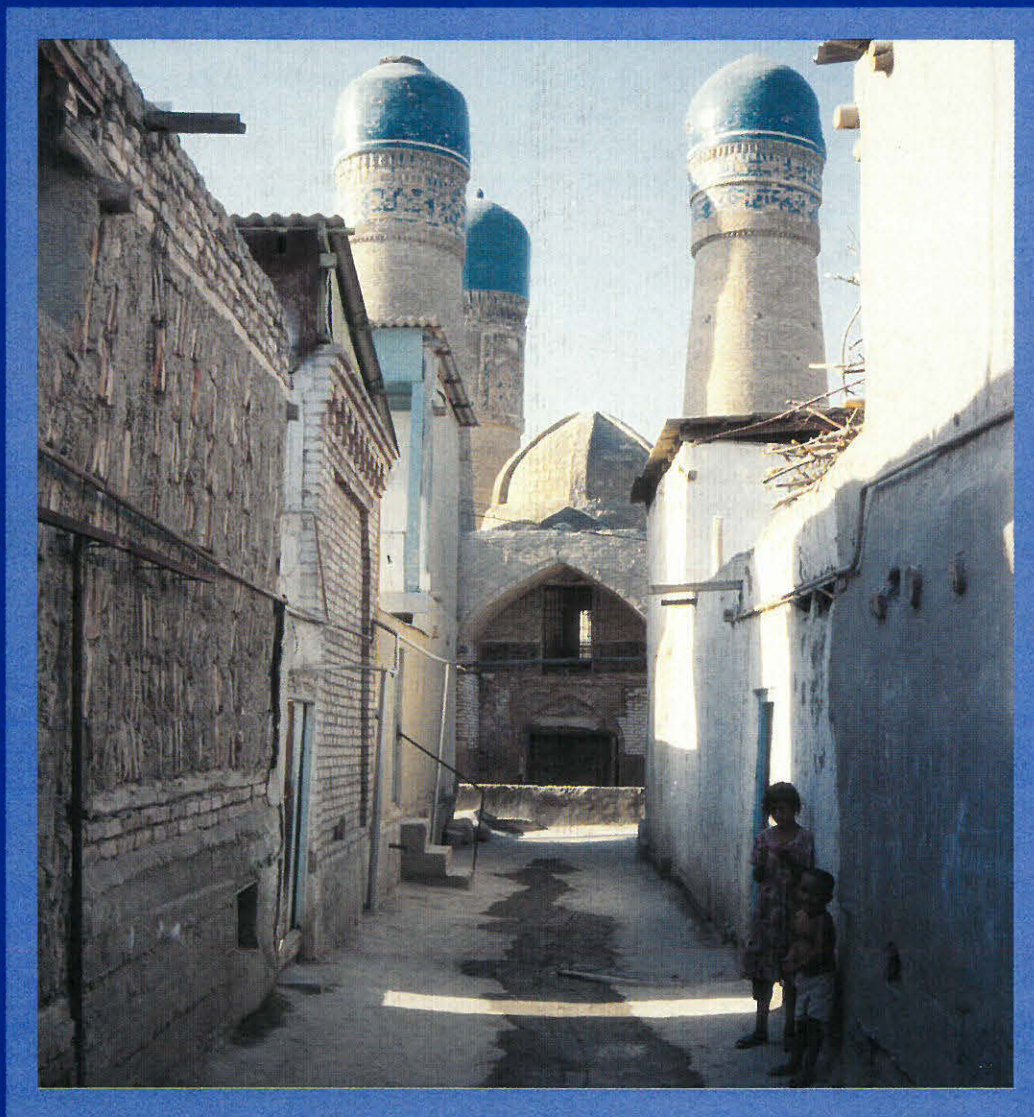


BUKHARA

The Myth and the Architecture

EDITED BY ATTILIO PETRUCCIOLI



**Aga Khan Program for Islamic Architecture
at Harvard University and the Massachusetts Institute
of Technology, Cambridge**

THEORY AND METHOD IN ISLAMIC ARCHITECTURAL DESIGN

Much of the confusion and disorientation in the contemporary architecture is caused by the failure of finding an alternative to a market-oriented individualism, fashionable nihilism or picture-book historicism.

The new series of publications, proceeding of international symposia held at M.I.T. and sponsored by the Aga Khan Program for Islamic Architecture, provides a forum for debates on theory and design.

The objective is to develop a solid and well-defined design methodology based on the rigorous analysis of the existing fabric. In the design process historical consciousness would play a decisive role.

The field of interest is not limited to the Dar al Islam, the lands administrated by Islamic law, but includes the Western built landscape, since the intellectual and physical mobility today makes it more difficult to circumscribe cultural territories.

The range of issues discussed includes the single architectural object as well as the urban fabric and the territory, due to the integration of the different scales of the built environment. In this vision the building is seen more as one element within a larger context than as isolated aesthetic object.

Central themes of debate are the morphological study of the cities, either as reading or operative design, as well as the restoration and conservation of the architectural patrimony.

Issue to follow: "Courtyard House and Urban Fabric".

Edited by Attilio Petruccioli.

Editorial Board: *Stanford Anderson*
Stefano Bianca
Sibel Bozdogan
David Friedman
Renata Holod
Akos Moravanski
Gulru Necipoglu
William L. Porter
Nasser Rabbat
Jeremy Whitehand
Eugen Wirth

On the cover: Bukhara. A view of the Charminar.

BUKHARA

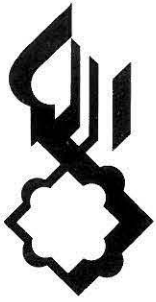
The Myth and the Architecture

Edited by

ATTILIO PETRUCCIOLI

Proceedings of the international symposium sponsored by the
Samuel H. Kress Foundation and the Aga Khan Program for Islamic Architecture
at Harvard University and the Massachusetts Institute of Technology.
Held at M.I.T., Cambridge on November 1996

**Aga Khan Program for Islamic Architecture at Harvard University
and the Massachusetts Institute of Technology, Cambridge**



A publication of
the **Aga Khan**
Program for
Islamic Architecture
at Harvard University
and the Massachusetts
Institute of Technology,
Cambridge

Seminar
Proceedings

Series 1
Volume 3

Copyright © 1999 by the Aga Khan Program for Islamic
Architecture at Harvard University and the Massachusetts
Institute of Technology, 77 Massachusetts Avenue, Room
10-390 MIT, Cambridge 02139

ISBN 88-86805-00-7

Contents

Introduction <i>by Attilio Petruccioli</i>	9
How Ancient is Bukhara? <i>by Richard Frye</i>	15
What Arabic and Persian Sources Tell Us about the Structure of Tenth-Century Bukhara <i>by Heinz Gaube</i>	19
Coins of Ancient Bukhara <i>by Edvard Rtveldadze</i>	29
The Size of Samanid Bukhara: A Note on Settlement Patterns in Early Islamic Mawarannahr <i>by Aleksandr Naymark</i>	39
Lower Layers of Bukhara: Characteristics of the Earliest Settlements <i>by E. G. Nekrasova</i>	61
Between Conservation and Innovation: the Central Plan of Bukhara <i>by Firouz Ashrafi</i>	71
Bukhara and Its Hinterland: The Oasis of Bukhara in the Sixteenth Century in the Light of the Juybari Codex <i>by Florian Schwarz</i>	79
Bukhara's Suburban Villages: Juzmandun in the Sixteenth Century <i>by Robert McChesney</i>	93
Evolution of Architecture of the Sufi Complexes in Bukhara <i>by Maylyuda Yusupova</i>	121
Suburban Ensembles of Bukhara <i>by Nasim H. Sharipov</i>	133
The Role of Bukhara in the Creation of the Architectural Typology of the Former Mausoleums of Mavarannahr <i>by G. A. Pugachenkova</i>	139

Bukhara from the Russian Conquest to the Present <i>by Annette Gangler</i>	145
The Soviet Interpretation and Preservation of the Ancient Heritage of Uzbekistan: The Example of Bukhara <i>by Mounira Azzout</i>	161
An Atlas of Building Elements in the City of Bukhara <i>by Attilio Petruccioli</i>	175
Revitalization of the Heritage of Uzbekistan <i>by Botir Usmanov</i>	183

Introduction

Bukhara's small-scale airport bids farewell to visitors by way of a garden. The traveler completes the formalities in a small hall and emerges under arbors and vine-trellises in the midst of perfumed flower beds. Tall trees protect the garden and shelter the shish kebab kiosks emanating an aromatic smoke. When it's time to leave, the traveler passes a small barrier onto the runway and makes his own way to the little airplane.

The calm of the airport is mirrored in the opposite side of the city littered by mountains of iron scrap, cranes rusted under the sun, vacant industrial sheds, and railways abandoned by their locomotives. These monuments speak to the collapse of a Soviet economy. This quiet landscape dissolves into the activity which surrounds the monuments. Buttressed by scaffoldings and signs of construction in preparation for the celebration of the 2500th anniversary of Bukhara, they are revitalizing her ancient splendor with bright new tiles.

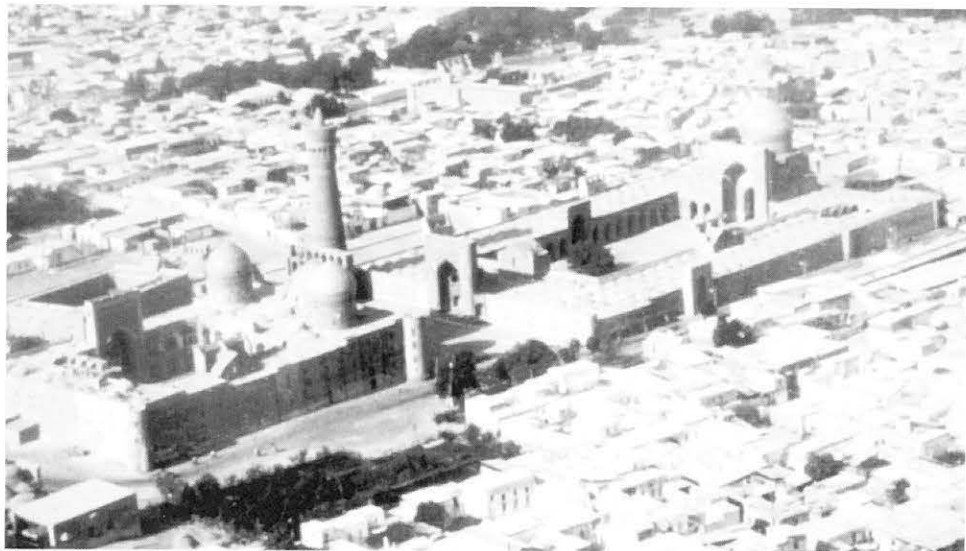
Recent economic lethargy may have actually given Bukhara a needed respite to reassess future growth. Bukhara's historic center, monuments and urban fabric remains some of the best preserved in Central Asia. Economists, historians, and architects would benefit from a united venture that could integrate ideas of cultural preservation with those of development. Cultural heritage can be the crucial resource that allows us to reconstruct the social texture and cultural identity of Bukhara, and to determine the environmental conditions that raise the quality of life of the inhabitants. Reinforcing specific cultural identities is also an important tactic in resisting wholesale globalization.

The task of protecting, conserving and reconstructing the historical urban fabric of Bukhara is of urgent importance. One of the most crucial projects is mending the urban fabric in the large empty space of the bazaar, between Toki Sargaran and the Toki Sarafan. This should be done following principles of continuity and contiguity, creating a web of introverted buildings with interior living spaces as opposed to the contemporary grid of unitary housing blocks. Superceding standard urban design and planning with authentic elements of cultural heritage can raise the quality of life in Bukhara and increase its powers of attraction.

The publication of this collection of articles has two main goals. The first is to refresh our knowledge of Bukhara and its history, because we believe that only a detailed knowledge of the built form can create the basis for a coherent project of transformation. Only in the slow sedimentation of the fabric and in the minor changes of its monuments can we find the principles either for a coherent restoration or a new design. Our second

Top: Aerophoto of the bazaar area before World War II. The barracks are already in place.

Below: Aerophoto of the same period showing the Kalyan Masjid, Minaret, and Mir Arab Madrasa. The fabric of the northern side of the walled city is still compact.



goal is to lay out ideas on the conservation and revitalization of the historic area. In a time when the rules of preservation - which were consolidated after the Charter of Venice - are again being challenged, Bukhara presents itself as a good case for the application of new ideas. Our authors include top scholars from western countries as well as colleagues from the former Soviet Union who bring with them valuable material produced by three generations of researchers and previously available only in Russian.

This book is not the only manifestation of a revived interest in Bukhara. In 1995 the restoration of Bukhara's Old City received the Aga Khan Award for Architecture. Thereafter, in the summer of 1996 AKPIA/MIT began conducting Bukhara fieldwork in collaboration with the University of Stuttgart. MIT fieldwork was conducted in the summer of 1997, providing an accurate measured survey, scale 1:50, of the houses of the Jewish



Aerophoto of the bazaar area in the 70's showing the empty spaces filled with barracks.

quarter. With the original Jewish population abandoning this part of the city there was an urgent need to document this important example of material culture and settlement patterns. The most recent fieldwork, in winter 1997, conducted in collaboration with the University of Ferrara, Italy, provided measured drawings of various unpublished monuments of minor size. In the fall of 1996 an MIT design studio worked on the design of the large demolished space in the center of the bazaar. The most significant scientific initiative is the Atlas of Bukhara. Supported by the Graham and Samuel H. Kress Foundations, this work in progress aims to document the constructive technologies of the traditional dwellings. Its aims and objectives are described in detail in my article in this volume. Good examples of improvement of the research through teaching are the two degree theses of Cristina Tartari and Paola Gabrielli in the School of

The area behind Mir Arab Madrasa today.



Architecture of Ferrara, Italy. Finished in spring 1998, they deal, respectively, with the central bazaar area reconstruction and the restoration of the Mosque Kodja Kalon.

Beyond the built landscape there is much else to learn about Bukhara. For instance, it is surprising how the community was able to preserve its identity during the Soviet era. An interesting phenomenon, which goes against conventional experience, has surfaced. While most Islamic cities are being abandoned by the original population and are attracting more people from the countryside, in Bukhara a good portion of the inhabitants that left for the suburbs are now returning to the city. They are aware of the superior quality of the old courtyard houses, although they require restoration, to the reinforced concrete pre-fabricated boxes of the 1960's. This trend is the best guarantee of a future collaboration of the people in the revitalization of the historic city.

We can also learn from Bukhara as it is one of the most coherent examples of multi-ethnic cohabitation. For centuries 25 different nationalities, with different dress, language and religion, have lived as neighbors, peacefully sharing public space. In these sad times of intolerance and ethnic cleansing we would do well to look carefully at this city.

The whole oasis is also a rich source of information on sustainable building techniques. The complex of Chor Bakr is a good example. To prevent humidity in the walls the builders have inserted a stratum of very thin reeds, 3 mm in diameter, between the bricks at a height of 30 cm above the ground. These reeds that grow freely in the swamps of the oasis have the property of keeping the humidity inside their hollow stems. Recently, the Italian Council of National Researchers published a paper about the expensive products on the market, in general made of synthetic resins, which are normally used in restoration to protect walls. The best product keeps back only 70% of the humidity, the worst allows all the water to go through! There is a lot of room for improvement in technologies of restoration.

Finally, I want to thank all those, in addition to the authors, who have

contributed to this book, especially our editors Margaret Sevcenko and Michelle Woodward, and Shakeel Hossain for his design layout of this volume. The contributions of the distinguished scholars who acted as discussants during the conference were invaluable: Stanford Anderson, Stefano Bianca, Lisa Golombeck, Renata Holod, Hasan-Uddin Khan, Ronald Lewcock, Mina Marefat, Roya Marefat, John De Monchaux, Gülru Necipoglu, Nasser Rabbat, John Scheoberlein-Engel, and Batir Usmanov. I also wish to thank the members of our Editorial Board: Stanford Anderson, Stefano Bianca, Sibel Bozdogan, David Friedman, Renata Holod, Akos Moravanski, Gülru Necipoglu, William L. Porter, Nasser Rabbat, Jeremy Whitehand, and Eugen Wirth. Special thanks are due to Minakshi Mani for the organization of the conference and to Alberto Balestrieri for the patient work of organizing the editing and publication of these proceedings.

Attilio Petruccioli

Como, Italy

April 1999

Richard N. Frye

How Ancient Is Bukhara?

Ever since the late Shah of Iran convened a great pageant at Persepolis more than a quarter of a century ago to celebrate the 2,500 years of the Iranian monarchy, neighboring countries have tried to prove that they could match its antiquity. In Central Asia the first country to enter the competition was Uzbekistan which, not to be outdone by Iran, put forth Samarqand as equally ancient. Since Bukhara had to be at least as old as its sister city up the Zarafshan River, the official line now is that Bukhara is also at least 2,500 years old.¹ But is this true?

The sources are not so encouraging. If we look at the Persian text of the history of Bukhara by Narshakhi, we find the following. "This place, which today is Bukhara, [formerly] was a swamp; part of it was a bed of reeds and part planted with trees and a meadow. Some places were such that no animal could find footing there, because the snows melted on the mountains of the districts near Samarqand and the water collected.... The area which is Bukhara was filled [with mud carried away by the river] and the land became level. That river was the great river of Sughd, and the filled area became Bukhara."² Our author presumably refers to the city of Bukhara rather than to the large oasis designated by the same name, but it could be the reverse. What should we believe?

Let us begin with geography and irrigation. There is no evidence that the Zarafshan River reached the Oxus in historical times and the existence of swamps and lakes in early times is almost certain. Ptolemy's Oxian lake could have been situated in the oasis of Bukhara, although it was more likely at the combined delta of the Zarafshan and Kashka rivers. Before canals were created for draining the swamps, one may conjecture that only the high land in the oasis of Bukhara was occupied by settlements.

Since the site of the city of Bukhara was not as elevated as the land around Paikand, it appears reasonable that a site such as Paikand, near the Oxus, with easy access to Samarqand, and in the deltas of both the Zarafshan and Kashka rivers, would attract settlers searching for places to live to the oasis of Bukhara. Furthermore, Paikand was situated on a low plateau of circa 100 sq. km.³ Narshakhi reports that Paikand was older than Bukhara, and in ancient times every ruler of the oasis made Paikand his capital.⁴ From a number of excavations in Central Asia, archaeologists suggest that the deltas of rivers such as the Tejen, Murghab and Hilmand were the places of earliest settlements in Central Asia, and the Zarafshan River delta would most likely conform to this pattern. Consequently, we may suggest that the oasis of Bukhara certainly received settlers at a very early date, but the city of Bukhara was late in becoming a significant settlement. The exact date can hardly be ascertained, but the period of the great Kushan empire

is the most likely time, because before the great expansion of urbanism under the Kushans, the earlier Greco-Bactrians probably only ruled the area around Marakanda, and even there, such dominion was shortlived. Bactria was called "the land of a thousand cities" by the Greeks, but north of the Hissar Mountain range, few traces of Greek settlement have been found. After the Saka expansion of the first century B.C., only under the Kushans do we find archaeological evidence of settlements along the Oxus River with an extension into the oasis of Bukhara.⁵ Under the Kushans in Bactria, urban life continued to flourish, and irrigation was the key to the wealth of the land. We should not forget that the vast Kushan empire of the first two centuries of our era was a rival of its Roman and Chinese counterparts.

So we may tentatively assign the beginning of settlement on the site of the future city of Bukhara to the first century of our era, but it is doubtful that the city became the center of the oasis before the end of the fifth century and more than likely, later. Even then, rival towns maintained their own rulers and were centers of trade and the textile industry. Probably Bukhara obtained hegemony over the oasis only shortly before the Arab conquest at the end of the seventh century. From the geographies written in Arabic (Istakhri, Ibn Hauqal, Yaqut, etc.), we find that the name of the village on the site, or near the site, of modern Bukhara was called Numijkath.⁶ The second part of the word - *kath* or *kand*, means "town" in Sogdian, while the first part may be related to the Sogdian word for "ninth," or less probably, the word for "law" (from Greek *nomos*).

The site of the city of Bukhara would have been a natural place for settlement since the Zarafshan River divided there into several forks, according to the Arabic geographies. Because of the great fertility of the oasis, reported by the geographers, we may speculate that the whole area was called **pwk'r* (*fwq'r*) in Sogdian, meaning something like "excellent, splendid," which the Arabs, as the English are wont to do, called the city *la kbira* with a similar meaning in their language. This is my suggestion for the origin of the name Bukhara, rather than the *Volksetymologie* that derives the name from the Indian Buddhist *vihara*. This appellation (*pwk'r*) which was applied to the district, was then transferred to the principal city, just as the name of the province Parsa was given to the site of Persepolis.

The rise of the city of Bukhara to great prominence, in my opinion, really dates from the Arab conquests and the coming of Islam to Central Asia. Because of its favorable location and its fame as both a rich agricultural and textile area and a trading town, Bukhara became the great center of Islamic learning in Central Asia. Why did this city become such a center rather than Samarqand or some other city? I believe this can be answered by the circumstances of the Arab occupation of Bukhara as contrasted with other cities, except Merv, which was the first site where the Arabs settled in the homes of the local people as they did in Bukhara. There was a difference, however, between Bukhara and Merv. During almost a century of Umayyad rule, from the 660s to 750 of our era, the whole oasis of Merv was divided and then settled by Arab tribes in various villages. The Arabs were

mainly interested in raiding across the desert to the Oxus River and beyond, using Merv as a base. There was no principal city of the Merv oasis, and Merv had been a military outpost of the Sasanian Empire, as it continued to be under the Arabs. The inhabitants of the oasis of Bukhara, on the other hand, were merchants as well as landlords and peasants, and trade with China and elsewhere was an important source of the wealth of the towns in the oasis. This does not mean that Merv was unimportant in trade relations, but the end of its position as the military and economic outpost of an empire based in Iran, in a sense, shifted the frontier to the east and Bukhara became the "dome of Islam" in the east. Furthermore, the political conflicts of the Arab tribes settled in Merv did not help that oasis to retain its once preeminent position in the caliphate. So under the Umayyads, the Arab tribesmen maintained their tribal organization in the Merv oasis, while in Bukhara (where the Arab tribal warriors were settled in quarters of the city rather than in the oasis), the Arabs soon mingled with the local population who, in great measure, converted to Islam sooner than elsewhere in Central Asia. Bukhara and Samarqand were also no longer on the frontier but in the center of Sughd (Soghdiana), the richest and most populous part of former Soviet Central Asia even unto this day. The "Golden Age" of Bukhara, however, was in the tenth century when the Samanids, the last Iranian dynasty, ruled Central Asia. It was under the first ruler Ismail (875-907) that the long walls around the oasis, called Kampir-duval, were neglected and abandoned after Ismail declared that they were unnecessary since he would be the bulwark of the oasis against raids of nomads or other enemies. It was under Ismail's grandson, Nasr, that the poet Rudaki wrote his famous lines about the section of Bukhara city by the canal called the Juy-i Mulyan which so moved the ruler, who was in Herat at the time, with nostalgia that he mounted his horse and returned to his beloved Bukhara.

Just as artists prefer to live in poverty on the left bank of the Seine or in Greenwich Village in New York, so did poets, scholars, and artisans crowd into the narrow streets and alleys of the capital of the Samanids. While some authors writing in Arabic praised the city and extolled its virtues, Chars compared it to the crowded cesspool of Baghdad. There is no question, however, that Bukhara was a populous metropolis, the Baghdad of the east.

Just as in Nishapur and other cities of the Islamic world, craft guilds⁷ developed, and certain quarters became the shops and residences of various craftsmen. Guilds became well organized and powerful, so much so that the government listened when they demonstrated their complaints through the streets. It is significant that after the fall of the Samanids, when the Turkic Karakhanids ruled Central Asia, Bukhara and other cities had a greater measure of independence than under the Samanids. Religious leaders became the real force in city government, and in Bukhara this led to a veritable dynasty of local theocrats, the Al-i Burhan, in the late eleventh and early twelfth centuries. The Mongol conquest of 1220 brought an end to the flourishing medieval city of Bukhara, and the city

we see today is built upon the ashes of the Samanid metropolis. Bukhara did not regain its preeminent position in Central Asia until the Uzbek renaissance of later times, when it became the capital of a much smaller area than in the glorious days of the Samanids. But, as Arabic chronicles tell us, what has been related is brief and not all; God alone knows best!

NOTES:

1. L. Yu. Mankovskaya in *Bukhara, A Museum in the Open* (in Uzbek, Russian, and English), (Tashkent, 1991), p. 70.
2. Narshakhi, *The History of Bukhara*, trans. R. N. Frye (Cambridge, Mass.: The Mediaeval Academy of America, 1954), p. 6; text in *Tarikh-i Bukhara*, ed. Mudarris Rezavi (Tehran, 1351/1973), pp. 7-8.
3. A. A. Askarov, ed., *Gorodishche Paikand* (Tashkent: FAN, 1988), pp. 21-22.
4. Narshakhi, *History of Bukhara*, trans. p. 18, text p. 26.
5. On both sides of the river, but especially on the west side, south of present Charjui (Amul) a number of sites with Kushan remains have been surveyed, and some excavated.
6. Some Arabic texts tell us that Numijkath was the name of a village some four *farsakhs* from the city of Bukhara.
7. Much has been written about the guilds and corporations in the Islamic world; cf. Richard Bulliet, *The Patricians of Nishapur* (Cambridge, Mass.: Harvard University Press, 1961).

Heinz Gaube

What Arabic and Persian Sources Tell Us about the Structure of Tenth- Century Bukhara

In the tenth century, Bukhara was one of the most prominent cities in the Islamic world. It was the capital of the Samanids (874-999), a family of Persian origin, who gained quasi-independence from the caliphate of Baghdad in 874, and in the heyday of their power ruled over Transoxiana and eastern Iran down to Sistan in the south. The majority of them seem to have been very capable rulers. They exercised justice, cared for the rural population (as Narshakhī, NAF 33, points out). They were involved in trade – even with Europe, as the thousands of Samanid coins found in the Baltic and Scandinavian countries testify. However, the main source of the government's income and investments was the slave trade. The Samanid territory was located on the northern and the eastern borderland between the *Dār al-Islām* and the *Dār al-Harb*, that is, the Islamic countries and the non-Islamic countries. The latter were a bountiful source of human resources. Thousands of Turks were stolen or bought from the lands of the infidels by the Samanids, used in their own state, or transported to the court in Baghdad where Turkish slave soldiers already played an important political role.

Trade, agriculture, and – most important – slaves were the economic basis of the Samanid state, and a healthy state creates or attracts creative minds. Thus it is not surprising that the Samanid realm generated scholars and artists, and they flourished. Two examples are Ibn Sīnā (Avicenna) (d. 1037), the most original philosopher of the Islamic world and teacher of medicine who surpassed Hippocrates and his successors and was more or less canonic for European medicine up to the eighteenth century, and al-Bīrūnī (d. 1048), who can be considered the father of comparative religious sciences and ethnology in Islam. Both of them wrote in Arabic (for Ibn Sīnā a few Persian lines are also preserved), which up to the time of the Samanids was the only acceptable language of the pen in the Islamic world. But this too changed under the Samanids: after more than two centuries of Islamic rule over Iran, Persian was reborn as a written language. One of the viziers of the Samanids, Balʿami (d. 974), produced a Persian version of the Arabic chronicle of al-Ṭabarī Firdawsī (d. 1020), the author of the *Shāhnāmah*, the "Book of the Kings," the real founder of new Persian literature. Many more personalities, in both literature and the sciences, could be named to prove Bukhara's importance in the Islamic world at that time.

The Written Sources

In the Samanid period, Arab rationalism which had been fostered by the caliph al-Ma'mūn (d. 833) led to the creation of a new scientific field which we would now call "human geography" or social anthropology. Its founder was al-Balkhī (d. 934). As his name shows, he also came from Samanid territory. Unfortunately, his work, which consisted of maps and their descriptions, is not preserved. We only know of his method through the works of three of his successors: al-Iṣṭakhri (d. after 951), Ibn Ḥauqal (d. after 980), and al-Muqaddasī (d. after 985). The works of al-Iṣṭakhri and Ibn Ḥauqal are almost identical. It is hard to decide whether Ibn Ḥauqal simply copied most al-Iṣṭakhri's work or whether copyists intermingled their works at a later time. Differences do exist between the two, which proves that each of them did independent research. Which of the two had really seen what he described is difficult to determine.

As far as Bukhara is concerned, al-Iṣṭakhri and Ibn Ḥauqal only differ in words and style, so the information they provide must be taken as a synoptic whole. The third in this group, al-Muqaddasī, never visited Bukhara, so his work is of less relevance to the questions we are dealing with here.

In addition to these authors of the tenth century is another, al-Narshakhi, a local historian of Bukhara who dedicated *History of Bukhara*, written in Arabic to the Samanid Nūḥ b.Naṣr in 934. In 1128 it was translated into Persian, and today only later abridged and "updated" versions are preserved. This means that all the information provided by this work does not necessarily relate to the tenth century.

Contour map of the inner city of Bukhara.



Topography

After a general description of Bukhara, al-Iṣṭakhri and Ibn Ḥauqal remark, "In the whole of Khurāsān and Transoxiana there is not one settlement with a higher building density than Bukhara, and with more people in relation to its area" (*IS*, 306; *HA*, 483). Both (*IS*, 305; *HA*, 482) start their description of the city by mentioning that Bukhara is the capital of Khurāsān. Its name was Būmijkath (according to *MU*, 280, "Nūmijkath"). The city was located on a plain. Its houses were built close to each other using a half-timbering technique. Muqaddasī (280) comments that they were built in the same way as houses in Damascus, which is in fact true to this day. I have no plausible explanation for this. In other oasis towns we find that other techniques were and are used.

The Walls

The city and the area surrounding it were covered by palaces, gardens, small settlements, and residential quarters. The city itself had paved streets (only *HA*, 482). The entire area was protected by a wall which measured 12 *farsakhs* by 12 *farsakhs* (ca. 72 x 72 km; fig. 1). This wall is mentioned by Narshakhī as well, who says that its name was "Kanpirak". According to him, the wall was of pre-Islamic origin and restored in the early Islamic period (*NAF*, 33f.). Inside the walls there was scarcely a spot that was not built upon or under cultivation. Remnants of this wall could still be seen in the fifties (Frye 1954, 128).

Inside the wall, which protected the oasis of Bukhara against nomads and sand from the nearby desert, was another wall measuring 1 *farsakh* by 1 *farsakh*, i.e., ca. 6 x 6 km, which surrounded the city and its suburbs (*IS*, 305; *HA*, 483). This was definitely the predecessor of the wall which is still visible in many places today. The city proper or inner city, the medina, was protected by a third strong wall. Remnants of this wall are also preserved (Narshakhi, *NAF*, 34f.), but information about both walls is confusing.

The Citadel

Outside the medina, but very close to it, was the citadel (*IS*, 305: *qal'a*; *HA*, 483: *quhindiz*; fig. 1). Narshakhī (*NAF*, 22ff.) attributes its construction to the legendary hero Siyāvush. It is described as having been like a small medina or circumvalleted town. Here the Samanid amirs of Khurāsān resided. Within this citadel were also another fortress (*qal'a*) and the prison (*IS*, 306; *HA*, 483; *NAF*, 24). Narshakhī's description is more explicit than those of al-Iṣṭakhri and Ibn Ḥauqal. He writes (Frye, 24): "The fortress was the place of residence of rulers, amirs, and generals. It was also a prison and a chancellery; the castle [i.e., the fortress within the citadel] was the residence of the rulers." But this accumulation of functions for the

citadel might refer to post-Samanid times. Narshakhī (*NAF*, 25f.) later wrote of the courts and bureaus of the officials at the *Rēgistān* between the western gate of the citadel and the Ma^cbad gate. Two gates led to the citadel, the *Rēgistān* Gate in the west and the gate of the congregational mosque (*NAF* 24: Ghūriyān) in the east; they were connected by a street. Interpreting this information poses no problem. There is no question that the *qahindiz* or *qal^ca* are identical with today's Ark. The *Rēgistān* Gate still exists. It is the western gate of the Ark which leads to *Rēgistān* Square. The gate of the congregational mosque opened to the east; it no longer exists. We may assume that the *qal^ca* in the citadel was located to the southwest of the ark; there the only remnants of the amir's palatial quarters are preserved. This is suggested by its location adjacent to the wall of the Ark and the *Rēgistān* Gate, a typical position for a *qal^ca* in an Islamic medina, as al-*Iṣṭakhri* and Ibn Ḥauqal write of the Ark.

The prison, which many Western travelers of the nineteenth century describe in dreadful terms, might always have been located in the same spot as it was in the nineteenth century, near the passage leading from the *Rēgistān* Gate to the palatial area of the nineteenth and earlier centuries. Today it is a museum.

Until 1920, the year of the "Bukharian revolutions," when the Ark was bombarded and destroyed, all the empty spaces around the present Ark were densely built up. We can probably locate the palatial areas of the Samanids and their officials there.

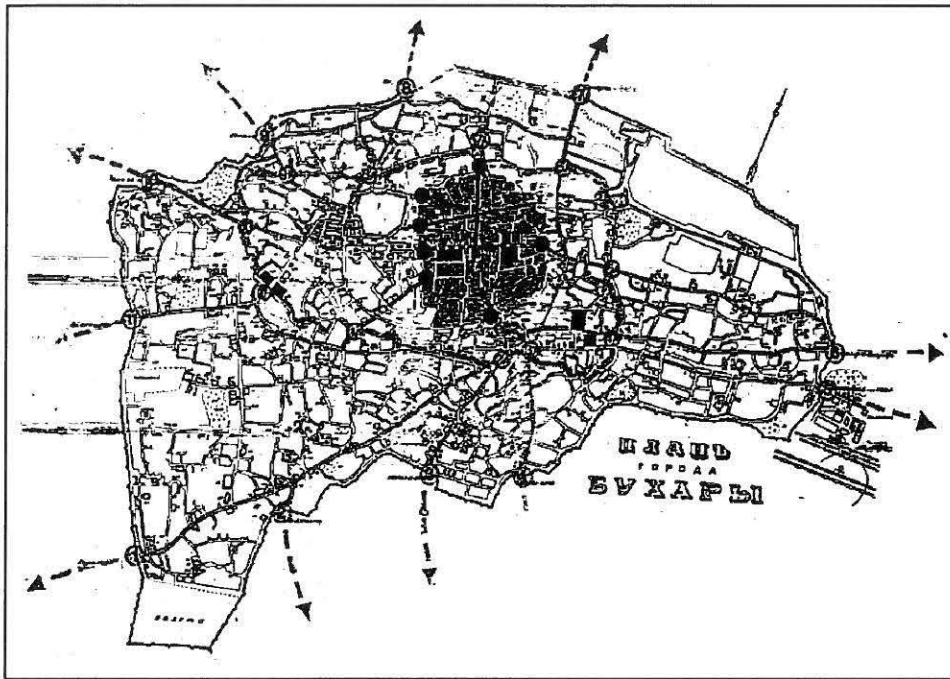
The Medina or Inner City

Our sources are not very systematic in their descriptions of the city. They jump between the inner city, the citadel, and the suburbs. One has the feeling that either al-*Iṣṭakhri* and Ibn Ḥauqal never visited Bukhara, or that if they did, they did not understand this type of city, which had little or nothing in common with the cities west of Transoxiana. The same can be said of al-Muqaddasī, who is even more unsystematic. And Narshakhī's information is that of an insider who does not bother to try to give an understandable description. The people he addressed in his book already knew what Bukhara was and what it looked like.

About the medina little is said by our authors. It was protected by a strong wall, it had no running water because of its elevation (the same is true of the citadel; it is still the case even today). It was densely built up with houses, because the *sūqs* or *bāzaars* were located in the suburbs.

Seven gates led to the medina — or the *shahristān*, as Narshakhī's editors call it in Persian. Al-*Iṣṭakhri* (306) and Ibn Ḥauqal (483) give the following names for them (the numbers show the locations on fig. 1):

1. Bāb al-Madina
2. Bāb al-Nūr
3. Bāb al-Ḥufra
4. Bāb al-Ḥadīd



Bukhara at the end of the XIXth century.
Main axis of access and the gates of the city wall.

5. Bāb al-Quhindiz
6. Bāb Banī Asad (Bāb Mihr)
7. Bāb Banī Saʿd

Narshakhī and his Persian editors (*NA*, 73-80) deal with the gates of the *shahristān* in the context of the division of the city between the Arabs and the "Ajams" after the Arab conquest of 708. They interweave their description of the gates with stories typical of Persian literature. But these will help us to learn a little more about the inner structure of the *medina/shahristān*. They also write of seven gates which they identify as follows:

1. Dar Bāzār
2. Dar Banī Saʿd
3. Dar ʿAlā
4. Dar Banī Asad (Muhra, or Mihr)
5. Dar Kubriya (Frye, 55: "gate of the citadel")
6. Dar Ḥaqqrah
7. Dar Naw

These two lists and the Narshakhī text help us to understand the structure of the inner city of Samanid Bukhara.

If we look at a contour map (fig. 2) of this inner city its form becomes quite obvious. It had a more or less square shape, and the possible location of gates can be also detected. There seems to have been one gate in the south, four in the west, one in the north, and one in the east. These gates can be easily identified with the gates given by al-Iṣṭakhrī and Ibn Ḥauqal. They start in the south with the Bāb al-Madīna, then turn to the east to the Bāb

al-Naw, then north to the Bāb al-Ḥufra. And after these gates they mention four gates in the west: the Bāb al-Ḥadīd, the Bāb Quhindiz, the Bāb Banī Asad and the Bāb Banī Saʿd.

Most of these gates can be identified with the gates mentioned by Narshakhī. But we have a problem with Narshakhī's list. He or his editors, seem to place a gate between the Banī Saʿd gate and the Banī Asad gate, the Dar ʿAlā. If we look at the contour map of the inner city of Bukhara, it becomes quite obvious that there was no need for a gate between the Banī Saʿd and the Banī Asad gates. A much more logical location would be further north at the Bāb al-Ḥadīd, following al-Iṣṭakhri and Ibn Ḥauqal.

Al-Iṣṭakhri and Ibn Ḥauqal list the names of the gates in a counterclockwise direction, starting in the south, then moving to the east, north, and west; Narshakhī starts in the south and moves west, north, and east. The following correlation can be made:

Al-Iṣṭakhri / Ibn Ḥauqal

1. Bāb al-Madīna
2. Bāb Nūr
3. Bāb Ḥufra
4. Bāb al-Ḥadīd
5. Bāb Quhindiz
6. Bāb Banī Asad
7. Bāb Banī Saʿd

Narshakhī

1. Dar Bāzār
2. Dar Naw
3. Dar Ḥaqqrah
4. Dar ʿAlā
5. Dar Kubriya (Frye, 55: "gate of the citadel")
6. Dar Banī Asad
7. Dar Banī Saʿd

The basic sequence of gates (fig. 2) is given by the Banī Asad Gate, which led to the court of the amirs of Khurāsān (NA,76), located at the Rēgīstān. The Quhindiz Gate faced the citadel; the Ḥufra/Ḥaqqrah gate must have left the inner city to the north, because Narshakhī tells a long story relating this gate to the famous scholar Abū Ḥafs Kabīr Bukhārī whose tomb is to the northwest of the city (even Narshakhī, 80, places it near the Naw gate) and the Medīna or Bāzār Gate which can only be located in the south, since Narshakhī (73) relates that this was the only gate near a bazaar. Until the beginning of this century, the center of the bazaar of Bukhara was to the south of the medina.

