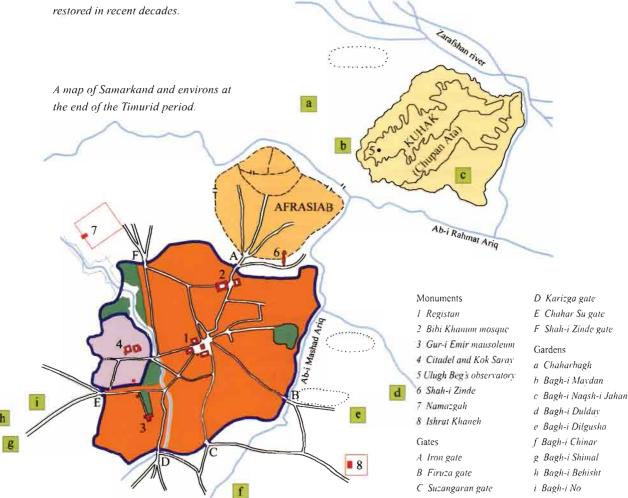


A detail of the reconstructed ribbed dome of the Bibi Khanum mosque.



A turn-of-the-century photograph of Ulugh Beg's madrasa, completed circa 1420, shows the thirtyfive-metre-high central pishtaq without the tile mosaic decoration rastored in recent decodes Ulugh Beg also continued to embellish the city and, in 1417, was responsible for the foundation and development of the central Registan, literally the "place of sand," with a complex of religious buildings and *caravanserais*. Only his principal *madrasa* survives to this day. Created as the city's centre for theological and scientific studies, and named after Ulugh Beg, the building typifies the model of the monumental *madrasa*, fronted by a grand portal, the *pishtaq*, and arranged around a courtyard with four *iwans* centred along two-storey galleries.

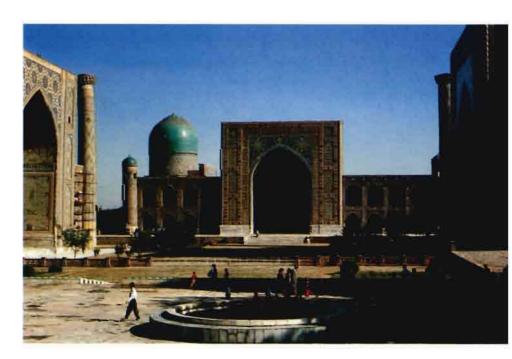
The architecture of the Timurid rulers, which found in late fourteenthcentury Samarkand its initial, striking expression, achieved under Shah Rukh and his wife Gawhar Shad an extraordinary equilibrium between structure and decoration, and was to have a large influence on the development of later Islamic architecture, particularly under the Safavids of Iran and through Babur, one of Timur's descendants who in 1526 established the Mughal empire in India.



#### THE POST-TIMURID PERIOD

In the early sixteenth century, Samarkand lost its prominence in the region with the disintegration of Timur's empire. The rule of the Timurid dynasty over Transoxiana came to an end in 1507, when Samarkand was conquered by the Uzbeks of the Shaybanid dynasty. They were replaced in the seventeenth century by another Uzbek dynasty, the Ashtarkhanide. Under Yalagthsh-Bakhadur, a powerful emir of this family, Samarkand briefly experienced a renewed period of splendour and urban transformation. He re-organised the central Registan, mirroring the Ulugh Beg madrasa with the construction, between 1619 and 1636, of the Shir Dar madrasa on the eastern side of the square. Ten years later, in 1646, he ordered the construction of the Tila Kari or gilded madrasa, so called for its golden decoration, along the square's northern side. This madrasa became the city's new congregational mosque, with the entire *qibla* side organised as a prayer hall divided by a central dome-chamber. With the construction of the Tila Kari, the magnificent urban space we know today was completed. Lord Curzon, the British Viceroy of India (1898-1905) who saw the Registan at the turn of the twentieth century, called it the "noblest public square in the world."

From the end of the seventeenth century, Samarkand declined. To the east, China had closed its borders to all contact with foreigners, while to the west the Ottomans set prohibitive tariffs and discouraged trade in that direction. At the same time, the Europeans were developing the sea routes around the tip of Africa and across the Indian Ocean that had been A present-day view of the Registan with the three madrasas, the Tila Kari in the centre, Ulugh Beg's madrasa on the left, and the Shir Dar on the right.



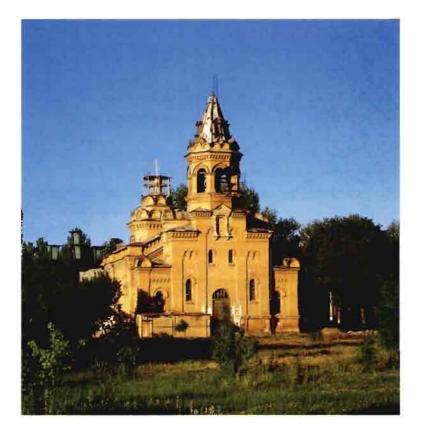
discovered at the turn of the sixteenth century. The days of the longdistance caravans that had made Samarkand an important international trading centre were gone, leaving the enormous hulks of mediaeval glory to crumble in the harsh, continental climate.

The eighteenth century saw further plundering and invasions from nomadic warlords, which brought about the gradual abandonment of the city, virtually uninhabited from the 1720s to the 1770s. The magnificent mosques and *madrasas* of the Timurid period stood deserted, used as stables by the nomads raiding the region. "Nobody stayed there, but the owls that inhabit ruins" wrote a contemporary historian referring to Ulugh Beg's *madrasa*. Yet, despite its ruinous state, Samarkand never quite lost its prestige and religious significance among the region's inhabitants. In the early nineteenth century, the emirs of the Khanate of Bukhara, one of the small kingdoms making up Central Asia during this period, continued to hold their enthronement ceremonies in Samarkand's Registan.

The Bukhara emirs, who had absorbed Samarkand within their domain, were responsible for re-populating the city after its virtual desertion during the eighteenth century. Gradually, people were re-located here from the surrounding rural districts and Samarkand began to come back to life as a regional market town during the first half of the nineteenth century. Bukhara, however, troubled by internecine wars with the adjoining khanates of Khiva and Ferghana, lost its independence and was eventually absorbed by the Russian empire.

NINETEENTH CENTURY SAMARKAND In 1868, the Russians besieged Samarkand. They destroyed once and for all the walls and the gates, and damaged some of the monuments and 00 portions of the old city, particularly around Timur's citadel. The citadel was subsequently completely transformed by the Russian imperial administration, with the construction of a school, church, and soldier's memorial, and the conversion of the Khan's palace into a military hospital. Today no visible trace of Timur's royal palace and citadel remains. The rest of the city was re-planned by Russian military engineers, following the approach used in other eastern towns after the Russian conquest.

A nineteenth century plan of Samarkand showing the radial plan of the new Russian city joined to the old Timurid city.



Samarkand was thus divided into two clearly distinct parts, the original town remaining from the Mongol. Timurid and post-Timurid periods, and a new section built, beginning in 1871, west of the older settlement. The new town followed European models of planning and architecture with a series of radial axes centred on the Timurid citadel and connected by semi-circular avenues disposed in concentric order. This scheme is still clearly visible in the disposition of the attractive tree-lined blocks of the nineteenth century city — worthy of preservation in its own right — and the residential and administrative structures planned and detailed in the European manner.

During the next decade, with the arrival of the Transcaspian railway in 1888 (completed in 1896), which connected European Russia to Central Asia, from Krasnovodsk on the Aral Sea all the way to Tashkent, Samarkand regained some of its earlier trading prosperity, with exports of wine, dried and fresh fruits, rice, cotton, silk, and leather.

In 1924, Samarkand was proclaimed the capital of the Uzbek Soviet Socialist Republic, a position it maintained only until 1930, when the capital was moved to Tashkent.

The Russian Orthodox church, a landmark of the Russian imperial building programme at the end of the last century.

### TOWARDS A NEW STRATEGIC DEVELOPMENT PLAN

Today, Samarkand's historic centre measures 270 hectares, of which 220 hectares are densely built up with between 5,000 and 6,000 structures. The centre is divided into 58 *mahallas* and represents approximately four percent of greater Samarkand, which covers a total area of 7,000 hectares, including the surrounding semi-rural zones. With a density that ranges between 220 and 260 people per hectare, the population of the historic area is estimated to be 60,000, or 16.5 percent of the 1995 estimated population of 362,000 living in the urban area proper.

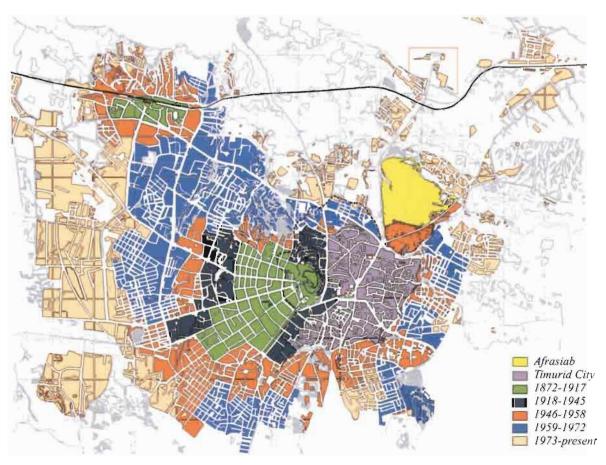
View east across the southern half of Samarkand's Timurid city, characterised by the low and densely built up residential structures. The dome of the Gur-i Emir stands out on the left. The future development of the Timurid city, as well as the rest of Samarkand, is regulated by the 1980 Masterplan. Today, however, the changed conditions and profound political and institutional transformations following Uzbekistan's independence from the Soviet Union, together with the urgent problems historic Samarkand must face in the next decades, have prompted the Administration to reconsider

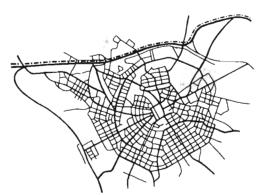


many of the assumptions and proposals of the masterplan, and in particular the plan's general approach to the conservation and development of the city's historic core.