Narshakhī's text is confused, but for general information concerning the inner city it is of some value. Where al-Iṣṭakhri and Ibn Ḥauqal deal with the inner city only in a few lines, Narshakhī provides a good deal of information in his chapter, "On the Division of the City between the Arabs

and the Natives" (Frye, 53). In this chapter the gates are described, but there are many paraphrases which the Arabic sources miss.

Narshakhī starts by writing about the division of the inner city by Qutaiba Ibn Muslim after the Arab conquest in 708. The inner city was divided in two: half was given to the Arabs and half to the locals. The dividing line ran from the Gate of the Citadel to the Bāb al-Nūr. The part south of the inner city was given to the Arabs and the northern part was left to the locals. Evidence confirming this is that the names of the two gates in the south of the western part of the inner city bear the names of Arab tribes. Of one of them it is said that in pre-Islamic times it bore the name Mihr. The Great Mosque is located in this section as well.

Narshakhī (73f.) also gives us the names of the two quarters in the south. The quarter to the left upon entering the city was called the "quarter of the rogues" (Frye, 53); it had a Christian church which was later transformed into a mosque. The quarter to the right was called the "quarter of the castles." "There was a castle in this quarter where the *dihqāns* and the amirs of Bukhara used to live" (Frye, 54). The quarter is bounded by the city wall on the south, where there was a produce market outside the wall (74), and on the east, where there was the market of the pistachio sellers (74) outside the wall. The northern boundary was formed by the street leading to the Naw/Nūr Gate.

If we look at the location of the gates and streets connecting them, we see two overlapping patterns (figs. 1-2). The Medīna gate and the Ḥufra/Ḥaqqrah Gate as well as the Banī Asad/Mihr Gate and the Nūr Gate are connected by more or less straight streets which cross in the center. This is a typical pattern of some cities in Central Asia and eastern Iran (e.g., Merv, Samarqand, Herat, Bam, cf. Gaube 1979, 31-63).

In the northwestern quarter of the inner city a similar pattern can be detected attached to the main axis at an angle of ca. 30 degrees. We may assume that this is the oldest part of the inner city of Bukhara, and in fact here and on the citadel excavations turned up evidence showing they both were founded in the third century B.C. In antiquity this small town in the northwest and the citadel were in some way sister towns. There is a conspicuous elevation in the northwestern corner of this quarter. There had been a prison in the pre-Russian period, and we might assume that here was the citadel of this small Seleucid-Bactrian-Kushan town, as there was a citadel within the citadel.

The first Great Mosque of Bukhara was built by Qutaiba Ibn Muslim in the citadel in 712. It must have been a small mosque. In 770 a new mosque was built between the citadel and the medina or *shahristān*. Narshakhī (68-71) gives a detailed description of the building, which was later added to and rebuilt. In principle, the location of this mosque must have changed little between the eighth century and the fifteenth century when the present congregational mosque was built. This is also attested by the Kalyan minaret from 1127 next to the southeastern corner of the mosque.

The *Rabaḍ* or the Suburbs

As far as the areas between the inner wall (the wall of the medina) and the outer wall of the city are concerned, our sources give us no further information. Narshakhī's information is confused and cannot be used as a basis for interpretation. After rereading them, only al-Iṣṭakhri and Ibn Ḥauqal make sense. They start (*IS*, 306f.; *IH*, 483) in their abbreviated style of writing: "And the *rabaḍ* has through streets (*durūb*) and they are:

1. Darb al-Maydān
2. Darb Ibrāhīm
3. Darb Rīw
4. Darb Mardakhshān
5. Darb Kalābādh (these two roads led to Balkh)
6. Darb Nawbahār
7. Darb Samarqand (which led to Samarqand and the rest of Transoxiana)
8. Darb Baghāshkūr
9. Darb Ramāmīthana
10. Darb Jadasarūn (which led to Khwarazm), and finally
11. Bāb Ghashaj

With his usual insight, W. Barthol'd (102) concluded that these eleven *durūb* are identical with the eleven gates in the outer wall of the Bukhara of his time. If we look at the map, he was, with perhaps one exception, correct. Eleven gates or streets mentioned by tenth century authors and eleven gates at the end of the nineteenth century cannot be a coincidence. Our authors use the same counterclockwise system of listing these gates/streets, starting in the southwest. Since there are clear coordinates given by the Samarqand (7) Gate in the eastern section of the north, where the road to Samarqand begins, the Jadasarūn Gate (10) with the road leading to Khwārizm, and the Kalābādh and Nawbahār Gates (5 and 6) with the road to Balkh. That means the gates of the tenth century correspond to the following gates of the nineteenth century:

1. Maydān	Qarākul
2. Ibrāhīm	Shaykh Djalāl
3. Rīw	Namāzgāh
4. Mardaqsha	Sallakhāna
5. Kalābādh	Qarshī
6. Nawbahār	Mazār
7. Samarqand	Samarqand
8. Baghāshkūr	Imām
9. Rāmīthna	Uglan
10. Jadasarūn	Talipakh
11. Ghashaj	Shirgīrān

If we look at the map from 1872 (fig. 1), which for this purpose is preferable to modern maps, only the location of the Samarqand Gate is somehow strange because the main south-north axis runs into a wall. Otherwise a

clear organizational system becomes apparent. The centers of the streets leaving the medina/*sharistān* are the Ṭāq-i Talpaq Furūshān, the Bāb Madīna or Dar Bāzār of the inner city, and the Rēgistān in the west of the citadel.

A last problem must be solved, for Barthol'd (103), it seems, misunderstood al-Iṣṭakhri (307) and Ibn Ḥauqal (483f.). They write, "In the middle of the suburbs in the direction (*alā*) of their bazaars are streets (*durūb*) and they are:

1. Bāb al-Ḥadīd [=6A]
2. Bāb Qantarāt Hassān [=5A]
3. Bāb at the Māḥ mosque [=4A]
4. Bāb at the Māḥ mosque [=3A]
5. Bāb Ruhna [=2A]
6. Gate at the palace of Abū Hishām al-Kinānī [=1A]
7. Gate at the Suwayqa [=11A]
8. Bāb Farjaq [=10A]
9. Bāb Darwāza [=9A]
10. Bāb Sikkat Mughān [=8A]
11. Inner Samarqand street" [= 7A]

First al-Iṣṭakhri and Ibn Ḥauqal write about the streets (*durūb*); then they give the names of gates, and end with "inner Samarqand street." How can we understand this? Barthol'd simply created another wall. This means that, in his opinion, Bukhara did not have three walls but four. But there was no fourth wall between the inner city and the wall around the suburbs. Thus this information must be interpreted some other way.

The eleven gates correspond to the eleven streets on the first list. The "inner Samarqand street" gives us the solution. The gates mentioned were the gates of the bazaar that protected the bazaar from the suburbs. Following the system described in al-Iṣṭakhri and Ibn Ḥauqal we can start with the "inner Samarqand street" and proceed west.

Further on, our sources give a short account of the canals which provided the city with water. It is a general description of the oasis of the Sught river, the Zarafshān. Long, more detailed lists of canals are given later in the descriptions (*IS*, 307f.; *HA*, 484f.). I must admit that at this point I am not sure what this means. Old Russian and other old military maps, not all of which I have at my disposal, might be of help. Thus I shall not deal with this very important topic now. In another year, perhaps, I shall be able to give a coherent interpretation of this important information.

REFERENCES

- Barthol'd: W. Barthold, *Turkestan down to the Mongol Invasion* (London, 1928).
Frye: Richard N. Frye, *Bukhara: The Medieval Achievement* (Norman, Okla., 1965).
IH: Ibn Ḥauqal, Abū'l-Qāsim Muḥammad, *Kitāb surat al-ard*, Ed.J. H. Kramers, (Leiden, 1938).

IST: al-Iṣṭakhri, Abu Ishaq Ibrahīm, *Kitab al-masalik'wa-l-mamalik*, Ed. M. de Goeje, (Leiden, 1927).
MUQ: al-Muqaddasī, Abū ʿAbdallah Muhammad, *Ahsan attaqāsīm*, Ed. M. de Goeje, (Leiden, 1906).
NA: Narshakhī, Muhammad, *Tārīkhi Bukhārā*, Ed. M. Ridawi, (Tehran, 1939).
NAF: Narshakhī, *The History of Bukhara*, trans. of *Tārīkhi Bukhārā* by Richard N. Frye (Cambridge, Mass., 1954).

Coins of Ancient Bukhara

Bukhara, situated on the lower reaches of the Zarafshan River, was one of the most important cities of Central Asia in ancient and medieval times. It served as the capital for a number of dynasties which included the Bukhar-khudat kingdom (fifth through eighth centuries), the Samanids (ninth and tenth centuries), the Shaybanids (sixteenth century), the Ashtrakhanids (seventeenth and eighteenth centuries), and the Mangite dynasty (eighteenth through twentieth centuries).

The first reference to Bukhara in a written document seems to be the word "Buho" (or Poe-ho) mentioned by the Chinese writer Suan-Tsiang around 630. The name also occurs (in the Soghdian form *pwk'r*) on drachma coins of the Persian ruler Varahran V (421-39), which were minted in the Bukhara region and apparently date from the late fifth century, as well as on the so-called Kopchikov dish, which, according to paleographic evidence, dates from the late sixth or early seventh century.

In the opinion of a number of scholars who have studied the twelfth-century writings of Fuveyni, the name Bukhara is derived from the Sanskrit *vihara*, or Buddhist monastery. Another theory is that the name comes from the Soghdian word *buharak*, meaning "happy place."¹ Numi, Naumi, or Numijikat (Numijkath), other names for the city found both in Chinese and Arabic historical records, are derived, according to V. A. Livshits, from the Soghdian word *namich*, which means glorious or famous.

Written sources on the political history of pre-Islamic Bukhara relate primarily to the seventh and eighth centuries. A historical outline of earlier periods can be made on the basis of numismatic data. According to Firdausi's *Shahnama*, Siyavush (Avestan Siyavashani), a famous hero and a son of King Kay-Khosroes, was the founder of the Bukhara citadel now known as the Ark. Siyavush came to Afrasiab, the king of Turan, to escape being prosecuted by his father. According to Pahlavi sources, Siyavush then married one of Afrasiab's daughters and built the Kangdiz castle and the Siyavushgird fortress in the Bukhara region.

Abu'l Hasan Nishapur,² a medieval author, makes a direct reference to both the building of the fortress by Siyavush and the place where Siyavush was buried beyond the eastern gates of the city. K. A. Trevor holds that the Dakhar region possibly corresponds to Bukhara.³

According to Narshahi, the city of Bukhara was founded by Shiri-Kishvar, a Turkish chieftain, who was sent by Kara-Churin, a *khan* of the Turks, in answer to a plea from Bukhara peasants that they be delivered from the tyranny of the local ruler,⁴ Abrui. Present-day researchers date this event to the middle of the sixth century. However, archaeological data do not

support such a late date. The earliest cultural layers, unearthed from stratigraphic exploratory trenches around the Bukhara Ark and the shahristan, date from the middle of the first millennium B.C.,⁵ or possibly the fourth or third century B.C.⁶ In the opinion of some historians, Bukhara was mentioned by Arian in connection with events that date back to 328 B.C. According to Arian, while in search of allies, Spitamen arrived at Bagi (or Gaby in another interpretation), an inaccessible place on the border between Soghdian lands and the Scytho-Massager country.⁷ It is very likely that this place is Bukhara, since it was located on the outer rim of the Soghdian lands, beyond which lay only the desert, populated by the nomadic Scythians. Some researchers, and in particular V. V. Bartol'd, think that a royal city named Dasileiya⁸ existed on the lower reaches of the Zarafshan, downstream from Samarqand. This city can probably be identified with Er-Kurgan.⁹

Among nineteenth-century scholars, there was a widespread notion that Tribaktra, believed by Ptolemy¹⁰ to be between the Oxus and Jaxaris, was the same as Bukhara. This notion was based on the similarity of the name Bukhara to the word *bakt*. W. Tomaschek, the famous Austrian scholar of Central Asian historic geography, disagreed, holding that Tribaktra was situated on the site of Paikant.¹¹ However, V. A. Shishkin noted that this hypothesis had little rational basis, and hence there were no serious obstacles to identifying Tribaktra with Bukhara. Judging from archaeological data, Bukhara was an important city even at a very early date and was most likely well known to ancient historians and geographers.

There is no information available on what the Bukhara oasis was like under the Seleucids, but it was included in the subsequent Greco-Bactrian state. This occurred, most probably, under Euthydemus (230-200 B.C.). The king's treasury was found in Bukhara (at Takhach-tepe), where archaeologists have discovered tetradrachmas with Euthydemus's name on them, along with a number of accidentally found Greco-Bactrian coins, all of which serve as evidence that Bukhara was part of Euthydemus's kingdom.¹²

Apparently, sometime during the second half of the second century B.C., the Bukhara oasis became independent. After this period, silver imitations of Euthydemus's tetradrachmas were minted. These imitations consist of a distorted Greek and Soghdian legend and an image of Hercules sitting on an omphalos. During this period, the rulers of Bukhara used an Aramaic title meaning prince, but the words on the coin legends (e.g., *myrdit*, *khot*, *pnwyh*) cannot be clearly read, even after W. Hennig's efforts to decipher them.¹³ The final phase of this coinage (second through fourth centuries A.D.) produced coins of a different type in which the image of Euthydemus was replaced with an image of a Bukhara ruler wearing a tiara, accompanied by a Soghdian legend.¹⁴ Similar imitations, including a treasure consisting of eighty-six coins, have been found around Bukhara.¹⁵ The Girkod (or Urkod) silver obols, found mostly in the old city of Kum-Savtan, south of Bukhara, comprise a second group of coins which definitely originate from the Bukhara oasis. These coins probably date

from between the first century B.C. and the third or fourth century A.D., and are of three types.

The first and earliest type of coins depict the bust of a ruler to the right wearing a band on his body and the legend YPKWSOY written in Greek letters on the obverse side. On the reverse side, is a standing deity with a flame behind its shoulders and the legend OPAHOPOY MAKAPOY, also written in Greek letters. The written legend had not been properly interpreted until recently.¹⁶ R. Girshman attempted to decipher MAKAPOY as the name of a tribe conquered by the Greco-Bactrian Sakarauks, but his interpretation was not supported by other scholars.¹⁷ Some have deciphered the word OPAHOPOY as the name of a ruler and have read the first letter as alpha, thus ARBAKTR, though actually the first letter is clearly omicron in all the legends. Thus, one should read the whole word as ORKWAR.

In the coins of the second type, both the images of a ruler and the legend are the same as on the first type: YPKWSOY. However, the Greek legend is replaced with a Soghdian one on the obverse side. The reverse side represents a protom on a galloping horse and a Soghdian legend deciphered as *ektiwy pwizni* in W. Henning's version. This coinage dates from the late first or the early second century A.D., when Greek writing was replaced with local Bactrian and Soghdian writing throughout Transoxiana. The third and last group of Urkod coins is an anepigraphic group.

Thus, between the first century B.C. and the first half of the fourth century A.D., two separate kingdoms seem to have shared the Bukhara oasis. One of them was probably an autochthonous kingdom that minted Euthydemus's tetradrachma imitations and was situated in the Bukhara region, judging by the large number of such imitations found there. The second kingdom was apparently established by foreign nomadic tribes belonging to the Yueh-Chih alliance, who minted coins of the Urkod group. This kingdom was located west and southwest of Bukhara.

It is possible that these kingdoms were part of the confederate state of Kangyui. According to Tsiang Hanshu, five kingdoms were subject to Kangyui. One of them, the Gi kingdom, is identified with Bukhara. According to the same source, to the east of Ansi (Parthia), lay the Minor Ansi kingdom, with its main city Mulu (Bukhara).¹⁸ This kingdom, under the abridged name An, still existed even during the early seventh century A.D. Possibly, Gi was a kingdom of the Urkod dynasty, while Minor Ansi was the Bukhara kingdom itself. Numismatic data support this idea. There is a certain Parthian influence visible in the iconographic manner of imitating the Euthydemus coinage, for example, in the image of a tiara worn by the ruler.

In the second half of the fourth century A.D., the political situation in the Bukhara oasis had changed noticeably. First and foremost, the Sasanid influence resulted in a change in the official symbols depicted on coins. The images of Hercules sitting on an omphalos and other Hellenistic symbols vanished from coins and were replaced with the image of a fire

altar, a typical Sasanid symbol. From the early fourth century on, in the Bukhara oasis, new types of coins were minted. They were silver coins, drachmas and obols, bearing the image of a ruler's head to the right on the obverse and a fire altar on the reverse. One can also read the ruler's name and title written clearly in Soghdian: *xwz Mwek* (or Prince Movak/ch).¹⁹ Copper coins from that period were also probably minted in the same kingdom. These coins bear the image of a ruler's head to the right wearing a tiara on the obverse and the image of a fire altar accompanied by an inscription of Aramaic origin, *xwbisbiz* (or Prince Asbar) on the reverse. According to Livshits, the name of the ruler is of Iranian origin and means "rider" (compare Old Persian *asabara*, Persian *asbar*, and Bactrian *asbarobido*). The title is of Iranian origin as well. It derives from the Avesta word *hvara* (he whose deeds are good) or from the Old Persian word *hwa-hawa* (one who is self-generating).²⁰

According to the *History of the Northern Courts* (Beishi), and *The History of the Sui Dynasty* (Suishi), both written in the seventh century A.D., which are probably the most reliable historical sources available, the largest kingdom within the Bukhara oasis was named An. The ruler of this kingdom and the rulers of Soghd had a common origin in the house of Chzaovu. They were Yueh-Chih, who had first lived beyond the northern side of the Tsilashang Mountains in the city of Chzaovu situated in what is now the Gansu province of China, but then migrated to Soghd (all the Yueh-Chih dynasties that established themselves there, including those in Samargand and Bukhara, retained their Chzaovu names).²¹

Alinga, a ruler of Bukhara, stated in his letter to the Tang Emperor Tazhum (627 A.D.) that "his dynasty counts twenty-two generations of predecessors prior to the present one."²² If we consider that an average reign lasted 20 or 30 years, it would mean that Alinga's dynasty of Yueh-Chih origin ruled Bukhara for 400-600 years. In this regard, it is relevant to say that at the beginning of the present era, the Urkod dynasty reigned over the Bukhara oasis. According to numismatic data, this was 400-600 years before Alinga's reign. The dynasty was of Yueh-Chih origin, judging by the iconographic evidence. Thus, the succession of dynasties was as follows: the Urkod Dynasty was followed by the Asbar and then by Yueh Chih of Alingai.

There is one remaining problem of considerable magnitude. It concerns the date and origin of the so-called Bukhara-khudat silver coins minted, according to samples of Sasanid drachmas, by Varahran V (421-39). There are two opinions on this. The first opinion says that the rulers of Bukhara started minting coins like these in the second quarter of the fifth century A.D., and after two hundred years, recommenced minting them in the second quarter of the seventh century A.D. The second opinion is in agreement with Narshakhi's data, according to which the first coinage of Bukhara-khudat drachmas dates back to the reign of the caliph Abu Bakr (r. 626-34). The legend, written in the Bukhara variant of the Soghdian writing, reads *bwyir xvbki*, meaning "Prince, Ruler of Bukhara." The legend makes no mention of this king's name.²³ Some of the coins bear counter-

marks,²⁴ which, in the opinion of a number of scholars, are a dynastic mark of the Bukhara rulers. However, it seems likely that it was not the mark of the Bukhara rulers themselves, but of the rulers who reigned in some other kingdom in the Bukhara oasis. It seems highly improbable that the rulers of Bukhara would put any countermarks on coins they minted themselves. Unless this countermark was a Bukhara ruler's dynastic mark, it would be included in the original stamp.

It is reported in Suishi that there were two kingdoms in Bukhara. The Bi kingdom was located at a 100-*li* distance (about forty km.) west of An (Bukhara). At the time, Bi had no ruler and came under the rule of the An state. One could perhaps identify this kingdom with Paikant. Despite the brevity of this information, it hints at some conflicts which occurred between these kingdoms and resulted in the defeat of one kingdom by the other.²⁵

In his *History of Bukhara*, Narshakhi mentions the names of several rulers. The first one is Abrui (or Abarzi), followed by two others, Kana and Mak. Frye mentions a silver dish bearing the name of another ruler of Bukhara, Dizo.²⁶ Arabic-Persian and Chinese sources provide us with much more data on the rulers of Bukhara during the seventh and eighth centuries.²⁷

1. Bidun (d. before 673)
2. Khutak Khatun (r.673-692)
3. Tugshada I (r.692-724)
4. Vardankhudat (a usurper) (r.706-9)
5. Tugshada II (r.724-38)
6. Kutaiba (738-53)
7. Unidentified Bukhara-khudat-Tugshada III (r.753-68)
8. Sukan (768-75)
9. Buniat (755-82)

O. I. Smirnova proposes a somewhat different chronological order for the rulers of Bukhara. It differs in dating and the manner of reading names from the previous one. Smirnova's opinion is based upon a comparison of Chinese and Arabic written sources.²⁸

1. Sha (Chinese) Shaba, Shayaia (Arabic), r. 655-60.
2. Bidun died not later than 677-78.
3. Khatun (his widow), r. 680-700.
4. Dusaboti I (Chinese); Tukaspada, Tugshada I (Arabic), r. ca. 693.
5. Vardan-khudat (usurper), r. 707-9.
6. Dusaboti II (Chinese), Tukaspada II (Arabic), ruled for 10 years, killed in Samarqand in 738.
7. Tsoidibo, Kyuidiha (Chinese), Kutaiba (Arabic), Tukaspada II's brother, r. 742-60.
8. Asilan, Dafudan-fali (Chinese), Skan Satan (Arabic), Tukaspada II's brother, ruled for ten years.
9. Buniyat, Tukaspada II's brother, reigned for ten years (760-80) killed on the orders of Caliph Mahdi.

By the time of the Arab campaigns against Bukhara, begun under the vice-regent of Khurasan Ubaydullah b. Ziyad (673-74) and continued under Said b. Usman and Salm b. Ziyad (680-83), there were several independent kingdoms in the Bukhara oasis; Bukhara itself, ruled by the Bukhar-khudat dynasty; Vardana, ruled by the Vardan-khudats, descendants of Shapur, a Persian prince; Karmana and Paikand, the merchant's city. Numismatic evidence eloquently testifies to the fact that in the Bukhara oasis there were independent kingdoms that had the right to mint their own coins. V. A. Livshits reads a Soghdian legend stamped on the coins of the so-called Bukhara-Chinese type, as *pt knđ* or *pt kudh*.²⁹ A. Naymark, however, examined coins of this type that were better preserved and proposed deciphering the legend in a different way; *prn knđ*, "magnificent city, the city of glory, the city of grace." In his opinion, this interpretation corresponds to the medieval name of Bukhara, Bukhara-i Sharif.³⁰ He also supposes that the rulers of Vardana³¹ minted a group of bronze coins, identified comparatively recently. The images on these coins show a predator animal on the obverse and a Nestorian cross on the reverse. At the same time, A. Musakayeva, who defined several new coin groups ("deer and cross" and "rain and cross" apart from the "predator and cross" group) suggested that these coins were localized to the area of Varahsha.³² Among the Bukhara-Chinese coins, according to Naymark, are those bearing the Nestorian cross along with *tamgas* to the left or below a square hole.

Smirnova says that the majority of Central Asian coins that bear Christian symbols were minted by leaders of Christian communities, not by rulers of kingdoms.³³ The strong influence of Christianity in this region can be seen in the large number of coins with Christian symbols found there, in contrast to other Central Asian regions. It is an established fact that there was a Christian cathedral in Bukhara itself which was later replaced by the Banu Khanzala, the first mosque that Kutaiba b. Muslim had built in this city in the year 713.³⁴

We do not know what kind of pre-Islamic coinage existed in either Karmana or any other kingdom in the Bukhara oasis. However, it is known that in the seventh and eighth centuries there were copper coins bearing the image of a Bactrian camel on the obverse and a fire altar with a legend written in Soghdian letters in the local Bukharan form. These coins were used as currency in the early Middle Ages. They were minted in one of the kingdoms of the Bukhara oasis. One more type of coin is also known, namely one made of copper and bearing a three-quarter image of the ruler with a Soghdian legend opposite his face. Livshits reads this legend as *k rab*, *krnb*, *kirb*. A. Musakaeva links this inscription with the village of Karnab, situated to the south of the Bukhara oasis. Musakaeva has identified thirteen different coinages among the so-called Turan coins. Apparently, each coinage belonged to and was minted in a separate principality.³⁵

The first Arab campaigns were raids conducted in order to acquire plunder. It is well known that Khutak-Khatun paid a tribute to Ubaydullah

b. Ziyad of one million dirhams and 4,000 slaves.³⁶ Once Kutaiba b. Muslim was appointed vice-regent of Khurasan and general commander of the Arab troops there, the conquest of Maverannahr proceeded systematically. In 706, Kutaiba started a military campaign against Paykand with his united army, which now included the troops of Khagkhan-khudat and other Central Asian rulers. Paikand was seized after a fierce battle. The Arabs seized many arms and valuables in the city.³⁷ Then, having seized Bukhara, Kutaiba routed the troops of the Bukhar-khudats and their Turkish allies and demanded a tribute of 220,000 dirhams to be paid to the caliph and 10,000 dirhams to be paid to the vice-regent of Khurasan.

Kutaiba stationed a permanent garrison of Arab soldiers in the city and appointed Ayn b. Khasan as the first Arab amir of Bukhara.³⁸ At the same time the Bukhar-khudats retained their power as co-rulers in their kingdom. Once Kutaiba died in 715, Bukhara was no longer under Arab control. In 728-29, the Arabs lost the city as a result of a powerful Soghdian uprising supported by either Mosio (Moschjo), a *khan* of the Western Turks, or Su-lu, a *khan* of the Turgeshes. This situation lasted for a year,³⁹ but then the city fell under Arab control again.

The Arab tribes settled in Bukhara expressed their opposition to the rise of the Abbasids to the caliphate. This is evident in the anti-Abbasid uprising led by Shariq b. Shaikh Mahri that broke out in 740. The Arab authorities in Bukhara and the people of the city supported the leader of this uprising. Abu Muslim sent Ziyad b. Salih, a ruler of Bukhara and Samarqand to suppress the uprising, and he was eventually successful. The uprising was suppressed with cruelty, and Bukhara burned for three days. The Bukhar-khudat Kutaiba fought together with the inhabitants of 700 castles against Sharq b. Shaikh Mahri. However, despite his support of the government troops, he was executed by Abu Muslim, who convicted Kutaiba of betraying Islam.⁴⁰

During the third quarter of the eighth century, the Arabs strengthened their power in Bukhara. The Bukhar-khudats became only nominal rulers and gradually faded into the background. In 765-66 Maibad, an Arab *amir* of Bukhara, minted felses for the first time in history, during the rule of al-Mahdi, who was a vice-regent at that time and who later became caliph. These felses contain only Arab legends reflecting Islamic symbols, place, date, mintage and the ruler's names. However, some of these other coins of Maibad retained the ancient symbol of the Bukhara rulers. In 678, al-Junayd b. Khalid, an *amir* of Bukhara, minted felses in his own name as well.⁴¹

The Bukhar-khudats supported Hashim b. Hakim (Mukanna) who made Bukhara into one of the main centers of his struggle against the Abbasids. The leaders of this struggle were Mavali Tagif. Yusuf Garm and the village of Narshakhi appear to have been a place where Mukanna's partisans from all over Bukhara concentrated.

As soon as Mukanna's uprising was suppressed in 780-83, under vice-regent Musaiba b. Zukhayr, the caliph's warriors killed the last Bukhar-

khudat, Buniyyat, who had supported the uprising of Mukanna.²⁴ The death of Buniyyat ended the dynasty of the Bukhar-khudats that had been ruling Bukhara for many centuries. This event also completed the pre-Islamic period in the history of Bukhara.

NOTES

1. Richard Frye, "Bukhara in Pre-Islamic Times," *Encyclopaedia Iranica* 5, p. 511-13.
2. E. V. Rtveladze, "Legendy ob osnovanii sredneasiatskih gorodov; arheologicheskaya deistvitelnosti, *Kultura Uzbekistana v drevnosti I srednevekovie* (Tashkent, 1982), p. 51; *Istoria Uzbekskoy Bukhary*, trans. from Persian by N. Lukoshin (Tashkent, 1989), p. 16.
3. *Istoria Uzbekskoy SSR*, vol. 1, pt. 1 (Tashkent, 1995), p. 85.
4. Narshakhi, *Istoria Bukhary*, trans. from Persian by N. Lukoshin (Tashkent, 1989), p. 16.
5. I. Akhrarov and Z. Usmanova, *Novie dannye k istorii Bukhary. Istoria I arkhologii Sredney Asii* (Ashhabad, 1978), p. 106; A. Mukhammedjanov, "Rezultaty arheologicheskikh issledovaniy na territorii goroda Bukhary," *Obshestvennye Nauki Uzbekistana* 1 (1984), p. 39.
6. E. G. Nekrasova, "K istorii slozhenia sten arka Bukhary (novyye arheologicheskie dannie)." *Is istorii kulturnogo nasledia Bukhary* (Tashkent, 1990).
7. V. V. Bartol'd, *Istoria kulturnoy zhizni Turkestana*, 6, vol. II, pt. 1 (Moscow-Leningrad, 1964), p. 172.
8. A. S. Sagdullayev holds the same opinion.
9. W. Tomaschek, *Centralasiatische Studien*, vol. 1, *Soghdia, Silzuber Der phil-hist. Classe der K. K. Akad. der Wissenschaften*, vol. 30, pt. 7.
10. E. V. Rtveladze, "La circulation monetaire au Nord de l'Oxus l'Epilogue Greco-Bactrienne," *Revue numismatique*, 6 ser., 26 (1984), p. 63-66.
11. W. B. Hennig, *Mitteliranisch Handbuch der Orientalistik*, 4 (Leiden-Cologne, 1958).
12. E. V. Zeymal, "Politicheskaya Istoria Drevney Tansoksiany po nuzemzmaticheskim dannym," *Kultura Vostoka, Drevnosti I ranneye srednevekovie* 1 (1978), p. 209-10.
13. E. V. Rtveladze and A. Musaakayeva, "K istorii deneznogo obrasheniya v Zapadnom Sogde (klad podrazhaniy tetradrahmam Evtidema iz Bukhary)," *Obshestvennye Nauki Uzbekistana* 6 (1986): 35-38.
14. *Kultura I iskusstvo drevnego Uzbekistana. Katalog vystavki*, 1 (1991), p. 161-62; Zeymal, *Politicheskaya Istoria*, p. 209.
15. Zeymal, *Politicheskaya Istoria*, pp. 209.
16. Girshman K. Bergman, *MDAPA* 12 (1948), p. 110-16.
17. Hennig (cited above, n. 11), p. 250.
18. I. Bichurin, *Sobranie svedenii o narodakh obitavshih v Sredney Asii* 2 (1950): 225.
19. A. I. Naimark, "O nachale chekanki mednoy monety v Drevnem Sogde," *Numizmatika*.....
20. V. A. Livshits and V. G. Lukonin, "Srednepersidskiye I Sogdiyskiye nadpisi na serebryannykh sosudah," *Vestnik Drevney Istorii* 1 (1954), p. 169.
21. Bichurin, *Sobranie svedenii*, n. 18; *OLP* 2, p. 271.
22. *Ibid.*, p. 272.
23. O. I. Smirnova, *Katalog monet gorodishcha Pyandzhikent* (Moscow, 1953), p. 38.
24. *Ibid.*, p. 3, n. 119.
25. Bichurin, *OLP* 2, p. 282.
26. Frye, "Bukhara in Pre-Islamic Times," p. 512.

27. G. Gaibov, *Ranniye pokhody Arabov v Srednyuyu Aziyu* (Dushanbe, 1989), p. 43.
28. O. I. Smirnova, *Svodnyiy katalog sogdiyskikh monet* (Moscow, 1982).
29. Livshits and Lukonin, cited above, n. 20.
30. A. Naymark, "Christians in Pre-Islamic Bukhara: Numismatic Evidence," *Annual Central Eurasian Studies Conference. Abstract of papers. 1994, 1996* (Bloomington, 1996), p. 12.
31. Ibid.
32. A. A. Musakayeva, "O nestorianakh v Sredney Azii (po numizmaticheskim dannim)," *Iz istorii drevnikh kultov Sredney Asii* (Tashkent, 1995), p. 42.
33. Smirnova, *Katalog monet*, p. 42.
34. V. V. Bartol'd, *Turkestan v epokhu mongoliskogo zavoyevania*, vol. 1 (Moscow, 1963).
35. A. A. Musakayeva, "Monety Karnaba," *Archeologia I khudozhestvennaya kultura Tsentralnoi Azii* (Tashkent, 1995), pp. 45-46.
36. G. Gaibov, *Rannie arabskie pokhody*, pp. 89-91; H. A. R. Gibb, *The Arab Conquests in Central Asia* (London, 1923), pp. 17-20; C. E. Bosworth, "Bukhara from the Arab Invasion to the Mongols," *Encyclopaedia Iranica* 4, p. 513.
37. Bartol'd, *Turkestan v epokhu mongoliskogo nashestviya*, p. 239.
38. Ibid., p. 158.
39. Gibb, *Arab Conquests*, pp. 60-70; Bosworth, "Bukhara from the Arab Invasion to the Mongols," *Encyclopaedia Iranica* 4, p. 513.
40. Bartol'd, *Turkestan*, p. 252-53.
41. Smirnova, *Katalog monet*, p. 149-51.
42. Bartol'd, *Turkestan*, p. 258; Bosworth; "Bukhara from the Arab Invasion to the Mongols," *Encyclopaedia Iranica* 4, p. 514.

Aleksandr Naymark

The Size of Samanid Bukhara: A Note on Settlement Patterns in Early Islamic Mawarannahr

The first scholar to discuss the topography of early Islamic Bukhara in detail was V. V. Bartol'd. In his book, *Turkestan down to the Mongol Invasion*, he suggested a reconstruction of the city's outline based entirely on the early Islamic sources.¹ Many elements of his reconstruction have by now been universally accepted. Bartol'd's knowledge of the city itself, however, was rather limited: he had at that time never been to Bukhara and had no appropriate plan of the city at his disposal.² As a result, his reconstruction took into consideration neither the actual topography of the site nor the microtoponymics of nineteenth century Bukhara. As a result Bartol'd equated the outline of the nineteenth century city with that of Samanid Bukhara. Although in later works he did not extensively comment on the outer *rabad*, he did mention once that early Islamic writers did not provide information on the distance between the gates of the interior and the exterior walls, and that that prevented one from understanding how the capital status attained by Bukhara affected the city's development.³ In the same work, however, Bartol'd retained his earlier identifications of the gates of the exterior *rabad* with the city gates of Mangite Bukhara. After visiting Bukhara in 1920, Bartol'd modified his ideas about the city's topography,⁴ but these revisions were not adequately reflected in his scholarly writings.

In 1923, I. I. Umniakov published an article on the historical topography of early Bukhara. In it, he maintained the same view put forward by Bartol'd that the outer *rabad* of the Samanid city had approximately the same outline as that of the Mangite city of the nineteenth century.⁵

The first scholar to make extensive use of waqf documents in the study of the old city's topography was M. Iu. Saidjanov.⁶ Unfortunately, I was unable to obtain a copy of his article in the United States and know it only through several brief citations, which do not allow me to make any judgment of what Saidjanov's idea of the exterior borders of the Samanid city was.⁷

In 1936, V. A. Shishkin published a small book on the architectural monuments of Bukhara,⁸ which, despite its conciseness, holds a very important place in the history of the scholarly research devoted to this city. Among other important considerations, it contains the first attempt to define the boundaries of the Samanid city:

Determining the outline and the size of the city in this epoch

Above
Fortifications and gates of
the city from the 8th until
the 19th century according
to Rempel.

Below:
Proposal of the Shahrستان plan by
D.G. Bolshakov.