These considerations have brought about the current planning effort, which is being carried out jointly by the State Planning and the State Restoration Institutes in Tashkent, the technical offices of the Municipality of Samarkand, the School of Architecture of the University of Samarkand, and the Aga Khan Trust for Culture. This co-operative effort is an ongoing process which is to be developed over the next two years through the definition of a strategic development plan for the historic area — the Timurid city — and the implementation of rehabilitation and economic development projects in selected areas of the city centre through the newly created "Centre for the Revitalisation of the Historic City of Samarkand."

Schematic map tracing the historical development of the city.





The masterplan of 1938 (after M. S. Bulatov) called for the completion of the radial plan started during the 1870s under the Russian administration.



Plans drawn up in the 1960s (after T. Kalinovskaya and A. Alexandrovich) reflected the expansion of the city as a result of post-war population growth and the increasing importance of the industrial sector.

In the following pages, the twentieth century planning schemes, and in particular the latest masterplan of 1980, will be reviewed. This is followed by an outline of the current planning criteria and the initial results of the strategic development plan in progress, including a presentation of the priority areas identified within the Timurid city for detailed planning.

#### EARLY PLANNING SCHEMES

The first formal masterplan for Samarkand was developed in the years 1937 and 1938. The plan anticipated the city's growth in a westerly and southwesterly direction and foresaw a population of 250,000 people. The scheme called for the completion of the Russian-era radial plan. Although this scheme was never completed, a few new roads were cut through the historic area which paved the way for the changes later in the century. The principal monuments were preserved and became focal points for subsequent urban transformations. Beyond the residential areas, the plan foresaw the development of the industrial sector, which was to have a considerable impact on the city in the near future.

The next two decades brought considerable change to Samarkand, in great part due to the events of World War II, when a large number of industries were relocated to the far regions of the Soviet Union. and to Samarkand in particular. The city, removed from the principal theatres of war, witnessed the construction of military hospitals and orphanages and the arrival of large numbers of refugees. These developments prompted a revision of the 1937 plan: the formal radial system, which would have required extensive demolitions and considerable displacement of the population, was abandoned in favour of a looser scheme linking the centre to the outlying rural areas.

After the war, Samarkand was circled by a ring of large multi-storey housing units catering for the new immigrant population. Thus, the apartment block, hitherto unknown here, supplanted the courtyard house and became Samarkand's predominant modern building type, transforming certain parts of the town. In addition, several new educational institutions, theatres, libraries and museums were built in the Russian sectors of the town, close to the citadel and the principal monuments.

In the years following, Samarkand's population increased to 170,000 people and its area expanded to 2,270 hectares, between the banks of the Zarafshan river to the north and the Dargom canal to the south. A socioeconomic model developed in the mid 1960s stressed industrial



development and the need to generate employment. Eventually, in 1968, the Uzbek State Planning Institute along with the Moscow Central Urban Planning Institute prepared economic projections, which anticipated the further growth of Samarkand and reflected the increasing importance of the industrial sector as well as the significance of the city as a scientific, cultural and tourist centre. These studies paved the way for the preparation of a new masterplan for the city, begun in 1975 and completed in 1980.

The new masterplan was commissioned by the Uzbekistan State Committee for Construction (later the Uzbekistan State Committee for Architecture and Construction) and the Municipality of Samarkand, and was prepared by the State Planning Institute in Tashkent. The plan foresaw the expansion of Samarkand, both in terms of extending the city's borders and accommodating expected increases in its population and industrial development. The city boundaries were revised to include the semi-rural regions between the canal and the river for a total surface area of 16,000 hectares. Population growth was projected, with an expected increase from 530,000 (including 150,000 people living in nearby rural districts) in the late 1970s to some 750,000 people by the year 2010.

At the regional level, the 1980 plan proposed the creation of a new airport, an unresolved issue to this day, preferably southwest or possibly northeast of the city. Further, the plan called for the development of a road network

View of a broad tree-lined boulevard in the turn-of-the-centrury Russian part of the city.



The 1980 scheme called for a central axis to connect the historic core with a new urban centre to the south, where a number of important educational and recreational facilities were foreseen. Red denotes roads and buildings constructed, blue indicates plans never realised. (Map based on an analysis by A. Alexandrovich, after Uzniipgradostroitelstva, Tashkent.) around the city in order to facilitate the east-west movement of goods to and from destinations such as Tashkent, Dakbit, Bukhara, Shakhrisiabs, and Khermez. With the creation of strategic bypass roads, heavy transit traffic would be able to avoid entering the city, while within it the masterplan called for the creation of vehicular links between the expanding residential and industrial areas east and west.

In addition to these circulation issues, the 1980 plan sought to address the issue of industrial activity. It called for the shifting of industrial activities, particularly heavy and hazardous industries, away from the centre to the outlying areas, particularly west and northwest of the city. The plan also focused on improving and increasing residential use by allocating land in the surrounding agricultural areas for development into residential micro-districts.

A central feature of the 1980 masterplan was a new central axis connecting the centre of the city to the southern portion of Samarkand, the so-called southern planning unit, which was to serve a population of 100,000. Here the plan foresaw the establishment of an urban centre with a series of educational and recreational facilities, including a sports complex for 40,000.

The proposals for the central area confirmed the location of the administrative centre in the area of the old citadel and foresaw its further development with the establishment of an open-air theatre, as well as banks, offices and shops. The radial and semi-circular system of avenues built during the nineteenth century by the Russian administration, with its low-rise buildings and green spaces, was also retained by the plan. It was proposed, however, that the informal 'infilling' within these blocks be removed, and, in compensation, a series of multi-storey residential blocks be constructed. In particular, a border of large apartment blocks along the outermost, western semi-circular avenue was indicated.

Inside the Timurid City, the 1980 plan called for road improvements and the creation of a number of new roads. Specifically, an underpass for traffic along Registan Street was proposed together with a vehicular service road for Tashkent Street, which was turned into a pedestrian street during the period 1979 to 1984. The peripheral road along the city wall was to be improved and the area along and sloping down to the canal cleaned up and turned into a park. The Registan complex was to be expanded to the east with the establishment of a new tourist centre, comprising a 500bed hotel complex of low-height courtyard houses and shopping and service facilities. The new complex was to replace some of the apartment blocks realised along Registan Street in the early 1960's. In addition to these traffic and commercial developments, the 1980 masterplan proposed the shifting of a number of industrial activities out of the old city, specifically the knitting factory, the brush factory and the bus station.

The masterplan was approved by the State Committees for Construction and Planning and the Uzbek Council of Ministers in November of 1981. Although none of the major transformations envisaged by the plan were actually carried out, a few of its proposals were realised: the city's main transit road was moved west, about ten industrial enterprises were shifted, vehicular traffic was removed from Tashkent Street, a large electrical substation was constructed, and an important sewerage line was created to provide about 20 percent of the old city with the possibility of a sewer connection. In addition, the military installations were taken out of the centre and a park as well as some public buildings created in their stead. Finally, Tashkent Street, between the Registan and the Bibi Khanum mosque, was pedestrianised.

The reasons for the relatively limited implementation of the 1980 plan are, among others, the lack of co-ordination among the various national and local planning institutions as well as the drastic reduction in public financing during the 1980s. The latter greatly restricted the possibility of implementing any of the large construction and infrastructure programmes foreseen by the plan. But it was especially the institutional and economic transformations of *perestroika* in the Soviet Union that brought many public plans and programmes to a general standstill.

Finally, in 1991, the country's independence opened an entirely new phase in the history of Uzbekistan, and that of Samarkand in particular. This momentous event has opened up new possibilities and prospects and determined a new set of challenges that will need to be met in planning the future development and conservation of the country's architectural and urban heritage.

#### PLANNING CRITERIA

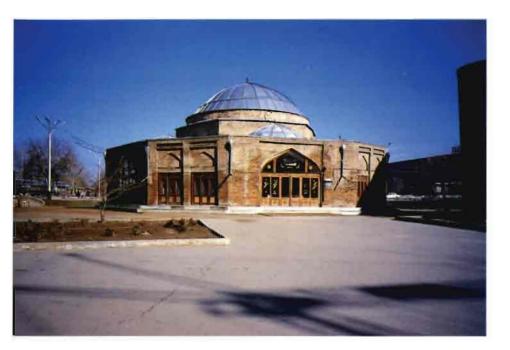
The main objectives of the planning work in progress are a review of the data and concepts contained in the 1980 masterplan, and the formulation of a new strategic development plan for the historic city centre. Its specific aim will be to harmonise the restoration of monuments, urban rehabilitation, new construction, as well as infrastructure and environmental improvements within a comprehensive framework of co-ordinated interventions. The treatment of monuments in their context is an area of special concern, as is the definition of strategies and programmes that lead to an appropriate and sustainable form of development for the historic area.



The large government administrative centre which today sits on the site of Timur's citadel.



Tashkent Street as it appears today without motorised traffic.



The Chahar Su, an eighteenth century market structure, as it appears today. Cleared of its surrounding buildings and close to a large vehicular intersection, the building lacks the human interaction and urban context that would endow it with life and scale. The work under way recognises that many of the ideas and proposals set out in the 1980 plan are sound and should not be abandoned. In particular, these are the need to raise standards of living in the old city; the importance of considering the historic centre as a functional part of Samarkand's overall urban system; and the need to improve the links between the nineteenth century part of the centre and the Timurid city. The latter was also the subject of the many stimulating submissions prepared for the international competition for the Ulugh Beg Cultural Centre organised by the Aga Khan Trust for Culture in 1991. Further, several of the 1980 plan proposals concerning traffic and infrastructure remain valid in principle, and should be taken into full consideration by the new strategic development plan.

The fundamental approach in the current planning of the Timurid city, however, is quite different from that of the 1980 Masterplan. To begin with, the new strategic plan assumes that the scope of public works envisaged by the masterplan must be drastically reduced in the face of diminishing public resources. Under the present circumstances, it is unrealistic to assign the public sector an all-embracing role. In future, direct government interventions in the historic area will necessarily be limited to key sectors, such as the conservation of principal monuments and the realisation of essential infrastructure improvements that entail large capital funding.

A more realistic role, one which the public sector will need to play in the years to come is the indirect, yet increasingly important function of guiding and monitoring future development, as well as orienting the planning process through land use, fiscal, and policy measures to facilitate appropriate investment in the historic area. Future action will necessarily

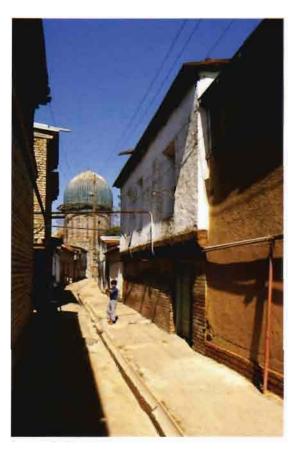


involve the private sector, which can contribute in many important ways to the development of economic opportunities as well as the rehabilitation of the residential fabric, local services, and public facilities.

The new strategic development plan specifically recognises this new dynamic, which constitutes a radical departure from the centralised planning procedures underlying the 1980 plan. Accordingly, the new plan is designed to enhance the direct participation of residents, community groups and entrepreneurial forces, and activate the economic potential of the *mahallas* in the historic area.

A final difference concerns the scope and nature of the plan under preparation. Rather than devising a fully detailed 'once-and-for-all' global plan for the next several decades, the current planning work is pursuing a series of achievable and well co-ordinated 'part development plans' that are based on careful analyses of existing conditions and potentialities. These plans are aimed at implementing manageable projects in selected priority areas, which, together, would eventually form a comprehensive, long-term programme of improvement for the entire historic city.

In following a phased, more limited scope, the current planning work is able to focus on the intrinsic qualities of Samarkand's traditional urban areas, and intervene in ways that respect their historical development and social setting. The old areas are to be preserved and improved, and, where necessary, enhanced through carefully targeted interventions which recognise the needs and expectations of the community, and at the same time follow the morphological and typological organisation of the traditional urban fabric. An aerial view of a traditional Samarkand house, showing a typical complex of low structures grouped around an open courtyard where most domestic activities take place.



Typical residential street near the Gur-i Emir mausoleum.

#### LEVELS OF ACTION AND AREAS OF INTERVENTION

Based on these general tenets, the plan under preparation considers three different levels of action: (1) actions and public works that need to be implemented at the overall city planning level for the whole of Samarkand, in order to create the necessary pre-conditions for effective planning and rehabilitation work in the historic zone; (2) conservation and development measures to be extended to the historic area as a whole; (3) actions and programmes targeted to specific sub-areas within the historic centre.

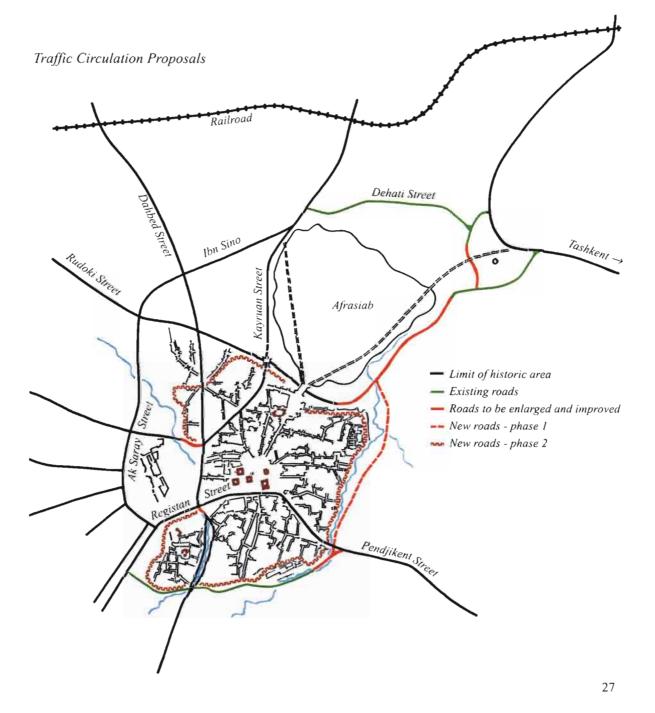
At the level of the city as a whole, the plan under preparation incorporates several of the 1980 proposals to force transit traffic to bypass the city centre, with direct connections to the main roads to Tashkent, Pedjikent, and the other principal destinations in the region. These measures would effectively reduce existing congestion and the pressure to expand roads in the central area. With respect to the infrastructure, the revised scheme gives priority to the installation of a proper sewage system throughout the historic area. The expanded system involves the completion of a series of major peripheral collectors to extend direct house connections and raise sanitation standards that are generally much lower than in the newer urban areas. Further, the present scheme confirms the need to clean and re-open the canals bordering and traversing the historic area, with additional collection wells drilled to improve drainage. Improving the drainage also has important implications for the preservation of Samarkand's monuments and historic urban fabric, as the water accumulated under the foundations is a source of rising damp, a consistent and serious threat to Samarkand's buildings.

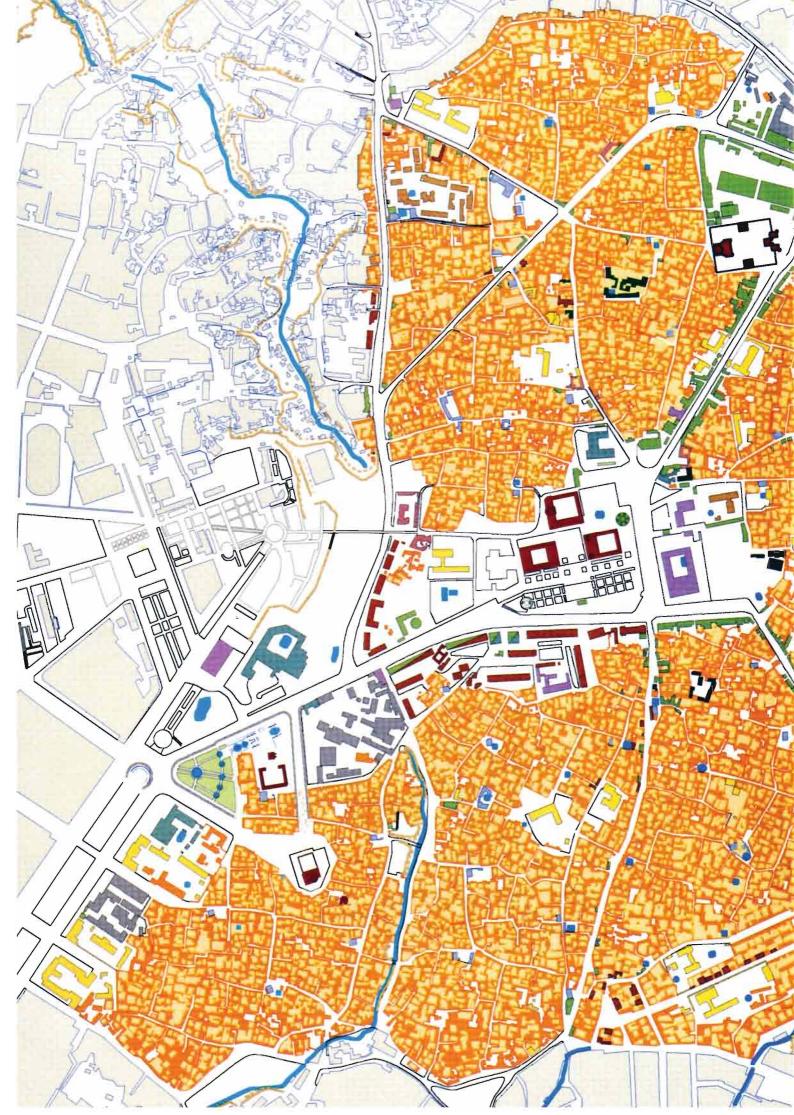
In response to concerns regarding the cost and the government's ability to finance the road and infrastructure works foreseen in the 1980 masterplan, the new plan endeavours to simplify the recommended technical installations and reduce to a minimum the extent of additional roads. Phasing of works can also help in the effort to reduce costs: strategic locations for planned improvements are being identified closer to existing lines and utilities, thereby lessening initial costs while still responding to priority needs.

Finally, the plan explores within the wider urban context the possibility of identifying alternative development areas, including some close to the former city gates, in order to reduce pressure on commercial land use in the historic core and create alternative poles of development, away from the monument areas. Potential areas for redevelopment include tracts of unimproved public land, as well as former factory areas that are no longer in use and represent opportunities for economic revitalisation. Within the Timurid City, the starting point of the plan under preparation has been an analysis of prevailing conditions and ongoing transformations. Three typical situations have been identified:

*Residential areas* which have retained much of their visual and formal qualities, and maintain strong family traditions and an active community life. At present, these areas are generally depressed due to a lack of economic opportunities. Improvements are needed, both at the level of individual units (building repairs, installation of sanitary conveniences) and at the

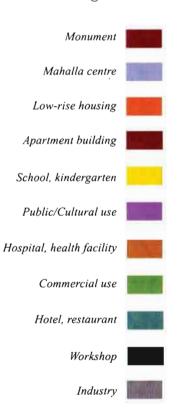
A map of the new traffic scheme (after A. Alexandrovich) which incorporates some of the recommendations of the 1980 masterplan. Transit traffic is to be re-routed away from the centre.



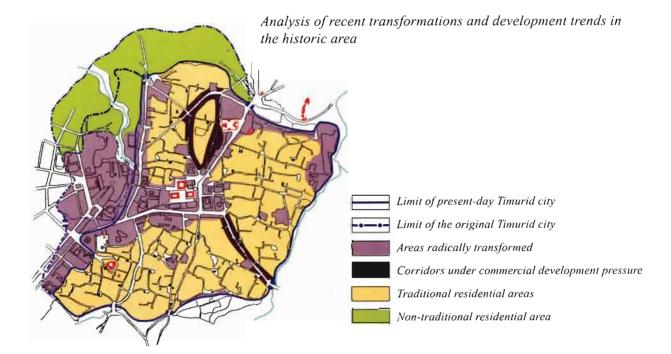




As part of the current planning initiative, a survey of land uses in the historic area was carried out in 1995. The plan shows schools and mahalla centres interspersed throughout the low-rise residential areas. Apartment buildings line the upper section of Registan Road, in close proximity to the monument area. Commercial activities are concentrated primarily along Registan Road, Tashkent Street and, to a lesser degree, Pendjikent Street. The market area is located to the north, just outside the Iron Gate.