- 1 - Streets of the XIX c.
- 2 - Medieval Streets
- 3 - Proposed direction of canals
- 4 - Underground canal of the 10th c.
- 5 - Walls of the inner Rabad
- 6 - Walls of the outer Rabad
- 7 - City walls in the 17-19 cc.
- 8 - Cemeteries

Numbers in circles:

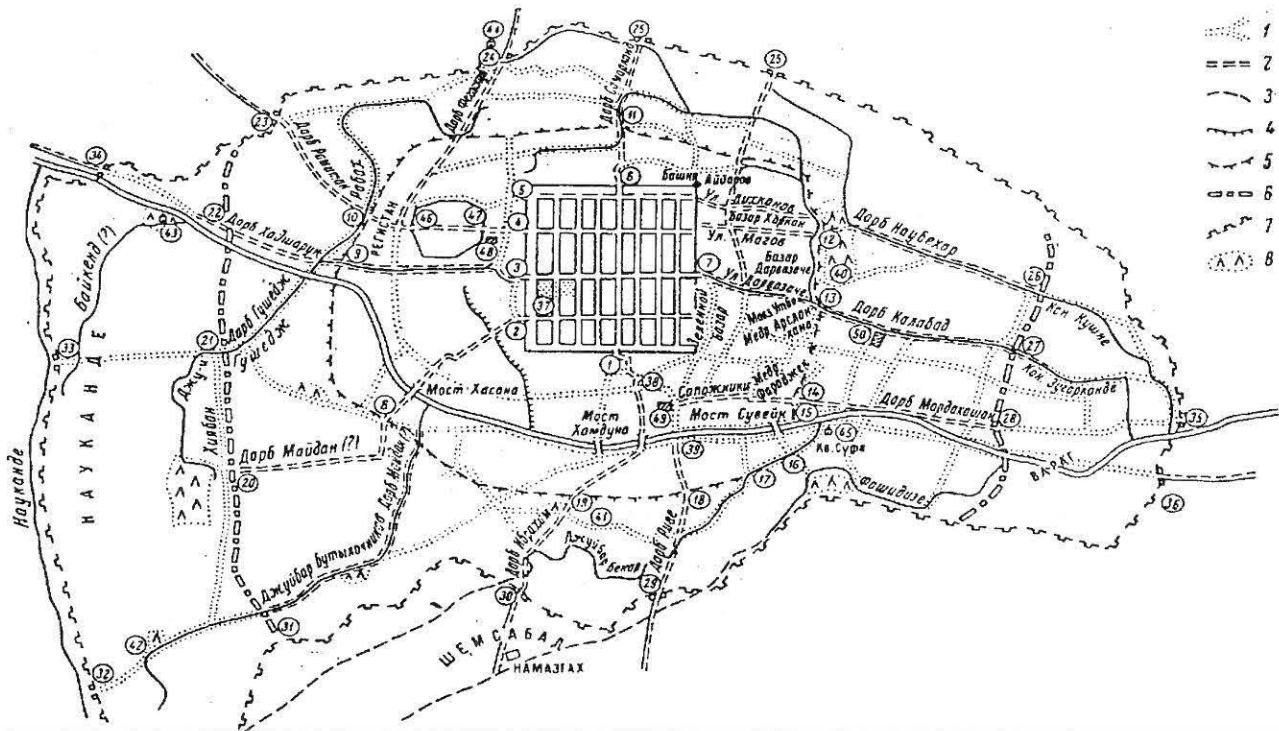
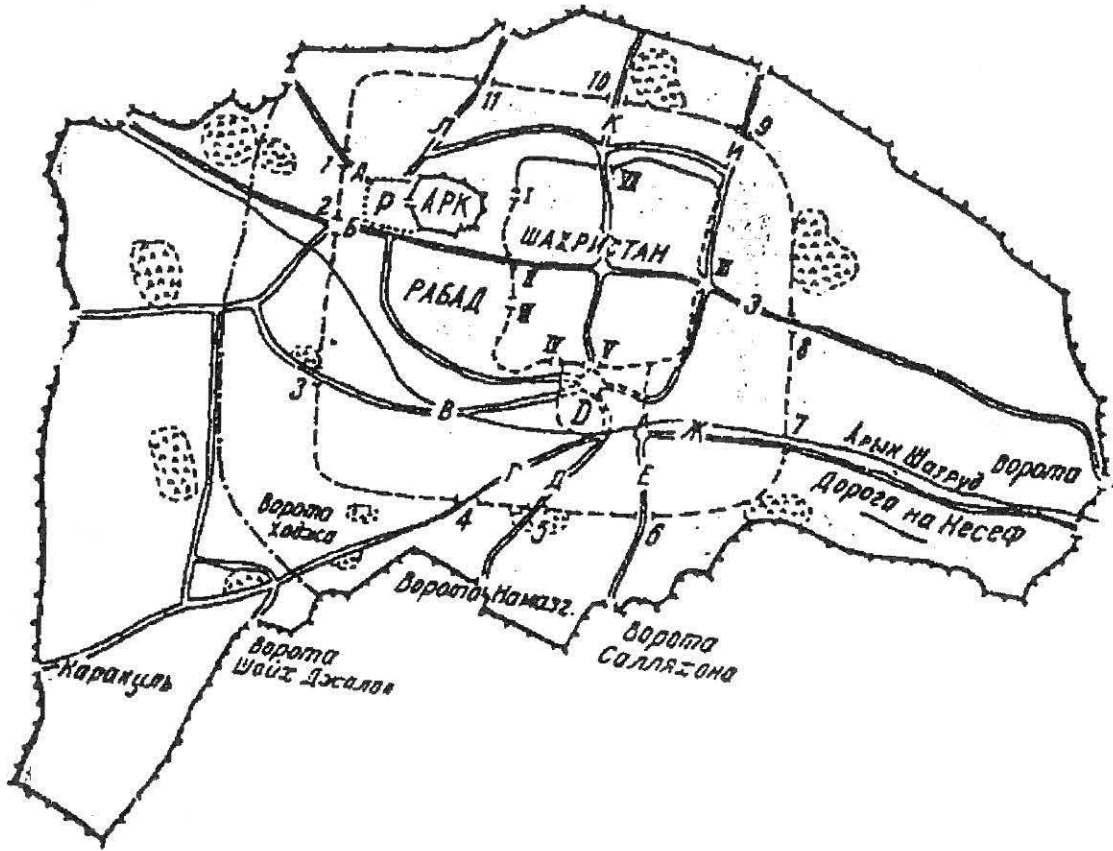
- 1 - Perfume makers gates
- 2 - Banu-Saad gates
- 3 - Banu-Asad gates
- 4 - Kuhendiz gates
- 5 - Metal inner gates
- 6 - Padkon (Hufre) gates
- 7 - Nay gates
- 8 - Hasan bridge gates
- 9 - Metal outer gates
- 10 - Ma'Bida gates
- 11 - Samarkand inner gates
- 12 - Mag street gates
- 13 - Darvasache
- 14 - Farandgek
- 15 - Suvelk bridge gates
- 16 - Kinani castle gates
- 17 - Ruhie gates
- 18, 19 - Unnamed gates near the
Makh mosque
- 20 - Maldan gates
- 21 - Gushedj gates
- 22 - Hadshaarun gates
- 23 - Ramitan (Uglan) gates
- 24 - Fegaskun (Imam) gates
- 25 - Samarkand gates
- 26 - Naubehar gates
- 27 - Kalabad gates
- 28 - Mardakashe gates
- 29 - Riv (Sallahona) gates
- 30 - Ibrahim (Namaggoh) gates
- 31 - Shelh Djaial gates
- 32 - Karakul gates
- 33 - Shirgaran gates
- 34 - Talinach gates
- 35 - Mazar gates
- 36 - Karshi gates
- 46 - Registan gates of the Citadel
- 47 - Guriian gates of the Citadel
- 48 - Cathedral Church of Samanid
times

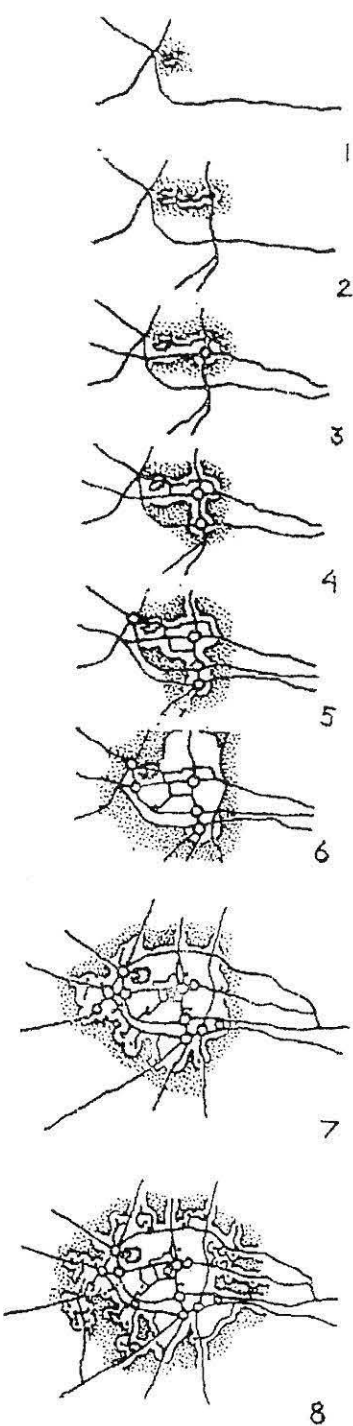
involves some significant complications. Neither Narshakhi nor the Arab geographers nor later authors provide any direct information on this question. Only by combining a large number of small discrete facts, mainly derived from the study of cemeteries, *mazars*, and other historical sites, can we define the boundaries of the 9th-10th century city with the high degree of approximation, and [even this reconstruction] is not reliable for all areas. The ancient cemeteries known to us Chashma-Ayyub, Khwajah Charshamba, Turki Jandi, Khwajah Bulgar, Khwajah Nur Abad, and Khwajah Sesaron were situated along the borders of the city, beyond the city wall. Each of them was situated next to one of the city gates. Thus, the city limits roughly corresponded to a broken line drawn from the eastern end of the cemetery Chashma-Ayyub to the cemetery Khwajah Gunjar and Khwajah Charshamba. The southern border went from the northeastern corner of the Khwajah Charshamba cemetery to the northern edge of the Turki-Jandi (green bazaar) cemetery, and from there it reached the Khwajah Bulgar cemetery and the locality of Kal-abad (where the *madrassa*, mosque, and *mazar* preserving this name are situated), which marked the southern and the eastern border. Then from Kal-abad, leaving the swampy lowland near the Kwajah Nur Abad cemetery to the north, [the border goes] toward the Awliye-i Kabir *mazar* (the site of the ancient tower of Ayyaran), and from there [it reaches] the southern edge of the Khwajah Sesaron cemetery and the Chashma-Ayyub cemetery. This is the most probable outline of the ancient wall of the *rabad*. Therefore, the city in Samanid times was still rather small in terms of territory and hardly occupied half of the area of the modern city.⁹

In the late 1930's, L. I. Rempel', exiled to Bukhara, also worked on the historical topography of the city.¹⁰ His study was completed in 1940 in cooperation with M. S. Andreev's expedition to Bukhara, but was not published until 1962.¹¹ The strength of Rempel's work was its set of maps, which included his reconstruction of the plan of early Islamic Bukhara.

A series of reconstructions produced by V. A. Lavrov is to a large extent based on the materials of Bartol'd and Shishkin, and it lost its value as soon as better graphic materials were published.¹²

In 1954, O. A. Sukhareva published an article devoted to the topography of pre-Mongol Bukhara¹³ which was later developed into a chapter of her book on Bukharan cities.¹⁴ In both publications, Sukhareva introduced into the discussion the microtoponymics of nineteenth- and early-twentieth century Bukhara. A thorough knowledge of the contemporary city allowed her to make much greater use of the *Kitab-i Mulla-zade* as a source for the city's topography than scholars before her. She also worked with *waqf* documents. Sukhareva disagreed with the method of reconstructing the city boundaries suggested by Shishkin. She pointed out that the dates of the death of saints who are known to be buried in some of the cemeteries are not necessarily the dates for the founding of these





cemeteries -- the saint could have been buried in an already existing cemetery. In other words, it is not possible to define the date of the city's boundaries marked by these cemeteries. Sukhareva also showed that there was a tradition of burying people inside the city and even in private yards. She referred both to ethnographic material and to passages describing this practice in *Tarikh-i Bukhara* and *Kitab-i Mulla-zade*. In other words, she showed that some of the cemeteries could have existed within the city wall.¹⁵ Sukhareva made no attempt to define the boundaries of the Samanid city, except for the northern border.¹⁶

O. G. Bol'shakov included a discussion of the topography of early Islamic Bukhara in his general study of the Islamic Central Asian city.¹⁷ His reconstruction of the *rabad* walls is based on very important considerations:

The transformation of Bukhara into the capital of the Samanid state gave a new push to the city's growth. By the end of the 10th century it became one of the largest cities of Central Asia. It seems improbable that the wall which has been erected in the middle of the 9th century and encompassed Bukhara when it was a city of secondary importance, could surround a territory substantial enough for the unavoidable expansion of the city after it became a capital.¹⁸

As a result he disagreed with the reconstruction of the city boundaries suggested by Shishkin: "If V. A. Shishkin has defined the borders of Bukhara correctly, one would then have to conclude [from them] that Bukhara did not grow very much between the middle of the ninth and the middle of the tenth century, after it became the capital of the state; Bukhara of the sixteenth century was twice as large as the city of the tenth century."¹⁹ In order to support his thesis, O. G. Bol'shakov utilized all the evidence available to him that could possibly be evidence for the expansion of the city during the Samanid epoch. Many of his specific observations and conjectures are very interesting, but the scarcity of sources makes the picture he drew seem doubtful. The reconstruction of the *rabad* wall in the west is based on the arbitrary drawing of the Naukanda canal.²⁰ The position of the southern border was defined on the basis of the supposition that the Gate of Ibrahim could not be located to the south of Namazgah and to the north of Turki-Jandi. It is not clear, however, why Turki-Jandi is placed within the city walls with such conviction.²¹ The reconstruction of the eastern wall is based on the assumption that the large district of Kalabadh was situated in the city. This assumption, however, is not validated by the direct reading of the sources.²² The position of the northern wall is not really discussed.

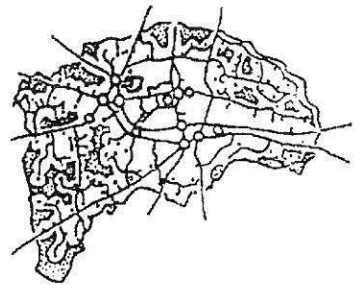
E. A. Davidovich wrote an extensive review of Bol'shakov's work, where she put forward quite a few new solutions and introduced new material.²³ The main achievement of this study with respect to Bukharan topography was the new interpretation of the interior *rabad*.²⁴ As a starting point Davidovich used the very important conjecture of Bol'shakov that the *darbs* named after bridges should be situated near Shahrud. Further analysis of the evidence led her to the conclusion that the interior *rabad* was

a territory on the eastern and southern sides of the city. The only *darb* of the interior *rabad* which she left to the west of the Shahristan was Darb-i Ahanin. Later G. A. Juraeva published materials which located the Darb-i Ahanin beyond doubt on the southern side of the city.²⁵ That confirmed the suggestion made by Davidovich that the interior *rabad* was most probably a local addition to the city's territory on the southern and eastern sides of the old *shahristan*.²⁶ As for the city's size, Davidovich severely criticized most of Bol'shakov's suggestions and concluded that not enough data existed for such a reconstruction. She also pointed to the fact that the growth of the city did not necessarily mean territorial expansion, "There is also another important form of growth represented by change of type and density of the urban fabric."²⁷ She found supporting evidence in the descriptions of al-Istakhri and al-Muqaddasi.²⁸ This undoubtedly correct assumption, however, is not necessarily applicable to Samanid Bukhara. Though no houses dating to the Samanid period have been excavated there, we know that the dwellings in the city were mainly frame structures with walls erected on the "cradle" principle.²⁹ Frame construction is rarely raised beyond the second story and never would have been more than three stories high even in the most densely built-up city centers of Central Asia. As far as we know, Sogdian cities of the early eighth century were also very densely built up and the majority of the buildings in them had two or even three stories.³⁰ In other words, there is no material to support the statement that there was an increase in the density of the urban fabric in Bukhara between the eighth and tenth centuries.

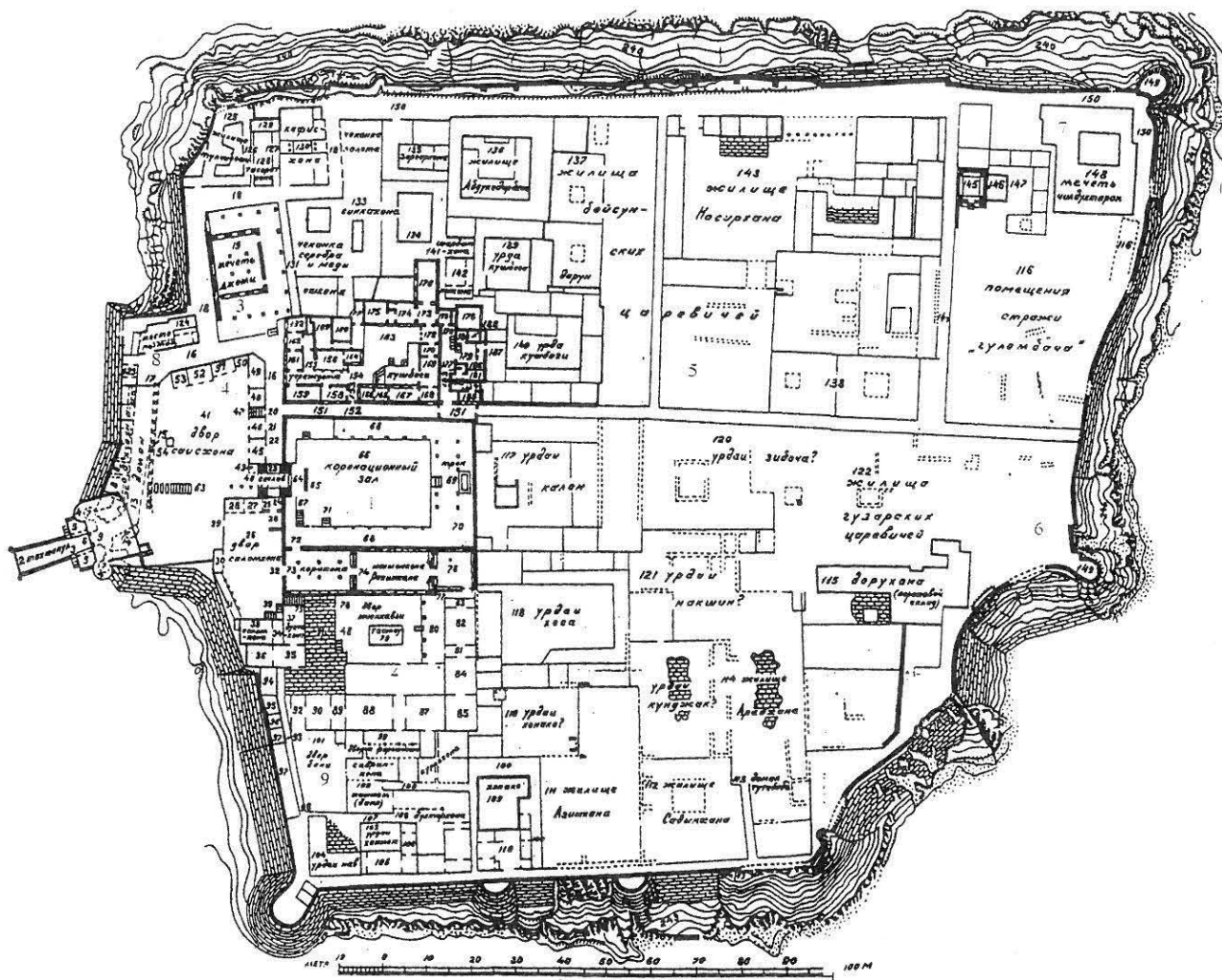
Another explanation for the contradictions between city size and the supposed development of city territories under the Samanids was suggested by M. E. Masson in his extensive review of Bol'shakov's work:

The actual official size of Bukhara did not exactly correspond to the territory encircled by the pre-Samanid wall of the exterior *rabad* of the 9th century, as the wall with 11 gates surrounding the inner quarters of Mangit Bukhara did not define the size of the capital of the Bukharan Khanate. The comment of al-Istakhri that Bukhara occupied the area of one *farsakh* by one *farsakh* (in Persian translation it is a half-*farsakh* by a half-*farsakh*) should be understood as referring to the area within the conventional administrative borders of the city, rather than to the territory surrounded by the wall of the *rabad*. Such an understanding of the size of the city territory, for which we also have examples from other cities in Central Asia, makes the comparative analysis of the size of Bukhara in different epochs ungrounded, if one takes into consideration only the territories surrounded by the exterior walls.³¹

As this passage shows, Masson took the size of Bukhara "*farsakh* by *farsakh*" at face value. It is, however, one of those notorious round numbers, easily reduced by half in the Persian translation of al-Istakhri. Since later works do not say anything about the position of the walls of the exterior *rabad*,³² the problem remains unsolved, awaiting a "deep and objective study."³³



The development of Bukhara according to Notkin.



The Ark of Bukhara in the 10th century.

- 1 - Trone hall
- 2 - Kings courtyard
- 3 - Jama mosque
- 4 - Kings courtyard
- 5 - Dwellings of princes
- 6 - Western gates
- 7 - Childuhtaron mosque
- 8 - Place for tortures
- 9 - Kings houses

In terms of written sources one can expect new and interesting discoveries in waqf documents and other deeds of later periods. They may well solve the most intriguing problem of the "old *hisar*" (*hisar-i qadim*) and "new *hisar*" (*hisar-i jadid*) and show precisely what the boundaries of the territory described by these terms in the sixteenth and seventeenth centuries were.³⁴ This would not, however, immediately solve the problem of the outside boundaries of Samanid Bukhara, because it is not clear which of the early city walls was referred to as *hisar-i qadim*. The problem could be solved by an archaeological study of one of the points described as the boundary of the "old *hisar*."³⁵

In the meantime a more general question about the forms of urban development was raised during discussions on the historical topography of Bukhara. The prospects of large-scale archaeological research in the living city of Bukhara do not look very promising. This forces us to turn for a solution to the general framework of urban development in Samanid

Mawarannahr and in particular in the Zarafshan Valley. In other words, the study of the historical topography of Bukhara should be seen in the context of other cities, better known archaeologically. Comparison with other cities and the settlement pattern of the Samanid Mawarannahr would allow us to see which course of development is the most likely one and thus can help in understanding the sources.

Settlement Patterns in the Zarafshan Valley from the Fifth to the Eighth Century

Central Asian historians and archaeologists think of a city as being a densely built-up area surrounded by a wall. There are numerous examples, however, that show that this was not a universal rule in all parts of the ancient world, though up to now the majority of Central Asian cities of various epochs have conformed to this notion. In addition, there is abundant evidence that fortification did not play as significant a role in Samanid times as it did in other periods of Central Asian history. To illustrate this point one must turn to changes in the settlement patterns that took place in Mawarannahr during the preceding centuries.

The pre-Islamic Soghdian towns in the Zarafshan Valley usually covered a relatively small area. Up to the seventh century, the walls of early medieval Samarqand, by far the largest city in the country, enclosed an area of about 70 hectares.³⁶ As far as we can judge from cities with a clear historical topography the capitals of small principalities like Panjikant,³⁷ Maimurg (Kuldor-tepe),³⁸ Abgar (Durman-tepe),³⁹ Kabudanjaket (Kurgan-tepe),⁴⁰ and the secondary royal residence of Varahsha⁴¹ and the self-governing city community of Paykand⁴² developed within an area of 20 hectares. The situation in Bukhara itself is unclear.⁴³ Even the most optimistic reconstructions, however, keep the area of Bukhara within a 35-hectare limit.

A standard town had a citadel with a fortified city (*shahristan*) at its base. In some cases, however, the citadel and city formed two independent systems of fortification, as in Panjikant and Bukhara. *Shahristans* of the cities which emerged or revived in the fifth century were very often rectangular.⁴⁴ Every new addition to the city's territory was fortified. In most cases the old wall behind the new fortification retained its military function, and the majority of Soghdian cities had more than one defense line at least in some directions.⁴⁵

Constricted by their own fortifications, Soghdian cities grew at the expense of inner territorial resources. One-story houses of the fifth century were replaced by two and three-story buildings in the sixth and seventh.⁴⁶ In the course of the seventh century the open spaces between buildings and yards were eliminated,⁴⁷ and by the early eighth century, the upper stories of Panjikant houses were extended on cantilevers over the streets, creating the phenomenon of fully covered lanes.

Suburban housing, in contrast, did not form a continuous fabric. Excavations and a detailed survey conducted by an expedition from the Moscow Museum of Oriental Art showed that the well-preserved environs of one large city – the remains of which are known as Durman-tepe – consisted of about a dozen castles and strongly built manor houses. A similar type of landscape was recorded around Kabudanjaket.⁴⁸ A less explicit, but basically similar picture can be observed outside the walls of Panjikant⁴⁹ and Paikant.⁵⁰ Archaeological observations are supported by the story of Kashkathan in the *Tarikh-i Bukhara*, where merchants, displeased with having to share housing with the Arabs, moved to the suburbs and built castles surrounded by gardens and the houses of their dependants.⁵¹

Rural settlements were enclosed by their own walls even when they were situated next to a town. In Sogdian Samarqand the majority of villages were dominated by the fortified castles of their overlords; in the Bukharan oasis, however, the proportion of fortified settlements without castles was also significant.⁵² In addition to compact villages, there were numerous free-standing castles and manors built to be capable of self-defense. The castles are comparable in size and richness of decoration to the dwellings of the nobility and merchants in the city, and in fact many of the latter were the urban residences of the landholding aristocracy.⁵³ A peasant's household, however, was usually much smaller than a town commoner's dwelling.⁵⁴

The entire Bukharan oasis was surrounded by a long wall.⁵⁵ A similar wall protected the area around Samarqand⁵⁶ and a smaller one surrounded the arable lands of Nur.⁵⁷ Despite their prominence as the masters of the Silk Road, the Soghdians did not leave us any structures along the caravan routes: the earliest caravanserais on desert roads belong to the Islamic period.

To conclude, the political and social conditions of Soghdian society were reflected in the settlement pattern in a very particular way. Life was concentrated inside the walls of the settlements and the expansion of the urban and rural structures went along with the building of extensive lines of fortification. In addition to the city and village walls the entire oasis was protected by long defense lines. In other words, Soghdian society, fragmented and exposed to constant pressure from the surrounding nomads, could not provide substantial security beyond these fortifications.

The Transitional Eighth Century

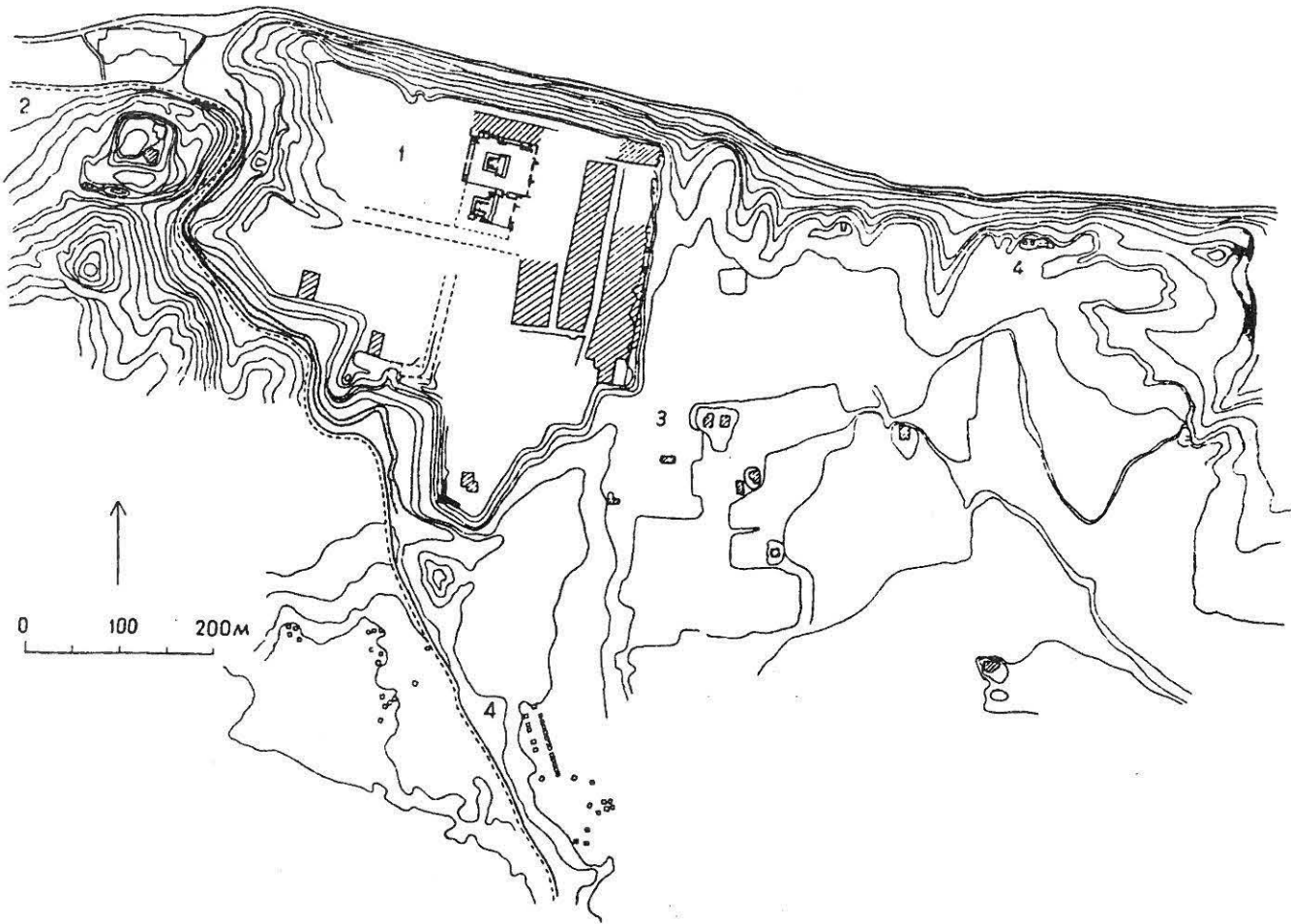
In the eighth century the Arab invasion began a chain of tragic events: constant wars lasted from Qutaiba's invasion in 706 to at least 739.⁵⁸ They were followed by a series of revolts,⁵⁹ the last of which, led by Muqanna, turned into a long peasant war.⁶⁰ The times were especially bad for those who had previously had power and money. For example, none of the

Bukhar-khudats died in his own bed.⁶¹ Many nobles fled in attempts to escape the Arab rule and some were caught and eliminated.⁶² Many of the mansions of Panjikant were abandoned after the catastrophe of 722.⁶³ It is very likely that numerous Soghdian castles abandoned in the eighth century were the estates of those families who had perished in rebellions and wars.⁶⁴ There is little doubt that instability affected trade and the necessity to pay ransom money and tributes emptied the pockets of Soghdian merchants. Bukhara and Samarqand turned into strongholds of Arab rule and Islam. That drove old sovereigns from their palaces – the royal court of Samarqand moved to Ishtikhan, and by the middle of the eighth century most of the Bukhar-khudats were living in Varahsha. In some cases, the merchants, like the nobles, left the cities on religious and political grounds. The best example are the seven hundred families of Kashkathan. The loss of the nobility and rich merchants posed a severe problem for the cities, because they constituted the core stratum around which Soghdian cities were formed.⁶⁵

All these troubles, however, did not destroy city life. The economic potential accumulated by Soghdian society was so significant and trade relations with Soghdian colonies on the Silk Route were so strong that people were able to rebuild their ruined cities. "Qutaiba b. Muslim killed all those in the city of Baykand who were capable of fighting. He carried into captivity those who remained, so no one was left in Baykand, and it was ruined. The people of Baykand were merchants, and most of them had gone on trading expeditions to China and elsewhere. When they returned they searched for their children, women, and relatives, and they ransomed them from the Arabs and rebuilt Baykand as before."⁶⁶ The revitalization of Panjikant dates to the 740's,⁶⁷ made possible by the stabilization of the political situation after the treaty with Nasr b. Sayyar.⁶⁸ Though there were apparently many fewer rich people among those who stayed back or returned,⁶⁹ the city definitely did not cease to exist. Kh. G. Akhunbabaev traces the revitalization of a rich city quarter in Afrasiab to the same period.⁷⁰

A significant amount of archaeological material from the late eighth century has so far been accumulated only for Panjikant. According to these data, the city was abandoned some time after the Muqanna's revolt. Until recently, it was thought that the population of Panjikant left the old city in order to settle on another "cape" dominating the Zarafshan Valley. Several years ago, however, on the basis of excavations on the lower terrace of Zarafshan, N. F. Savvonidi suggested that the population left the old site of Panjikant for the lower terrace of Zarafshan, which was more suitable for agriculture. According to him, the former city dwellers turned into farmers.⁷¹ A century later, however, Arab geographers referred to Panjikant as one of the very few cities in the upper and middle courses of Zarafshan that was large enough to have a congregational mosque.⁷²

It is very tempting to interpret this transformation of Panjikant as the only available example of the initial stage of the process which led to the



Plan of Panjikant, 7th-8th century. 1. Citadel

formation of a completely different settlement pattern by the second half of the ninth century. Unfortunately, the case of Panjikant has some unsettling peculiarities - for example, we do not know another city where the old town site was completely abandoned in the eighth-ninth century.⁷³ In other words, we have very little material from the late eighth and early ninth century and can guess at the process of change only from the final results. These results, however, are striking: from at least the middle of the ninth century, we see a very different landscape on the same territory.

The Settlement Pattern of the Samanid Period

Samanid cities spilled over the walls and formed unfortified agglomerations covering many square kilometers of formerly rural territory. This makes any estimate of a city's size virtually impossible, for it is unclear where the urban area ended and the rural area began. There is no doubt, however, that the cities grew significantly compared to the previous

period, though this expansion was not equal in all urban areas. Large administrative centers, like Bukhara and Samarqand, benefited a great deal from the new pattern of power distribution and grew disproportionately faster than many provincial cities like Paykand, which lagged behind them.

Bartol'd showed on the basis of early Islamic sources that the city citadels lost their significance and were sometimes even abandoned. Beginning with the Samanid period no new fortifications around *shahristans* were built, and old ones were often neglected. In Paykand, where the city walls had been constantly strengthened and restored during the last three centuries of the pre-Islamic period, in later times were repaired only once and only in one place. On the basis of the brickwork technique and a single piece of pottery from the mortar between the bricks the repair can be dated to the ninth century or later.⁷⁴ The restoration was also very insignificant; no trace of it was found in another trench cutting at a distance of less than 20 meters from that point. To the best of my knowledge, no Samanid fortifications have been found in other Sogdian cities up to that date, with the exception of one repair of brickwork on the citadel wall at Afrasiab.⁷⁵ The picture is striking compared with earlier periods, when constant repairs and enlargements led to the appearance of walls ten and more meters thick in practically every city.

There is also evidence that fortifications were neglected. A well (possibly for drainage) containing material from the tenth or early eleventh century was found, which had been dug into the body of the wall several meters from the point where the early Islamic brickwork was found in Paykand. Excavations from 1939 uncovered a pottery kiln from the middle of the tenth century which was cut into its ruined southern wall.⁷⁶ S. K. Kabanov discovered a drainage pit of the ninth century cutting through the wall at Varahsha.⁷⁷ This means that the fortifications of both cities were not functioning. This, together with the nearly complete absence of the fortifications in other cities, shows that city walls had lost their significance for the city dwellers in Mawarannahr.

Despite the numerous excavations of Samanid strata in different parts of Mawarannahr our knowledge of city dwellings is still rather limited. With very few exceptions, the absence of decoration in conjunction with their relatively small size suggests that they belonged to the poor stratum of the society. At the same time the urban fabric was less dense than it had been in the previous epoch: most of the ninth and tenth century city dwellings excavated in Mawarannahr had only one story, and inner courtyards became a common feature of urban housing once more.⁷⁸ If this observation is correct, we may assume that land prices in the city were low. Low land prices could have resulted from a new phenomenon – the migration of many wealthy families to the suburbs. Samanid rulers moved out of the old citadels to live in palaces built in the *rabads* and beyond the city walls.⁷⁹ Since the royal court was a large establishment, there is little doubt that the houses of courtiers and servants immediately sprang up around the garden palaces. We have a source for land value in the

settlement of Kashkathan, which for the most part had been incorporated into the city. The estates of the "Magians became expensive because the rulers of Bukhara settled there and the followers and intimates of the sovereign wished to buy estates. So the price of one *juft* of these estates became 4,000 dirhams."⁸⁰

There were other significant changes in the suburbs also. Archaeologically the best preserved suburbs of a Samanid city are the ones around Varahsha and in the Paykand oasis: production quarters formed relatively compact groups of buildings beyond the city walls;⁸¹ houses with large gardens stretched along the canals;⁸² and *ribats* were lined up along the main roads.⁸³ By the end of the period sanctuaries with related complexes of buildings sprang up in the cemeteries.⁸⁴ Written sources add bazaars to this list.⁸⁵ Though we do not have a detailed description of the Bukharan environs, we know that they were similar to those in Varahsha because Narshakhi states that "the *rabad* of Varahsha is like that of Bukhara."⁸⁶

The situation in the towns of the countryside is less clear, but similar to that observable in the suburban areas. Excavations conducted by the expedition of the Museum of Oriental Art on Talli-Pupa, a village with a castle situated four kilometers to the east of Varahsha, showed that the early medieval wall of the settlement was neglected and dwellings dating from the ninth or tenth century built upon it. As a survey showed, free-standing houses appeared on the surrounding plain at approximately the same time. The rather significant tenth century settlement at Durman-tepe, the survivor of the earlier town, had no fortifications even on the citadel. The most impressive example, however, is provided by the oasis of Kum-Sovtan situated on the lower reaches of Kashka-darya in the Karshi steppe. A survey conducted by the Moscow museum expedition discovered there a large area with small separate houses scattered on the plain along the branches of the small canals, completely open to the surrounding steppe. Ancient oasis walls, which were still being repaired in the eighth and in the first half of the ninth century, were being completely neglected by the tenth. The idea behind this attitude is expressed in an anecdote told by Narshakhi: Ismail Samani freed the people of Bukhara from the duty of restoring the walls by saying, "While I am alive, I am the wall of the district of Bukhara."⁸⁷ (Chains of *ribats* stretched along the Central Asian deserts for hundreds of kilometers (from Merv to Amul and then to Khwarazm along the left bank of the Amu-darya;⁸⁸ from Khwarazm along the right bank to Gugertly and then through the desert to Bukhara;⁸⁹ from Bukhara to Karshi, etc.)⁹⁰ Even secondary roads were often provisioned with *ribats* at important junctions. Cities situated at the points where main roads crossed the borders of an oasis developed large complexes of *ribats*. It is worth mentioning that despite the widespread notion that *ribats* served a military function, none of the archaeologically known Samanid *ribats* (unlike the *ribats* of the Qarakhanid and Khwarazmshah epochs) features any elements of real fortification.⁹¹

It is clear, then, that fortification and other considerations of security played no significant role in the settlement planning and urban

development of the Samanid epoch. Apparently, under Samanid rule the people of Mawarannahr felt perfectly secure outside the fortification walls. The mighty bureaucratic state of the Samanids relied on the best army of the time, the Turkic guard corps, and did not want to invest in costly fortifications, which could be, and were at times, used against the supreme power by rebellious provincial governors and discontented city dwellers. Returning to the question of the size of Samanid Bukhara while keeping in mind the development of settlement patterns, it is clear, first of all, that the placement of the exterior wall of the city was no indication of its actual size.⁹² In fact, al-Muqaddasi says, after listing the *darbs* of the Bukharan exterior *rabad*, "Development, however, has gone beyond even these."⁹³ The observations on the settlement patterns in the cities and villages of the Zarafshan Valley perfectly match the history of the Bukharan ramparts as they are described in the *Tarikh-i Bukhara*. This chapter of local history was recorded by three or even four generations of writers, who carefully chronicled the history of Bukharan fortifications, but did not assign any wall construction to the Samanid period. On the contrary, the *Tarikh-i Bukhara* states that the fortification wall which had been erected just before the advent of Samanid rule in 849-50 was continuously repaired. The next large fortification undertaking mentioned in that work is the erection of the new *rabad* by the Qarakhanid Arslan-Khan Muhammad in the early twelfth century.⁹⁴

As to the exact position of the wall, it seems unlikely that it had encompassed a very large territory: there is no reason why the rather secondary provincial city of Bukhara would expand so much during the first half of the ninth century. The value of such general historical arguments, however, is doubtful; I hope that this discussion will at least have demonstrated this point.

NOTES

1. V. V. Bartol'd, "Turkestan v epokhu mongol'skogo nashestviia," *Sochineniia* 2 (Moscow, 1962): pp. 153-54; idem [anglicized to Bartold], *Turkestan down to the Mongol Invasion*, E. J. W. Gibb Memorial Series, n.s. vol. 5 (London, 1958), pp. 102-3.
2. As late as 1913, Bartol'd was still referring to the plan of Iakovlev appended to the "Opisanie Bukharskogo Khanstva" by N. V. Khanykov (V. V. Bartol'd, "Bukhara," *Encyclopaedia of Islam*, 1st ed., 1: pp. 758-60), which Iakovlev produced without instruments while on a Russian diplomatic mission. It does not show the topography of the site and records only a small number of toponyms. Apparently the topographic plan of Parfenov-Fenin did not become available to Bartol'd until his first visit to Bukhara in 1920 (V. V. Bartol'd, "Otchet o komandirovke v Turkestan" (Report on Secondment to Turkestan), *Sochineniia* 4 (Moscow, 1966): pp. 256-57. It also seems that for a long time Parfenov-Fenin's plan and later plans were unavailable to Western scholars. R. N. Frye's reworking of the Bukhara article for the *New Encyclopaedia of Islam* retained all Bartol'd's references to the "plan of Khanykov" (*EI*, 2nd ed. 1: pp. 1293-96). A short survey of old topographic plans of Bukhara can be found in O. A. Sukhareva, "Ocherki po istorii sredneaziatskikh gorodov" (Sketches for a History of Central Asian cities), ed. B. A.

- Litvinskij, *Istoriia i kul'tura narodov Srednei Azii drevnost' i srednie veka* (Moscow, 1976), pp. 132-48. One would wish to add to her survey two more old maps: a plan from the archive of Messerschmidt published by B. Brentjes and another from the nineteenth century in L. Sedillot, "Note sur une carte routière de Mesched à Bokhara et de Bokhara à Balkh, suivie d'un plan de Bokhara et de ses environs, par un ingénieur persan, d'après la traduction de M. Garcin de Tassy," *Bulletin de la Société géographique*, ser. 4, vol. 4 (1852), pp. 221-35.
3. Bartol'd, "Bukhara" p. 759.
 4. Bartol'd, "Otchet o komandirovke," pp. 256-57.
 5. Iv. Umniakov, "K voprosu ob istoricheskoi-topografii srednevekovoï Bukhary" (On the historical topography of medieval Bukhara), *Sbornik Turkestanskogo vostochnogo instituta v chest' A. E. Shmidt'a* (Tashkent, 1923), pp. 148-57.
 6. M. Iu. Saidjonov, "Bukhoro shahri va eski binolari" (City and Ancient Buildings of Bukhara), *Maorif va yqutguvchi* nos. 3-4 (Tashkent, 1927): pp. 31-34.
 7. Some citations relevant to our study are given in G. A. Dzhuraeva, "Novye dannye o vorotakh shahristana Bukhary (po materialam vakfnykh gramot) (New data on the gates of the Bukharan *shahristan* [extracted from *waqf* documents])," *Obshchestvennye nauki v Uzbekistane* 11 (1983): 39-43.
 8. V. A. Shishkin, *Arkhitekturnye pamiatniki Bukhary* (Architectural monuments of Bukhara), (Tashkent, 1936).
 9. *Ibid.*, pp. 18-19.
 10. M. E. Masson, who had made a few trips to Bukhara beginning in 1926, published a popular work on the ancient history and the topography of the city in 1940 M. E. Masson, "Proshloe Bukhary" (The past of Bukhara) in *Pioner Vostoka*, nos. 38, 40, 42, 43, 53, 64; unfortunately, no copies of this Tashkent newspaper are available to me. E. A. Davidovich mentions a special course on the historical topography of Bukhara taught by Masson in 1947 in the Department of Archaeology at Tashkent University (E. A. Davidovich, "K datirovke mecheti Khoja Zaineddina v Bukhare" (On the date of the mosque Khwajah Zayn al-Din in Bukhara), *Materialy po istorii i teorii arkhitektury Uzbekistana* 1 (Tashkent, 1950): pp. 28.
 11. L. I. Rempel', "Iz istorii gradostroitel'stva na Vostoke (Materialy k planirovke staroi Bukhary)" (From the History of City Planning in the East [Materials pertaining to the layout of the old Bukhara]), *Iskusstvo zodchikh Uzbekistana* 1 (Tashkent, 1962): pp. 211-23; republished with minor additions, abridgements, and other changes in L. I. Rempel', *Dalekoe i blizkoe. Bukharskie zapisi. Stranitsy zhizni, byta, stroitel'nogo dela, remesla i iskusstva Staroi Bukhary* (The distant and the close. Bukharan notes: chapters from the life, daily practice, architecture and construction, craft and art of old Bukhara) (Tashkent, 1981), pp. 103-15.
 12. V. A. Lavrov, *Gradostroitel'naia kul'tura Srednei Azii* (Moscow, 1950), p. 56, fig. 120; p. 70, fig. 148; pp. 104-8, fig. 211.
 13. O. A. Sukhareva, "K voprosu ob istoricheskoi topografii Bukhary X-XII vv." (On the Question of Historical Topography of Bukhara in the 10th-11th centuries), *Sbornik statei posviashchennykh istorii i kul'ture perioda formirovaniia tadjhikskogo naroda i ego gosudarstvennosti*, Trudy Akademii Nauk Tadjhikskoi SSR, vol. 27 (Stalinabad [Dushanbe], 1954), pp. 25-40.
 14. O. A. Sukhareva, *K istorii gorodov Bukharskogo khanstva* (On the History of the Cities of the Bukharan Khanate) (Tashkent, 1958).
 15. *Ibid.*, p. 42.
 16. *Ibid.*, p. 57.
 17. A. M. Belenitskii, I. B. Bentovich, O. G. Bol'shakov, *Srednevekoviï gorod Srednei Azii* (Medieval Cities of Central Asia), (Leningrad, 1973), pp. 232-54.
 18. *Ibid.*, p. 244.
 19. *Ibid.*
 20. *Ibid.*, p. 246.
 21. V. A. Shishkin listed the necropolis of Turki-Jandi as being among those that

marked the city limits in the Samanid period. The centerpiece of this necropolis is the grave of Abu Nasr Ahmad b. al-Fadl Musa al-Muzaqqir al-Jandi, a religious figure of the end of the tenth and early eleventh century. On the basis of information in the *Kitab-i Mulla-zade*, O. A. Sukhareva and R. L. Gafurova placed it inside the city wall of the fifteenth century (Sukhareva, cited above n. 14, p. 53; R. L. Gafurova, *Kitobi Mulla-zade* (Tashkent, 1992), pp. 37, 70), which does not mean that Shishkin was incorrect. E. G. Nekrasova follows O. G. Bol'shakov without additional argumentation (M. Dzh. Dzhurakulov, E. G. Nekrasova, and T. K. Khozhaiov, *Pozdnefeodal'nye nekropoli Bukhary kak istoricheski i istochnik* (Samarqand, 1991), p. 4).

22. A. I. Naimark, "K istoricheskoi topografii Bukhary" (On the Historical Topography of Bukhara), *Bartol'dovskie Chteniia 1990. Tezisy dokladov* (Moscow, 1990).

23. E. A. Davidovich, "Diskussionnye voprosy v knige A. M. Belenitskogo, I. B. Bentovich, O. G. Bol'shakova, 'Srednevekovy_ gorod Srednei Azii,'" *Drevnost' i srednevekov'e narodov Srednei Azii (istoriia i kul'tura)*, ed. B. G. Gafurov and B. A. Litvinskii (Moscow, 1978), pp. 103-16.

24. Davidovich, "Diskussionnye voprosy," pp. 105-8, 110-11.

25. Dzhuraeva, *Novye dannye*, pp. 39-43.

26. Davidovich's reconstruction of the inner *rabad* perfectly fits the rules of the development of urban territory noted for Sogdian cities. Usually a city's area did not expand in concentric circles: that would have been a very costly procedure for urban expansion. Instead a relatively small area would be added to avoid the expense of building a very long wall. In most known cases new areas were adjoined to one side (more rarely to two sides) of the older city. Very often the location and shape of these new extensions were dictated by the peculiarities of the local topography; they would bring the city boundary to the edge of a hillock or ravine or some other natural barrier. Shahrud was ideal for such a system. Sogdian traditions are applicable in this case, because the wall of the interior *rabad* was most probably built in the eighth century and very likely at the request of the Sogdian population of Bukhara. In at least two other instances (Kanpirak and the wall of the exterior *rabad*) the Bukharans themselves were initiators of such undertakings (Narshakhi, *The History of Bukhara*, translation of a Persian abridgement of the Arabic original by Richard Frye [Cambridge, Mass., 1954], p. 35).

27. Davidovich, *Diskussionnye*, p. 110.

28. "There is no city in Khurasan and Mawarannahr which is built up more densely than Bukhara and is more populous than this one" (*Viae regnorum. Descriptio ditionis moslemicae auctore Abu Ishak al-Farisi al-Istakhri*, ed. M. J. de Goeje, *Biblioteca Geographorum Arabicorum*, vol. 1. [Leiden, 1878], p. 306). Al-Muqaddasi is even more explicit in this respect. In his description of Bukhara he three times refers to the high density of the city's population. He also mentions balconies (*janah*) (*Descriptio imperi moslemici auctore Schamso'd-din Abu Abdollah Mohammed ibn Ahmed ibn abi Bekr al-Banna al-Basschari al-Mokaddasi*, ed. M. J. de Goeje, *Biblioteca Geographorum Arabicorum*, vol. 3 (Leiden 1877), pp. 280-81; for an explanation of the term, see Belenitskii, Bentovich, and Bol'shakov, *Srednevekovy*, p. 241, n. 61), which are commonly known in Central Asia as *balakhanah* and constitute an upper (usually, the second) floor of a building.

29. Al-Istakhri relates that the "buildings of Bukhara are made of wood" (BGA 1: 306). Al-Muqaddasi also mentions that the buildings of Bukhara are "of clay and timber" (BGA 3: 282). In other areas of Mawarannahr frame buildings were not used so early. Their initial appearance in Bukhara may be connected with the specific nature of Bukharan soil with its salt and ground water. A noteworthy local explanation for the specific nature of Bukharan architecture appears in a Persian explication to the nineteenth century plan of the city from the archive of P. I. Lerkh: "All the buildings in the city of Bukhara and its villages should be

- constructed of wood. Any wall which has no wood inside would collapse before a year passes. Even new walls need repairs because the soil is damp and loose" (A. R. Mukhamedzhanov, "Istoriko-topograficheski plan Bukhary Akhmada Donisha" (Historical topographic plan of Bukhara by Ahmad Danish), *Obshchestvennye nauki v Uzbekistane* 5 (1965): 36.
30. For detailed information on building technique and the typology of Sogdian city dwellings, see V. I. Raspopova, *Zhilishcha Pendzhikenta (opyt istoriko-sotsial'noi interpretatsii)* (The dwellings of Panjikant [an attempt at historical and social interpretation]) (Leningrad, 1990).
31. M. E. Masson, "K probleme izucheniia istoricheskoi topografii sredneaziatskikh gorodov" (On the problem of the study of the historical topography of Central Asian cities), *Kul'tura Turkmenii v srednie veka Trudy IUTAKE* 17 (Ashkhabad, 1980): 120.
32. L. I. Rempel' added an extensive note to reprints of his study in which he expressed his disagreement with certain points in the works of O. A. Sukhareva, O. G. Bol'shakov, and E. A. Davidovich (Rempel', *Dalekoe i blizkoe*, p. 105, n. 1). These remarks, however, do not touch upon the question of the outer *rabad*. Bol'shakov published an article in which he responded to some of these critical comments (O. G. Bol'shakov, "Bukhara vremeni Ibn-Sina" (Bukhara in the Times of Ibn Sina), *Pis'mennye pamiatniki i problemy istorii kul'tury narodov Vostoka* 15, 3 (Leningrad, 1981): 6-24. He did not, however, refer to the question of the city's boundaries in that publication.
33. Davidovich, *Discussionnye*, p. 111.
34. Various instances of this term's use have been discussed in the literature: Saijonov. *Bukhoro shahri*, pp. 31-34; V. A. Shishkin, "Mechet' Magoki-Attori v Bukhare," *Trudy Instituta istorii i arkheologii AN UzSSR* 1 (Tashkent, 1948): p. 3; Davidovich, *K datirovke*, pp. 28-29; idem, *Discussionnye*, p. 109, n. 15; Sukhareva, *K istorii*, pp. 59-62; Juraeva, *Novye dannye*, pp. 39-42; A. A. Eganiand O. D. Chekhovich, "Regesty sredneaziatskikh aktov (materialy k svodnomu katalogu aktovykh istochnikov v sobraniakh SSSR)," III [Regests of Central Asian Acts III], *Pis'mennye pamiatniki Vostoka. Istoriko-filologicheskie issledovaniia. Ezhegodnik 1976-1977* (Moscow: Nauka GRVL, 1984), p. 105. It is not clear how the term is related to *darun-i shahr* and *birun-i shahr*; Sukhareva, *K istorii*, pp. 60-61; R. D. McChesney, "Economic and Social Aspects of the Public Architecture of Bukhara in the 1560s and 1570s," *Islamic Art* 2 (1987): pp. 226-27.
35. In 1987-89, Dr. E. G. Nekrasova of the Tashkent Institute of Restoration and her associates conducted an extensive archaeological study of Bukhara with the specific task of establishing the stages of the city's territorial development. Excavations of varying scales were undertaken in 38 different sites in the old city. I am sure that a publication of these materials could solve many problems and would considerably expand the arsenal of sources for the study of Islamic Bukhara.
36. A. Anarbaev, "O vremeni vozvedeniia III krepostnoi steny Afrasiaba (About the Time of Erection of the 3rd Fortification Wall of Afrasiab), *Istoriia material'noi kul'tury Uzbekistana* 19 (Tashkent, 1984): pp. 206-13; G. V. Shishkina, "Ancient Samarkand: Capital of Sogd," *The Archaeology and Art of Central Asia: Studies from the Former Soviet Union*, ed. B. A. Litvinskii and C. A. Bromberg *Bulletin of the Asia Institute*, n.s., 8 (1994): pp. 92-93.
37. A. M. Belenitskii, B. I. Marshak, V. I. Raspopova, "Sogdiiskii gorod v nachale srednikh vekov (itogi i metody issledovaniia drevnego Pendzhikenta)" (Sogdian City in the Beginning of the Middle Ages [results and methods of research in ancient Panjikant]), *Sovetskaia Arkheologiia*, no. 2 (1981), fig. 1.
38. B. Ia. Staviskii and M. K. Urmanova, "Gorodishche Kuldor-tepe" (Town site at Kuldor-tepe), *Sovetskaia Arkheologiia*, no. 1 (1958): p. 232, fig. 1.
39. G. V. Shishkina and A. I. Naimark, "Istoricheskaia topografiia Durmen-tepe v

- svete rabot 1986 goda" (Historical Topography of Durman-tepe in the Light of 1986 Investigations), *Zadachi sovetskoi arkheologii v svete reshenii XXVII-go s'ezda KPSS. Tezisy dokladov vsesoiuznoi archeologicheskoi konferentsii. Suzdal' 1987* (Moscow, 1987), pp. 287-89.
40. Kh. G. Akhunbabaev, "Drevnii Kabudanjaket (k voprosu o lokalizatsii, genezisa i etapov razvitiia rannefeodal'nykh vladenii i srednevekovykh rustakov samarkandskogo Sogda) (Ancient Kabudanjaket [on the question of the localization, genesis and stages of early feudal appanages and medieval *rustaqs* of Sogdian Samarqand), *Arkheologiya Srednei Azii. Tezisy dokladov* (Tashkent, 1990), pp. 26-27.
41. V. A. Shishkin, *Varakhsha* (Moscow, 1963), p. 38, fig. 5.
42. A. R. Mukhamedzhanov et al., *Gorodishche Paikend. K probleme izucheniia srednevekovogo goroda Srednei Azii* (The Town Site of Paykand: On the Problem of the Study of the Medieval City of Central Asia) (Tashkent, 1988), p. 77.
43. Bartol'd, "Otchet o komandirovke," p. 25; Shishkin, *Arkhitel'nyye pamiatniki*, p. 11; Rempel, *Iz istorii*, pp. 215-17; Sukhareva, *K istorii*, pp. 21-29; Kurennoi, "K istorii gradostroitel'stva Bukhary v rannem srednevekov'e" (On the History of the Development of Bukhara in the Early Middle Ages), *Stroitel'stvo i arkhitektura Uzbekistana*, no. 4 (1971): pp. 32-37; A. R. Mukhamedzhanov, D. K. Mirzaakhmedov, and Sh. T. Adylov, "K izucheniiu istoricheskoi topografii i fortifikatsii Bukhary" (On the Study of the Historical to Topography and Fortification of Bukhara), *Istoriia material'noi kul'tury Uzbekistana*, vol. 20 (Tashkent, 1986), pp. 99-100; M. Turebekov, *Oboronitel'nye sooruzheniia drevnikh poselenii i gorodov Sogda (VII-VI vv. do n.e. - VII v.n.e.)* (Defense Structures of Ancient Settlements and Cities of Soghd [from the 7th and 6th century B.C.E. to the 7th century C.E.]) (Nukus, 1990), pp. 56-65.
44. G. L. Semenov, "Sogdiiskii gorod v rannem srednevekov'e: formirovanie plana" (Sogdian Town in the Early Middle Ages: the Formation of the Plan), *Itogi rabot arkheologicheskikh ekspeditsii Gosudarstvennog Ermitazha* (Leningrad, 1989), pp. 131-32. In this article, G. L. Semenov was able to cite Panjikant, Paykand, and Arbinjan. One should add to the list Durman-tepe, where a parallel of the early medieval town was built into the ruins of a classical city with an irregular outline (Shishkina and Naimark, *Istoricheskaiia*, p. 289). It is also very likely that Kurgan-tepe constitutes a similar case: an early medieval square fortress was erected inside the much larger area enclosed by an early wall with an irregular outline (G. A. Pugachenkova, *Drevnosti Miankalia* [Antiquities of Mianka], (Tashkent, 1989), p. 69, fig. 25). This interpretation does not contradict the excavation materials.
45. G. V. Shishkina, *Ancient Samarkand*, pp. 92-93; G. A. Semenov, "Gorodskie steny Pendzhikenta I istoriia Sogda V-VIII vv." (The City Walls of Panjikant and the History of Sogd from the 5th to the 8th Century), *Sovetskaiia Arkheologiya*, no. 3 (1983): pp. 47-59; A. R. Mukhamedzhanov et al., *Gorodishche Paykand*, pp. 82-100; Iu. F. Buriakov and O. M. Rostovtsev, "Arkheologicheskie issledovaniia Rabindzhana" (Archaeological Investigations in Rabinjan), *Istoriia material'noi kul'tury Uzbekistana* 19 (Tashkent, 1984): 153-68.
46. Raspopova, *Zhilishcha Pendzhikenta*, pp. 164-69; the history of a large house occupying the northeastern corner of Paykand's *shahristan* runs along the same lines as the development of Panjikant housing.
47. *Ibid.*, p. 169.
48. Akhunbabaev, *Drevnii Kabudanjaket*, p. 26.
49. O. G. Bol'shakov and N. N. Negmatov, "Raskopki v prigorode drevnego Pendzhikenta" (Excavations in the Suburb of Ancient Panjikant), *Materialy i issledovaniia po arkheologii SSSR*, no. 66 (Moscow, 1958).
50. There were only two structures beyond the city walls of Paykand in the immediate vicinity of the city. One is the castle Bad-i Asyia which has been

partially excavated (G. V. Shishkina, "Zamok Bad-Asiia v okrestnostiakh Paikenda" (Castle Bad-i Asiya in the vicinity of Paykand), *Istoriia material'noi kul'tury Uzbekistana*, vol. 4 (Tashkent, 1964), pp. 87-109;) and should be dated to the late sixth or the seventh century (A. I. Naimark, "Eshcho raz o zamke Bad-Asiia bliz Paykenda" (Once More about Castle Bad-i Asiya near Paykand), *Vtoraia Shkola molodykh orientalistov. Tezisy dokladov* (Moscow, 1986). Another one is a small *tepe* in the valley to the west of Bad-i Asiya. It has not yet been excavated, but coins and pottery found on the surface testify to its continuous existence from at least the sixth to the tenth century (Shishkina. *Zamok*, p. 103).

51. Frye, *History of Bukhara*, p. 30

52. There is still no catalogue of the archaeological monuments of the Bukharan oasis and my statement is based on personal observations made during archaeological surveys. See plans and descriptions of some sites in V. A. Shishkin, *Arkheologicheskie raboty v zapadnoi chasti Bukharskogo oazisa* (Archaeological works in the Western Part of the Bukharan Oasis) (Tashkent, 1940); idem, *Varakhsha*, pp. 127-46

53. Belenitskii, Marshak, and Raspopova, *Sogdii kii gorod*, pp. 101-5; Raspopova, *Zhilishcha Pendzhikenta*, p. 183.

54. V. I. Raspopova, "K voprosu o spetsifike goroda i sel'skikh poselenii rannesrednevekovogo Sogda" (On the Question of the Specific Nature of Town and Rural Settlements in the Early Medieval Soghd), *Uspekhi Sredneaziatskoi arkheologii*, vol. 4 (Leningrad, 1979); Raspopova, *Zhilishcha Pendzhikenta*, pp.180-86; S. K. Kabanov, *K izucheniiu agrarnogo stroia Sogda V-VI vv.* (On the study of Agrarian Society in Sogd in the 5th-6th Centuries), *Sovetskaia Arkheologiya*, no. 3 (1966); I. U. Iakubov, *Rannesrednevekovye sel'skie poseleniia gornogo Sogda (k probleme stanovleniia feodalizma)* (Early Medieval Rural Settlements in Mountainous Soghd (on the problem of formation of feudalism) (Dushanbe, 1988); two settlements were fully excavated and presented in a Ph.D. dissertation by R. Abdirimov, which is not available to me.

55. Kh. Mukhammedov, "Iz istorii drevnikh oboronitel'nykh sten vokrug oazisov Uzbekistana," Aftoreferat kandidatskoi dissertatsii (From the History of Defensive Walls around the Oases of Uzbekistan, synopsis of a dissertation) (Tashkent, 1961); Turebekov, *Oboronitel'nye*, pp. 65-69.

56. The history of the walls of Samarqand is poorly known. It is more than likely, however, that this wall functioned throughout the early Middle Ages; Shishkina, *Ancient Samarkand*, pp. 91, 93.

57. Ia. G. Guliamov, "Nur Bukharski" (Bukharan Nur), *Etnografiia i arkheologiya Srednei Azii* (Moscow, 1979), pp. 134-35.

58. H. A. R. Gibb, *The Arab Conquests in Central Asia* (rpt., New York, 1970); A. Jalilov, *Sogd nakanune arabskogo nashestviia i bor'ba sogdiitsev protiv arabskikh zavoevatelei v pervoi polovine VIII v.* (Soghd on the Eve of the Arab Invasion and the Struggle of the Soghdians against the Arab Conquerors in the first half of the 8th Century), *Trudy Instituta Istorii, Arkheologii i Etnografii Akademii Nauk Tadzhikskoi SSR*, vol. 30 (Stalinabad [Dushanbe], 1961); C. I. Beckwith. *The Tibetan Empire in Central Asia: A History of the Struggle for Great Power among Tibetans, Turks, Arabs, and Chinese during the Early Middle Ages* (Princeton, N.J., 1987). Earlier raids of Khurasan governors were nothing more than an additional hazard in the very unstable life of Sogdiana (G. Goibov. *Rannie pokhody arabov v Sredniuiu Aziuu (644-704 gg.)* (Dushanbe, 1989).

59. T. Kadyrova, *Iz istorii krestianskikh vosstaniia v Maverannakhre i Khorasane v VIII - nachale XI v.* (The History of Peasant Revolts in Mawarannahr and Khurasan in the 8th to 11th Century) (Tashkent, 1965).

60. O. G. Bol'shakov, *Khronologiya vosstaniia Mukanny* (Chronology of Mukanna's revolt), *Istoriia i kul'tura narodov Srednei Azii (drevnot' i srednevekov'e)*, ed. B. G. Gafurov and B.A.Litvinski (Moscow, 1976), pp. 90-98.

61. Frye, trans. *History of Bukhara*, pp. 8, 9.
62. V. I. Beliaev, trans. and ed., *Istoriia at-Tabari* (Tashkent, 1987), pp. 186-90.
63. Raspopova, *Zhilishcha*, pp. 20, 173.
64. Isolated castles from different areas cannot be studied using the synchronous-level method so successful in the analysis of Panjikant dwellings. A comparison of the history of castles and urban dwellings of the nobility, however, is possible. Like some of the rich city dwellings of Panjikant, some of the castles were abandoned in the early eighth century; but others were again in use in the eighth and ninth century. Although I do not have the exact dates and details of this revitalization for all of them, I know of one castle that was partially restored in the middle of the eighth century, and as in many cases in Panjikant the new dwellers were commoners and not former noble (or simply very rich) families; Aleksandr Naimark, "Rannesrednevekovi zamok v kishlake Mulla-Eshkul pod Ishtikhanom" (An Early Medieval Castle in the Village of Mulla-Eshkul near Ishtikhan), *Drevnii i Srednevekovi Vostok* (Moscow, 1988), pp. 463-84.
65. Belenitskii, Bentovich, and Bol'shakov, *Srednevekovi*, pp. 148-49; Belenitskii, Marshak, and Raspopova, *Sogdiiskii gorod*, pp. 101-5.
66. Nakshahi, *History of Bukhara*, Frye trans., pp. 44-45.
67. *Ibid.*, pp. 20, 173-74.
68. O. G. Bol'shakov, *Otchet o raskopkakh severo-vostochnoi chasti ob'ekta III: (kompleksy I i II, raskopki 1952-56 gg.)* (Report on Excavations in the Northeastern Part of Section III [complexes I and 2, excavations of 1952-56]), *Materialy i issledovaniia po arkheologii SSSR*, no. 124 (Moscow, 1964), p. 119; Belenitskii, Bentovich, and Bol'shakov, *Srednevekovi*, pp. 154-55.
69. Raspopova, *Zhilishcha*, pp. 173, 189.
70. Kh. G. Akhunbabaev, "Domashnie khramy rannesrednevekovogo Samarkanda" (Household Shrines in Early Medieval Samarqand), *Gorodskaiia kul'tura Baktrii-Tokharistana i Sogda: antichnost', rannee srednevekov'e. Materialy Sovetsko-Frantsuzskogo kollokviuma (Samarkand 25-30 avgusta 1986 goda)* (Tashkent, 1987), pp. 10-12.
71. N. F. Savvonidi, "K voprosu o lokalizatsii gorodishcha Pendzhikent IX-X vv" (On the Question of Localization of the 9th-10th-Century Town Site of Panjikant), *Kul'tura drevnego i srednevekovogo Samarkanda i istoricheskie sviazi Sogda. Tezisy dokladov sovetsko-frantsuzskogo kollokviuma* (Tashkent, 1990), pp. 86-87; Raspopova, *Zhilishcha*, p. 189.
72. *Viae regnorum. Discriptio ditionis moslemicae auctore Abu'l-Kasim Ibn Haukal*, ed. M. J. de Goeje, *Biblioteca Geographorum Arabicorum*, vol. 2 (Leiden, 1873), p. 371.
73. Another city which was abandoned in the eighth century is Durman-tepe (Shishkina and Na_mark, *Istoricheskaia*, p. 289). The details of the process were, however, very different there: Durmen-tepe was not abandoned completely. There are ninth century strata and remains of a tenth century mosque on the old citadel. Houses of the ninth to the early eleventh century were excavated on the areas adjacent to the citadel. On the other hand, no city that can be identified with Durmen-tepe appears in the rather detailed descriptions of the Samarqand area by classical Arab geographers, which makes it very likely that this settlement had lost its urban status for good. The scope of the work on Durman-tepe was not sufficient to allow such precision of dating as was achieved in Panjikant and to draw definite conclusions about the entire territory of the city.
74. I am referring here to the materials of my own excavations. Their results were presented in G. L. Semenov, "Gorodskie steny rannesrednevekovo Sogda kak istoricheskii istochnik" (The City Walls of Early Medieval Soghd as a Historical Source), Ph.D. diss., Leningrad University, 1985, and in Mukhamedzhanov et al., *Gorodische*, pp. 84, 97, pl. 1 (also pp. 47-52) is unsatisfactory. Semenov used only my first-year reports and reproduced all the working hypotheses from these interim descriptions which were never intended for publication. Many of those

assumptions were later proved incorrect as in the following year the excavated objects were much better understood. In addition there are discrepancies between the drawings and the text.

75. O. N. Inevatkina, "Tsitadel' Afrasiaba (raboty 1977-1979 gg.)" (Citadel of Afrasiab [explorations of 1977-1979]), *Istoriia material'noi kul'tury Uzbekistana*, vol. 18 (Tashkent, 1983), p. 90.

76. M. M. Diakonov, "Keramika Paikenda" (Pottery of Paykand), *Kratkie soobshcheniia Instituta Istorii Material'noi kul'tury*, no. 28 (Moscow, 1949), p. 89.

77. S. K. Kabanov, "Raskopki zhilykh postroek i oboronitel'nykh sooruzhenii na gorodishche Varakhsha v 1953-1954 gg." (Excavations of Dwellings and Fortifications Structures on the Town Site of Varahsha in 1953-1954), *Istoriia material'noi kul'tury Uzbekistana*, vol. 1 (Tashkent, 1959), p. 114. The exact date of this drainage well is disputable, because excavations conducted by the Museum of Oriental Art on the adjacent spot (N. Iu. Vishnevskaiia) showed a slightly different history of this area. In general, however, these excavations confirmed that in the Samanid period the fortification wall was neglected.

78. S. K. Kabanov, "Raskopki zhiliog kvartala X v. v zapadnoi chasti gorodishcha Varakhsha" (Excavations of the Living Quarters of the Tenth Century in the Western Part of the town site of Varahsha), *Trudy Instituta Istorii i Arkheologii AN UzSSR*, vol. 8 (Tashkent, 1956); idem, *Raskopki zhilykh*, pp. 110-23; G. V. Shishkina, "Gorodskoi kvartal VIII-XI vv. na severo-zapade Afrasiaba" (City Quarter of the 8th-11th Century in the Northwestern Part of Afrasiab), *Afrasiab 2* (1973); Sh. Sh. Sharakhimov, "Kvartal goncharov X- nachala XI v." (The Pottery-Production Quarter of the 10th and Early 11th Century), *K istoricheskoi topografii drevnego i srednevekovogo Samarkanda*, ed. G. V. Shishkina (Tashkent, 1981), p. 60; Mukhamedzhanov et al., *Gorodishche*, pp. 70-76; lower density of the urban fabric of Samanid times was apparent to O. G. Bol'shakov on the basis of several houses excavated in Varahsha, Narinjan, and Nisa (Belenitskii, Bentovich, and Bol'shakov, *Srednevekovi...*, pp. 262-63).

79. Nakshahi, *History of Bukhara*, Frye trans., pp. 27-29.

80. *Ibid.*, p. 31.

81. Large pottery quarters were situated in the lowlands to the east of the Paykand citadel. Most of this area was destroyed by two canals running parallel to each another which were built in the 1950's and 1960's. Kilns and wasters can be seen in the walls of the large canal for a distance of about 40 meters. Some reconnaissance excavations of 1983-84 showed houses datable to the ninth and tenth century. To the best of my knowledge only a few findings from this place were published (A. I. Naymark, *Paykend: Culture and Art of Ancient Uzbekistan*, vol. 2 (Moscow, 1991), pp. 169-72). In Varahsha, some manufactories were situated about 500 m to the east of the city. Unfortunately, most of the area was destroyed when a dairy farm was built there. The small trench made by the Central Asian Archaeological Expedition of the Museum of Oriental Art in 1987 discovered various traces of production, including *se-paya* and wasters.

82. V. D. Zhukov, "Materialy k izucheniiu prigorodov gorodishcha Varakhsha" (Materials for the Study of the Suburbs of the Town Site of Varahsha), *Trudy Instituta Istorii i Arkheologii AN UzSSR*, vol. 8 (Tashkent, 1956), pp. 145-48; Shishkin, *Varakhsha*, p. 50.

83. V. A. Shishkin's plan of the environs of Paykand in A. Iu. Iakubovskii, "Kratkii polevoi otchet o rabotakh Zeravshanskoi arkheologicheskoi ekspeditsii Ermitazha i IIMK v 1939 g." (Brief Field Report on the Work of the Zarafshan Archaeological Expedition of the Hermitage and the Institute of the History of Material Culture in 1939), *Trudy Otdela Vostoka Gosudarstvennogo Ermitazha*, vol. 2 (Leningrad, 1940).

84. Remains of one such complex east of Varahsha were studied by the team of the Museum of Oriental Art. The existence of such a complex in Paykand is

recorded by Hudud al-'Alam, *The Regions of the World: A Persian Geography* 372 A.H./982 A.D., trans. and commentary V. Minorsky (Oxford: Oxford University Press, 1937), p. 113.

85. BGA 3: pp. 282.

86. N. Lykoshin translates this sentence, "Old walls of the settlement were equal to Bukharan ones in size"; Muhammad Narshakhi, *Istoriia Bukhary. Perevel s persidskgo N. Lykoshin pod redaktsiei V. V. Bartol'da* (*History of Bukhara*, trans. into Russian by N. Lykoshin and edited by V. V. Bartol'd) (Tashkent, 1897), p. 20. Frye's English translation reads: "Its walls were similar to the walls of Bukhara" (*History of Bukhara*, p. 17). In the *Tarikh-i Bukhara* the word *rabad* has three meanings: a wall surrounding suburbs; the suburbs surrounded by this wall; and the unfortified urban zone beyond the walls of the *shahristan* (cf. V. V. Bartol'd, "K istorii Merva," *Sochineniia*, 4: p. 173). The first two meanings do not fit the local situation: Varahsha had a *shahristan* and no fortified suburbs. Since this sentence follows the description of the walls of Varahsha and precedes the description of the canals of Varahsha's environs, it occupies the place where suburbs are likely to be described (cf. Shishkin, *Varakhsha*, p. 27).

87. Frye, trans., *History of Bukhara*, p. 34.

88. M. E. Masson, "Srednevekovye torgovye puti iz Merva v Khorezm I v Maverannakhr (v predelakh Turkmensko SSR)" (Medieval Trade Routes from Merv to Khwarazm and Mawarannahr (within the borders of the Turkmen SSR), *Trudy Iuzhno-Turkmenistanskoi arkheologicheskoi kompleksnoi ekspeditsii*, 13 (Ashkhabad, 1966); for a summary of later publications, see M. A. Itina, *Arkheologicheskie pamiatniki na drevnikh torgovykh putiakh vdol' beregov Amu-Dar'i* (Archaeological Monuments on the Ancient Trade Routes along the Banks of the Amu-darya), *Drevnosti Iuzhnogo Khorezma Trudy Khorezmskoi Arkheologicheskoi Ekspeditsii*, vol. 16 (Moscow: Nauka, 1981), pp. 11-33.

89. V. A. Lokhovets, "Karavan sarai Verhnego Khorezma," *Etnografiia I arkheologiia Srednei Azii* (Moscow, 1979), pp. 112-18; for more precise dates and an explanation of these *ribats* as a system, see Iu. P. Manylov, *Trassy torgovykh putei iz Bukhary v Khorezm v X vv.* (Trade routes leading from Bukhara to Khwarazm in the 10th century), *Formirovanie i razvitie trass Velikogo Shelkovogo Puti v Tsentral'noi Azii v drevnosti i srednevekov'e. Tezisy dokladov mezhdunarodnogo seminara IUNESKO* (Tashkent, 1990), pp. 62-64.

90. In 1970 and 1980, N. B. Nemtseva discovered a previously unknown old road leading from Bukhara to Chach through the area situated to the north of the Nurata mountain range; N. B. Nemtseva, *Po drevnim dorogam Zapadnogo Sogda i Golodnoi stepi* (On the Ancient Roads of Western Sogd and Golodnaia Steppe), *Formirovanie i razvitie trass Velikogo Shelkovogo Puti v Tsentral'noi Azii v drevnosti i srednevekov'e. Tezisy dokladov mezhdunarodnogo seminara IUNESKO* (Tashkent, 1990), pp. 67-68. Nemtseva gives one broad dating (ninth to the twelfth century) for all four caravanserais she discovered on this road in this publication. In an earlier article, she assigns a somewhat more precise date (11th century) to Kal'-tepe, the only edifice which was partially excavated (N. B. Nemtseva, *Issledovanie srednevekovogo karavan-saraia v Golodnoi stepi* (Study of a medieval caravanserai in the Hungarian steppe), *Arkheologicheskie otkrytiia 1983 goda* (Moscow: Nauka, 1985). Typologically Kal'-tepe is more likely to belong to the eleventh century. The fact that this road is not mentioned by any of the classical Arab geographers also points to the Qarakhanid date of this system of *ribats*.

91. The best known *ribat* complex has been preserved in Paykand. One of its buildings has been excavated completely (Mukhamedzhanov et al., *Gorodishche*, pp. 13-147). It does not show any features conforming to the military function ascribed to Paykand *ribats* in the famous passage of *Tarikh-i Bukhara* (Frye, trans., *History of Bukhara*, p. 18). The building was erected on a slope, which had been leveled so that the southern row of rooms was below the surface of the hill. This is

definitely not a fortification-building layout; the methods of Central Asian fortification would involve raising the other side of the building on a platform, rather than having this side dug out. This relatively small edifice has two entrances, both flanked by protruding portals, a kind of entrance that was very hard to defend. The major elements pointing to the non-military function of this building are the towers at the corners: at the foundation they have a diameter of 3.3 meters, which makes the space inside the tower, if any, unusable by archers. In other words, these towers had a purely decorative function. One could suggest that the other buildings of the same complex could have been better fortified. There are, however, indications that the entire complex was no monument to military history: all the *ribats* are aligned along the three roads leading to the city, forming a border that would have been completely unsuitable for a military camp and could hardly be effectively defended. On the other hand, the excavated building and the structure of the complex would both be absolutely suitable for a group of inns.

It is very likely that Paykand was a center of *ghazw*, the huge area of lakes with reeds that served as fuel and winter food for stock and an abundance of wild life for hunting undoubtedly attracted nomads, who usually settled in such areas during the winter. The part of the story that talks about the people of every village building a *ribat* appears to be an invention of pious Muslim writers of a later time. It is noteworthy that Arab geographers of the tenth century do not mention anything of this nature when referring to the *ribats* of Paykand, though in other instances they refer readily to any manifestation of *ghazw*. One has to keep in mind that the chapter of the *Tarikh-i Bukhara* where this passage is found is made up of texts taken from Narshakhi and Nishapuri with additions from Kubavi in the twelfth century, when the idea of *shahid* virtues preoccupied the minds of the inhabitants of Mawarannahr (J. Paul, "The Histories of Samarqand," *Studia Iranica* 22 [1993]: 82-87). Except for the region of Ispijab, there seems to be no material that undoubtedly testifies to the existence of the practice of "ribat fighting" in early Islamic Mawarannahr in the forms known in North Africa; cf. Jürgen Paul, *The State and the Military: The Samanid Case*, Papers on Inner Asia, ed. Yuri Bregel, no. 26 (Bloomington, Ind., 1994), pp. 16-17. In many cases, when endowments for *ribats* are mentioned, the reference is to another form of *ribat*, namely, houses for learned people.

92. After I finished this paper, I came across a passage in O. G. Bol'shakov's work where he describes the general process of urban development: "Following a short period of restoration, necessary after the destructions of the 8th century, the cities of Central Asia, previously densely built up and constricted by the ring of walls, in the 9th century spilled over this ring and freely spread over adjacent lands. Not the walls, but the power of the state now guaranteed the safety of the suburb" (Belenitskii, Bentovich, and Bol'shakov, *Srednevekovyi*, p. 133). I cannot comprehend why this excellent understanding of the process found no reflection in Bol'shakov's studies of the historical topography of the cities. As a result this statement remained an isolated and obscure sentence, unnoticed by the majority of archaeologists working in early Islamic Mawarannahr.