## Existing Land Uses



neighbourhood level (better services, drainage improvements, paving). There also appears to be a generalised need to upgrade communal facilities, such as schools, dispensaries and *mahalla* centres, which are often inadequate and poorly maintained. Finally, in recent years, residential units have begun to be affected by piecemeal transformations, such as changes of materials, accretions, and expansions. This is a new phenomenon which, unless regulated, will eventually undermine the integrity of the old neighbourhoods;

*Streets and open areas* close to major traffic arteries that are presently undergoing a process of rapid commercialisation. This brings about the adaptation of residential units to other uses (shops, warehouses, restaurants, etc.), inappropriate alterations of buildings, as well as the total substitution of existing structures. Eventually, these changes will lead to the radical transformation of the scale and character of entire street frontages;

Areas around the principal monuments which in the past were transformed by clearance programmes. Originally, the monuments were surrounded and partially engaged by low, compact structures containing bazaars, community structures and domestic buildings. The urban quality of historic Samarkand resided in this very close interaction between architecturally significant monuments and the surrounding vernacular fabric. Cleared during the present century to isolate the monuments and make room for roads, public open spaces, apartment blocks, and large public buildings, these areas are today occupied by poorly organised vehicular hubs, dilapidated public gardens, or poorly maintained and under-used buildings. The more recent encroachment of private commercial expansion and unregulated development is a further negative development which, in future, may compromise the possibility of using these precious central spaces for other, more desirable purposes.

In response to the typical situations described above, the new planning scheme identifies a number of general corrective measures. These include: 1) the revision of permitted land uses in the central area; 2) the definition of differentiated levels of protection for monuments and traditional buildings; and 3) the preparation of guidelines for private and public development to regulate building heights, proportions, siting, and materials in the central area.

Enactment of these broad policies will provide the municipality with essential planning tools to co-ordinate the general organisation of the planning area and regulate its future development. In addition, a series of active interventions are required to stimulate the economic potential of these areas and implement concrete rehabilitation activities. To this effect, a number of actions have been identified to enable the preparation of detailed area plans that follow consistent planning and development criteria throughout the historic centre.

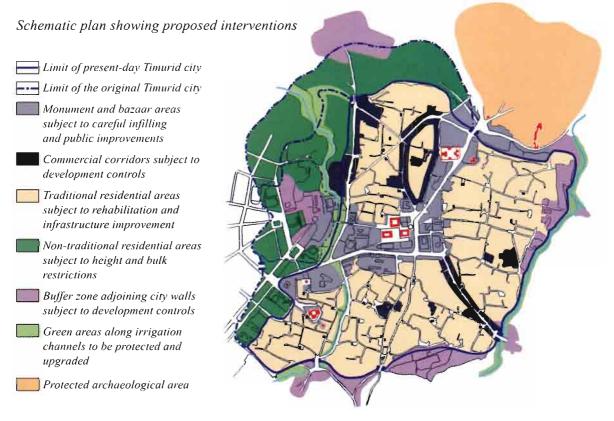


Above, the Registan with the Shir Dar madrasa as it looks today. Below, a view of the square taken by Hermann Burchardt 100 years ago from the height of the same madrasa, before the nearby low bazaar structures and market activity were cleared.



#### These are:

- actions specifically targeted at traditional residential areas in which families and community groups would be offered technical support and assistance with the rehabilitation of houses and other buildings, and in which civic infrastructure and public facilities would be gradually improved. In these areas, additional investment may be required to revitalise the economic base through the establishment of small-scale manufacturing and commercial operations. Numerous areas in need of this type of action are to be found in the different sections of the old city;
- actions to be carried out in the monument and bazaar areas, and along traffic arteries which were radically transformed in the past or are currently threatened by uncontrolled development. The scope of intervention in these areas includes the restoration of monuments to international standards; rationalising circulation and effecting traffic improvements; remodelling public open spaces; conversion of poorly used public and residential buildings; creation of additional visitors' facilities; controls on commercial expansions and transformations of buildings; and reestablishment of the areas' original scale and morphology through infill building and careful redevelopment of available sites.

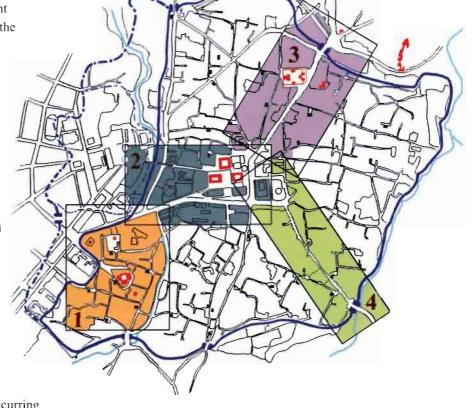


Four priority areas have been earmarked for detailed planning work. Each of these requires the definition and subsequent implementation of a combination of the actions and intervention modalities identified above. These are:

- the Gur-i Emir district, an example of a traditional residential area;
- (2) the Registan complex and surroundings;
- (3) the Bibi Khanum area including Tashkent Street (Bibi Khanum and the Registan are the most important monument areas which have been heavily transformed and are now subject to intense commercial pressure);
- (4) Pedjikent Street and the site of the erstwhile Firouza gate, which exemplify the kinds of incremental changes presently occurring along major traffic arteries as well as the problems posed by the re-organisation of traffic and commerce along the periphery of the Timurid city.

From a methodological standpoint, and quite apart from the urgent need to respond to the social and economic concerns and planning issues presented by each of these areas, a decision was made to proceed to the definition of detailed area plans in parallel to the preparation of the plan for the Timurid City. In such a way, the assumptions made, and the planning tools identified at the level of the general plan, can be tested within the individual *mahallas* and the most critical sectors of the central area. The results of the area plans and the preliminary testing of implementation modalities will provide valuable feed-back which will help to improve and, if necessary, re-orient the new strategic development plan.

Detailed planning work is particularly advanced on the Gur-i Emir district. An assessment of the district's character and conditions, and a presentation of the preliminary results of the planning work are discussed in the following section of this brochure. Map showing the four priority areas subjected to detailed planning work: the Gur-i Emir district, the Registan complex, the Bibi Khanum area, and Pendjikent Street.

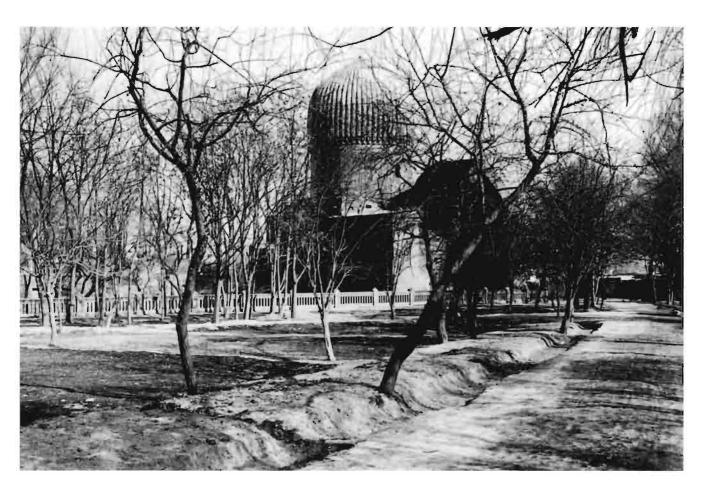


## A Rehabilitation Strategy for the Gur-I Emir Area

The pilot project for the Gur-i Emir area is to provide an example of how an integrated rehabilitation project, encompassing conservation and new development, can be implemented by mobilising the resources of the community, the government and the private sector, as well as selected financial inputs from external donors.

In 1995, the Gur-i Emir area was earmarked by the municipality as a priority area for study and intervention, also in view of the 1996 Jubilee of Timur, whose funerary mosque is located in the middle of the neighbourhood. The area is of particular interest in the planning of historic Samarkand, as it presents a representative combination of prevailing conditions and rehabilitation needs, whose resolution can offer important insights into the methodologies and tools best suited for the planning of old Samarkand.

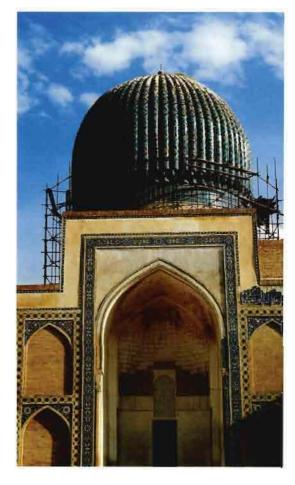
Timur's tomb, the Gur-i Emir, by Hermann Burchardt, the German traveller who visited and photographed Samarkand at the very end of the nineteenth century.



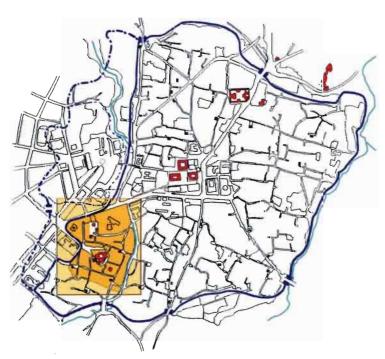
#### A DESCRIPTION OF THE AREA

The limits of the Gur-i Emir area are Registan Road to the north, the Chesna canal to the east and the former city walls to the south. To the west, the district is bounded by the Russian-period buildings lining University Boulevard (formerly Gorky Blvd) opened in the second half of the nineteenth century. With a population of over 5,000 people living in eight *mahallas*, the Gur-i Emir district covers an area of 28 hectares, 22 of which are densely built-up, and includes approximately 550 traditional structures. Population density is an average 230 people per hectare.

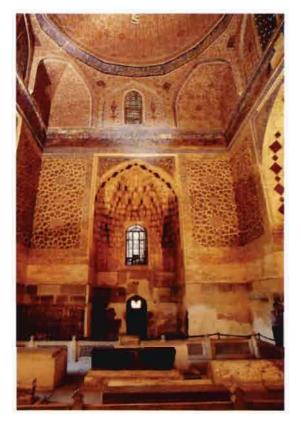
The area is characterised by dense residential fabric surrounding three outstanding landmarks, the Gur-i Emir, Ruhabad and Ak Saray mausoleums. The centrepiece of the district is the Gur-i Emir mausoleum, undoubtedly the single most famous monument in Samarkand. The mausoleum was erected in what during the fourteenth century was a prestigious residential area in the southwestern part of the city, south of Timur's new citadel. At the end of the fourteenth century, having designated his favourite grandson, Muhammed Sultan, as his heir, Timur built in this part of the town a "house" (so-called by contemporary sources) for this grandson. It was probably a small palace with a *madrasa* and *khanqa* 



A detail of the portal and ribhed dome of the Gur-i Emir.



Map showing the location of the Gur-i Emir area within the Timurid city.



Interior view of the Gur-i Emir and its splendid ornamental vaulting.

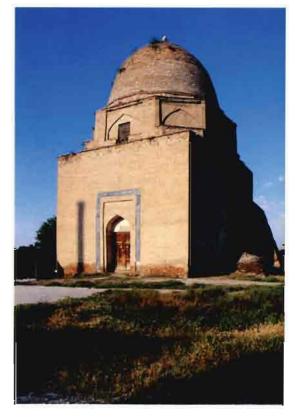
where the young prince and a group of noble friends were to be instructed in religion and morals as well as military science by tutors appointed by the ruler. The mausoleum was added to the *madrasa* and *khanqa* when Muhammed Sultan died of injuries sustained in battle in 1403, and it became the burial site of Timur himself after his death in 1405.

In the second half of the seventeenth century, Muhammad Badi wrote that under Shah Rukh and Ulugh Beg an alleyway was laid, paved with polished stones, to link the Ruhabad mausoleum, the burial place of the holy man Sheikh Burhanuddin Sagharji, with the newly constructed entrance and courtyard of the Gur-i Emir burial complex. This physical link was charged with symbolic significance as it connected Timur's burial place with that of the holy man, whom Timur himself had venerated. The same source relates that west of the alleyway, near the entrance to the Gur-i Emir, there existed in the seventeenth century a mosque with *iwans* supported by wooden columns. Opposite the mosque, on the east side of the alley, there had been a garden with a pond. The mosque and garden ensemble was entered through a *chahar-bagh*, a square structure made of four arches supporting a dome. Throughout this period, the Gur-i Emir complex remained *waqf* property, while gradually the area around the complex was built up with residential structures, bazaars and artisans workshops.

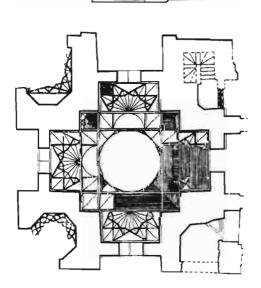
In the nineteenth century, the paved alleyway and the mosque were still to be seen. Photographs taken by European travellers late in the century show that the mausoleum itself was in partial ruins. It was restored in the late 1950s by a group of specialists from the Hermitage Museum. The *madrasa* and ancillary structures adjacent to the mausoleum were unearthed just in the last ten years and recently reconstructed by the Uzbek State Institute of Restoration, including the four minarets located at the corners of the courtyard (1994-95).

The Institute is also responsible for the current partial reconstruction of the Ruhabad *madrasa* and the Ak Saray mausoleum, both works completed upon the occasion of the 1996 Jubilee of Timur. These two structures were built, respectively, before and after the Gur-i Emir, and show the evolution of this building type over a period of a century. The Ruhabad, located north of the Gur-i Emir, with its associated *madrasa*, continues to have a special historical and religious significance. Originally surrounded by the city fabric, today the monument stands alone, the result of the clearing and partial re-landscaping of the area in recent decades. By contrast, the Ak Saray mausoleum, built around 1470 as an additional burial place for the male descendants of the Timurids, remains fully engaged in the surrounding fabric and has retained to this day the traditional relationship between monument and the low, compact urban fabric that characterised the central parts of Samarkand before the clearing of the monument areas in the twentieth century.

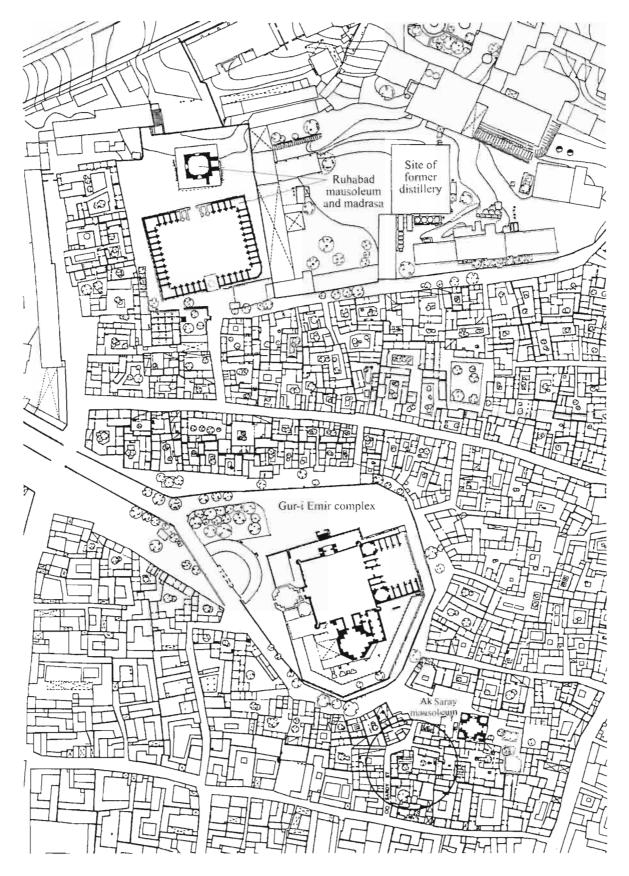
Houses in the district are rarely more than 100 years old, but, in their siting and typological organisation, use of interior spaces and construction practices, they follow centuries-old traditions which pre-date the Russian period. The buildings are one or two storeys high and are sited along narrow streets. These were originally lined with irrigation channels which distributed water to interior courtyards and gardens, where fruit trees and grapes were grown when the irrigation system still functioned. Houses are closely knit, introverted structures, usually sharing party walls and built back to back to fill the entire block. Units built in the middle of a block, with no direct access from the street, are reached via internal culde-sacs. The entrances to the houses are arranged so as to impede full view of the interior courtyard from the street, as it is here that most domestic activities take place.



The solitary Ruhabad, tomb of the holy man venerated by Timur, continues to have a special religious and historical significance.



Section and plan of the Ak Saray mausoleum, built circa 1470 as a burial place for Timur's male descendants.



Block Plan of the Gur-i Emir Area



The Ak Sarai mausoleum remains the only monument in the area still engaged in the surrounding residential fabric. Until recently, the exterior niches of the structure were used by nearby houses as storage areas.



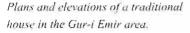
A typical mahalla centre, with its mosque and community meeting rooms. Used for important family and social events, these structures continue to be the focus of each neighbourhood.

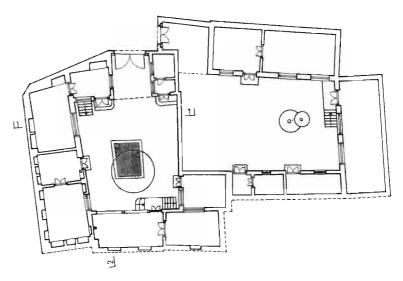


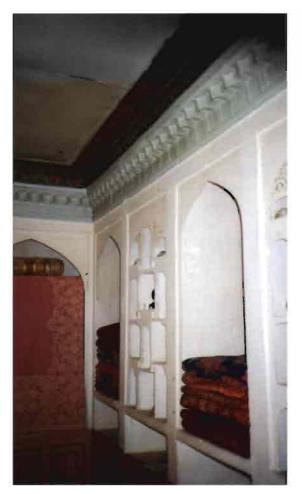
Interior courtyard of a typical house in the Gur-i Emir area. Often, more than one family share the courtyard for their domestic chores. Fruit trees and green trellises provide shade during the hot season.











Interior view of a traditional house with decorative frieze and wall niches.

Living spaces are arranged around the courtyards in a series of rectangular or square rooms, often connected to each other in a number of separate blocks. Rooms were and are still used in a flexible manner, as bedrooms at night and as working and living spaces during the day, when blankets and bedspreads are neatly folded inside chests arranged along the walls of the room. Houses were built originally with dried mud bricks covered with mud plaster, and had flat roofs supported by closely laid structural beams. The homes of the more well-to-do were decorated inside with wall niches and had timber ceilings and beams painted with geometric and floral motifs. Although most of the original materials have been replaced today with bricks or cement blocks, the organisation and essential morphology of the houses remain the same as that found in the historic structures still standing in the district and other parts of the Timurid city.

### **EXISTING CONDITIONS**

Prior to the preparation of detailed proposals, the planning team conducted a physical survey of the entire district, held meetings with the *mahalla* representatives, and interviewed a number of households, in order to evaluate the existing condition of the houses, infrastructure and public facilities, and to better understand the concerns and priorities of the inhabitants. This preliminary work enabled the subsequent formulation of a strategy and physical programme for the rehabilitation of the area.

One of the principal findings of the survey is that a large percentage of the houses in the district are used today by two or more related families, with each family occupying one or more interconnected rooms. In recent years, the shortage of housing has also determined the partitioning of many of the units to accommodate unrelated households. Typically, a



family will occupy two to three rooms, but it is not uncommon to find an entire family sharing a single room.

Overcrowding is thus a matter of concern which needs to be urgently addressed. Another issue is the deteriorating condition of a large number of the area's structures. The most evident defects are water penetration from the roof, structural cracks and damp rising through the walls. More than two thirds of the housing stock in the area appears to be in poor or deteriorating condition. Rehabilitation efforts have in part been hampered because residents feel generally insecure about their tenancy and are especially concerned about the possibility of displacement. In the recent past, inhabitants have in fact seen the municipality clear entire residential blocks, particularly around major monuments. This concern for displacement was expressed several times by the families living near the Gur-i Emir.