93. *BGA* 3: 280.

94. Nakshahi, *History of Bukhara*, Frye trans., pp. 34-35; detailed discussion in Davidovich, *Discussionnye*, p. 109.

Lower Layers of Bukhara: Characteristics of the Earliest Settlements

Bukhara, located in the delta of the Zaravshan River, is one of the oldest cities of Central Asia. Its uniqueness lies in the fact that for more than two thousand years the city has been located on the same spot. Bukhara was the capital of the Buhar-Hudats (6th – 8th centuries), the Samanids (9th – 10th centuries), the Sheybanid dynasty (16th century), the Ashtarhanids (17th – 18th centuries), and the Mangits (18th to the early 20th centuries). Over many centuries Bukhara was a large commercial, manufacturing, cultural and administrative center of Maverannahr. International caravan routes connecting the countries of the Far and Near East with Southeast Asia passed through Bukhara.

The archeological layers of ancient Bukhara underneath the present-day city are complicated and non-uniform. It is extremely difficult to conduct large-scale archeological research in a living city; scientists most often have to rely on excavating limited areas. Well-known difficulties also arise when mapping the territory of a city during the early periods of its long existence, since subsequent construction tends to completely destroy the previous layout. One significant problem is the ground water which sometimes covers the archeological layers formed during the 10th century. All this makes it difficult to study the city and especially its early history.¹ Based on previously published, as well as new data, this paper analyzes the character and content of the earlier archeological layers of Bukhara. Dating of these layers is based on the development of ceramics production in Bukhara and geographic distinctions among early ceramics, as classified by researchers at the Institute of Archaeology.²

Modern Topography of Bukhara

Modern Bukhara clearly follows the old tri-partite structure of the city (citadel, shahrstan, and rabad). (Figure 1) The arch (citadel, fortress) dominates the city at 15-18 meters high, being lower only than the minor Kalian. It forms an irregular quadrangle, oriented with respect to the other countries of the world, with a cutout southeast angle and a pulled-out western part. The arch, including the walls, covers about 3 hectares.³

The shahrstan is situated about 60 km to the east of the arch,⁴ occupying an area of 28-30 hectares.⁵ Its relative height to its surroundings is about 2

to 5 meters. Visually, the northwestern corner flanked by a powerful tower is prominent, as is a part of the northern wall. The shahristan is divided into four unequal parts by main roads running from north to south and from west to east. Its surface is uneven, with a change in elevation apparent in the northwestern and southeastern quarters. The surface of the northeastern quarter is significantly "snivelirovan" at present.

The market and crafts production area of the city, the rabad, has developed to the south and to the east of the shahristan, and is concentrated near a major artery, the Shahrud. The Shahrud traverses the southern part of the rabad from east to west. There is an appreciable lowering of the surface along the course of the Shahrud.

To the north of the late medieval walls of Bukhara is the necropolis Haareti Imam, with the tomb of Hodji Imam Abu-Hafsa in the center, who died in 217/832.⁶ The necropolis is situated on two levels. The first stretches 260 meters in length from west to east and is 6-8 meters in height. The second is perpendicular to the first and is 380 meters long and 6 meters high.

The Citadel (Ark)

I.⁷ The grounds of the arch have been explored using stratigraphic excavation techniques (Figure 1.1).^{8,9} The trench was located 50 meters from the northern end of the arch and 75 meters from the eastern end, to a depth of 21 meters. In the lower portion of the dig was a layer about 2 meters thick (layers XLII-XXXVIII). Its bottom part was composed of pure clay with a burned layer, including fragments of burnt wood. The upper part was a cultural layer with heavy concentrations of burnt buildings, animal bones and ceramics. A strong wall, 3.5 meters high, made of mud mixed with reeds was situated above (layers XXXVII-XXXII). A collection of ceramics (goblets, "fish plates," etc.), characteristic of the first period of Bukhara (4-2 BC), was recovered from the cultural layer underneath the wall. Another wall, about 3 meters in height, made from mud and reeds and by expanded masonry from damp bricks was found on top of the original wall. It was dated by the presence of ceramic material from the 3rd and 4th century.

The researchers have concluded that the arch was built on a natural plateau covered by forest in 4-3 BC. Its walls became the defensive walls of the citadel. The area of the arch in that period covers 1-2 hectares.

II. The author of this article examined a slice of the western wall of the fortress in the course of the restoration project (Figures 1-2, 4).¹⁰ The cut is oriented from north to south. It's 21-25 meters long, 6-8 meters wide, with a depth of 18 meters. Four main building periods of the arch are apparent in this cross-section.

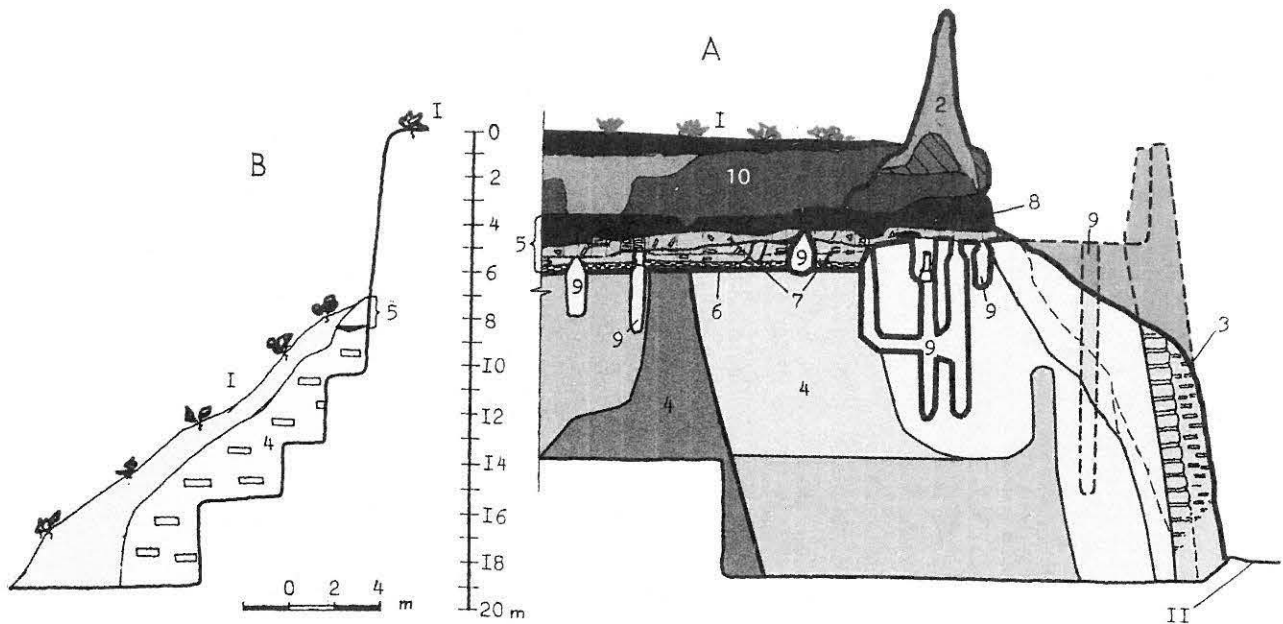
The earliest wall of the fortress is 16-18 meters from the modern one. It is composed of several layers of mud and reed mixture and mud and reed blocks (the height of the blocks is 0.9-1 meter). The outer edge of the wall descends abruptly, while the inner edge creates a small landslide platform,

about 3 meters in width. The wall cannot be further traced to its foot. It is as wide as 7.5 meters and in other places as narrow as 2.8 meters. Its preserved height is 9 meters (layers XXXVI-XIX). Two meters above the platform the wall was built by damp layering. The additional build-up of the wall remains intact to a height of 3.5 meters with a thickness of 2.7-1.6 meters (layers XVIII-XI).

Several horizontal layers, floors of rooms, were attached from the city side. Three layers of the floor belong to the bottom mud and reed part of the wall, the top floor to the damp layering part. From the outside, three cultural layers, one above the other, were attached to the main wall. Above these there were also two shallow cultural levels, next to the damp layering section of the wall. All layers were divided by clean soil, revealing no historical objects. Their contents are uniform. Upon dissection, the layers turn out to be ribbon-like layers of ash mixed with chalk and gumusnie, saturated with animal bones and fragments of everyday ceramics.

The findings in the bottom three levels are of particular interest. The collection of ceramics discovered in the lower level (layers XXXIII-XXXII), is composed of kitchen utensils. The reservoirs of goblets and glasses are cylindrical or cylindrical-conic; their pedestals have small incisions, and are insignificantly profiled. The vessels are covered on the outside by red angob, either a solid polish or in stripes. Fragments of broken glasses and goblets are characteristics of ellinized ceramics. They are dense, with small pores; either of yellow or brick red color (Figure 5.1-15.6). The bowls have two types of crowns (Figure 6.23-24). One has a beak-like edge from gray clay, polished on the inside; the other is covered by light angob. Vessels used for home, like jugs, pots and humchi, were usually covered by light angob as well.

The middle level (layers XXXI-XXIX) is separated from the lower one by a clean layer of clay. Ceramics, with the exception of a few boilers' fragments, were prepared on a pottery range. The most striking are the goblets and glasses (Figure 7.1-17.8). The vessels were covered by either bright orange or dark red angob, on top of which the polish was placed. Three styles of polish were used: vertical stripes, horizontal stripes, and solid. Certain goblets have two types of polish: vertical stripes at the bottom and horizontal ones at the top. Their fragments display small pores and are made partly with fine sand, red or brick-like, and are irregularly burnt. The fragments of bowls, brick in color, are dense (Figure 7.18-19.23). The jugs appear in two forms. The first is the medium-size jugs with round or oval handles attached to the crown at the top and to the reservoir at the bottom (Figure 6.21-24). The second type is exemplified by bigger jugs, whose crowns are fairly thick (Figure 7.25-28). The vessels of this form are covered by light, rarely by red, angob. Their fragments are dense and dark red. Some pieces are poorly baked. The material of vessels for kitchen/home use contains sand, plaster, dresva and shamot. In addition to ceramics, some metallic krites were discovered on that level.



Southern cut

- through the Ark wall
- 1 - Contemporary level
 - 2 - Wall of the XV - XX c A.D.
 - 3 - Wall of the IX - X c A.D.
 - 4 - Wall of the IV c. B.C. - VIII c. A.D.
 - 5 - Ground level of the IX - XIII c A.D.
 - 6 - Ground level of pressed ground
 - 7 - Ground level of the IX - X c. A.D. Ark
 - 8 - A level of the XI - XII c. A.D. Ark
 - 9 - Trash wells
 - 10 - A level of ceramic
 - 11 - Contemporary level outside of the Ark

The ceramics from the upper level (layers XXVIII-XXIV) were made by machinery, with the exception of boilers and braziers. Bell shaped goblets have tall, sometimes asymmetrical pedestals, and elongated narrow reservoirs (Figure 9.1-12.10). On the outside, the vessels are covered by light or red angob, on top of which is the vertical striped polish. Some of the goblets are of gray clay with black polish. Their fragments are dense, often irregularly burned. The jugs with one handle are often fairly large. Their fragments are dark red and covered by light angob (Figure 9, 16-20). Pots have a thickened crown, short neck and enlarged reservoir (Figure 9.26-27, 30). Braziers, large flat vessels with short outstretched walls and somewhat convex bottoms were perfected on the pottery range (Figure 9.32-34). In the collection of ceramics of this level, there were some fragments of vessels, ornamented in one case by red angob, in the other by trorenoi mica (Figure 9.23, 35).

It is possible to trace transformations in form and technology in a small ceramics collection from the cultured layers, adjacent to the built-up damp layering section of the wall (layers XXI-XVIII). (Figure 11) The goblets lack red angob and polish. The fragments of vessels are more friable, in the material of certain kitchen utensils, a mix of caste was discovered.

The ceramics from the three lower cultural layers, adjacent to the foot of the main wall of the arch are analogous to those in the cities and settlements of the Bukhara oasis,¹¹ in Kitab, the Afrassiab complex in Afrassiab III-IV,¹³ and others. Relying on a chronological chart of ceramics in Bukhara, it is possible to date the discovered samples to the period of Bukhara I-III, that is, 3rd century BC to 1st - 2nd century AD.¹⁴

Due to the scarcity of unearthed objects, it is difficult to date ceramics from the layers adjacent to the damp layering part of the wall. Conditionally, the

ceramics can be dated to the period of Bukhara IV-V, toward the end of the 2nd - 3rd centuries. Therefore, the construction of the earliest wall of the Bukhara fortress, composed of a mixture of mud and reed and blocks made from it, can be dated to the end of the 4th - 3rd century BC. Assuming that the walls of the fortress were assembled by analogous methods from other sides as well then the initial area of the arch was about 2-2.5 hectares. It should be noted that the dig near the foot of the fortress contained cultural layers, up to 1.5 meters thick, which were covered by subterranean waters. They contain abundant ceramics collections, similar to those described above.

The Shahrستان

III. Fragments of ceramics covered with red angob and polish were found in the area of the northwestern corner tower of the shahrستان, which contains a late medieval prison.¹⁶

IV. At the western edge of the shahrستان, not far from the prison, there is an archeological hole about 15 meters deep.¹⁷ The hole extends to a dense layer of swampy greenish soil. Above this, in the cultural layer, ceramics dated by researchers to the middle of the first millennium before our era were discovered. Above, in successive layers, were ceramics from the 3rd - 2nd century BC, 2nd / 1st century BC - 1st century AD, and 2nd - 4th century AD. The remains of buildings constructed from damp bricks were located above and were accompanied by ceramics from the 5th to 8th centuries. V. Some singular pieces of antique ceramics were discovered in the architectural-archeological digs on the grounds of the Kalian mosque and Kalian minors.¹⁸

VI. An archeological excavation was undertaken in the central part of the shahrستان, between Tim Abdullakhan, madrese Abdullaaz-khan and the trade dome Tak-i-Zargoron.¹⁹ Excavation went 18 meters deep and reached the dense layer of swampy greenish soil. A collection of ceramics was assembled from the cultural layer above this earth layer, dated to the middle of the first millennium BC.

VII. In the stratigraphic dig to the north of the madrese Mir-i-Arab, under the early medieval wall of shahrستان, five distinct cultural layers were discovered, the earliest dating to the 2nd century BC.²⁰ According to Mukhamedzhanov and others, the depth of cultural layers here exceeds 17 meters. Above the bottom earth layer, composed of separate strata of river sand, a layer of silt 40-70 cm thick was found. It was saturated with animal bones and ceramics. Its thickness increases to the south, toward madrese Mir-i-Arab, where it is 7.5 meters thick. According to researchers, the silt layer and the structure of the underlying earth testifies to the fact that one of the delta streams of the Zaravshan River passed through there in antiquity. "Its expiring river bed was subsequently covered by dense thickets, which in time were transformed into silt layers."²¹

A cross section was cut near the inner facade of the early medieval wall of

the shahristan, which was discovered in a stratigraphic dig.²² A lower layer uncovered there consists of swampy soil, 1.7 meters thick, which included ceramic fragments from before the 3rd - 2nd century AD. (layers XXXV-XXXII). Above, it is covered by a layer of soil with sandy strata (layer XXXI). Above that is the cultural layer covered by silt with multiple sandy strata. The total thickness of this level is 2 meters (layers XXX-XXVII).

VIII. The dig in the Sarai kazi Kalian quarter, to the northwest from the trade dome Tak-i Telpak Furushon, extended to a depth of 18 meters. In layers VI-XVII, the dig cut through an early medieval wall of the shahristan made from a mud and reed mixture with rare inclusions of damp bricks.²³ Sixteen cultural layers were uncovered below it, containing ceramics, remnants of trade and architecture. The bottom earth stratum is made up of layers of mixture and river sand.²⁴ The earliest ceramic material found in this level is dated by researchers to before the 2nd century BC.²⁵ New data on the lower levels of Bukhara was obtained during the last ten years of archeological excavations under the direction of the author of this article.²⁶

IX. The archeological dig near the western facade of the Kalian mosque extended to a depth of 9.5 meters, to the level of subterranean water. A fragment of the western facade of the early medieval wall of the shahristan, 4.9 meters tall, was uncovered under the wall of the mosque. The bottom part of the wall is made of damp brick. The soil from this cultural layer served as the material for the wall. Inside it are pieces of coal, seeds of ganch, animal bones, and ceramic fragments. Ceramic material was found in a variety of shapes. Most characteristic are the fragments of glasses and goblets. Their fragments are dense, with small pores and are a brick red color. Inside, the vessels are covered by red angob without polish (Figure 12.1-4).

X. During the excavation along the northern facade of the Kalian mosque, the continuation of the western wall of the shahristan, oriented north, was revealed. The wall can be traced along the whole length, more than 100 meters, of the facade of the mosque. Ceramics were excavated from the wall material and, together with material from previous excavations, they were dated to the period of Bukhara III-IV, 1st century BC - 3rd century AD.²⁷

XI. A stratigraphic excavation on the road between the trade dome Tak-i Telpak Furushon and Tak-i Zargaron extended to a depth of 10 meters. In the lower level of the dig is a layer, 1.5 meters in thickness, composed of a multitude of strata of swampy, river deposits of clay and clean gray sand. Within these deposits, researchers uncovered fragments of ceramics with red polish, krita, and animal bones. Above this layer were the remains of buildings constructed from rectangular damp bricks.

XII. The excavation in the southeastern part of the shahristan, in the

courtyard of Chukur-madrese, went to a depth of 9.4 meters. An inner corner of the early medieval wall of the city, preserved to 5 meters in height, was discovered. The wall was made from rectangular damp bricks through expanded masonry. Cultural layers underneath the wall were mixed with layers of clean gray sand, up to 70 cm thick. Remains of the buildings were not found. Ceramics were gathered (Figure 13) from inside the early medieval wall and from lower cultural layers of the excavation, which were dated from the 1st century BC – 3rd century AD.²⁸

Early Settlement in Bukhara Outside the Shahrستان's Limits

XIII. In the archaeological excavations of the Magoki Attori mosque, situated 75-80 km to the south of the shahrستان, the thickness of the cultural layer was 13 meters. Fragments of red-polished ceramics, dated to the time of Kushanok, were found. At the bottom of the dig relatively thin cultural layers were mixed with layers of pure sand, 65-80 cm thick. Remains of buildings were not discovered in the bottom cultural layers.²⁹

XIV. On the grounds of the Haareti Imam complex, for memorial and cult functions, a stratigraphic excavation went to a depth of 8 meters, to the level of subterranean water. In the dig a monumental wall was found, which was preserved to a height of 6 meters and built at the bottom from damp bricks by expanded masonry. The lowest earth level uncovered by the series of excavations represents river and lake swamp deposits.^{31,32} Its relief is irregular, with high elevations and significant drops.

On the basis of the above stated facts, the following reconstruction of the initial character of the settlement of the city is proposed. In Bukhara's early period geographic factors were most significant in its development. Supposedly, periodically one of the branches of the Zarafshana River (possibly the future Shakhrud) created new channels during spring floods. As a consequence, man-made structures were washed away by streams carrying enormous amounts of silt and sand. Retreating, the river returned to its original course. Lakes remained in the flooded areas, which eventually turned into swamps. Human habitation returned to the higher ground of washed sandy clay, held together by plants, and new buildings were constructed.

On one of these plateaus the arch was built. At the end of the 4th – 3rd centuries BC it occupied only 22.5 hectares and was surrounded by the fortress wall built from a mud and reed mixture. On the grounds of the arch, there was a monumental building, the remains of which were discovered in the central area (I). The arch was at that period a small, well-fortified settlement of a town type. Wide surrounding areas were not behind the walls, and were characterized by sporadic settlement, which depended on the floods of the Zarafshana River. Later, with the creation of an irrigation system and the distinction of the shahrستان, the fortified settlement acquired the function of the fortress-arch.

The character of the first Bukhara settlement as discerned through archeo-

logical excavations of the lower levels of the city, is confirmed by historic legend, which in turn verifies its truth. There is a brilliant description of Bukhara's beginnings in a fragment from the work "Hazain al-ulum" by Abu-Kassana Nishapuri which is included in the "History of Bukhara" by Muhammad Narshaki: "The place where Bukhara is situated was a water basin, part of which was reeds, and the other part was occupied by trees and lawns. Certain places were such that no animal could traverse them. Due to the fact that in areas of Samarkand mountain snow melted, water formed a large river. The big river near Samarkand is called Massif. There was so much water in that river, that in its flow it eroded the soil, taking away a lot of clay, thus forming hollows. Due to large quantities of water and clay which reached Vitik and Farab and stayed there, the location where Bukhara now stands was slowly being filled by soil and flattened out: a large river, Sogda, was formed and a filled territory became Bukhara. People from all corners began to flock there, and the place started to flourish. People from Turkestan came here, as there were a lot of trees and sites for hunting here. They liked this area and settled here. At first, people assembled huts of branches, and then, when their ranks increased, they embarked upon constructing buildings."³³

NOTES

1. In the 1970-1980's, in Bukhara, a group from the Institute of Archaeology of Academy of Sciences of Uzbekistan SSR were conducting archaeological excavations. I. Ahrarov, then A.R. Mukhamedzhanov were in charge. In addition, archaeological excavations are conducted by employees of the Tashkent Institute of Restoration (Uzbektamirshunoslik) under the guidance of the author of this article. Archaeologists study architectural monuments before restoration. Special archaeological research of Bukhara is not covered by the institute's plans, but lately certain data has been gathered that allows more precise evaluations and adds to the scarce knowledge available about the early history of the city. In different years, archaeologists D. Chunihin, S. Inutin, A. Voskovski, and S. Nizinnkovski participated in the research.
2. Mukhamedzhanov, Mirzaahmedov, Adilov, 1982, pp. 81-97.
3. The calculation of the modern area of the arch was conducted by architect V. M. Filimonov based on topographical and aerial photography in 1930.
4. In the scientific literature the distance between the arch and the shahristan is cited to be 120 meters, when in fact, it is half as long.
5. The shahristan's area cited here is based on new data, previously unpublished.
6. Narshahi, 1897, p. 76.
7. In this article, numbers I - XIV signify the locations of archeological sites and excavations as noted on Figure 1.
8. Mukhamedzhanov, 1983, pp. 60-64.
9. Mukhamedzhanov, Adilov, 1987, p. 77.
10. Nkrassova, 1990, pp. 15-27.
11. Shishkin, 1863, pp. 117, 121, 138, 141.
12. Krashennnikov, 1977, pp. 158, 160.
13. Shishkina, 1968, pp. 71-73.

14. Mukhamedzhanov, Mizaahmedov, Adilov, 1982, pp. 83-89, drawings 1, 2.
15. Mukhamedzhanov, Mizaahmedov, Adilov, 1982, pp. 83-89, drawings 2, 3.
16. Fragments of ceramics from the corner tower of the shahristan were discovered by the author of this article during archeological excavations of the late medieval prison - zindan.
17. Arharov, Usmanova, 1978, pp. 98-106.
18. Architectural-archeological research was conducted in the 1950's by archeologist S. N. Urenev. Data about unique discoveries of antique ceramics is contained in his reports, located in the archives of the Main Bureau on the Preservation of Monuments of the Ministry of Cultural Affairs of the Uzbekistan Republic.
19. Arharov, Usmanova, 1978, pp. 98-196.
20. Mukhamedzhanov, Mirzaakhmedov, Adilov, 1982, p. 81.
21. Mukhamedzhanov, Mirzaakhmedov, Adilov, 1982, p. 99.
22. Turabekov, 1990, pp. 57-58.
23. Mukhamedzhanov, Mirzaakhmedov, Adilov, 1982, p. 99.
24. Adilov, 1987, p. 6.
25. Mukhamedzhanov, Mirzaakhmedov, Adilov, 1982, p. 83.
26. Archeological research was conducted as an assignment of the Main Bureau of the Preservation of Monuments of the Ministry of Cultural Affairs of the Uzbekistan Republic. Reports are kept in the archives of the bureau (archaeological sites IX-XII, XXIV).
27. Mukhamedzhanov, Mirzaakhmedov, Adilov, 1982, p. 87.
28. Mukhamedzhanov, Mirzaakhmedov, Adilov, 1982, p. 87.
29. Shisdkin, 1955, pp. 56-57.
31. Mukhamedzhanov, Mirzaakhmedov, Adilov, 1982, p. 98.
32. The above cited opinion about the forested nature of the hill on which the fortress was built is improbable. According to the geological-geographical idiosyncrasies of the Zaravshan River delta it is a flat valley with only an insignificant slope in the terrain. The upper layer is composed of alluvial deposits, covered by more recent remains, originating in the Zaravshan River. The geological-geographical situation in the Bukhara oasis is thoroughly examined by V. A. Shishkin, 1963, pp. 8-12.
33. The citation here is translated by Shishkin, 1963, p. 9.

Firouz Ashrafi

Between Conservation and Innovation: The Central Plan of Bukhara

The plan of Bukhara, despite frequent and destructive nomadic invasions, has not changed for nearly a millennium. Under the Samanid dynasty, the city had three parts: the citadel, the *shahristan*, and the *rabad* (suburbs). The *shahristan* was located near the citadel on an elevated site, making the provision of a water supply to it a difficult task. It has no water supply system to this day.

The Citadel

The plan of the Samanid citadel differed from other contemporary citadels. It had two gates - the Registan (or West) Gate and the Great Mosque (or East) Gate. According to Narshakhi, the latter was called Ruriyan. The Registan Gate was also called the "Hay Traders' Gate" (Alaf Furushai or Kakh Furushan.) A street ran between the West and East gates. Inside the citadel was yet another walled enclosure, which was the residence of the Samanid rulers. It is identified by Narshakhi as a temple (*kakh*), supposedly built in the seventh century A.D. by the Bukhar-khudat Bidun, who rebuilt and restored the citadel. The name of Bidun has long been preserved on a metal plate on the temple gate.

There is some historical evidence that the temple collapsed several times before its construction could be completed. Finally, following the advice of a wise old man, it was reinforced by seven stone columns (for the number of stars in the Great Bear constellation), after which its construction was completed with no further interruption. In 1139-40, the citadel was destroyed by the Khwarazmshah Atsiz; in 1141-42, it was reconstructed by the Kara Kitai king from the city of Ali Tegin. In 1143-44, it was again destroyed by the Ghuz tribes, and the building materials from its ruins used to construct the wall for the Bukhara *rabad* in 1165. In 1207-8, the Khwarazmshah Muhammad rebuilt it once again, and it survived until Genghiz Khan's invasion in 1220, when it was once again destroyed.

The *shahristan* in Bukhara differed from the ones in Samarqand, Balkh, and Merv. It had seven gates, probably dictated by the same religious dictates as those followed in the construction of the temple and the citadel. The gates of the *shahristan* are described by Istakhri and Narshakhi. Narshakhi lists them in the following order:

1. The Market or Bazaar Gate (an "iron" gate according to Istakhri), later called the Spice Traders' Gate
2. The Shahrستان Gate (Bab al-Madina according to Istakhri)
3. Bani Sa'd Gate
4. Bani Asad Gate
5. Citadel Gate
6. Haqqrah Gate
7. New Gate, which was built after all the others.

Except for the Citadel Gate, we cannot locate these gates exactly on the basis of Narshakhi's description alone. It is clear, however, that the Bazaar, Bani Sa'd, and Bani Asad gates were close to each other. The Citadel Gate was considered to be the strongest in the *shahrستان*. The fortified structure close to it was built by a Turkish ruler Subashi Tegin. The site was occupied mainly by the houses of the Arab population of Bukhara. In the tenth century, this quarter, called Fagsadare, was ravaged. The Haqqrah Gate was somehow connected to Abu Hafs Kabir Bukhari, who lived near it until his death in 832, according to Narshakhi.

The *rabad* wall was built in 849-50; it had eleven gates, as does the present city wall. They are as follows:

1. Maydan Gate leading to the Khurasan road
2. Ibrahim Gate, located to the east of the first gate
3. Riw Gate
4. Mardaqschan Gate
5. Kalabadh Gate
6. Nawbahar Gate
7. Samarqand Gate, which marks the beginning of the road to Samarqand and other parts of Maverannahr
8. Baghashkar Gate
9. Ramithna Gate
10. Jadasarun Gate, the beginning of the road to Khwarazm
11. Ghashaj Gate

The Mardaqschan and Kalabadh gates led to the road to Nesef (Karshi) and Balkh. Historic sources show that the Maydan Gate is the present Karakul gate; and the Ibrahim gate is now the gate of Shaykh Jalal. The other gates with their modern names are:

Riw gate - Namazghah
 Mardaqschan - Sallakhana
 Kalabadh - Karshi (Kavolya)
 Nawbahar - Mazar
 Samarqand- Samarqand
 Baghashkar (Fegaskun) - Imam
 Ramithna - Uglan
 Jaesarum - Talipakh
 Ghashaj - Shirgiran

Narshakhi mentions that at the time of the Arab invasions, the city consisted only of the shahrستان. But there is also some evidence in his writings that other sections were of significance even in pre-Islamic times,

although they might not then have been included within the boundaries of the city. The boundaries of the old city (presumably, before the Samanid epoch, and going back to Abu Muslim's reign) were marked by another wall, also having eleven gates. The names of those gates are as follows:

1. Bab al-Hadid (Iron gate)
2. Bab Qantarat Hassan
- 3 - 4. Gates at the Mah mosque
5. Bab Rukhna
6. Gate at the palace of Abu Hisham al-Kinani
7. Gate at the Suwayqa
8. Bab Farjak
9. Bab Darwazja
10. Bab Sikkat Mughan (Gate at Magicians Street)
11. Samarqand (inner) Gate

The Water System of the City

According to Narshakhi, the principal city canal was called the Rud-i-Zarrin (meaning "gold" or "golden river"). According to Muqaddasi, "The river entered the city from Kalabad; dams, wide sluices, and locks were installed there. In summer, during the flood, one after another the locks were opened, and as the water level rose higher, the main stream of water flowed into the sluice and thence to Paikant. The water would have flooded the city without that ingenious structure. This place was called Fashun. Other sluices, similarly arranged, were located outside the city and called Ras al-Varag (head of the Lock).

The river flows through the city, runs through the bazaars and then divides into channels along the streets. There are large, open *hauz* (reservoirs) with wooden buildings along the edges, used for ablution rites. Sometimes, the water running to Paikant overflows and the ground is covered by water. The year that I visited Bukhara, the water overflowed and flooded a considerable area, damaging fields and property."

From this description, V. V. Bartold concluded that "the *arık* (canal) was in the city near the present Karshi gate, approximately at the same place as it is now. Presumably, a bridge was built over the *arık*, referred to by the name 'Hassan's bridge' in the eastern part of the city."

The location of the bridge gate at the small bazaar (Suwayqa) supports the assumption that the canal flowed out of the city at the Shahrستان Gate. Istakhri counts many small city canals branching from a larger one, the Rud-i Zarrin, and flowing through the city.

1. The Fashidize canal, beginning at a place called Varag (since the canal flowed toward the city from the east, this place corresponds to Fashun, not to Muqaddasi's Ras al-Varag), passed through the Mardakshan Gate (the present Sallakhana) by the place called Jubar (meaning "stream"). The Ibrahim canal ran to the gate of the "glorious Shaykh Abu'l Fazl" and into the Naukande canal. There were about two thousand castles, orchards,

and estates along the sides of this canal along a total length about half of a farsakh. Shaykh Abu'l Fazl was the well-known Samanid vizier of Abu'l Fazl Muhammad b. Abdullah Balamī, who died in 940. The gate named after him is probably the Ibrahim Gate, which at present, is called Shaykh Jalal. There is a madrasa and cemetery named Juybar near his grave.

2. The Juybar Bekar (literally, "useful stream") canal ran from the center of the city near the Ahyad mosque and drained into the Naukande canal. There were about a thousand orchards and castles along its banks.

3. The Juybar al-Kavaririn (glaziers' stream) canal began from the river in the city at the square of the Army Treasurer's Mosque, and supplied the *rabad*. That canal had a higher level of water than the previous one and irrigated a great number of gardens.

4. The Ju-Gushej or Juybar al-Ariz canal also flowed out of the city at the square of the Army Treasurer's Mosque, supplied a part of the *rabad*, and drained into the Naukande canal. The former name of this canal proves that it flowed in the western part of the city, where the Army Treasurer's Mosque may have been located.

5. The Paikant canal flowed out of the square at the beginning of what was "Guide Street" (Khuta), supplied water to part of the *rabad*, and then drained into the Naukande canal. It would seem obvious that this canal was named after the city of Paikant (if the pronunciation of the name was correctly established by de Gue), but in fact they probably had no connection.

6. The Naukande canal ran from the river at the Khamdu house and served as a collector for other canals; it supplied water to part of the *rabad* and finally ended in the steppe, but did not provide water for plots of land. The name of the canal (meaning "newly dug") allows us to assume that the Naukande canal had been dug later than the others, probably to provide additional water. It ran in the western and mainly southwestern part of the city.

7. The Takbun (mill) canal began at Naukher square, which used the water of the canal. A great number of mills were built along its banks. The water flowed to Paikant and supplied its inhabitants. Most likely, the locks described by Muqaddasi were located at the Mazar gate.

8. The Kushna canal ran out from the city, also at the place called Naukher, which also used the water from this canal. A great number of mansions, gardens, and plots were located along its edges. It ran through Kushna and reached Murga, a village a short distance from Neseif (Karshi).

9. The Rabakh canal (the name means "profit") flowed out from the river at Registan, then reached Rabakh castle. Nearly a thousand gardens and castles were located along this canal.

10. The Registan canal began at Registan. Its water was used to irrigate the Registan, citadel, and palace. The canal flowed up to the Jaladize castle.

11. A canal, whose name is not mentioned, began at the Khamdun bridge (probably at the same place where the Naukande canal began), ran underground up to the various *hauz* located near Bani Asad (i.e., at the southwest part of the *shahristan*). The excess water ran into the citadel

moat.

12. The Zugarkande canal emerged at Varag Square (probably Muqaddasi's Ras al-Varag), ran through the Derva Gate and bazaar, then to the Sepid Masha square. Its stream was a *farsakh* long. A great number of castles, gardens, and plots were located there. The canal ran through the northwest part of the city.

One of the best ways to find information about the medieval quarters, streets, and buildings of the city is to start looking for evidence on the *shahristan*, described by Narshakhi. Kutaiba distributed a part of the land in the *shahristan* among the Arabs and the space from the Bazaar Gate to the New Gate to the Mudar and Rabia tribes. The rest of the land he gave to the Jemen tribe.

Entering the city through the Bazaar Gate, to the left would be the Kui-i Rindan (street of profligates). A Christian church was behind it; it was later converted to a mosque for the Banu Mazal tribe. If you entered the city at the Shahristan Gate, to the right would be the Street of the Counselor Ziyub b. Khassan, also called Castle Street (Kui-i Kakh). Ziyub b. Khassan, a contemporary of Kutaiba, was the first Arab amir from Bukhara. The street and castle belonged to one Khin, a villager who later assumed the Muslim name of Ahmed. The "wooden grocery counters" *chuba bakkalyan*) and the bazaar of pistachio sellers were located along the *shahristan's* walls. The palace of Khasan b. Ala was located at the Bani Sa'd Gate of the *shahristan*. Even kings did not possess such a palace. The monthly income from his lands alone was 1,200 dinars.

The palace of the ruler of Khurasan was located at the entrance to the Bani Asad Gate. Near the Haqqrah Gate, at the northwest corner of the *shahristan*, the monastery of Imam Abu Khafs, which was a sanctuary, survived. A great number of mosques and monasteries were located nearby. Not far from the square, to the right of the entrance to the New Gate, was located the Koreishit mosque. It was built by Koreishit Muhatil b. Suleiman, the patron of the well-known Nabatei Khayan, a compatriot of Kutaiba.

The hill mentioned earlier was considered to be Afrasiab's grave and dated back to the pre-Islamic history of the Samanids. The grave of Siyavush, who was killed by Afrasiab, was located by the east gate of the citadel. Here, before dawn, the fire worshipers according to custom, sacrificed a rooster at Nauruz (New Year). Songs, known by the name of "magicians lament," were sung in honor of Siavush. The king's palaces, except for the well-known palace in the citadel, were also located in the Registan during the pre-Islamic period.

During this period, great importance was attached to a site in the southeastern part of the city, now called the Gate of the Makh mosque. The Makhruz bazaar was located there, and twice a year fairs for selling idols (probably of Buddhist origin) were organized. This heathen custom continued during Samanid rule. The demand for idols was quite high, and could fetch prices of up to 50,000 dirhams. The founder of the custom was the legendary King Makh, who according to tradition held the fair in the

shade of a grove of trees. The king sat on his throne encouraging his people to buy idols on the very spot where the mosque was built.

A temple for fire worshipers was built at the site where people gathered for worship on the days when the fair was held. The great mosque replaced it in the Muslim period. The Samanids knew another variation of this legend, which spoke of Makh as a fire worshiper, who then accepted Islam and converted his palace into a mosque. Under Samanid rule, a bazaar was built in the Makh Mosque Gate quarter.

Finally, in the eighth century, after Kutaiba had occupied the city, one more place gained great importance, where the wealthy foreign merchants called Kesh Kushan, resided. Tomashek considers them to be the descendants of the Kushans or Ephtalites. They let the Arabs occupy their houses in the *shahristan* and had new palaces built for themselves at another site. There they laid out gardens and housed their servants. Thus, in a short while, the new city outstripped the older one in its population. The palace was called the Palace of Magicians (Keshk-i-Mugan). Temples of the fire worshipers earlier occupied the site. During Samanid rule, only two or three palaces survived. In the twelfth century, only one door with the image of an idol remained.

The exact location of Keshk-i Mugan has not been determined; the gate of Magician's Street was located across from the present Imam Gate. Keshk-i Mugan was most likely located in the northwest part of the city. Narshahi also mentions a "Street of Magicians," saying that the Kharkan Bazaar was located between that street and "street of Dekhkan."

The first mosque was built by Kutaiba in 713 in the citadel, at the site of the former fire worshipers' temple (or perhaps that of the Buddhists). For prayers on the two principal holidays, there was another place in the northern part of the Registan, near the gate. The new congregational mosque, located between the citadel and *shahristan*, was built by Fazl b. Yahya Bannaki (794-95). In 902, the building was reconstructed and considerably enlarged by Ismail the Samanid, who bought neighboring houses for the purpose. The mosque collapsed twice early in the rule of Nasr (914-43), the first time during the Friday prayer, causing the deaths of a great number of people. The ruler ordered the building reconstructed, and the minaret was built in 918 under the patronage of Counselor Abu Abdullah Jaikhani. This mosque is mentioned by geographers. According to Muqaddasi, the mosque had a number of courts, which were remarkably clean. The main manufacturing area of the city was located near the mosque.

Another building was constructed in 951-52 by Amir Huh b. Nasr at the "palace of the Khurasan amir," probably in the southwest section of the *shahristan*. The only thing we know about this building is that it existed in the twelfth century. Narshahi's description of this building mentions only a single surviving door with the image of an idol and the passage from the gate to the palace of the Khurasan shaykh.