As in other parts of the country, the government's recent decision to grant individuals the right to own transferable property was well received in the area. There is now evidence of increased confidence on the part of the residents, and several houses in the area have been enlarged and in part rebuilt with new materials and finishes. The scale and materials of these new developments, however, often conflict with the general character of the district. This is a new phenomenon which will need to be carefully monitored and guided by the authorities.

The large majority of the houses have electricity and gas, but only a limited number has direct connections to the city sewage system. Most rely on dry pit latrines. Water supply connections are generally provided through a tap located in the courtyard, but the majority of the houses are still without a bath or shower. Although some of the old channels are still evident along the streets, the canal system bringing water to the

A partially cleared and randomly used area behind the Ak Saray mausoleum. The dome of the Gur-i Emir may be seen in the background.



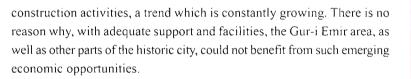
A family portrait, above, and a view of small restaurants close to the intersection of Tashkent Street and the Registan. below, illustrate the strong social bonds in the old city. houses no longer functions, as it has either been blocked or disrupted in recent decades following the major infrastructure works and transformations that occurred in the city from the 1960s.

On the positive side, there is a strong feeling of unity among the inhabitants of the *mahallas* which creates a sense of cohesion and common purpose. Although concerned about the lack of facilities and space, most of the district's families would like to remain in the neighbourhood, and, given means and opportunity, would be ready to participate in efforts to improve the *mahallas*, invest their savings to ameliorate their homes or find better accommodation in the same area. Also, the majority of the district's working people indicated a preference to finding work close to the area in which they live.

At present, commercial development in the district is almost non-existent, but its future prospects should be seen in the larger context of the city as a whole. The possibilities for small-scale economic development in Samarkand appear favourable. Family-owned businesses for the selling of consumer items such as drinks, eigarettes, garments and home-made foods have proliferated in recent years, particularly around the Registan and along the principal bazaar streets, such as Tashkent and Pendjikent streets. There is also considerable need for manufactured goods in Samarkand, and, although small private enterprise and manufacturing are at present limited, the sector's potential for development is good as many raw materials are readily available on the market, and there exists a large unemployed work force with a 95 percent literacy rate. Moreover, there is evidence of growth in home-based repair and consumer services, such as electrical and mechanical repairs, hair-dressing, and small







For the moment, however, discussions and interviews revealed high rates of unemployment, especially among the young. Over half of the young adult population in the district is unemployed. Those who are employed find work in the factories located outside the city centre. The lack of income-earning opportunities and the absence of working places within the district highlight one of the principal disparities between the old and new parts of Samarkand, often lamented by the residents. Another is the perception that standards of living and the provision of public services and infrastructure are lower when compared to the newer expansion areas. There is no doubt that the historic district's lack of economic opportunities as well as its inadequate housing and facilities will eventually cause an exodus of the younger and potentially abler strata of the population, and the impoverishment of the entire district. The consequences for the social equilibrium of the area and its future conservation would be dire if this were allowed to happen. This trend is well known, and has determined the decline, progressive marginalisation and, eventually, wholesale and irreversible transformation of many historic areas around the world.

Reversing this trend in the Gur-i Emir calls for prompt action to provide sustainable conditions for the economic revitalisation of the district as the necessary pre-requisite for the long-term conservation and development of one of the most significant parts of the Timurid City.

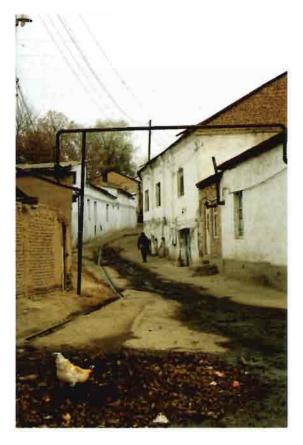


Men drinking tea in a neighbourhood chai-khana and a cobbler mending shoes in Suzangaran Street are examples of small-scale commercial activity in the old centre.



The semi-rural Chesna riverbed, if cleaned and maintained, would provide an ideal setting for an urban park.

There is a need for improved public services throughout the historic area, including better drainage, paving and gas supply.



## STRATEGY AND PROPOSALS

These findings and considerations determined the definition of an integrated strategy for the district, encompassing public actions as well as strengthening the private sector in order to stimulate enterprise development and rehabilitation efforts. Public policy actions in particular are crucial in creating the enabling conditions for the development of the area as well as other historic parts of Samarkand. Without strong government support, private initiatives will soon be stifled, and donor contributions, however well intentioned, can only have a very limited impact, with no long-lasting effect.

The Government's input can be instrumental in four ways: (1) by effecting general land use policies in the historic area, and on government land in particular, which can benefit the community at large and facilitate the development of economic opportunities; (2) by combining incentives and controls over the use of privatised public land, which should be made conditional to investment in the appropriate rehabilitation and upgrading of the traditional fabric; (3) by enacting fiscal policies designed to provide incentives to private initiative and the fostering of small-enterprise development; and (4) by implementing infrastructure improvements which ameliorate general living conditions, and attract and sustain a positive economic climate in the historic area.

With respect to the Gur-i Emir area, it is proposed that public actions should concentrate particularly on facilitating the establishment of small enterprises on land available as a result of past clearance programmes and in the premises of the former distillery located at the northern edge of the area. The development of commercial outlets and small-scale enterprises in these areas would create local employment opportunities and new sources of income, and help in determining an overall economic revitalisation of the area.

Additional public interventions would be required for the infrastructure, especially sewage. One of the first priorities is in fact the creation of a large sewer along the Chesna riverbed to facilitate the connection of the district with the city network and treatment plants. Other interventions are necessary as well, particularly for drainage, water and gas supply, and street paving. In order to be effective, these actions will be predicated on an in-depth study of the area to identify cost-effective and innovative solutions which, over the long term, can help create better living conditions for the inhabitants of the entire district. In an historically sensitive area such as the Gur-i Emir. recurrent and well targeted, small-scale interventions, which take careful account of the existing street networks,

services and priority needs, are generally more effective than large infrastructure schemes which can be highly disruptive of the traditional fabric and, often, impossible to fully implement for lack of capital funding.

Together with strong public action, the mobilisation of community and private resources will be critical if future efforts to preserve old Samarkand's physical and social character are to be sustained, and the conditions for a general economic revitalisation created. The starting point in this endeavour is the existing organisation of the *mahalla* system.

The *mahalla* is the basic social unit of the city, where residents are closely linked by family and personal connections — often spanning several generations — participate in community and family events, and come together to help each other and resolve common problems. The revitalisation strategy is designed to take full advantage of the *mahalla* network, whose capillary presence in the neighbourhood can promote a better understanding of people's concerns, create a channel to raise awareness and disseminate knowledge among the inhabitants, and help direct concrete initiatives and rehabilitation efforts.

It is at the *mahalla* level that donor support can become most effective, by complementing public and private efforts and thus contributing in a significant way to the general upgrading of the Gur-i Emir area. Planned support to private initiatives and families in the district would consist of three closely integrated actions: the provision of free technical assistance, the establishment of training programmes, and the availability of financial support for carefully targeted and highly significant rehabilitation initiatives.

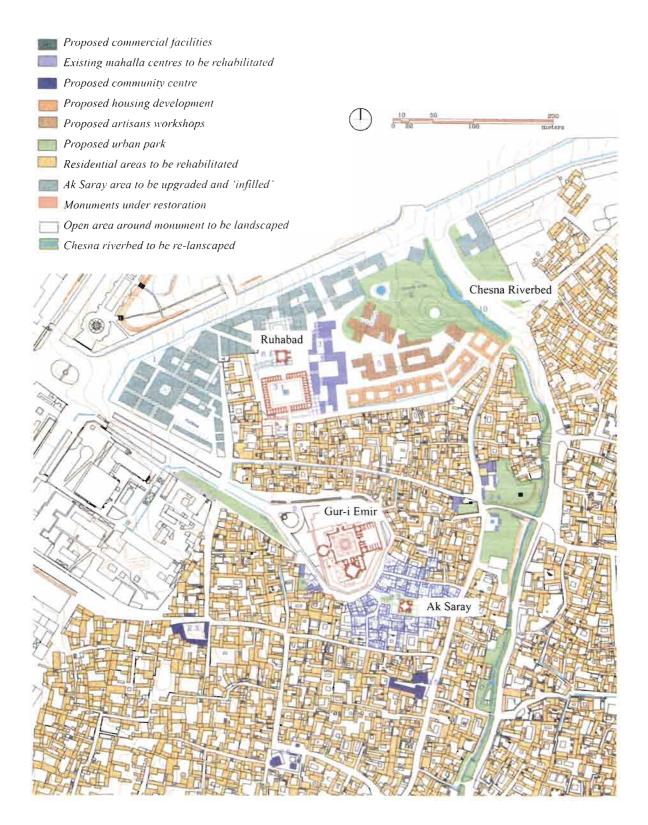
*Technical assistance* is planned for the definition of rehabilitation projects for the *mahalla* centres and the improvement of streets and public open areas, for the monitoring of private rehabilitation and new construction, and for assistance to private owners with the preparation of house improvement schemes. This practical experience at the local level can eventually form the basis of building guidelines and regulations to be incorporated in the general plan for the historic Timurid city.

*Training activities* are an essential component of the district's revitalisation strategy. Traditional construction, crafts and small-scale manufacturing are the sectors in which training would be most effective, given the existing needs as well as the skills of the inhabitants who have a long tradition as highly accomplished craftsmen and builders. Training in these sectors would have the benefit of recuperating and disseminating traditional skills that are now disappearing, re-launching activities which have remained long depressed

The development of commerce and small-scale enterprise is needed to generate employment and revitalisation of the historic centre.



## Pilot Development and Rehabilitation Scheme for the Gur-i Emir Area

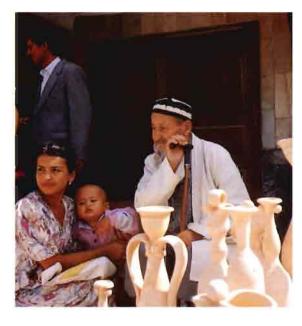


in favour of the industrial sector, and offering new opportunities for productive development and employment to the district's people who are presently marginalised from the labour market. The programme for the Gur-i Emir pilot project initially envisages the establishment of basic training in traditional construction. Training in this sector is a priority as it would contribute directly to physical rehabilitation efforts in the area. Training in small manufacturing activities (leather goods, hosiery, quality handicrafts) is also under consideration and could be developed as conditions mature.

*Financial support* would be aimed at assisting, with ad hoc grants and loans, initiatives and private efforts which can contribute directly to the economic revitalisation and up-grading of the area. Assistance could be made available to individuals, co-operatives, and *mahalla* groups who are willing to invest skills and resources in the area and need start-up funding and contributions in kind to pursue their endeavours. Examples are revolving loans for house improvements, targeted grants for historically valuable houses and community buildings, as well as capital funding and machinery needed for small enterprise development.

Based on the general strategies identified above, the physical planning work focuses on the traditional residential fabric prevailing throughout the district and on a number of open areas and potential infill sites in need of co-ordinated interventions. As shown in the adjacent drawing, the plan envisages:

- the provision of commercial facilities on the government-owned strip of land along Registan Road, across from the new hotel compound. New shopping arcades with landscaped internal courtyards will create the conditions for commercial income benefiting the district as well as provide a sensitive transition between the heavily trafficked Registan Road and the historic fabric of the Gur-i Emir arca;
- the upgrading of community services through the improvement of the existing *mahalla* centres of Ruhabad, Gur-i Emir, Jusuf Harot, Hosh Said Imam, Mashiti-Nakshim and Kalandor, including restoration of the mosques and their associated facilities;
- the establishment of a community centre adjacent to the Ruhabad madrasa, recently reconstructed by the Institute of Restoration. The courtyard of the *madrasa* would be used for community purposes while a number of shops and artisans' workshops would be housed along its rebuilt arcade;
- the introduction of much needed residential structures along Kizil Yulduz Street, the southern edge of the site of the government-owned distillery,



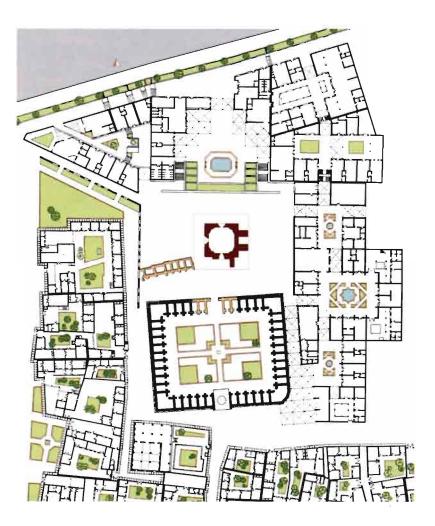
Traditional craftsmanship can be enhanced in the closely knit social context of the mahallas where family and personal connections span several generations.



The arcade of the Ruhabad madrasa under reconstruction by the State Institute of Restoration.

which is to be relocated, in order to re-establish the traditional streetscape and provide a model for sensitive new residential development in the historic area;

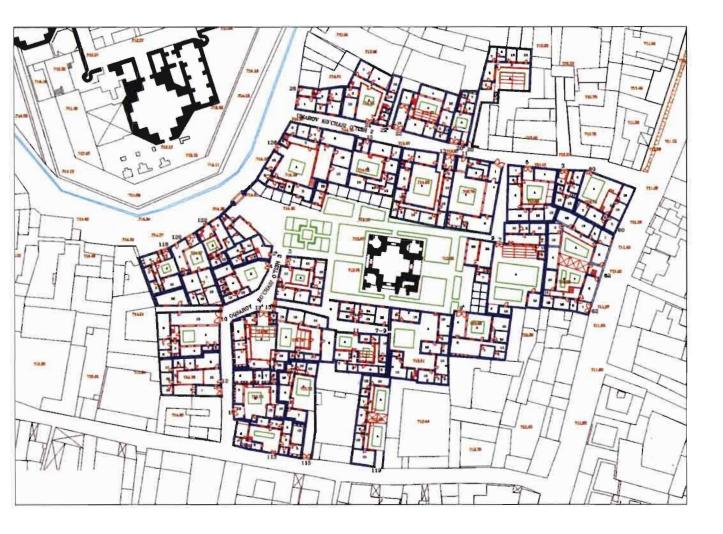
- the creation of a workshop complex for traditional crafts and constructionrelated activities in part of the distillery site, in order to sustain the future rehabilitation effort and create conditions favourable to the establishment of small neighbourhood enterprises, as well as employment opportunities in the area;
- the establishment of a neighbourhood park in the remaining portion of the distillery site, serving the community with amenities such as playgrounds and teahouses, and enhancing the environmental quality of the district;



Proposed plan for the rehabilitation of the area around the Ruhabad mausoleum and madrasa.

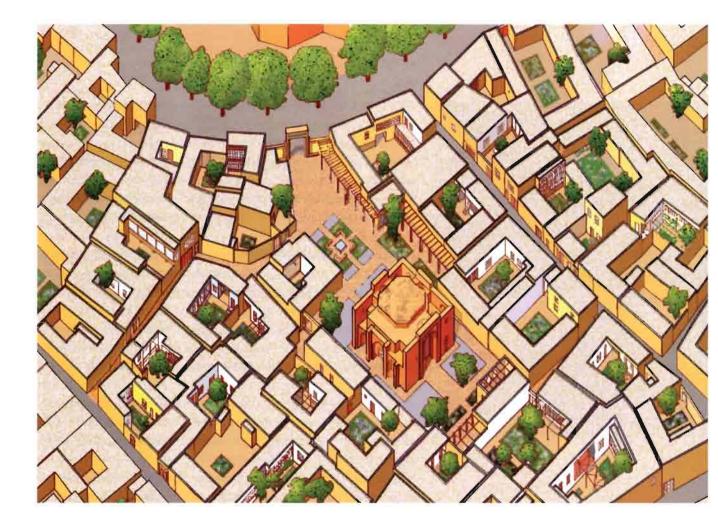


An axonometric view of the proposed rehabilitation of the area around the Ruhabad mausoleum and madrasa, showing proposed new facilities and open area improvements.



Proposed rehabilitation plan for the Ak Saray mausoleum and the surrounding residential area. In green, open areas subject to improvements; in blue, existing residential structures; in red, house components subject to proposed sanitation improvements and interior re-modelling.

- the upgrading of the infrastructure and rehabilitation of the existing residential areas of the district. This effort includes selected improvements to the water, sewage, gas and electrical networks, paving of streets, as well as the provision of technical assistance, and incentives such as grants or loans for the rehabilitation of individual houses;
- urban and streetscape improvements in the areas around the Timur, Ruhabad and Ak Saray monuments comprising paving, the rehabilitation of house frontages, landscaping, and the provision of public lighting and amenitics. The scheme for the Ak Saray mausoleum also includes a detailed rehabilitation and infill proposal for the surrounding houses and plots;
- environmental improvements and landscaping of the polluted and unsightly Chesna riverbed along the eastern border of the district, with provisions for a pedestrian walkway and related amenities.



The implementation of this multi-faceted programme of improvements and new developments in the district will create strong synergisms between community and economic development, and the upgrading of the physical fabric. The attainment of a strong economic basis for the Gur-i Emir area is in fact considered a major pre-condition for the rehabilitation of the physical fabric, in order to ensure that similar initiatives can be replicated elsewhere in the historic city, and that these will not become dependant on continued donor investment.

In the long term, the challenge in Samarkand's historic city will be to mobilise and channel the investments of the emerging private sector in ways that generate local employment, contribute to the improvement of living standards, as well as ameliorate environmental conditions in the district, while retaining the social cohesiveness and traditional fabric of the *mahallas*.

An axonometric view of the Ak Saray mausoleum and surrounding fabric following implementation of the proposed rehabilitation programme.

# IMPLEMENTING CONSERVATION AND PLANNING MEASURES



Shah-i Zinde, the necropolis of the "living king," lies at the southern end of Afrasiab, just beyond the Iron Gate to the Timurid city.

The realisation of a new strategic development plan for the historic area requires the creation of an implementation and co-ordination mechanism capable of translating programmes and ideas into practical actions. Such a mechanism should fulfil two distinct functions: on the one hand, that of interpreting the requirements of the residents and different constituencies; and on the other hand, that of providing technical support and mobilising funds and other resources for rehabilitation efforts.

To this effect, the Historic Cities Support Programme commissioned a special study to assess the city's institutional framework and existing resources with the aim of identifying an entity that could channel the interests of the individual neighbourhoods. At the same time, HCSP explored with the national and municipal authorities the modalities of establishing an independent not-for-profit entity to provide technical support and funding, and co-ordinate future rehabilitation efforts.

The result of this effort has been the formalisation of preliminary agreements for the creation of a Centre for the Revitalisation of the Historic City of Samarkand and ongoing discussions of the future development of the Mahalla Co-ordination Committee. These two bodies will play independent, but complementary roles within the private and public sectors, respectively. The focus of the Mahalla Co-ordination Committee is to provide an effective interface between the local authorities and the *mahallas*, where implementation of rehabilitation programmes and individual projects is most effective. Parallel to this public action, the Centre will provide specific, direct and practical technical assistance to particular projects identified by the Committee and supported by the national and municipal authorities. A close working relationship between the Committee and the proposed Centre will be essential to realising the objectives of the strategic development plan.

# THE CENTRE FOR THE REVITALISATION OF THE HISTORIC CITY OF SAMARKAND

AKTC and the Samarkand authorities discussed, from an early stage in the planning process, the possibility of creating an independent organisation with technical support functions to facilitate planning activities in the Timurid city, as well as implement development initiatives at the district level. Preliminary agreements to this effect have now been reached to establish what is to be known as the "Centre for the Revitalisation of the Historic City of Samarkand."