In 971, Amir Mansur ordered the foundation of a new site for holiday worship at a distance of half a farsakh from the Citadel Gate on the road to

the village of Samtin. The location of this village is unknown, but it is possible that the new prayer site was near the old one.

The Samanid Great Mosque was burned down in 1068 during a battle over the throne between the sons of Tashgach Khan Ibrahim. A fusillade from the citadel ignited the wooden roof of the minaret, and it fell, destroying the mosque itself. The following year, the mosque was restored with the top of the minaret built of baked bricks. In addition, not far from the citadel, a new mosque was built whose *maqsura*, *minbar* and *mihrab* were carved in Samarkand.

Arslan Khan Muhammad ordered a new mosque built in the *shahristan*. It was a magnificent building; completed in 1121, it stood, most likely, until the invasion of Genghiz Khan. The minaret, erected in 521 A.H. is still standing. It is presumed that it was left undisturbed until the army revolt in September 1920, when it was damaged by the fire of the besieged army. In 1119, Arslan Khan found a new prayer site at the Ibrahim Gate; it remains there today. In the eleventh century the palace of Shams al-Mulk, with its gardens, pastures, and menagerie, was located there. It was considered a restricted area (*guruk* instead of *kuruk*), and bore the name Shamsabad, after the name of its builder. The Shamsabad palace was also used by Khizr, the successor of Shams al-Mulk, but later fell into disrepair and was totally ruined in 1089 during the invasion of the Seljuq sultan Malikshah. In Bukhara, the Syrian mosque or Masjid-i Shams is mentioned by the Samanids and Yakut.

A considerable number of palaces were built in Bukhara in the course of its history. Amir Ismail built a palace for himself at the site of Ju-i-Muliyān, not far from the citadel and Registan, which was reputed to be the best palace in Bukhara. The entire area from the Registan Gate to the marshy field of Deshtak near the citadel was covered with palaces, guest houses, gardens and pools.

The name of Ju-i-Muliyān was supposedly given to one of the canals, which began near the Registan, and could be either the Registan canal or Rabakh. Evidently, there was another one described by Istakhri, as having a thousand gardens and palaces; today there is a village named Ju-i-Muliyān 2 kilometers from Bukhara. According to Narshakhi, this name was changed from Ju-i-Mavaliyan (which means "clients' canal") because Ismail had built housing for his army, and his wish was to share part of his income with them. Years ago, the lands were the property of the Bukhar-khudat. Ismail bought Ju-i-Muliyān and Deshtak from Hasan b. Muhammed b. Talib and the income from Deshtak was given as *waqf* to the Great Mosque. The Ju-i-Muliyān palace was maintained until the end of the Samanid dynasty.

Another palace built by Nasr in the Registan existed until 961 and the offices of the administration were located nearby. During the reign of Abd al-Malik (961), the counselor Abu Jafar Utbi (until 959) had built a splendid mosque there. The palace was robbed and torched by rebels during an uprising after Abd al-Malik's death. Amir Mansur ordered the restoration of the palace, but within one year, there was another fire, this time caused

by the heathen tradition of lighting bonfires on holidays. The building was totally destroyed, and the amir's property was moved to Ju-i-Muliyān. Subsequently, the Registan fell into decay.

From the Karakhanid period, one further palace, in addition to the Shamsabad, that of Ahmad Khan (d. 1095) was built in Juybar near the Ibrahim gate. Arslan Khan ordered the palace moved to the citadel. A few years later, he built a new palace in the Dervazj quarter in the northwestern part of the city, on Bu Leisa street. Two bathhouses were also built there. Later, Arslan Khan converted the palace into a madrasa, and built a new palace for himself at the Sadabad Gate in the southwest part of the *shahristan*.

In addition to the quarters and streets already mentioned, Samani lists the following: Jedid street, Skamyā street (across Haqqa), the Riw quarter and Farzih palace at the Maydan Gate (the present Karakul Gate). In his description of the fire of 937, Narshakhi also mentions Bekar street (probably located near the canal of same name) in the western part of the city between the Samarqand and Farjek gates.

The streets in Bukhara were remarkably wide and paved in stone from the Varka mountains, near the village of the same name. The mountain chain extends from the east and divides the Samarqand region from Kesh; Samani located Varka at a distance of 2 *farsakhs* from Bukhara along the road to Nesef (Karshi). Despite the wide streets, the population was dense and the city was even at that time overcrowded.

Bukhara and Its Hinterland: The Oasis of Bukhara in the Sixteenth Century in the Light of the Juybari Codex

The general conditions determining political and economic life in the city of Bukhara dramatically changed during the course of the sixteenth century, particularly in its second half.¹ For centuries, the noble city had remained a provincial center in the shadow of its famous sister, Samarqand. For the first time since the end of Samanid rule, Bukhara began to prepare itself for its future function as a capital. This was most markedly reflected in building activity,² but it also found expression in the remarkable increase in documentary sources that have come down to us. For Samarqand, we have substantial documentation at our disposal in the form of archival sources dating back to the fifteenth century. In Bukhara, it was not until the sixteenth century, when large endowments in the city became common, that economic life was to become more thoroughly documented.

The archives and libraries in Uzbekistan as well as in other republics of the Commonwealth of Independent States (CIS) have a comparatively large amount of unpublished source material. However, for the time being, in the case of Bukhara we must be content with a huge collection of documents, or rather copies of documents, mainly comprising contracts of purchase, recording the economic activities of the *khwājahs* of Juybar, the most influential *khwājah* family in Bukhara during the sixteenth and seventeenth centuries.³ The Persian text (referred to hereafter as the Juybari documents) was first edited in 1938, and a Russian translation, with an extensive introduction, was published in 1954 by P. P. Ivanov.⁴ Since then, this work, covering the period between 1541 and 1577, has attracted a great deal of attention, although Ivanov's work remains the only systematic study of it.⁵

What follows is a brief outline, with the subject dealt with from a slightly different point of view. At this stage, I will not undertake to tell the story of the enormous economic and social success of a single Bukharan *khwājah* family, as it is reflected in the Juybari codex. I prefer to use the codex as a source for the study of spatial organization in the oasis of Bukhara and the relations between the capital and its hinterland in the sixteenth century. For this purpose, I will try to sketch the distribution of the Juybari possessions in the lower Zarafshan as a basis for an agrarian geography of

Map 1: 16th-17th centuries

Juybari Codex (1541-1577):

- 9 Akhūrbadīn
- 29 ʿArabān
- 2 Ashpamān
- 27 Astāfagana
- 21 Biyān Tughān wa-Khwāyasta Chahārbakr see Sumītan
- 1 Chaqmāq
- 16 Dih Amān
- Dihcha-yi Saiyid Ajall see Qaṣr-i L.R.T.
- 5 Fāra Kand
- 3 Fāshūn
- 9a Ghabūn
- 7 Haud-i ʿArūsān
- 20 Jūybār
- 17 Jūy-i Zar / Wārgashta
- 16a Juzmandūn
- 34 Kabūtarkhāna
- 8 Kāgan
- 12 Kārik (including Asbāb-i Ḍarrāb)
- 33 Kizhdumak
- 32 Kūdri
- 28 Kūshk
- 31 Mazākhan
- 25 Mughiyān
- 22 Mughiyāncha
- 30 Qaṣr-i ʿAbkīna
- 15 Qaṣr-i L.R.T./H.I.R.T. (including Dihcha-yi Saiyid Ajall)
- 19 Qishlāq-i Urūs
- 26 Rāmi
- 11 Rukhshābād
- 4 Safidmūn
- 18 Samānjūq
- 23 Sayyida Khātūn
- 10 Sukhāri
- 14 Sumītan / Chahārbakr
- 13 Tall-i Pāch
- 24 Yamghūr
- Wāgashta see Jūy-i Zar

Tārāb (complete *tuman*)

Waqfiyāna Ghāziyān (1535)

- A1-3 Qishlāq-i Husām ad-Dīn
- Shargh
- Asbād-i Urūs
- A4 Arqūd Faghana

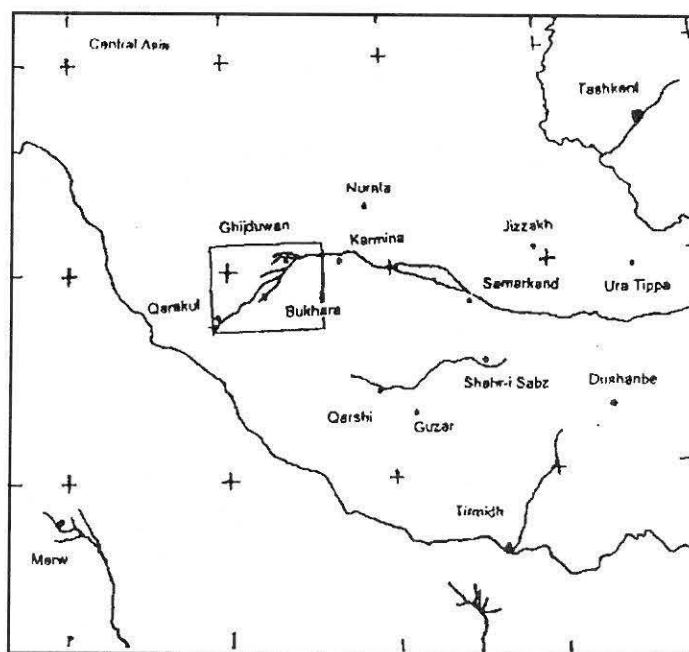
RSA 112 (after 1645)

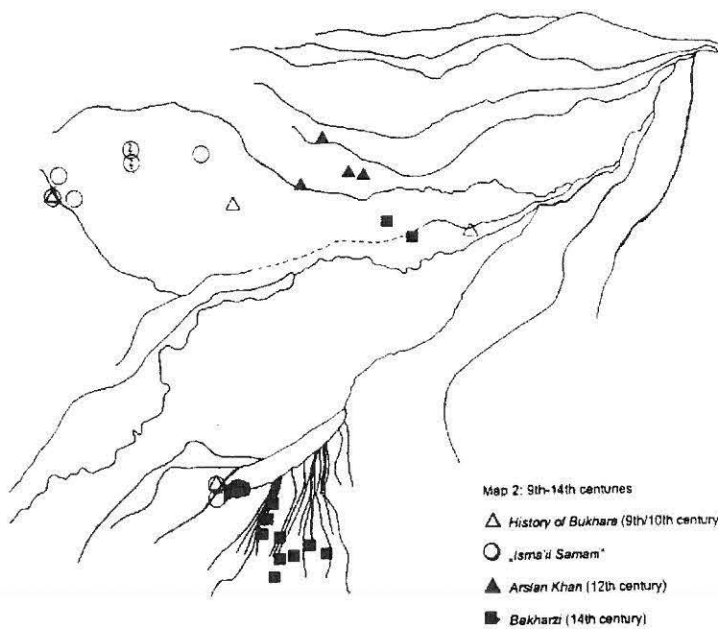
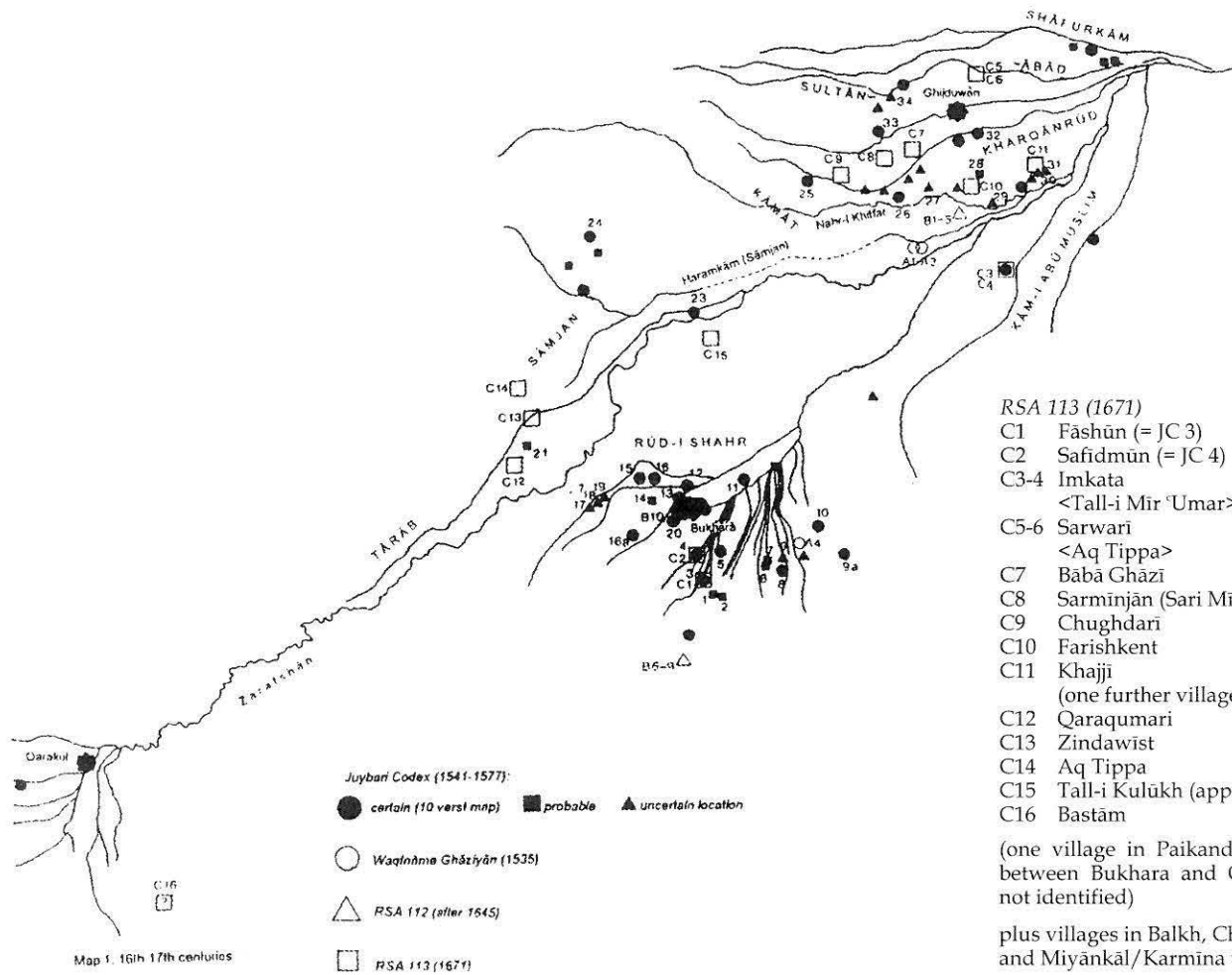
- B1-B5 Khamda
- Sar-i Asyā,
- Bek Ashyān,
- Bāgh-i Turkān,
- Hazār Tut
- B6-B9 Kul-i Chukatī
- Kilta Qir
- Chāh Tippa
- Qūm-i Sūtān
- a.o.
- B10 Jūybār

Bukhara's hinterland.⁶ The central problem with such an approach to the Juybari work is that by confining oneself to this source, one will be unable to acquire a feel for the dynamics of these relations. Despite the fact that these documents cover a period of three and a half decades, they represent no more than a snapshot, but it is at least a snapshot of an interesting period.

The Juybari codex spotlights the economic situation in the oasis of Bukhara after half a century of Shaybanid-Uzbek rule in Transoxiana. It is an important source for the study of the complex processes of sedentarization and land control after what has been called the last migration of nomad conquerors in Central Asia.⁷

An important aspect of the Juybari documents seems to me to be the suggestive chronological connection between the expansion of the Juybari *khwājahs'* purchasing activities and the conquest of Bukhara by the Janibegid sultan, ʿAbdallah ibn Iskandar ibn Janibeg, in mid 1557. It might well be a causal connection. Until 1557, the Juybari *khwājahs'* land purchases were concentrated on a rather restricted area immediately west of the city of Bukhara, namely, the old family properties and endowments in Sumītan and Jūybār. After 1557, they focused almost exclusively on the intensively irrigated garden district to the south and east of the city, the more distant areas of the oasis and even other provinces of Central Asia. The impression of a strong connection between the activities of the Juybari *khwājahs* and the political success of the Janibegid prince is confirmed by the early purchases of villages outside the oasis proper in the province of Karmīna.⁸ These purchases were made as early as the 1540s, which at first sight seems to contradict our assumption. But at that time, Karmina was the main residence of the Transoxianan Janibegids.





The documentation of Juybari activities begins with a contract of purchase in Karmīna dated 947 (1540). This was the period in which Khwajah Muhammad Islam Juybari prepared to succeed his teacher Aḥmad-i Kāsānī, better known as Makhdūm-i Alam (d. probably 1542-43), spiritual guide of the Janibegids in Karmīna and Miyānkāl with strong ties to Bukhara. The last purchases and the transformation into *waqf* of some of the properties in the province of Karmīna dates to the middle of 958 (1551), the time when the Janibegid appanage lords were temporarily driven out of Karmīna and Miyānkāl by rivals.⁹

For the purposes of this brief survey, I have defined the hinterland of Bukhara as the two provinces (*wilāyat*) of Bukhara and Qarakul. Taken together, they formed the lower end of the irrigation system of the Zarafshan Valley. Bukhara was subdivided into several districts (*tūmān*) named after the main canals branching off from the Zarafshan. The following *tūmāns* figure in the Juybari documents: Rūd-i Shahr-i Bukhārā, Kāmāt (Wābkand), Sultānābād, Ghijduwān (Kharqānrūd), Shāfurkam, Sāmjan, Kām-i Abū Muslim, and Tārāb.

Qarakul has been included because it was closely dependent on Bukhara. Although it had the status of a province (*wilāyat*) in the sixteenth century, it is listed in the Juybari documents among the Bukharan *tūmāns* of Ghijduwān and Shāfurkām, while the more distant and separate *wilāyats* come only at the end of the codex. Finally, the Bukharan chronicler Hafiz-i Tanish claims that Qarakul belonged to Bukhara (“az mudāfāt-i balda-yi [Bukhārā]”).¹⁰

The Juybari documents yield considerable information on Bukhara’s commercial structures. The Juybari *khwājahs* purchased commercial properties in the oasis in three towns: in Bukhara, in Ghijduwān, and in Qarakul. All three towns were fortified. In Ghijduwān, the properties were located both inside and outside the fortifications (the ḥiṣār); in Qarakul they were all *intra muros*. The magnitude of the purchases differed considerably among the three towns. In Bukhara, the Juybari codex records the purchase of around 170 commercial structures in 76 separate transactions. Aside from two large caravanserais, the properties are mainly shops and artisans’ workshops.¹¹

By comparison, the purchases in Ghijduwān and Qarakul are rather modest. The Juybari *khwājahs* acquired fourteen structures in Ghijduwan (seven shops and one *tīmcha intra muros* and six shops *extra muros*) and nine shops and one small caravanserai in Qarakul.¹² The three towns also appear to differ markedly in the organization of their bazaars. In Bukhara we find, even prior to the development of the central bazaar zone by ‘Abdallah ibn Iskandar, several specialized bazaars.¹³ The properties of the Juybari were concentrated inside the old, roughly square walls (ḥiṣār-i qadīm) around the mosque of Khwajah Zain al-Din, outside the old ḥiṣār at the Registan and the *khiyābān*, in the area between the mosques of the butchers (*gāwkushān*) and Maghāk-i ‘Aṭṭār and along the street leading to Jūybār-i ‘Ariḍ.¹⁴ In Ghijduwan and Qarakul, on the other hand, there appears to have existed only one bazaar inside the ḥiṣār of each town.¹⁵

The central structure of the bazaar in Ghijduwan was a *chahārsū* whereas in Qarakul there is mention of a *sa-sū*¹⁶ that housed most of the shops purchased by the Juybari *khwājahs*. The impression that there was no clear spatial differentiation of trades in the bazaars of Ghijduwan and Qarakul is emphasized by a glance at the trades in this *sa-sū*. Shops for food (*āshpaz kalla paz*, *kabābpaz*) and baked goods, metalwork (*āhangar* and *mīsgar*), textile goods, spices, perfumes, and a barber coexisted side by side. Some (3 out of 7) of the shops in Ghijduwan were wooden structures; in Qarakul all of them were.¹⁷ A special feature of Ghijduwan seems to be the existence of large open areas inside the walls. Many of the buildings in Ghijduwan border on properties designated as *zamīn-i mamlaka*, *zamīn-i milk*, or simply *arāḍi* (lands), whereas in Qarakul, there is only one instance of an adjoining plot of arable land in the town. In addition, a considerable proportion of the land was fiscal property (*mamlaka-yi pādshāhī*), as is clear from the fact that most of the shops were purchased independently of the ground they stood on and that many of the neighboring properties are designated as *mamlaka-yi pādshāhī*.

The silence of both the Juybari documents and chronicles regarding the town of Wabkand is surprising. The construction of a large bath there at the end of the sixteenth century indicates that the town was of some importance.¹⁸ In the Juybari codex, however, there is only one reference to a "*Qishlaq-i Wabkani*,"¹⁹ apparently part of the land surrounding Wabkand, which bordered on properties of the Juybari; commercial structures and lands within the town of Wabkand do not figure in the codex.

Of the ancient towns in the heart of the oasis which had, even in pre-Mongol times, lost much of their importance, Shargh can be regarded as typical. Shargh is well documented in a *waqf* deed in support of the *Madrasa-i Ghāziyān* in Bukhara dating from 942 (1535).²⁰ Even as late as the Karakhanid period, Shargh, together with its twin town Iskijkat, had controlled the most important passage between the southern and northern halves of the oasis. It had a strong fortress and was an important market place.²¹ By 1535, Shargh had become a mere village. There is no indication of fortifications or any kind of commercial structures there. The mosque, Namazgah, and a pool (*haud*) are the only larger structures mentioned in the *waqf* deed.²²

All in all, it appears from the Juybari codex, that most of the towns that had thrived in the oasis of Bukhara during pre-Islamic and early Islamic times, had shrunk to villages after the Mongol conquest and ceded their role to Bukhara in the south and Ghijduwan in the north of the oasis. This rough picture of the fortified towns in the oasis of Bukhara in the sixteenth century and their relative importance corresponds well with the sparse information we have from other sources.²³

The mapping of the landed properties of the Juybari *khwājahs* on the basis of their documents indicates a clear spatial structure of the agrarian, irrigated lands beyond the town walls. This structure becomes even more suggestive when compared with older as well as other contemporary

endowments (see map). For the Samanid period, we have only unreliable information, primarily the skeletal information contained in Narshakhi's *History of Bukhara*²⁴ and the problematic so-called *waqf* of Ismā'īl Sāmānīd.²⁵ The first reliable documents date from the thirteenth and fourteenth century when the Zarafshan Valley was part of the core area of the Ulus Chaghatai. From this period dates a legal action through which we know an endowment of the Qarakhanid Arslan Khan Muhammad (1002-30), known for his efforts in the urban development of Bukhara. This is the earliest reliable document on a Bukharan *waqf* known to us in detail.²⁶ Also well documented is the famous Bakharzi *waqf* from the first half of the fourteenth century.²⁷

Comparison between the pre- and post-Mongol foundations shows distinctions in spatial extension and orientation. The properties of the Samanid endowments seem to have been located at a maximum distance of about 30-40 km from Bukhara and to have been in the western part of the oasis where the old fortified towns and residences of Warakhsha and Ramitan marked the beginning of the ancient steppe highway toward Khwarazm. Neither at the northeastern part of the oasis nor to the south of Bukhara - in Qarakul or, at that time, the not yet barren Paikand - can we trace endowment properties related to Bukhara in our rudimentary sources. These towns, as well as Karmina, Ghijduwan, and perhaps even Wardana in the very north, continued to control their individual areas of the oasis independently. The structures still seem small scale, as they do not comprise the whole of the oasis, let alone what lies beyond.

The purchase contracts and endowments of sixteenth and seventeenth century Bukhara show a completely different picture (see map 1).²⁸ Some foundations extend the entire length of the oasis and in some cases include properties in other oases of Central Asia, even in Khurasan. However, the core of the endowments are invariably to be found in the Bukhara oasis. Within the oasis itself, the orientation changed. The properties were concentrated along the city canal (Rūd-i Shahr-i Bukhārā) in the immediate environs of the city of Bukhara and along the road to Samarqand, to the northeast.

The Bakharzi *waqf* from the first half of the fourteenth century occupies a central position. It does not yet reach beyond the southern half of the oasis, but its spatial arrangement already resembles the later Juybari foundations. The *waqf* of the Ghaziyan *madrassa* from the first half of the sixteenth century is very similar to the Bakharzi *waqf*. To the extent that information on other endowments of the late sixteenth and seventeenth century is available,²⁹ it seems that they confirm an orientation as well as an extension similar to that of the Juybari possessions as documented in the codex. The northern *tūmāns* of Sultanabad, Ghijduwan, and Kam-i Abu Muslim became favored investment areas for Bukharan endowments.

A closer look at the spatial distribution of agrarian lands around Bukhara might well begin with the gardens which, as in most oriental towns, occupy the grounds immediately adjacent to the walls. Sixteenth century

Bukhara is no exception. According to the Juybari documents, to the east and south of the city a garden district extended approximately ten kilometers in either direction.³⁰ Many of the plots of land were walled (*muḥauwāṭa, ribāt*).³¹

The network of small canals is particularly dense. A comparison with the situation around 1900 shows that the garden district in the sixteenth century corresponded fairly well to a zone intensively irrigated by means of several sets of parallel canals, characteristic only to this area of the oasis.³² Between the gardens (*bāghāt*), there are only a few small plots of arable land, usually of a size of only a couple of *ṭanābs*.³³ Land prices were high. South of the city, in the village of Safidmun, the Juybari *khwājahs* paid 1,500 *tanka* for a vineyard and a plot of arable land measuring 15 *ṭanāb*, and 2,000 *tanka* for another vineyard, an orchard, and two small plots of arable land.³⁴ In other cases, the prices were not so exaggerated, but still high when compared to the prices for arable land outside the garden district.³⁵ The gardens must have been favored investments since the produce could easily be marketed in the nearby city. After 1557, plots of land in the garden district formed the lion's share of the land purchased by the Juybari *khwājahs*.

A second garden district of a quite distinct character was located in Qarakul. Mainly mulberry trees were cultivated there on large plots, which - like arable land and in contrast to vineyards and orchards - was measured in *ṭanāb*.³⁶ In other areas of the oasis, even around Ghijduwan in the north, no comparable garden district seems to have existed. As a rule, gardens formed part of the village land, but did not occupy large zones.³⁷ They were often located on *mamlaka* and *waqf* land and seem to have been more frequent in the surroundings of local endowments, for example in Sukhari and - well documented in the Juybari documents - in Sumitan (Chaharbakr) which did not belong to the garden district proper.³⁸

The rest of the oasis mainly consisted of arable land. Large contiguous tracts and individual plots of several dozen *ṭanāb* are common in the Juybari documents. To the north and west of the city, these arable lands directly bordered on the city walls. In the village of Karik, just north of the city, the Juybari *khwājahs* bought plots of 20, 50 or 100 *ṭanāb*. One single transaction even covers 1,300 *ṭanāb* of land.³⁹ As early as 951 H., in a village west of Bukhara, Khwajah Muhammad Islam Juybari purchased arable land for the price of 3,000 *tanka* from the Shaybanid sultan Iskandar ibn Janibeg.⁴⁰ Individual plots sometimes covered 300 *ṭanāb*.⁴¹ The situation in the other *tūmāns* does not significantly differ. Single purchases of several hundred *ṭanāb* are by no means an exception. But this does not mean that the land was concentrated in the hands of a few landholders. Villagers holding middle-size plots of between ten and one hundred *ṭanāb* appear to have been quite common. For example, among others, several people who are named after villages of the region like Sharghī, Qishlāqḥusāmī, Asbāburūsī, and Kumujkantī sold their land in Shargh to the endower

of the *waqf* of the Ghaziyan *madrassa*.⁴² In areas of denser irrigation, mainly near the branching off of the big feeder canals from the Zarafshan, individual plots tended to be smaller, but were assembled to form middle-sized holdings - at least, that was the case in Shargh. As a rule, the 28 sellers held lands of between 10 and 70 *ṭanāb* each of which were divided into single plots of usually less than 3 *ṭanāb*.⁴³ Where irrigation became sparser, landholdings tended to be larger. In those areas, cases of the sale of the entire lands of a village in a single transaction are not rare. It is even quite common in the more distant regions of the oasis in the north and west, but is not restricted to these areas. At least three villages, purchased as a whole, border on the garden belt east of Bukhara.⁴⁴ In the *tūmān* of Samjan, one village and one farm (*mazraʿa*) changed hands in two transactions.⁴⁵ In the *tūmān* of Kamat, Khwajah Saʿd Juybari bought the entire land of the village of Mughiyān for 1250 *tanka*.⁴⁶ The largest transaction of this kind, in the year 979 H., included nine complete villages as well as several estates (*asbāb*) stretching over a vast area south of Ghijduwan.⁴⁷

It is not easy to obtain a picture of the legal status of various types of landholdings - private lands (*milk*), fiscal lands (*mamlaka-yi pādshāhī*), and endowments (*waqf*). In this respect, the Juybari documents are not very precise. The number of plots of land of differing types adjacent to a property described in a sales or endowment document may serve as a rough indicator. From a cursory analysis, it seems that *milk* property prevailed, and fiscal lands were mainly restricted to areas of less intensive irrigation. The agricultural lands of a village south of Ghijduwan were sold to Khwajah Saʿd Juybari by several dozens of landowners. There is no indication of *mamlaka* or *waqf* properties either in the village or adjacent to it.⁴⁸ On the other hand, among the lands that border on the ten villages in the same region, *mamlaka* appears to have been slightly more prevalent.⁴⁹ A similar difference can be seen in the two neighboring villages of Shargh and Qishlaq-i Husam in the *tūmān* of Kamat. Among more than 300 references to adjacent plots of land, only 2 are *mamlaka-yi pādshāhī*, 10 belong to a local *waqf*, while the rest are *milk*. In Qishlaq-i Husam, private property also predominates; but *mamlaka-i pādshāhī* occupies approximately a quarter of the total land.⁵⁰

How these *mamlaka* lands in the northern and western parts of the oasis were developed is unclear as well. Were they mainly old fiscal properties from pre-Shaybanid times? A hint that there was a connection of some of these fiscal properties to the Uzbek occupation of the oasis is that *mamlaka* lands were often mentioned in connection with *qishlaqs* (nomadic winter quarters) - and *asbāb* (separate estates within village lands) connected with personal names. These names, as well as the names of several usufruct holders of *mamlaka* lands, are often pure Turko-Mongol personal or tribal names. In these cases, one might suggest that these persons or tribes had not settled in the oasis for any length of time before 1500, but had come with the Uzbek conquerors. The village (*mauḍīc*) of Mughūlān (*mamlaka-yi pādshāhī*) or the Qishlaq-i-Minglī Khwājah⁵¹ serve as

examples. In the *tūmān* of Samjan we come across Önike Özbek ibn Tangri Quli and Yetti Kuz Özbek, who are usufructuaries of *mamlaka-i-pādshāhī*.⁵²

Endowment land is mentioned in the Juybari documents in surprisingly few cases. In the first half of the sixteenth century, only two larger endowments are documented for the oasis of Bukhara, both from the time of the famous Shaybanid appanage ruler, and later *khan*, in Bukhara, ʿUbaidallah. The first is the foundation for the Mir-i ʿArab *madrasa* in the year 934 (1527-28),⁵³ followed by the endowment of the Ghaziyan *madrasa* in the year 942 (1535). The majority of foundations do not come into the picture until the second half of the sixteenth century, after the conquest of Bukhara by Abdallah ibn Iskandar. Indeed, *waqf* lands do not prominently figure in the Juybari documents. Where *waqf* properties are mentioned, the context usually hints at a connection to a nearby holy place, often the tombs of venerated saints of the Khwājagān, such as ʿAbd al-Khaliq Ghijduwani and ʿArif Riwgari near Ghijduwan whose *mazār* or *waqf* is explicitly mentioned,⁵⁴ and probably Amir Kulal (d. 1370) in Sukhari.⁵⁵ Other *waqf* lands mentioned in the Juybari documents might belong to the Bakharzi *waqf* in the suburbs of Bukhara and of course the endowments of the Juybari *khawājahs'* family shrine in Sumitan (Chaharbakr).⁵⁶ I could find no explicit mention of *waqf* properties located in distant *tūmāns* of the oasis belonging to an endowment within the capital.

On the basis of the documents of the Juybari codex, one cannot state with any certainty that the Shaybanid-Uzbek conquest caused any upheaval in the economic life of the oasis of Bukhara. Certainly new landowners emerged,⁵⁷ but this does not mean that the old elites lost their influence. The sons of the last Timurid *wālī* (governor) of Bukhara, Baqi Tarkhan ibn ʿAbd al-ʿAli Tarkhan, appear in the Juybari documents as wealthy landowners of Bukhara despite their father's political difficulties at the beginning of Shaybanid rule. A similar case might be that of the family of Amir ʿAbd al-Karim.⁵⁸

Evidence of a settlement of Uzbek tribal groups, primarily in the less intensively cultivated areas in the north and west of the oasis, can be found. However, I believe that mass sedentarization in the lower Zarafshan during the course of the Uzbek conquest can be ruled out.⁵⁹ Individual families, such as that of Amir ʿAbd al-Karim or of Baqi Tarkhan, expanded their possessions over the whole oasis, probably in the second half of the fifteenth century, but by the same token, occupation of land by the local population was widespread. The relatively high number of village lands sold as a whole, as well as the references to collective irrigation canals (*jūy-i mushtarak*, and the like) are possible indications that the village community continued to exist, if not as a legal basis for the control of village land, then at least as social structure underlying the usufruct of much of the land.

The Juybari documents mark the beginning of a new era of economic relations in the oasis of Bukhara. The conquest of Bukhara by ʿAbdallah ibn Iskandar led to an extension of economic activities of the Juybari

khwājahs who maintained a longstanding loyalty to the clan of the new ruler and acted as his spiritual mentors. One can safely assume that their activities were politically sanctioned and coincided with the interests of the ruler in the development of Bukhara.

The Juybari *khwājahs* were soon followed by other influential persons, including the sultan, later *khan*, ʿAbdallah ibn Iskandar, who made large endowments. The ensuing economic consequences for the hinterland of Bukhara must have been decisive. Because of the new, vast estates and endowments, a considerably larger share of the agrarian surplus must have been transported from the *tūmāns* to the capital. The location of most of the properties along the main road to Samarqand facilitated the marketing of the agrarian surplus in Bukhara and the food supply of the capital. We have yet to discover whether the rise of economic activity in Bukhara led to changes in the patterns of landholding in the oasis; or in what way it influenced the market organization in the oasis; or to what extent it confronted population growth in Bukhara; whether it triggered internal migration from other parts of Central Asia as well as within the oasis of Bukhara, and whether and in what way it coped with it. Unfortunately, we lack the sources, particularly fiscal surveys needed for further analysis.⁶⁰ Such an analysis cannot be made solely on the basis of endowment and sales documents, public deeds, or chronicles. However, a study of the large foundations of the Zarafshan Valley in the *longue duree* would be worthwhile.⁶¹

NOTES

1. For the historical background, see R. D. McChesney, "Central Asia VI. In the 10th-12th/16th-18th Centuries: I. The Appanage State System, II. The Abulkhairid Khanate," in *Encyclopaedia Iranica*, 5, p. 176a-183b, and idem, "Shaibanids," in *Encyclopaedia of Islam*, 2nd ed., 9, p. 428a-431a, with further literature.

2. See R. D. McChesney, "Economic and Social Aspects of the Public Architecture of Bukhara in the 1560's and 1570's," in *Islamic Art 2* (1987): p. 217-42.

3. On the *khwājahs* of Juybar, see V. L. Vjatkin, "Sheikhi Dzhuihari, I. Khodzha Islam," in *Iqd al-Juman*, V.V.Bartol'du turkestanskije druž'ja, ucheniki i pochitateli (Tashkent, 1927), p. 3-19; B. Akhmedov, "Rol' dzhuibarskikh khodzhei v obshchestvenno-politicheskoi zhizni Srednei Azii XVI-XVII vv.," in *Dukhovenstvo i politicheskaja zhizn' na blizhnem i srednem vostoke v period feodalizma (Bartol'dovskie chteniia 1982)* (Moscow, 1985), p. 16-31.

4. *Iz arkhiva sheikhov Dzhuihari* (Leningrad, 1938); P. P. Ivanov, *Khoziaistvo Dzhuibarskikh sheikhov. K Istorii feodal'nogo zemlevladieniia v Srednei Azii v XVI-XVII vv.* (Moscow-Leningrad, 1954) [hereafter JC (Juybari codex) followed by the number of the document]. See the article by Robert D. McChesney in this volume.

5. Jürgen Paul has now prepared an article dealing with several aspects of the Juybari documents, particularly those concerning its social context: "La propriété foncière des cheikhs Juybari," in *Boukhara: Cité de Légendes* (Cahiers d'Asie Centrale 3,1, forthcoming).

6. See map 1. The villages figuring in the Juybari documents have been mapped on the basis of the Russian 10-verst map published in 1896. Places not shown on

that map were located with the help of N. F. Sitniakovskii, "Spisok arykov i naseleennykh punktov Bukharskoi chasti doliny Zerafshana," in *Izvestiia Turkestanskago otdela Imperatorskago Russkago Geograficheskago Obshchestva* 1 (1899), p. 179-314, a fairly complete list of canals and settlements along the lower Zarafshan. Places mentioned neither on the 10-verst map nor in Sitniakovskii's list were, if possible, located according to neighboring villages mentioned in the documents.

7. Vincent Fourniau, *Histoire de l'Asie Centrale*, Que sais-je, 2821 (Paris, 1994), p. 73-74.

8. JC 363-69 (947-58 H.).

9. M. A. Salakhedinova, ed. and trans., *Khafiz-i Tanysh ibn Mir Mukhammad Bukhari: Sharaf-nama-ii Shakhi (kniga shakhskoi slavy)*, vol.1 (Moscow, 1983), p. 131-37 = fols. 57a-59b (hereafter cited as Hafiz-i Tanish Bukhari).

10. Hafiz-i Tanish Bukhari, 1: p. 180 = fol. 80b.

11. I count 1 caravanserai, 140.5 shops, and three mills (*kharās*, driven by donkeys) before 972 H., from 972 H. on, 1 caravanserai, 1 *tīmcha*, 1 mill, and 23 shops. Most commercial structures were purchased by the Juybari *khwājahs* after the conquest of Bukhara by Sultan Abdallah ibn Iskandar in 1557. Only 10 shops and 1 mill were acquired between 960 H. and Rajab 964/May 1557 (JC 23, 25, 51, 52, 58, 261, 266, 269).

12. Ghijduwan, JC 280-82 *intra muros*, 283-85 *extra muros* (968-972 H.). Qarakul: JC, 306-8 (973-75 H.).

13. In a first attempt to take Bukhara from Burhan Sultan in 1555, Abdallah ibn Iskandar was received outside the city by the the elders of the trades and guilds (*akābir wa-ashraf-i sūqīya wa-sā'ir-i aṣnāf*); Hafiz-i Tanish Bukhari, 1: p. 180 = fol. 80a. For the development of the central bazaar zone, see McChesney, "Economic and Social Aspects"; cf. also R. G. Mukminova, *Ocherki po istorii remesla v Samarkande i Bukhara v XVI veke* (Tashkent, 1976).

14. It is not clear if the walls of the *hiṣār-i qadīm* still existed in the sixteenth century.

15. E.g., JC 281 (971 H.): "*dar bāzār-i qaṣaba-yi Ghijduwān qarīb-i chahārsū*" (in the bazaar of the district town of Ghijduwan near the *chahārsū*).

16. *sa-su*, "three bazaar streets" does not necessarily mean that the structure was smaller than the usual *chahārsū*, but that at this spot in the bazaar of Qarakul, three (instead of four) streets met, representing an old irregular road pattern.

17. *chūbkār*; among the shops in Qarakul was one without a roof (*sarbāz*), but it was probably part of a blacksmith's shop, JC 307.

18. R. U. Pardaeva, "Maloizvestnye pamiatniki grazhdanskogo zodchestva Bukharskoi oblasti," in *Material'naia kul'tura i khoziaistvo narodov Kavkaza, Srednei Azii i Kazakhstana*, Sbornik Muzeia Antropologii i Etnografii 34 (Leningrad, 1978), p.38-43; ground plan on p. 39. The countermarking of coins in Wabkand during the early reign of Köchkünchi Khan points to the role of Wabkand as the central marketplace in the northern part of the oasis in the first half of the sixteenth century, see E. A. Davidovich, *Istoriia denezhnogo obrashcheniia srednevekovoi Srednei Azii* (Moscow, 1983), p. 238. Compare also H. Töraev, "Vobkent - tarixii manbalarda," in *Sharqshunoslik* 3 (1992): p. 17-21, esp. 19.

19. JC 277 (973 H.). The name of the district town Wabkani also appears as an alternative to the name of the *tūmān* Kamat in the heading of the subsection containing this transaction.

20. Bukharskii Gosudarstvennyi Arkhitekturno-Khudozhestvennyi Muzei-Zapovednik, inv. no. 10994/11; on this acephalous fair copy (hereafter Waqfnama Ghaziyan [Bukhara]), see B. Kazakov, "Kollekciia istoricheskikh dokumentov Bukharskogo Gosudarstvennogo Arkhitekturno-Khudozhestvennogo Muzeia-Zapovednika," in *Iz istorii kul'turnogo nasledii Bukhary* 1 (1990): p. 62-78, particularly p. 64-66. Two other copies of the same document, dated Rabi' I 942 (1535), are kept in the State Archive of the Republic of Uzbekistan, fond 323, no. 12 and no.

- 1186/7. Around 1900, the names of the three neighboring villages mentioned in the *waqfnama* are given as Charkh (Shargh in the document), Gisam (Qīshlāq-i Ḥusām al-Dīn) and Aspop-Ulius (Asbāb-i-Urūs); N. F. Sitniakovskii, *Spisok arykov i naselennykh punktov Bukharskoi chasti doliny Zerafshana* (cited above, n. 6), p. 236.
21. Narshakhi, *The History of Bukhara*, translated from a Persian abridgment of the Arabic original by Richard N. Frye (Cambridge, Mass., 1954), p. 13-15.
22. *Waqfnama Ghaziyan* (Bukhara).
23. In the chronicles and memoirs of the sixteenth and seventeenth centuries, only Bukhara, Ghijduwan, and Qarakul figure as fortified towns. Ghijduwan, where Ulugh Beg had erected a *madrasa*, as he had in Bukhara, was possibly the residence of a Shaybanid sultan in the early part of the sixteenth century. This important fortress was the scene of the famous battle between the Uzbeks and Qizilbash in November 1512. In this context, Mirza Muhammad Haidar Dughlat let Babur consider Ghijduwan "the easiest of all [fortified cities of Transoxiana] to take," N. Elias, ed., E. Denison Ross, trans., *A History of the Moghuls of Central Asia Being the Tarikh-i-Rashidi of Mirza Muhammad Haidar, Dughlat*, 2nd ed. (London, 1898), p. 261. However, the Dughlat prince was not very well informed about this particular battle. Compare on Ghijduwan also the travel account of Seyyidi Ali Reis: A. Vambery, *The Travels and Adventures of the Turkish Admiral Sidi Ali Reis* (London, 1899), p. 73. In one single instance, the ruined fortifications of Ramitan serve as a precarious refuge to Burhan Sultan, governor of Bukhara (1551-57), Hafiz Tanish Bukhari, 1: p. 181-82 = fol. 81a.
24. Narshakhi, *History of Bukhara*, trans. Frye, n. 21, p. 15-16, 27-28.
25. O. D. Chekhovich, "Krest'ianskie obiazatel'stva 1914 g. na osnovanii mnimoi gramoty Ismaila Samani," *Istoricheskie Zapiski* 33 (1950), p. 260-66; cf. M. Usanova, "Ismoil Somonii waqfnomasi," *Sharqshunoslik* 6 (1995), p. 24-31. The information from the *History of Bukhara* and the supposed Samanid endowment represented on map 2 must be treated with the greatest caution. The surviving copies of the Ismail Samani *waqfnāma* have yet to be given a thorough analysis.
26. O. D. Chekhovich, "Tiazha o vakfe Medrese Arslān Khāna," in *Pis'mennye Pamiatniki Vostoka, Ezhegodnik 1978-1979* (Moscow, 1987), p. 123-45, 355-65.
27. O. D. Chekhovich, *Bukharskie Dokumenty XIV v.* (Tashkent, 1965). Abdallah Isfijabi's endowment in Khamina, *tūmān* Samjan, from 1299, published by A. K. Arends, A. B. Khalidov, O. D. Chekhovich, *Bukharskii Vakf XIII v.* (Moscow, 1979), has not been taken into consideration, being a local *waqf* without any direct connection to the city of Bukhara.
28. Map 2 was drawn on the basis of the following documents in addition to the Juybari codex: *waqfnāma* for the congregational mosque of Khwajah Sa'd in Sumitan; endower, Muhammad Talib *Khwajah* Juybari, after 1056 (1646), summarized in A. A. Egani and O. D. Chekhovich, "Regesty Sredneaziatskikh aktov IV," in *Pis'mennye Pamiatniki Vostoka, Ezhegodnik 1978-1979* (Moscow, 1987), p. 57-63, 294-345, no. 112. *Waqfnāma* for a *madrasa* and a pool (*haud*) in Bukhara, endowed by Ay Padshah Bibi, 1081 (1671), summarized in Egani and Chekhovich, *ibid.*, no. 113.
29. E.g., the endowment of Abdallah Khan, dated 1002 (1593-94), which apart from commercial structures in Bukhara comprised six villages, among them one (1,000 *tanāb*) in the *tūmān* Shafurkam and another, Ishyā (1,100 *tanāb*), south of Ghijduwān, near the 9 entire villages bought by Khwajah Sa'd Juybari in 979 H. (see below): G. A. Dzhuraeva, *Vakfnye gramoty kak istochnik po social'no-ekonomicheskoi istorii Bukhary v XVI-XVII vv.*, Aftoreferat (Tashkent, 1985), p. 15.
30. For example, south of the city of Fara Kand, JC 126 (979 H.), Fāshūn, JC 120 (978 H.), Chaqmāq, JC 157 (975 H.), JC 158 (974 H.), JC 275 (979 H.), southeast of the city of Ākhūrbadīn, JC 173 (977 H.), Ashpamān, JC 159 (981 H.).
31. The exact meaning of these terms has still to be explored; see the article by R. D. McChesney in this volume.

32. See map 1 on the basis of the 10-verst map, drawn in 1896.
33. For our purposes, an approximate equivalent of one fifth of a hectare for the *tanāb* is sufficiently precise.
34. JC 117 (971 H.), 118 (955 H.).
35. On the prices, cf. Paul, "La propriété foncière."
36. JC 310 (969 H.), 312 (970 H.), 316 (971 H.), 317 (968 H.), 318 (969 H.), 319 (978 H.), 320 (970 H.), 321 (969 H.).
37. For example, to the northwest of Bukhara, still in the *tūmān* Rud-i Shahr JC 218 (960 H.), JC 220 (959 H.), JC 229 (958 H.) (all Qasr-i L-R-T; they face more than 900 *tanāb* of plowland in the same village); JC 112 (977 H., Juy-i Zar); JC 102 (966 H., Dih Aman); to the north of Bukhara one 20-*tanāb chahārbāgh* in Rukhshābād, JC 200 (969 H.); the same picture from the Waqfnāma Ghaziyan (Bukhara) for Shargh in the *tūmān* Kamat.
38. Sukhari: JC 128-130 (978 H.); Sumitan: JC 215 (951 H.), 216 (960 H.), 215 (963 H.), 214 (964 H.), 213 (969 H.), 210, 211 (970 H.), 209 (971 H.), 276 (972 H.), 212 (977 H.).
39. JC 135 (966 H.), 137 (963 H.), 136 (959 H.), in *Asbāb-i-ḍarāb*, which according to JC 138 belonged to Kārīk).
40. JC 217, in the village of Qasr-i L-R-T. This grapheme, which Ivanov read as Qasr-i Lurt, and the grapheme Qasr-i H-I-R-T, which Ivanov takes as a separate village, probably both refer to the same village. Dihcha-yi Saiyid Ajall, possibly the Decha (for Dihcha) on the 10-verst map, belonged to the territory of that village.
41. JC 217-232 (951-965 H.), Qasr-i L-R-T/H-I-R-T and Dihchah Sayyid Ajall (see previous note). In Tall-i Pāch, near the city gate of the same name, Muhammad Islam purchased arable land for the price of 4,000 *tanka*, JC 101 (972 H.). In the other villages in the same area, plots ranged between some 10 and some 100 *tanāb*: Rūhābād, JC doc. 203, 206 (both 968 H.); along the Jūy-i Zar canal: Qishlāq-i Urūs, JC 105 (967 H., 450 *tanāb*), 106 (976 H.), Samānjūq, JC 104 (965 H.), Jūy-i Zar/Wārgashta, JC 107 (967 H.).
42. Waqfnāma Ghaziyan (Bukhara).
43. Waqfnāma Ghaziyan (Bukhara).
44. JC 119 (975 H.): *Ghaban*, Kāgan, P-S-R'K. For these villages, together with plots in the neighboring villages of Hauḍ-i-^cArūsān and Yārjan, 3,750 *tanka* were paid, implying plowland of the order of just below 1,000 *tanka* for each village. Gardens were a matter apart: gardens and vineyards in Ghabūn were sold several months after the purchase of the arable village lands, JC 127. Not so easy to explain is the sale in the same transaction of plots, also belonging to Ghabūn, where wheat and barley were grown for fodder.
45. JC 337 (967 H., *mazra'a* Mughiyānak), 338 (978 H., Biyān Tughān wa-Khwāyasta).
46. JC 277 (973 H.).
47. JC 286 (979 H.); the villages are Rāmī, Astāfaghana, ^cArabān, Kūdri, Kūshk, Qasr-i-Abkina, Mazākhan, Kizhdumak, and Kabūtar Khāna.
48. JC 288-293 (971, 972, 976, 979 H., *mauḍi'* Šhirwān and Ḥarduwān).
49. See above n. 47.
50. Waqfnama Ghaziyan (Bukhara).
51. JC 286 (979 H.).
52. *'ilāwa* to JC 343 (961 H.).
53. G. A. Dzhuraeva, "Mir-i Arab i politicheskaiia zhizn' v Bukhare v XVI v.," in *Dukhovenstvo i politicheskaiia zhizn' na blizhnem i srednem Vostoke v period feodalizma (Bartol'dovskie chteniia 1982)* (Moscow, 1985), p. 74-79; B. Babadzhanov, "Mir-i Arab," in *Kul'tura kochevnikov na rubezhe vekov (XIX-XX, XX-XXI vv.): problemy genezisa i transformacii (Materialy mezhdunarodnoi konferencii g. Almaty, 5-7 iunია 1995 g.)* (Almaty, 1995), p. 88-102.

54. JC 295, 286.
55. JC 128-130 (978 H.).
56. JC 209-216, 276.
57. Such as the family of Jan Wafa Bi, one of the most important amirs of Muhammad Shibani Khan, the Uzbek conqueror of Transoxiana; however, the family properties mentioned in the Juybari documents are rather modest (JC 62, 205).
58. See Ivanov, *Khoziaistvo*, index s.nn. Baki Tarkhan; ^cAbd al'-Karim (emir; mirza; Tarkhan, emir); Meshkhedi; Ulugbeg. Mirza Mashhadi even has an entry in the anthology of poets - or rather the Who's Who of Janibegid Bukhara - by Hasan Nitāri, *Mudakkir al-Aḥbāb*, ed. Saiyid Muḥammad Fadlallah (Ḥaydarābād, 1968), p. 431-32 (completed in 974 [1566-67]). Compare on ^cAbd al-Karīm and his sons, Paul, "La propriété foncière."
59. It must be stressed, however, that this is not necessarily true for other parts of the newly conquered Uzbek domains. The bulk of immigrating Uzbek tribesmen seems to have been concentrated in the traditional pastoral areas, i.e., mainly along the middle course of the Syr Darya from the oasis of Tashkent to the area of Turkistan in the northern appanages, in the Kashkadar'ia basin, and around Balkh in the southern appanages.
60. Compare, on the complex topic of village community in Central Asia, Jürgen Paul, "Le village en Asie Centrale aux XVe et XVIe siècles," with special regard to the Juybari documents; idem, "La propriété foncière."
61. Few cases of forced mass migration of sedentary population are documented in the chronicles. In 1566-67, for example, ^cAbdallah ibn Iskandar forced the population of the newly conquered oasis of Marv to settle in the oasis of Bukhara; Hafiz-i Tanish Bukhari, 2 (Moscow, 1989) p. 31 = fol. 129b.

Bukhara's Suburban Villages: Juzmandūn in the Sixteenth Century

If in the middle of the sixteenth century you left Bukhara by the Qarākūl Gate you would be traveling along the stretch of the Silk Road connecting Bukhara with Qarākūl, some thirty-six miles to the southwest and about half-way to Chārjū, the main ford on the Amū or Oxus River on the way to Iran. About two miles outside of Bukhara you would come to lands belonging to the village of Juzmandūn.¹ Today the main road to Qarākūl bypasses Juzmandūn about a mile to the north, but in the sixteenth century it was much closer, probably just north of the village center.² If you chanced to detour into the village center you would come to a cluster of houses, a small mosque with a cistern in front of it, some walled compounds standing amidst the fields and mud-walled pens for livestock. You could probably have bought bread but little else, for the village did not have shops, nor was it the site of a periodic market. If you were thirsty, the water tank in front of the mosque was a public one and you could fill your waterskins there. You would notice the land was crisscrossed with small irrigation and drainage ditches and your route would take you along and occasionally across one or more of the major canals which traversed the lands of the village. Juzmandūn was a productive spot and you would see vineyards and apple, plum, apricot, peach, pomegranate, and mulberry orchards stretching away from the road. If the time of year was right, there would be fields of wheat, barley, and rye and at other times the cover crop of alfalfa. If you were familiar with the area, it would have looked to you like a typical agricultural suburb of Bukhara not easily distinguished from adjacent villages.

What we know about the village as it appeared in the mid-sixteenth century comes from a series of real estate sales that took place there over a ten year period between 1561 and 1571. The buyers were two preeminent Bukharan figures, Khwājah Muḥammad Islām Jūybārī (also known as Khwājah Islām and Khwājah Jūybārī), and his son Khwājah Saʿd (whose nickname was Khwājah Kalān Khwājah). By the end of the ten year period, the two men had acquired sixty-four pieces of property, cultivable land, gardens, farm buildings, and houses. These properties represented a very small part of the vast real estate empire of the Jūybārī family, but because of the number of transactions and because of the nature of the records that each transaction generated, an examination of those purchases gives an almost unparalleled view of agrarian life in a single village. Moreover, the documents tell us more than just what the village looked like or what land was selling for. They also reveal a good deal about social relations in a

village, about the complexity of land-tenure patterns, about cultivation and plant diversification, and about irrigation and animal husbandry.³ In addition, these documents open a window onto the market in real estate - who was selling and why, and what the mechanisms were by which real estate was transferred. The documents also provide invaluable information for answering other social and political questions - who owned land and how the conveyance of real estate was judicially administered.

These documents tell us nothing, however, about taxation, the conventional vehicle by which agrarian relations are usually assessed. Nor do they reveal much if anything about the structure of land rents. They therefore are not very forthcoming about the disposition of the land's productive surplus.⁴

Bukhara is an arid-zone city, its life dependent on an intensive and extensive system of irrigation. It lies more or less at the delta terminus of a glacier-fed river, the Kūhak or Zarafshān. The river arrives at the oasis at its northeast corner and is then subjected to a regime of canalization and distribution.⁵ Like other arid-zone cities - Samarqand, Herat, Balkh, Tashkent - Bukhara's city center was simply the most densely populated part of the oasis. It was marked off by defensive walls which, on occasion, were rebuilt and their alignment moved. At one point, a realignment of the walls created the memory of an "old city" (*hiṣār-i qadīm*) and a "new city" (*hiṣār-i jadīd*), terms which came to be used as locators for property within the city walls. Both terms are found frequently in the documents of Jūybārī real estate purchases.

In the sixteenth century the entire oasis was known as the "province (*wilāyat*) of Bukhara" and was divided for administrative purposes into subdistricts, called *tūmāns*, a holdover from the Chinggisid past (*tūmān* being a Mongol military term meaning a division or unit of ten thousand). The *wilāyat* of Bukhara comprised ten or twelve *tūmāns* at this time but the *tūmān* divisions were subject to reorganization over time.⁶ Juzmandūn was located in the *tūmān* of Rūd-i Shahr.⁷

As for the Jūybārī family, it enjoyed social, economic and political prominence (sometimes, as in the sixteenth century, verging on preeminence) in Bukhara and its environs from the middle of the sixteenth century until well into the nineteenth, at least. The family emerges in the public record as the keepers of the shrine of a tenth century *ḥadīth* specialist and mystic, Imām Abū Bakr Aḥmad b. Sa^cd from whom they also claimed descent. The author of the fifteenth century guide to Bukharan shrines, Aḥmad b. Maḥmūd "Mu^cin al-Fuqarā" briefly described the tomb but says nothing about its caretakers:

"On the *qibla* (western) side of Bukhara in the village of Samtīn (Sumītan or Sūmītan) is the lustrous pure shrine (*mazār-i munawwar wa marqad-i muṭahhar*) of the learned ascetic shaykh, achiever of the mystical states and stages, disposer of sanctity and miracles, Khwājah Imām Abū Bakr Aḥmad b. Sa^cd - May God sanctify his soul. His virtues need no mention. He died in 360 [970-71]."⁸

The first of the Jūybārī family to achieve political and social influence, as far as I know, was Khwājah Muḥammad Islām, the son of Khwājagī Aḥmad and the first Jūybārī purchaser of record in Juzmandūn. He lived from 1482 until 15 October 1563, his life spanning the fall of Timūrīd Bukhara to the Shībānids and the evolution of the city from appanage center for one of the Shībānīd clans, the Shāh Budāqīd, to its emergence as capital of all of Transoxiana under ʿAbd Allāh Khān (d. 1598), a member of another clan of the Shībānids, the Jānī-Begid.

Khwājah Islām came out of the Naqshbandī circles of the first half of the sixteenth century and is linked to the famous shaykh of Dahbid (at Samarqand), Mawlānā Aḥmad Kāsānī, the "Makhdūm-i Aʿẓam" ("Greatest Master") who died 21 Muḥarram 949 (7 May 1542).⁹ Whether it was spiritual or economic power, or a combination of the two, that gave Muḥammad Islām the status he enjoyed in Bukhara remains something of a mystery, but that he was a political force to be reckoned with by the middle of the century is attested by independent sources. A European traveler to Bukhara is our earliest and most credible source on the political power of the head of the Jūybārī family. Arriving in Bukhara on the 23rd of December 1558, Anthony Jenkinson, a commercial traveler for London investors, noted,

"There is a Metropolitane in this Boghar who causeth this lawe [*Sharīʿa*] to be streightly kept, and he is more obeyed then the King and will depose the king, and place another at his will and pleasure as he did by this king that reigned at our being there, and his predecessour, by the meanes of the saide Metropolitan: for hee betrayed him, and in the night slewe him in his chamber, who was a prince that loved all Christians well."¹⁰

Jenkinson's nineteenth century editors tentatively identify this "Metropolitane" as the "holy hoja Inibareh"¹¹ citing Howorth and Vambéry as their sources. In fact, only Howorth calls Khwājah Muḥammad Islām "Khoja Juybareh," while Vambéry does not mention him at all.¹² The editors explain Jenkinson's remarks about the king-making power of Khwājah Jūybārī in the context of the changes in administration of Bukhara that took place the year before Jenkinson's visit. This refers to Abu'l-Khayrid inter-clan struggles between the Jānī-Begids and their cousin clan, the Shāh Budāqīd, the latter having held Bukhara as their appanage, since the Abū'l-Khayrid Shībānīd conquest of the region from the Timūrīds in 1500-1. From a Bukharan, Ḥāfiẓ-i Tanīsh, who was writing some thirty years after Jenkinson's visit, we learn that Khwājah Jūybārī played a crucial role in the surrender of the city to the Jānī-Begids.¹³ In addition Ḥāfiẓ-i Tanīsh's adulatory descriptions of the relations of Khwājah Jūybārī and his son Khwājah Saʿd with Ḥāfiẓ-i Tanīsh's patron, the Jānī-Begidleader, ʿAbd Allāh Khān, leave no doubt that Jenkinson's informants had given him an accurate picture of the "Metropolitane of Boghar."¹⁴

The family would retain its prominence for a long time to come. Two hundred and sixty-four years after Jenkinson, another Englishman, James

Fraser, who was waiting at Mashhad in the hope, eventually futile, of obtaining permission to visit Bukhara, heard about the family through his informants.

“The khaujachs of Joeebaur are the greatest of these holy personages [the *‘ulamā*]; they belong to a family, who are understood to be descended from the khaliph Abubekr, and derive so much weight from their large possessions, even more than from their sanctity and descent, that they may be in some measure considered independent of the king.”¹⁵

Between Jenkinson in 1558 and Fraser in 1821 lie ten or so generations of an extraordinary family, the foundation of whose wealth was laid in the sixteenth century. Thanks to the manuscript into which many of the Jūybārīs' sixteenth century real estate dealings were compiled, probably sometime in the third quarter of the sixteenth century, combined with the as yet unexplored Jūybārī endowment deeds, we have an unmatched picture of a single family's wealth and its perpetuation in early modern Central Asia. Even the great endowment charters (*waqfnāmahs*) of wealthy individuals like Mihr Sulṭān Khānum, daughter-in-law of Muḥammad Shibānī Khān, early in the sixteenth century or those of the abovementioned ‘Abd Allāh Khān¹⁶ and the Uzbek amīr, Qul Bābā Kūkaltāsh¹⁷ towards the end of the century, do not show holdings comparable to those of the Jūybārī family. Perhaps only the wealth of the Aḥrārī family of Samarqand and Tashkent might have compared over time, though it too has yet to be researched in any detail.¹⁸

The Documents

I have dealt at some length elsewhere with the problems raised by the manuscript into which many, if not all, of the records of their real estate dealings between the years 1544 and 1577 were gathered.¹⁹ Here I would simply note that the work, which was typeset and published in the Soviet Union in 1938²⁰ with a Russian translation published in 1954²¹, contains abridged copies²² of more than 400 individual records of land purchases, for the vast majority of which either Khwājah Muḥammad Islām or his son, Khwājah Sa‘d, were the buyers of record.²³ But these sale documents represent only a portion of the land dealings the family had. The Jūybārīs bought a great deal of property in Samarqand,²⁴ for example, but none of those transactions are mentioned in the manuscript compilation. The same is true of their holdings in Balkh, Merv, Kash (Shahr-i Sabz) and Karmīnah. In addition, there is an extensive record of Jūybārī endowments as yet unexplored.²⁵ Only after a comparison of the properties listed in the endowment deeds with those in the sales records will some closer approximation of the extent of their holdings be possible. Suffice it to say at this point, these were enormous and provided the means to maintain the family's social and political status over the length of time reflected in the observations of Jenkinson and Fraser.

The documents which make up the compilation and relate to the village of

Juzmandūn are *iqrārs*, affidavits or acknowledgments of the conclusion of a sale contract. They are not the contracts of sale per se but rather a registration of the terms of the contract executed in the presence of witnesses and other interested parties before a *qāzī* judge. Thus the dates on the *iqrārs* are not necessarily the dates of the sales themselves but of their registration at the *Shariʿa* court (*dār al-qadā*). Although one would like to think that the sales were registered at some point fairly near the time of the actual sale, we have no way of knowing this for certain. For Juzmandūn, there is a cluster of dates of *iqrārs* that suggest that rather than going to court each time a transaction took place, the relevant information may have accumulated and then been formally registered in batches. For example, there is a group of eight²⁶ *iqrārs* for Juzmandūn purchases executed on 4 Rabīʿal-Sānī 970 (1 December 1562). These eight covered 31 separate pieces of property. The *iqrār* immediately preceding this batch is dated more than a year earlier, 6 Ṣafar 969 (16 October 1561). Perhaps the time of year was a factor in the case of the batch registration. With the crops in and rents collected, the Jūybārī clerks may have been catching up on paperwork, collecting the data on the various transactions that had occurred during the preceding growing season, and registering them with the court.

Normally, the original *iqrārs* would contain the date, the name of the seller, the name of the buyer, a description of the property with its boundaries, the price, an affirmation of the validity of the sale with a guarantee against defects in it, the names of people present at the court session (*ḥuẓẓār-i majlis*) and the *qāzī*'s signature and seal. In cases where an attorney (*wakīl*) was acting on behalf of the seller, his or her name appears along with the name of the seller, often with a witnessed affidavit granting the power of attorney written into the *iqrār*. In the sixteenth century abridgment and compilation of the *iqrārs*, most of the names of the session or *majlis* attendees were deleted. However, in the section of the compiled work (the first 100 or so *iqrārs*) that deals almost exclusively with properties in Bukhara proper, that is within the "old city" or the "new city," the names of those attending the court session are usually included. From these we can appreciate what has been lost through the copyist's abridgements of the originals. The attendees often included people from the neighborhood in which the sale occurred, many times individuals from the seller's own profession if the property was a place of business (a shop, workshop or warehouse).²⁷ In addition, the names of the city engineer (*miʿmār*) and the market inspector (*muḥtasib*) recur frequently in the list of *majlis* attendees thus providing a glimpse of one aspect of the functions these officials performed in the administration of the city.

Each part of the *iqrār* provides social and economic data. The names and honorifics (or lack thereof) of the property sellers give clues to social and economic status. Official titles and occupational designations provide a way to correlate property ownership and profession. Gender is also transparent in the names, and the frequency of sales involving women provides some basis for assessing the degree to which women owned property. (Overall, the entire corpus of the 400-plus Jūybārī documents

indicates that women were the owners of record in approximately 30 percent of all properties mentioned in the documents, that is, including both the objects of sale and the abutting properties.)

In what follows, I will focus on three of the subjects which the Juzmandūn *iqrārs* illustrate: the physical geography of the village, including the man-made infrastructure; the families who owned property; and the modes of property ownership and tenure.

Physical Geography: The Size and Shape of the Village

Although it is difficult to state with any certainty how large the village was in the middle of the sixteenth century, we can estimate the probable minimum size based on the record of property sales. According to the transaction records which state the acreage (or "*ṭanāb*-age"), the amount of land purchased by the Jūybārīs totaled at least 365 *ṭanābs*. The *ṭanāb* of the time was equivalent to about one-half acre. Adding to that total the three parcels of land for which no size is given, but calculating the size from the price paid, it appears that the two men may have purchased as many as 600 *ṭanābs* or about 300 acres of land. We have no way of knowing what percentage of the land area this represented, but since there were at least 27 other owners still holding land in Juzmandūn by the date of the last *iqrār*, we can safely assume that the village was quite a bit larger than 300 acres. The accompanying sketch map suggests the probable limits of the village.

The village had a built-up center which included a mosque, a public tank, and a cluster of residential and farm buildings along the road to Yarūn. References to these buildings come from three groups of properties sold to Khwājah Islām and Khwājah Sa^cd between October 1561 and late December 1563. The sellers were a tailor (*darzī*), Mir Ḥusayn, the son of Khwājah Ḥusayn and grandson of Mir Sayyid; a husband and wife, Khwājah Muḥammad ^cAlī, the son of Khwājah Mīrakī, and Aghā Dūst, the daughter of Khwājah Sayyid Muḥammad; and lastly Mir Pāyandah Juzmandūnī, who twice sold property to the Jūybārīs during these two years.²⁸

All these properties were close to each other, although the exact placement of each is difficult to ascertain. In theory, since the *iqrārs* describe properties in terms of abutting properties or topography, correlating the purchased properties and the abutting properties or topographic features as they recur in subsequent *iqrārs* would seem to allow for mapping the village. However, boundary properties are not always listed in a comparable way. Sometimes boundaries are listed ordinarily (i.e., first, second, third, and fourth). And sometimes they are listed according to the directions of the compass. Although it is most common for the prayer direction (west) to be named first, this is not always the case, and one cannot assume the first boundary is the western one when the compass

points are not given. But even though exact placement of the properties is impossible, we do know from the references made to the owners or former owners of adjacent properties that the properties in the abovementioned group of transactions were close to each other and near the village mosque and tank.

The first group of properties was made up of seven separate parcels purchased from the tailor, Khwājah Mīr Ḥusayn. At least five and perhaps six of the seven were in the center of the village and included one-half of a walled (garden) enclosure (*muḥawwaṭah*) with a tank, a separate farmhouse (*ribāt*) "containing numerous rooms" (*khānahs*²⁹) and three separate plantations (vineyards and orchards).³⁰

The second group, purchased in November 1562 from Khwājah Muḥammad ʿAlī and Aghā Dūst, his wife, was a three-*tanāb* parcel of land with a garden (*bāgh*), one-room buildings (*khānahs*) and a residential compound (*rūy ḥawīlī*).³¹ Two sides of this property were bounded by the reserve land (*ḥarīm*) of the Juzmandūn Canal (*nahr-i Juzmandūn, jūy Juzmandūn*). A third side abutted the mosque and the reserve land around the tank adjacent to it. The fourth side was a garden already belonging to Khwājah Saʿd. That garden would appear to be identical with the "half-*muḥawwaṭah*" which Khwājah Saʿd's father bought the previous year.

The third group of properties, purchased in November 1563 from Mīr Muḥammad Pāyandah Juzmandūnī consisted of four *dar-i khānah* - single-room structures - which abutted the half-*muḥawwaṭah* purchased in 1561.

In addition, other properties listed as adjacent to the objects of the sale included more gardens, residential compounds (*ḥawīlīs*), and modest unwallled residences (*khānahs*).

As reconstructed from these sales, the center of Juzmandūn was a cluster of buildings including residential compounds, a walled garden (*muḥawwaṭah*) with a tank and trees, a farmhouse (*ribāt*) "containing numerous *khānahs*," and a smattering of individual *khānah* structures located close to the mosque with its public tank.

Water Channels and Reservoirs

One of the boundaries of this village center was the Nahr-i Juzmandūn, which on modern maps has branches passing north and east of the village. Juzmandūn was in the Rūd-i Shahr (City Canal) *tūmān* district. The canal from which the *tūmān* took its name bisected Bukhara from east to west, supplying the water for the great tanks that served the city's quarters. Juzmandūn drew its water from the Nahr-i (or Jūy) Juzmandūn, which, according to Rempel's map, branched off the Rūd-i Shahr, not where it emerged from the city but to the northeast of Bukhara. On Rempel's map, the Nahr-i Juzmandūn actually makes a circuit around the city to the northwest.³² That same alignment is also visible in the 1:50,000 map produced in 1988 for the Soviet General Staff, although the canal is not

named there.

In Juzmandūn, the Nahr-i Juzmandūn was not the only channel substantial enough to have its own name. Although it appears to have been the main water supply, there were two other canals which were probably of comparable size - the Tall-i ʿAlawīyan Canal which took its name from a village about two and a half miles southwest of Juzmandūn and the Yarūn Canal, named after a village midway between Juzmandūn and Tall-i ʿAlawīyān.

The waterways exemplify the legal construction of the concepts of private and public. The main waterways (the Juzmandūn, Tall-i ʿAlawīyān, and Yarūn canals) were public (expressed explicitly in the term *nahr-i ʿāmm*) which meant that private ownership rights could not be exercised on their terrain or their water. Individuals could own shares in the water and those shares were figured in units of time and flow rate. Public waterways included the canal bed (*baṭn*) and flanking strips of "reserved" land (*ḥarīm*).³³ The reserve land was public space on which private ownership (*milk*) or private rights of use (*taṣarruf, suknayāt*) were prohibited. Since private property or state lands with leased rights of use typically abutted the reserve land, it was not uncommon to find rights-of-way across private property specified to allow public access to the reserve lands so that individuals could collect water for household use, gather the herbs and grasses that grew wild in the reserve land, and let their livestock graze along the banks.

Smaller public and private waterways³⁴ branched off the Juzmandūn, Tall-i ʿAlawīyān, and Yarūn canals and there are many references to the reserve lands alongside an unspecified "public waterway" (*nahr-i ʿāmm*) which suggest that *ḥarīm* land was a significant feature of the agrarian landscape.³⁵

Like the quarters of the city, the needs of the village for water for household use were met by open tanks (*sar ḥawẓ*) supplied by the canals. In front of the mosque in Juzmandūn was a public tank (*ḥawẓ-i ʿāmm*) for which the Juzmandūn Canal provided the water. As a public water source, this tank, like a public canal, also had a surrounding *ḥarīm*.³⁶ Since a mosque and the land it stands on are, from a *Shariʿa* perspective, one of the *mustaṣnayāt* or "excluded" (and unownable) types of property, the *ḥarīm* issue here would seem to be somewhat moot. The mosque tank was one of at least four tanks in the village, but the only one designated for public use. One of the private water tanks belonged to Khwājah Kalān, the son of Khwājah Mullā Aḥmad Juzmandūnī, until the end of June 1565, when he sold it to Khwājah Saʿd Jūybārī.³⁷ Khwājah Kalān's nephew and namesake, the son of Khwājah Mir Muḥammad Juzmandūnī, also owned a private tank, as did a certain Baqī b. Mir Yusuf.³⁸

One last man-made hydraulic feature of the landscape were the drainage ditches (*zihkash*) which frequently served as property boundaries.

Elevations

The region occupied by Juzmandūn is quite flat. Juzmandūn itself stands at 722 feet (220 meters) above sea level. Only two prominences on the landscape are high enough to warrant naming, the Tall-i ʿAlawiyān (Hill of the ʿAlids) from which the village got its name, and the Tall-i Juzmandūn. Both are some thirty or more feet above the surrounding countryside. The Juzmandūn hill is listed at 229.6 m (753 feet) above sea level and the Tall-i ʿAlawiyān at 230.8 m (757 feet).³⁹ Besides these two heights, two other prominences are mentioned, an unnamed mound simply referred to as *tallchah* (little hill), and an elevation only described as *tall-i muʿayyan* (designated hill), perhaps referring to one of the two named hills.⁴⁰

Roads and Thoroughfares

The roads or pathways in Juzmandūn also conform to public-private construction. The main roads in Juzmandūn were the highway from Bukhara to Qarākūl and the road to Yarūn which may have run on a course diverging slightly from the Qarākūl Road. Thoroughfares or rights-of-way frequently form the boundaries of property, and it is possible to identify four types of roads or paths in the *iqrārs-rāh*, *rāh-raw*, and *rāh-i ʿāmm*. The first is a designation for private paths (e.g., *rāh-i bāgh-i mushtarī*, "a [private] path to the garden of the buyer").⁴¹ The second designates a right-of-way with an implied limited use (*rāh-raw-i bāgh Mir Shaykhum*)⁴² and an implied ownership by another party of the land on which the right-of-way exists.⁴³ The third type of road or path, the fully public type, falls into two categories: public highways leading to other settlements (e.g., *rāh-i ʿāmm kih bih Yarūn mardum mirawand*, "the highway by which people go to Yarūn") and the undifferentiated network of public paths (*rāh-i ʿāmm*) within Juzmandūn itself.

Products of the Village

Juzmandūn must have been noted for its production of fruits and grains, and that may have been at least one of the reasons for the concentrated purchases made by the Jūybārīs. Dozens of gardens are mentioned in the *iqrārs*. As new land purchases are made, many of the citations to abutting gardens refer to ones already mentioned. But the sheer number is impressive when we compare them with another Rūd-i Shahr village, Afdaq Bughā, in which the Jūybārīs were also acquiring property during the same period.⁴⁴ There the land appears to have been quite marshy. The main crop in Afdaq Bughā was reed (*nay*), and there were many ponds (*kūl*) and reedbeds (*nayistān*) bought, sold, and mentioned as

abutting property. But of the forty-four properties that the Jūybārīs bought in Afdaq Bughā only one was a garden, and not a single garden is mentioned among any of the abutting properties in any of the *iqrārs* for Afdaq Bughā, in striking contrast to Juzmandūn.

In the case of Juzmandūn, gardens come in some variety. Sometimes simply "garden or orchard" (*bāgh*) is used; sometimes more specific terms, vineyard (*angūristān*), fig orchard (*anjīristān*), pomegranate orchard (*anāristān*), plum orchard (*ālūstān*), and apple orchard (*sībistān*). The village was also a producer of cereal grains. The many land purchases described as "cultivable land" could have been used either for cereal production or for growing the melons for which the region was famous. Alfalfa (*yurunchqah*), too, formed an important crop both for its use as fodder and, as a legume, for its capacity to restore nitrogen to the soil.

Social Structure: Property Owners

Although the names and occupational tags of many of the property owners, whether sellers or not, offer tantalizing clues to an apparent social heterogeneity among the owners, it is difficult to group them with any assurance except by the most fundamental categories of differentiation - gender and kinship.

There are fifty-six property owners named in the Juzmandūn *iqrārs*, including the two Jūybārīs and two deceased individuals, Khwājah ^cAzīz, a *diwān*⁴⁵ (government secretary), and Qilij *chuhrah hāfiz* (chaplain for the khan's bodyguard?). In the case of the latter two, their estates are the owners of record at the time of the sale. Twenty-three of the property owners, including the estates, figure as sellers to the Jūybārīs and had no property in Juzmandūn other than what they sold, as far as can be determined from the *iqrārs*. Nineteen of the fifty-six were owners of adjacent property and never sold anything to the Jūybārīs, while the rest sold property but were still owners of other property in the village when the last *iqrār* was executed.