The Centre is to be established as a not-for-profit organisation to address the physical rehabilitation as well as the commercial revitalisation of the historic area. As a private entity, it will be able to bring in external technical expertise and mobilise outside funding more easily than a public institution. In addition, the Centre, with links to both the public and the private sectors, will be in a unique position to help co-ordinate the different governmental and non-governmental agencies, and overcome often scattered and overlapping administrative responsibilities. The new Centre will in fact adopt an integrated approach, by bringing together all the authorities and agencies concerned at the local level, and co-ordinating and monitoring the various conservation and development processes. It should be noted, however, that the Centre will not take away any of the central or local government's prerogatives, rather it is intended to complement and support the endeavours of the public sector.

The specific aims of the Centre are to:

- provide technical support for the preparation of a comprehensive Strategic Development Plan for the historic Timurid city that links investments in key sectors, with supporting legislation and design guidelines;
- help in seeking further funding and in developing economic opportunities within the local communities;
- help identify and carry out pilot projects in the historic *mahallas* to test recommended planning, design, financial and institutional frameworks and their potential application in other historic areas of Samarkand;
- provide educational and training opportunities, increase public awareness, and promote international conservation and restoration standards;
- foster co-ordination between central and local levels of government, and strengthen the linkages between the city authorities and the residents of the historic *mahallas*.

In meeting these objectives, the Centre will work in close co-operation with institutions and organisations of international, national and local



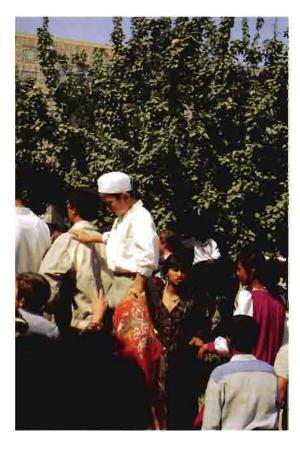
A detail of the beautiful tilework from the tomb of Shirin Bika Aga built in 1385 in the Shah-i Zinde necropolis. relevance. In particular, the Centre will co-ordinate its activities with the State Planning Institute to integrate the new plan for the historic area with the existing masterplan covering the city as a whole. The Centre will also co-operate with the Central Restoration Institute and co-ordinate the Centre's rehabilitation programmes for the urban fabric with the Institute's restoration work on the city's major monuments. Within the municipality, the Centre will work closely with the *Hokimiyat* and the Mahalla Co-ordination Committee, to foster good communication with the various levels of the city administration.

In order to carry out its mandate effectively, the Centre will require a strong sense of direction and clearly defined policies, as well as a significant technical and administrative capacity. These considerations have determined the internal organisation of the Centre which is to be headed by a board of directors and managed by an executive director, with guidance from a technical advisory group and support from a group of associate members. The executive director is assisted by an interdisciplinary technical support team. The supervisory and executive sectors are sub-divided as shown in the organisational chart on the opposite page.

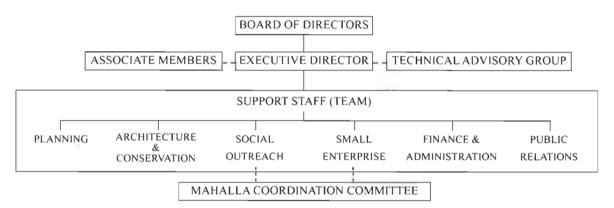
- The board of directors establishes the general direction and financial policy of the Centre. The members of the board are the Hokim of the Province, the Hokim of the City, and the Hokim of Siab District. In addition, there will be the Rector of the Architecture and Engineering School, representatives of the Ministry of Culture and AKTC, as well as selected personages and participating donor institutions. The composition of the board is intended to help provide it with the political backing needed to pursue the plan's integrated approach.
- The multi-disciplinary technical advisory group will assist in developing the Centre's policies and directives. The technical advisors include the Dean of the School of Architecture, the City Architect, the Siab District Architect, the Chief Planner of the State Planning Institute, the Director of the Institute of Restoration, and technical experts working for AKTC and other donor organisations operating in the historic area.
- The associated members of the Centre include interested professionals and three to four selected local civic and business leaders which can provide important strategic and logistical support.

The Centre's executive component is headed by an executive director who is responsible for the Centre's day-to-day operations which are divided into six different offices:

Community events and neighbourhood meetings are an intrinsic part of mahalla life which can become important venues in promoting the aims of rehabilitation and development programmes.



### CENTRE FOR THE REVITALISATION OF THE HISTORIC CITY OF SAMARKAND



- a planning office providing technical support for the planning work in the historic area and the preparation of detailed plans at the mahalla and block levels;
- an architecture and conservation office providing technical assistance and co-operating with the offices of the municipality in reviewing and monitoring building applications and construction activities in the historic area. This office would also provide residents with technical assistance to promote appropriate design standards, both with new construction and in the rehabilitation of traditional houses;
- a social outreach office responsible for developing community participation, particularly at the mahalla level;
- a small enterprise office charged with developing programmes for the commercial revitalisation of the historic area;
- in addition, there will be a finance and administration office and a public relations office to manage and promote the efforts of the Centre.

## THE MAHALLA COORDINATION COMMITTEE

Securing community involvement and participation is usually the most time-consuming and laborious process in community-based initiatives, requiring sustained outreach, information and mobilisation efforts. Fortunately, in Samarkand, this participative process is already well established. *Mahalla* residents have developed their own procedures,



Above, a map showing the subdivision of Samarkand's historic centre into mahallas (after M. Abramov). based on long-standing traditions, of common decision-making and the designation of representatives.

The Mahalla Co-ordination Committee will fit into the existing community framework to facilitate the exchange of information and provide a readily accessible forum for interaction with the authorities. It is especially with the latter function – that of providing an interface between the *mahallas*, the upper levels of the administration, and the technical support Centre which is being set up to assist with the actual implementation of rehabilitation programmes – that the Mahalla Co-ordination Committee will be instrumental in realising the objectives of the Strategic Development Plan.

While discussions continue regarding the specific functions of the Committee, its general role is to promote and guide the development of mahalla-based initiatives and provide an interface between the individual *mahallas*, the district, and the city administration with regard to the revitalisation and valorisation of property in the historic area. The Committee is structured in such a way as to avoid the need for changing the district's existing organisational structure, while it provides a flexible, efficient framework within which interested *mahallas* and individual residents can participate in rehabilitation programmes.

# CONCLUSION

The strategy for the revitalisation of historic Samarkand will be effective if it is well rooted in the social and cultural context of the *mahallas*. The city and district *Hokimiyats* will in fact play the leading role in the rehabilitation of the *mahallas*, and the new committee thus becomes the catalyst in a development process that pursues full working partnerships with the residents and civic groups concerned.

The *Centre for the Revitalisation of the Historic City*, as an independent not-for-profit body, will facilitate this process. In the long term, the challenge will be to mobilise and channel international interest, investments from the emerging private sector, and the resources of the residents in ways that create employment and contribute to the improvement of living standards and environmental conditions, while retaining the social cohesiveness and traditional fabric of Samarkand's *mahallas*.

Emir Timur's Jubilee in October of 1996 should therefore be seen as more than just a passing event. It should mark the beginning of a new period of development for the Timurid city of Samarkand, marked by economic revitalisation and renewed prosperity for its inhabitants. AL-HASSAN, A. Y. AND HILL, D. R. *Islamic Technology: an illustrated history* (Paris & Cambridge: Unesco/Cambridge University Press, 1986)

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#### EDITORIAL NOTE

Uzbek, Russian and Arabic names and words which have a familiar English form in literature and published sources have been used in that form. In cases where Arabic words have been transliterated, the system used is based on that of the *International Journal of Middle East Studies*.

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An Outline of the Historical Development of the City is based on the various published sources listed in the bibliography. Dr. Maria Adelaide Lala Comneno read the manuscript, provided useful comments, and identified some of the illustrations accompanying the chapter.

*Towards a New Strategic Development Plan* is based on internal reports and documents prepared during the course of the project, as well as a series of working sessions with the planners and architects of the State Institute of Planning and the Municipality of Samarkand, and in particular with A. Alexandrovich and N. Sadikov, and AKTC consultants A. Pasic and F. Siravo.

A Rehabilitation Scheme for the Gur-i Emir Area is based on reports, data, maps and other materials produced as part of the survey of the project area carried out by students of the Architectural School of Samarkand and the Aga Khan Program for Islamic Architecture at the Massachusetts Institute of Technology. Individual projects were developed by the young architect interns attached to the project, F. Bagirov (the Ak Saray area), S. Kurbanov (the Ak Saray monument), and U. Tojiboyev (the Ruhabad), with guidance from their teachers, M. Ahmedov and N. Sadikov, and under the direction of A. Pasic. The historical description of the district is based on an article by the historian Galina Pugachenkova on the Gur-i Emir and other monuments in the project area. Professor Pugachenkova's full article, prepared especially for the project, will be made available in Russian at a later date. The discussion of the community and economic development prospects of the district are based on a report prepared by Izhar Ali Hunzai.

Implementing the Conservation and Planning Measures is based on a report prepared by Dr. Mona Serageldin following the workshop on the institutional framework for the *Centre for the Revitalisation of the Historic City of Samarkand*, held in Samarkand in June 1996, and on the proceedings of the HCSP seminar on the conservation and management of historic urban areas, held in Geneva in April 1995.

#### ILLUSTRATION CREDITS

The State Institute for Restoration generously provided existing surveys of the Ak Saray mausoleum which were used as the basis for the architectural projects developed around this important monument. Maps and other early survey material were provided by the State Institute of Planning in Tashkent. The historical photographs are reproduced by kind permission of the Staatliche Museen zu Berlin - Museum für Völkerkunde. The manuscripts on pages 10 and 11 illustrating the historical outline are reproduced, respectively, by kind permission of The British Library Board (Oriental and India Office Collections) and The John Work Garrett Library of the Johns Hopkins University. Recent photographs were contributed by S. Bianca, A. Pasic, and F. Siravo, with the exception of those on pages 7, 9, 37, 41 and 52, which are by Federico Borromeo of Archivio "Arte e Moneta" of Lugano Switzerland, and that on page 36, which is by Günay Reha. Computer graphics were produced by Hugh Patterson. All other graphic materials were produced by members of the planning team.

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