The property owners of Juzmandūn represent something of a cross-section of society. First, there were a few families with substantial holdings as well as several obviously well-to-do individuals. At least two of the property-owning families bore the *nisbah* "Juzmandūnī", suggesting long ties to the village. One of these families were descendants of Khwājah Mullā Aḥmad Juzmandūnī. In four separate transactions, they sold a group of relatively small holdings, including one of the water tanks of the village. In the first, Dūst Mīr, one of Khwājah Mullā Aḥmad's four sons, sold Khwājah Sa^cd Jūybārī the *raqabah* (see discussion below) of a garden (*bāgh*) on a piece of privately owned land recorded in an *iqrār* dated 4 Rabi^c al-Thānī 970 (31 October 1562).⁴⁶ At about that same time (the copyist here combined these two *iqrārs* into one under the same date), a brother of Dūst Mīr, Khwājah Mīrak, sold Khwājah Jūybārī 3.5 *ṭanābs* of land,⁴⁷ and about two years after this, a third brother, Khwājah Kalān, sold a small garden (*bāghchah*) and

the water tank.⁴⁸ The fourth brother, Khwājah Mīr Muḥammad, was the owner of "houses and *rabaḥ-hā*"⁴⁹ bordering property sold to Khwājah Saʿd at the very end of the period covered by the documents. He is also the father of two other property owners, Khwājah Kalān and Khwājah Dūst Mīr, named for their paternal uncles. Khwājah Dūst Mīr made one of the largest single sales (in terms of price) at the very end of the decade in which the Jūybārīs established themselves in the village.

The descendants of Khwājah Niʿmat formed a second lineage linked to the village. They sold Khwājah Saʿd sixteen separate parcels of gardens and other cultivable land and two *ḥawīlīs*, one of which appears to have been quite large. The sales, registered in 4 Rābiʿal-Thani 970 (31 October 1562) (three transactions) and 10 Ramaḥān 971 (22 April 1564) (one transaction), may have been precipitated by the death of Khwājah Mīrakī, a son of Khwājah Niʿmat. All the sellers are either his sons, his daughter, or a woman who may have been his wife, in other words representatives of the *Shariʿa* classes of heirs. Of the three transactions dated to October 1562, one included 11 separate parcels of land ranging in size from 1 to 12 *ṭanābs* (1/2 to 6 acres). One of the parcels is described as a garden (*bāgh*) and no dimensions are given.⁵⁰ The sellers of these parcels were three of Khwājah Mīrakī's sons, co-owners of the properties. In another transaction registered on the same date, one of the brothers, Khwājah Muḥammad ʿAlī acted in a dual role as principal (*aṣīl*) seller of "a piece of *milk* land on which the *raqabah* of garden, houses, and *ḥawīlī* are [also] my private property (*milk*)" for himself and as attorney (*wakīl*) for Aghā Dūst, his wife and daughter of Khwājah Sayyid Muḥammad in the sale of the "entire *raqabah* of a privately owned residential compound (*ḥawīlī*)."⁵¹

In another *iqrār*, a separately registered transaction, again with the October 1562 date, Muḥammad ʿAlī sold four parcels of land to Khwājah Saʿd. Finally, a daughter of Khwājah Mīrakī, Bichah Khurdil, a year and four months later sold the residential compound mentioned above with "rooms (*khānah-hā*), a reception hall (*dihliz*), second-floor room (*bālā-khānah*), and entryway (*aywān*)."⁵²

Although the documents do not explicitly mention that the father of all these progeny, Khwājah Mīrakī, the son of Khwājah Niʿmat, is deceased, the flurry of sales within a year or so of each other, the fact that so many potentially inheriting members of the family are involved, and the fact that none of these appear later as owners of abutting property suggest a liquidation brought about by the demise of the head of a household, perhaps for the settlement of debt.

There is other evidence that the family had been selling to the Jūybārīs. In Ramaḥān 968 (May-June 1561), two years prior to the family's earliest sale, this same Muḥammad ʿAlī served as a witness when a power of attorney (*wikālat*) was executed. The person for whom power of attorney was being assigned was the same Aghā Dūst (the daughter of Khwājah Sayyid Muḥammad) for whom Muḥammad ʿAlī himself held power of attorney in 970. In the earlier case, the power of attorney was assigned to her brother

who was selling some twelve *ṭanābs* of cultivable land in the village of Juybār-i ʿAriẓ, also in the *tūmān* of Rūd-i Shahr on her behalf.⁵³

A third *khwājah* landowning family was the line of Khwājah Sulṭān Bāyazīd and included his son, Mīr Pāyandah Juzmandūnī, his daughter Aghā Jān, and her children, four sons (Khwājah Sulṭān ʿAlī, Ḥāfiẓ Mīr Muḥammad, Mullā Khwājagī, and Mullā Muḥammad) and three daughters (Begī, Bichah-i Kalān, and Aghā). Her husband and the father of the seven children was known as Khwājah-i Juzmandūnī.⁵⁴ In two different transactions about a year apart, Mīr Pāyandah sold off 16.5 *ṭanābs* of land, the *raqabah* of a *ḥawīlī*, and four shops.⁵⁵ The names of the other family members appear as owners of abutting properties.

Besides these *khwājah* families, there were several individuals whose names and titles also place them in what we might call the clerical class, or men of the turban, that is people with titles like *mullā*, *mawlānā*, *khwājah*, and *sayyid*. Mawlānā Muḥammad Shīrgīrānī b. Mawlānā Nāsīr Shīrgīrānī⁵⁶ is one such case: he sold 35 *ṭanābs* of land to Khwājah Saʿd.⁵⁷ Another is Mīr Muḥammad Ibrāhīm son of the late Mawlānā Aḥmad al-Jūybārī.⁵⁸

The bureaucratic class is also represented among the property owners: at least three different *dīwāns* or members of their families are mentioned as property owners.⁵⁹ In Bukhara, the *dīwān* appears to have been a major figure in the chancellery, although the exact duties of the office are unclear.⁶⁰

The military leaders, the amirs, are also represented among property owners, but their numbers in Juzmandūn are not very significant, especially in comparison with the *khwājahs*. The only owner who can be identified as from the amirid class was the "intimate of the khan" (*muqarrab al-khāqānī*) Amīr Tūrum Bī b. Amīr Bāy Urūs Bī, whose property ran along the northern boundary of a 12 *ṭanāb* piece of land purchased from the daughter of a *dīwān* in mid-971 (February 1564). This Amīr Tūrum is most probably to be identified with the Amīr Tūrum Bī of the Dūrmān tribal military organization, who was a prominent and close military supporter of the Jānī-Begid/ Shībānid, ʿAbd Allāh b. Iskandar. Tūrum Dūrmān appears early on as one of the young sultan's two top military supporters in his first attempt to take Bukhara. It is possible, however, that he may have been among those who are reported as advising ʿAbd Allāh to defend the fortress at Fārāb rather than attack its Suyunjukid besiegers, for when the Jānī-Begid sultan decided to launch an attack anyway, Tūrum's name is not among those who were in the army vanguard (*yarāwul*). Moreover, when the Jānī-Begid was successful in his assault on Bukhara, he chose to execute only two of the captives, one of whom was himself a Dūrmān amir.⁶¹ Tūrum Dūrmān, however, clearly maintained his influence with the Jānī-Begid leader, for five years later he is listed as one of the leaders of a campaign against the Timūrids of Badakhshān where he is portrayed as boldly advising the sultan to ignore the cautious advice of the Balkh amirs and push forward against the enemy.⁶² In 975 (1567-68), he was also one of the leaders of the Marv campaign against the Safavid Shāh Tahmāsp, for

his "stamping out Islam and oppressing the ^culama."⁶³

Besides the property which bounded the piece bought by Khwājah Sa^cd in 971 (1564), the amir also owned a garden estate (*chahārbāgh*) in Bukhara where later that same year he hosted a meeting of ^cAbd Allāh and Darwīsh Khān, the Suyūnjukid/Shībānid ruler of Tashkent.⁶⁴

Turum had two sons, ^cAbd al-Bāqī Bī and Muḥammad Bāqī Bī, who would become two of the most influential amirs at Bukhara in the last quarter of the sixteenth century as leaders of the dominant Dürmān.⁶⁵

Besides the *khwājah* class and military and civilian worthies affiliated with the ruling clan, tradesmen, or at least individuals who used the name of a craft occupation as a means of identification, show up as major property owners in Juzmandūn. One of the largest property transfers was registered on the 6th of Safar 969 (16 October 1561) when the tailor Khwājah Mīr Ḥusayn sold the seven pieces of real estate mentioned above - half of a walled garden (*muḥawwaṭah*), a *ribāt*, four separate gardens (*bāghs*) and seven *ṭanābs* of land for the sum of 200 *tangahs* to Khwājah Sa^cd. In terms of price, it was the seventh largest purchase (of twenty-one) that the Jūybāris made in Juzmandūn.

There was also a baker (*nānwā*) named Mardān Shāh b. Khāwand Shāh who had private land of his own as well as a *suknayāt* holdings (see below) on land owned by Khwājah Sa^cd.

From names alone it is difficult to determine the classes, or social affiliations, of other property owners. Some, like Bāqī b. Mīr Yūsuf, Ṭūfān b. Jalāl al-Dīn, Tizik b. Khwājah Aḥmad, e.g., suggest fairly ordinary people, perhaps farmers, without religious, military, or scribal affiliations.

Women figure prominently as sellers of land, as holders of power of attorney for other women sellers, and as owners of adjacent property. Sometimes the sale of their lands was handled by their sons, brothers, or husbands exercising power of attorney. In other cases they acted for themselves.⁶⁶ And on one occasion in Juzmandūn, a woman held power of attorney in a sale on behalf of another woman. An *iqrār* registered on the 12th of Rabī^c II 972 (18 October 1564), was executed by Turdī Sulṭān, the daughter of Sulṭān Shāh Mīrak on behalf of Māh Begum the daughter of the (recently) deceased Amīr Ḥasan ^cAlī Qungrāt.⁶⁷ In many cases, the power of attorney may reflect the power relationships within families, dominant males acting on behalf of subordinate females. But in this case, the power of attorney may be a sign of status and the desire for privacy that wealth and status brought. There is no evidence that Māh Begum was a minor (in the *iqrārs* this is usually so stated if it happens to be the case), and it may simply have been that, like other wealthy residents of Bukhara, it was a matter of prestige for her to have an attorney to represent her interests in public. It would have been unseemly for her to have had a male attorney other than immediate family (father, brother), but there were no similar social constraints on using a female from outside the family. Then again, it may have been the case that she had no eligible male relatives to serve in the role. In any event, the phenomenon of females holding power

of attorney for other females and for minor males, is not uncommon in these documents.

In Juzmandūn, there are ten women who appear as property owners, seven of whom also appear as vendors of property. Two of them, Aghā Bigah (Bikah), the daughter of Khwājah Sayf al-Din *dīwān*, and Aghā Bigah, the daughter of Khwājah ʿAzīz did not sell any of their property in Juzmandūn to the Jūybārīs, as far as we can tell from the existing *iqrārs*.⁶⁸ Another, the above-mentioned Māh Begum, daughter of the military figure Amīr Ḥasan ʿAlī Qungrāt, did sell part of her holdings but still owned land in 979 (1571) when the last *iqrār* was registered.⁶⁹ One other woman, Turdī Sulṭān, the daughter of Shāh Sulṭān Mīrak, not herself a property owner in Juzmandūn as far as is known, played a role in the property transactions, exercising power of attorney on behalf of Māh Begum on the occasion of the 12 Rabiʿ II 972 sale.⁷⁰

In general it appears from these *iqrārs*, as well as from those pertaining to other villages of the oasis, that property ownership in Juzmandūn was not restricted to a particular class or social group. The more prominent figures, the military and upper echelon *khwājahs* like the Jūybārīs themselves, with access to greater resources, could, not surprisingly, acquire more. But small property ownership seems not to have been much affected by the seemingly relentless purchases of real estate by the Jūybārīs. Nor does the pattern of ownership that confronted them during this decade suggest any earlier efforts at amassing property.

Patterns of Property Ownership

The prevalent pattern of small landholding landownership and the dominance of private ownership may have in part been due to the various modes of ownership possible in Bukhara. Although the standard categorization of real estate ownership recognizes three basic forms: private (*milk*), state (*mamlakah*), and endowment or trust (*waqf*), actual rights on all these forms of ownership were far more complex than the categories suggest. While scholars of early modern rural society have been concerned with the modes of surplus transfer (taxation and urban-rural exchange) and the issue of whether there was social stratification or consolidation of land holding leading to monoculture and the enserfment of the peasantry, what we see in Bukhara seems to be the result of a long evolution towards increasingly refined notions of ownership. This may be a reflection of a growing demand placed on a more or less static supply of productive land.⁷¹

The *iqrārs* raise at least as many questions as they answer: for example, did the Jūybārīs buy as well as sell? Or did they finance their purchases by leveraging their holdings, and how does this correlate with their establishment of extensive public charitable endowments (as well as the large trusts the main purpose of which was to support succeeding generations)? Were the sales arms-length transactions, or did the Jūybārīs use their

political influence to force reluctant owners to sell? Do the purchases represent the kind of consolidation of large landowning families that Baer and others posited as leading to great latifundia, the formation of agrarian capital, and consequent social stratification in Egypt? (Certainly the Jūybārīs became a great landowning family, but was this an aberrant phenomenon?) Were these purchases simply a predictable response to a relatively sudden influx of capital into the family's coffers, a response that would be reversed when the income pendulum swung the other way?

Most of these questions can only be tentatively addressed. The *iqrārs* themselves provide more concrete answers to the question of how property was held and the ways in which estates could be established than to what the historical consequences of ownership were. Here I shall deal only with milk, or private property, since this is the category of real estate covered by the *iqrārs*, and refer to *waqf* and *mamlakah* land only in passing.

Milk is perhaps best defined as the right of disposal or alienation of real estate or its productive value.⁷² In Juzmandūn, endowment (*waqf*) and state (*mamlakah*) land are mentioned, but rarely. The *iqrārs* record the transfer of 64 separate pieces of milk property, and in the lists of the properties abutting these, another 13,5⁷³ parcels of *milk* are mentioned compared with only seven pieces of *mamlakah* land⁷⁴ and two of *waqf*. Although it is conceivable that these latter make up in individual size what they lack in absolute numbers, the evidence would seem to argue against it. If endowment and state lands were geographically extensive in Juzmandūn, one would expect that they would turn up more frequently than they do in the lists of abutting properties.

It is not particularly surprising to find this kind of proportion of *waqf* and *mamlakah* to private property. In the 1520s, Mihr Sulṭān Khānum, the daughter-in-law of Shibānī Khan, transferred to *waqf* 197 pieces of urban and rural property, mostly in the province (*wilāyat*) of Samarqand.⁷⁵ Of this total, 144 were parcels of land in the *tūmān* of Shawdar and the abutting properties are virtually impossible to isolate, although the vast majority of them appear to be private. For the remaining fifty-three parcels, there were ninety-seven abutting properties labeled *milk*, thirty-one described as *waqf* and only nine referred to as *mamlakah*. Unowned uncultivated (*mawāt*) land is mentioned four times. (Of course, after the endowment was made the percentage of *waqf* land increased, whether significantly or not it is hard to say.)

Private property has several aspects. In the *iqrārs*, the property being sold may be first the real estate itself (land, buildings, or shares of same) along with any improvements. In such cases the *iqrār* simply describes the object as a piece of cultivable land (*qiṭʿah-i zamin-i milk-i khūd*), a garden, a house, etc. Or the land and improvements may be treated separately. When such is the case, the often paired terms *raqabah* and *sukniyāt/suknayāt* (a plural form of *suknā*, though treated as a singular) are used to distinguish the underlying real estate (the *raqabah* or "neck," which is usually, but not always, land) and the improvements on it (trees, buildings, vines, etc., - the

suknayāt).⁷⁶

In his introduction to the translation of the Jūybārī documents, P.P. Ivanov describes *suknayāt* as comprising buildings built and plants sown (including legumes and cereal grains) on state (*mamlakah*) land.⁷⁷ (He apparently read the documents very selectively.) R. G. Mukminova, editor of Mihr Sulṭān Khānum's *waqf-namah*, in which many *suknayāt* in the city of Samarqand are included in the endowment, expanded the definition to include "buildings, crops, planted trees, but not the land itself which belongs to another individual, the government or a *waqf* foundation."⁷⁸ To this definition, she has more recently added household furnishings.⁷⁹

Fiqh sources provide some helpful definitions, although I have so far found the term only in al-Muḥaqqiq al-Ḥillī (d. 676/1277-78), *Sharā-iʿ al-Islām*, and as yet nothing directly from Bukhara in the period. In the section titled "*Kitāb al-sukna wa'l-habs*," al-Ḥillī describes *suknā* as a contract, the benefit of which lies in having control (*taslīṭ*) over the disposition of the productive yield (*manfaʿah*), while the *milk* remains in the hands of its owner.⁸⁰ He divides it into a lifetime contract called *ʿumrā*, and one for a stated period called *ruqbā*.

Al-Khwarazmi (fl. late 10th century), speaks of *ʿumrā* contracts as follows: "An *ʿumrā* contract is if a man says 'This house is yours during my lifetime or during your lifetime.' *Ruqbā* is if he gives [another] residence in a house then death overtakes one of them, the house reverts to the ownership of the survivor."⁸¹ The *suknā*, then, is a kind of lodgment of a right on a place, in our documents usually a piece of ground but equally well a building or even another *suknā*.

In the case of Juzmandūn, *suknayāt* ownership appears in only one context, although it crops up in the dozens of other locales in which the Jūybāris bought property, especially in Bukhara city proper. In document no. 139, which records the tailor Mīr Ḥusayn's sale of seven properties, one of the adjacent properties is described as "milk land of the buyer [Khwājah Islām] on part of which is the *suknayāt* of a garden (*bāgh*) belonging to the baker Mardānshāh, the son of Khāwand Shāh, on another part the *suknayāt* of a garden belonging to Mīr Ḥusayn [the tailor himself]." In view of the fact that the immediate area abounded in orchards (fig, plum, and pomegranate are mentioned) and vineyards, it is reasonable to assume that the *suknayāt* in question here consisted of trees or vines. These *suknayāt* were owned as *milk* (though the term was not used) by the parties named and could be alienated (subject to the applicable rules of preemption) by sale, gift, or endowment, as well as inherited and bequeathed. Only the land beneath them belonged to Khwājah Islām.

This kind of tenure raises several questions. For instance, whence did the right of *suknayāt* arise? From leasehold? From a sale of development rights? From the division of property into *raqabah* and *suknayāt* and then the separate sale of each? Did the owner of the *suknayāt* retain the right to replace his property, especially when it was a living organism like a tree or vine?

There is evidence, though slight, that the *suknayāt* paid a ground rent. If this was generally true, which would certainly seem to be the case, it would lend weight to the argument that *suknayāt* arose out of leasehold. R. G. Mukminova quotes a passage from the Mihr Sulṭān Khanum *waqf* of ca. 1520 which describes one of the villages being included in the endowment as "the entirety of a piece of land which is cultivable and is the *takjā* (*tahjā*) of the market of Zanjir Bagh, which is well known. This is one of the lands of Wakhshatī on which are the *suknayāt* of the shops of [various people] and these *suknayāt* are not included in this endowment and they are excepted from it."⁸² Mukminova understands this to mean that the *takjā* (*tahjā*) land underlay the shops which held a long-term lease on it. It was this ground rent that gave the land productive value as far as the *waqf* was concerned. The term *takjā* (*tahjā*) as used here seems to be synonymous with *ḥiqr*, the term used in the Arab lands of the Ottoman Empire for ground rent.⁸³

In terms of its effects, *suknayāt* on private property resembled similar rights on *waqf* land like *ḥiqr* or the double rent. These were instruments by which the financial requirements of a *waqf* might be met by allowing others to invest in improvements on the property. It does not stretch credulity to think that private landowners, perhaps to increase the rents they received, allowed or encouraged tenants to improve the real estate's productivity by investing in plantings or buildings. The effect was to create an overlay of ownership rights that would have a direct impact on the value of the underlying real estate.

Often accompanying the term *suknayāt* is the term *raqabah* which refers in our documents to the *milk* rights immediately underlying a *suknayāt*. For example, one of the *iqrārs* dated 4 Rabi^c II 970 records Mawlānā Muḥammad Shīrgīrānī's sale to Khwājah Sa^cd of two pieces of cultivable (unimproved) land. One of the abutting properties is described as "the garden of Bāqī b. Mīr Yūsuf, the *raqabah* of which garden belongs to the esteemed buyer as his own private property" (*bāgh-i Bāqī ibn-i Mīr Yūsufkiḥ raqabah-i bāgh milk-i ʿālīḥazrat-i mushtari madḥkūr ast*).⁸⁴ In other words, the garden belonged to Bāqī b. Mīr Yūsuf, but the land belonged to Khwājah Sa^cd.

The relationship between *suknayāt* and *raqabah* may best be seen in the sale of a caravanserai and a piece of adjoining land, not in Juzmandūn, but in the city. The object of the sale is described as "the entirety of a caravanserai with numerous rooms, constructed of fired brick, a courtyard, stable, and the *raqabah* of a piece of land on which is the *suknayāt* of the residential compound (*ḥawīlī*) belonging to Mawlānā Bustān ʿAlī, the imām."⁸⁵

The matter becomes complicated in the case of the sale to Khwājah Sa^cd of "a piece of land on which the *raqabah* of garden, *khānahs* (single room structures) and residential compound (*rūy ḥawīlī*), are my [the seller's] private property (*milk*)."⁸⁵ Here what we seem to be seeing is the partition of a privately owned piece of property into the improvements (being retained by the seller as his private property or perhaps belonging to someone else) and the sale of the land beneath.

The layers and complexity of ownership cannot be further explained at this point. The object of this paper has been to show the structural components of the village of Juzmandūn - geographical, social, and legal. But this complexity does raise questions about the way in which the treatment of agrarian relations in Central Asia has developed to this point. Much of the analysis of this period rests on the assumption of the existence of a class of individuals who controlled surplus production either through ownership or control of government levies. Social and economic relations are then determined by the exploiters of labor, on the one hand, and an exploited peasantry, unable to accumulate the capital necessary to acquire land, the principal means of production in an agrarian society, on the other.

What the documents show about property relations in Juzmandūn in the decade under discussion does indeed provide some evidence - witness the purchases made by the Jūybārīs - to support the view that an exploiting or feudal elite was prominent in property ownership. More interesting, perhaps, is the evidence that property ownership, especially of land, penetrated society much more deeply than this theory of social relations would suggest. Ownership was complex and increasingly refined, perhaps, in the case of *suknayāt*, to give more and more opportunity to the common man to own some of the means of production.

Juzmandūn society reflected the society of Bukhara city itself. It was a part of it and indistinguishable from it. Individuals from amirid, *khwājāh*, and professional groups all were represented among its property owners. The forms and objects of property ownership found throughout the oasis - *milk*, *mamlakah*, *suknayāt*, and *raqabah* - are also present in all their variety and complexity in this microcosm of mid-sixteenth century Shari'a-based agrarian society.

At this point there are only one or two items of information about the later history of Juzmandūn as a village and about the further evolution of its property that I have found. But these make it clear that change was always going on. There is evidence now that the scale of property purchases by the Jūybārī family was aimed at more than mere aggrandizement of family wealth or the creation of dynastic capital. Some of it was probably intended to underwrite one or several of their charitable activities. One of the many construction projects that they sponsored was the Gāwkushān complex of congregational mosque and madrasa flanking the Rūd-i Shahr Canal in the "new city" section of Bukhara, which Khwājāh Muḥammad Islām began and Khwājāh Sa'd finished. Khwājāh Sa'd's waqf endowment deed for the complex survives in the Uzbek archives in two redactions, one of which is contained in another Jūybārī waqf deed, that of his granddaughter, Āy Pādshāh Bībī.⁸⁶ Khwājāh Sa'd's *waqf* reveals a pattern of converting many, if not most, of the land purchases into endowments to support these new institutions. One would expect this to be the case, given the number and scale of public buildings erected and endowed by the family over the sixteenth and seventeenth centuries. But still it is useful to have it confirmed in the documentary record.

For example, in the list of properties endowed in 1573 for the support of the Gāwkushān madrasa, the first group of properties comprises villages in Qarākūl, a town 30 miles southwest of Bukhara. These correspond to purchases recorded on the 22nd of Rabī^c I 974 (7 October 1566).⁸⁸ The second group in the endowment deed, villages in the Bukharan *tūmāns* of Kharqān Rūd and Ghijduwān, is scattered over several of the *iqrār* affidavits, ranging in date from 968 to 972 (1560-1565).⁸⁹ But not all of the endowed properties for the Gāwkushān madrasa can be traced in the *iqrārs*, more evidence that the published *iqrārs* represent but a portion of the Jūybārī real estate holdings. A full comparison of the properties described in surviving *iqrārs* with those listed in Jūybārī *waqf* deeds may reveal other patterns of purchase and endowment.

For Juzmandūn we have so far only a single example of a Jūybārī *waqf* of property in the village, and it does not seem to involve any of the properties recorded in the *iqrārs*. On the 20th of Rajab 1018 (19 October 1609), ^cAbd al-Raḥīm Khwājah, one of Khwājah Sa^cd's sons and the father of Āy Pādshāh Bibī, founded a *waqf* that included six parcels of land in Juzmandūn.⁹⁰ None of the parcels seem to match any of the purchases made by Khwājah Islām or Khwājah Sa^cd and may have been acquired by a third generation of Jūybārīs buying land in Juzmandūn. The owners of properties bordering these six parcels also represent a new generation of landowners, some of whom may have been descendants of the families prominent in the 1560s. But there is no direct evidence yet of this. Some of the parcels are on the periphery of Juzmandūn, bordering lands of the villages of (Tall-i) ^cAlawiyān and Yūrūn (i.e., Yarūn). The descriptions of properties bordering these six parcels give no clues about the disposition of the lands purchased by Khwājah Islām and Khwājah Sa^cd. A *waqf* is mentioned once as bordering property but it is not a Jūybārī *waqf*.

Beyond the evidence for later Jūybārī investment in Juzmandūn, there is some indirect evidence that Juzmandūn had a degree of prestige that distinguished it from other suburban settlements. The presence of *khwājah* and amirid families among the landowners there is one such indication. Another is the existence of residential structures (the *hawīlīs*) associated with more well-to-do families and giving some indication that the landowners were not absentee in the city, although the two miles dividing the village and the city proper would hardly seem to make a resident of Bukhara an absentee landlord. A third sign of the village's status is its location on the main road to Iran where, despite its proximity to the city or perhaps because of it, it served as an overnight stopping place. In 1642, the reigning khan at Bukhara, Imām Qulī Khān, who was then suffering from progressive ocular deterioration, stepped down from the throne and turned it over to his brother, Nazr Muḥammad, who was then ruling Balkh. Intending to make the ḥājj pilgrimage via Iran, the abdicating khan left Bukhara, reportedly with a party of 500 people, on the 24th of Zū'l-Hijjah 1051 (26 March 1642).⁹¹ The first night the entourage camped at "Juzmand [sic] which is about 1/2 *farsakh* from the city" and gathered provisions necessary for the trip. While stopped there, Imām Qulī

reportedly sent heralds (*jārchiyān*) to "all towns and villages" to tell the people that he had exerted every effort on their behalf and had now stepped down and put the affairs of the khanate in his brother's hands. If any person had cause to complain because of his rule, he should come now, state his case, and seek compensation. But, as our source tells us, "in one voice" the people rose up to praise his justice and thank him for his service in formal affidavits (*wathā'iq*) drawn up for the occasion. Imām Qulī expressed his gratitude and said he would carry these documents with him to the grave. That done he left Juzmandūn, eventually reaching the Ḥaramayn and performing the *ḥajj* rites in 1643. He stayed at Mecca, treating his eyes with the water of the Zamzam well, and died there in 1053 (either 1643 or 1644).

If Juzmandūn is in some ways at least typical of the hundreds of villages (variously called *qariyah*, *dih*, *dihchah*, and *mawzi*^c) that comprised the "*wilāyat-i Bukhara*" then there were microsocieties throughout the oasis that included a broad spectrum of society, at least from the standpoint of occupation and profession. Juzmandūn reveals landowners with intellectual and military backgrounds, with craft (tailor and baker) origins, and probably many simple farmers (those property owners without occupational tags affixed to their names) as well. There is always an inclination, writing from the perspective of the late twentieth century, to try and devise class categories for the individuals who appear in our materials. If class distinction is based on ownership of the means of production than Bukhara was a one-class society.

Probably more telling about power is relative wealth. It is not always evident that power, that is military power, was always accompanied by wealth. But the reverse does seem to have been true, that wealth always produced at least social power. And wealth and power could certainly be concentrated, at least for a time, in the hands of a few. In Juzmandūn we certainly see this, in the activities of the two principal buyers, Khwājah Islām and his son Khwājah Sa^d. But wealth and power, if property ownership can be taken as a sign of both, were not the exclusive right of any particular social or professional group or even of any family. Changes in power relationships were inevitable, although some individuals and groups, like the Jūybārī family, may on occasion have enjoyed both the extraordinary good fortune and the necessary administrative expertise to perpetuate wealth and therefore social power for long periods of time.

NOTES:

1. This is the spelling in the sixteenth century documents. The first vowel cannot be determined from the Persian form, but the Russian translator of the documents transliterated it as "u" as do A. A. Egani and O. D. Chekhovich in their transliteration of the name in a document they published in "Regesty Sredneaziatskikh aktov," *Pis'mennye Pamiatniki Vostoka* 3 (1976-77) (Moscow: Nauka, 1984), pp. 108-9. In present-day Bukhara, the exact form of the name is still unsettled. L. I. Rempel, *Dalekoe i blizkoe* (Tashkent: Gafur Ghuliam, 1982), p. 144 (map) calls it

Jizmandu. The Soviet Army General Staff 1:50,000 secret map of the area (Sheet J-41-9-G) of 1988 spells the name Jizmandi.

2. The actual road alignment is not certain. Only one document mentions property in Juzmandūn flanked by the road and seems to put it on the northwest side of the property. The sketch map presents a tentative alignment.

3. The Juzmandūn sales are found in E. E. Bertel's (F. B. Rostopchin), *Iz arkhiva sheikhov Dzhuibari* (Moscow-Leningrad: Akademiia Nauka, 1938) (in chronological order), nos. 142, 150, 139, 140, 145, 147, 153, 154, 156, 233, 141, 143, 144, 149, 151, 155, 152, 148, 146. In the case of Juzmandūn, at least, we know Khwājah Muḥammad Islām already owned land there before the earliest of the sales recorded in the collection. That document (no. 142, dated 24 Ramaẓan 968/ 8 June 1561), recording his purchase of a piece of land, lists one of the abutting properties as "land owned by the buyer." On Rostopchin's editorship of *Iz arkhiva sheikhov Dzhuibari* work, see R.D. McChesney, "Some Observations on 'Garden' and Its Meanings in the Property Transactions of the Jūybārī Family in Bukhara, 1544-77," in Attilio Petruccioli, ed., *Gardens in the Time of the Great Muslim Empires* (Leiden: E. J. Brill, 1997), p. 105, nn. 11, and 107, n. 29.

4. M. A. Abduraimov, *Ocherki po istorii agrarnykh otnoshenii v Bukharskom khanstve v XVI- pervoi polovine XIX v.*, 2 vols. (Tashkent: Fan, 1966-70), is an excellent survey of the issue of productive surplus, or taxes, rents, and other levies against labor. Its generalizations, however, are not very helpful in specific cases such as Juzmandūn.

5. See A. R. Mukhamedzhanov, *Istoriia orosheniia Bukharskogo oazisa (s drevneishikh vremen do nachala XX v.)*, (Tashkent: Iz. Fan, 1978), for a comprehensive study of the engineering and layout of Bukhara's irrigation system. Unfortunately, the author did not use the Jūybārī documents and so the work is less useful than it might have been for historical toponymy.

6. Ibid. Cites or reproduces a number of sources which imply the organization of the *tūmān* around a main canal and its irrigation network. See e.g. pp. 128 ff., p. 139. Also W. Barthold, *Turkestan down to the Mongol Invasion*, 3rd ed. (London: Luzac and Co., 1968), pp. 112-16; idem [Bartold], *K istorii oroshenii Turkestana*, (St. Petersburg: Izd. Glavnogo Upravleniia Zemledeliia i Zemeleustroistva, 1914) reprinted in *Sochineniia* vol. 3 (Moscow: Nauka, 1965), pp. 95-233, p. 193. *Tūmān* names that are found in sixteenth and early seventeenth century documents include: Kharqān Rūd, Kāmāt, Ṭarāb, Rūd-i Shahr, Kām-i Abū Muslim, Shāfurkām, Sām(i)jan, Sulṭānābād, Khutfar (or Khudfar), Khayrābād, Ghijduwān, Jūy Nāw. Most of these are found mentioned in the records of Jūybārī purchases of real estate. In the 1630s, the Balkh writer, Maḥmūd b. Amīr Walī, listed the ten *tūmāns* of his day and gave the names by which they were formerly known. Of these ten, the names of eight had changed or they were just as well known by an alternate name: Kharqān Rūd "is today called Ghijduwān," Kāmāt was known as Wābkan (Wābkent), Ṭarāb had come to be called Āhūgir, Rūd-i Shahr was alternately known as Pāy Rūd; Kām-i Abū Muslim was called Burghāzī; Shāfurkām Qishlāq-i Kalān, Sāmjan Ramītan, and Khutfar Zindānī. Only the names of Sulṭānābād and Khayrābād were still unaltered. Although he has Ghijduwān and Kharqān Rūd as the same *tūmān*, these were clearly two districts in the mid-sixteenth century. He does not mention Jūy Nāw.

7. The name Rūd-i Shahr seems to be a transformation of the earlier Rūd-i Zar (see Barthold, *Turkestan*, pp. 103-4). Later the name would be further transmuted (perhaps under the influence of Uzbek) to Shāhrūd. L. I. Rempel, *Dalekoe i blizkoe*, refers to the canal as the "Shahrud (the ancient Zar-i Rud)" (p. 144). The term "Rūd-i Shahr" is consistently used in the sixteenth century documentation.

8. Mu'īn al-Fuqarā', *Tārikh-i Mullāzādah dar zikr-i mazārāt-i Bukhārā*, ed. Aḥmad Gulchin-i Maa'ānī (Tehran: Ibn Sinā, 1339/1970), p. 28.

9. See Badr al-Dīn Kashmirī, *Rawzat al-rizwān fī hadīqat al-ghilmān*, ms. 2094,

Institut Vostokovedeniia Ak. Nauk Uzbekistana, fols. 22b ff. for the Jūybārī lineage. This work, written in 1589-90 at the behest of Muḥammad Islām's son and successor as real estate magnate, Khwājah Saʿd, is a treasure trove of family lore. The obituary of Kāsānī is found, among other places, in the eighteenth century collection of chronograms, *Tārīkh-i Rāqimī*. Baron Victor Rosen, *Collections scientifiques de l'Institut des langues orientales*, vol. 3. *Manuscrits persans décrits par le Baron...* (St. Petersburg 1886), synopsized the work and extracted all its dates. See p. 128 for Kasani's obituary.

10. E. Delmar Morgan and C. H. Coote, eds., *Early Voyages and Travels to Russia and Persia by Anthony Jenkinson and other Englishmen*, vol. 1 (London, 1886; rpt., New York: Burt Franklin), pp. 83-84.

11. *Ibid.*, p. 84, n. 1.

12. H. Howorth, *History of the Mongols*, Part Two, Division Two, *The Mongols of Russia and Central Asia* (London, 1876-88). Arminius Vambery, *History of Bokhara from the Earliest Period down to the Present*, 2nd ed. (London, 1873), chap. 13. Jenkinson's editors cite p. 284 of Vambery which, although it does refer to the deposal of "the king" that Jenkinson mentions, says nothing of the role of Muḥammad Islām. Vambery's work, widely influential and translated into German, Hungarian, and Russian, is virtually worthless as a historical source for this or any other period. That point was made with considerable force and at great length by a "Professor Grigorieff" (i.e., V. V. Grigor'ev - see Yu. E. Bregel, *Bibliography of Islamic Central Asia* [Bloomington, Ind.: Research Institute for Inner Asian Studies, 1995], p. 6) in the year the Russian translation came out. His review, reportedly published in a journal "little circulated...and hardly known abroad" published by the Ministry of Public Instruction (*Zhurnal Ministerstva narodnogo prosveshcheniia*, vol. 170/11, pp. 105-37), was translated by the American diplomat, Eugene Schuyler, and appended to the first volume of his monumental work, *Turkistan: Notes of a Journey in Russian Turkistan, Khokand, Bukhara and Kuldja*, 2 vols. (New York: Scribner, Armstrong and Co., 1876), pp. 360-89. Unfortunately, Geoffrey Wheeler, in producing a widely used abridgment of Schuyler, dropped the Grigor'ev review which may account for the minimal influence it has had on Western scholarship (see, e.g., the heavy reliance of Gavin Hambly on Vambery in the relevant chapters in *Central Asia* [New York: Delacorte Press, 1969]) and of some Central Asian scholars (M. A. Abduraimov, in his two-volume study of the Bukharan khanate's economic history singles out Vambery as "the first serious attempt by a Western European scholar" to produce a "complete and coherent history of Central Asia," *Ocherki* 1: 52).

13. Ḥāfiẓ-i Tanīsh, *Sharaf-namah-i shāhī*, ed. M. A. Salakhedinova, 2 vols. (to date of four projected) (Moscow: Nauka, 1983), 1: 212-18 (fols. 95b-98b of the facsimile text).

14. *Ibid.* 1: 105-19 (fols. 44b-51a of the facsimile).

15. James B. Fraser, *Narrative of a Journey into Khorasan in the Years 1821 and 1822* (London, 1825; rpt. Delhi, Oxford and New York: Oxford University Press, 1984), Appendix B, p. 83.

16. See *Kollektsiia vakufnykh dokumentov*, comp. I. Miradylov, opis 1, kniga 1, nos. 2, 55/1 and 55/2 (for the two madrasas on the Khiyābān), 1290/12 (for a *khanaqah* in the *tūmān* of Shāfurqān).

17. *Ibid.*, doc. nos. 1, 55/9 (for his madrasa in Bukhara) and 272 and 494/24 (for a mosque in Bukhara).

18. R. D. McChesney, *Central Asia: Foundations of Change* (Princeton: Darwin Press, 1997), pp. 98-109, for a sketch of the activities of the Ahrari family in the sixteenth and seventeenth centuries. O. D. Chekhovich, *Samarkandskie Dokumenty XV-XVI vv. (o vladeniakh Khodzha Akhrara v Srednei Azii I Afganistana)*, (Moscow: Nauka, 1974), is a collection of documents pertaining to the family's charitable foundations in Kabul, Tashkent, and Samarqand.

19. R. D. McChesney, "Some Observations," p. 99. An unpublished paper of mine, "Problems Surrounding the Jūybārī Archive," given at Kyoto University in December 1995 provides more detail about the nature of the compilation and its relationship to the original documents.
20. E. E. Bertels', *Iz arkhiva* (cited above, n. 2). The original manuscript is at the Institut Vostokovedeniia, St. Petersburg, no. B 4388. (O. F. Akimushkin, et al., *Persidskie i Tadzhikskie rukopisi Institututa Narodov Azii AN SSSR [kratkii alfavitnyi katalog]*, pt. 1 [Moscow: Nauka, 1964], p. 594).
21. *Khoziaistvo Dzhuibarskikh Sheikhov* (Moscow and Leningrad: Akademiia Nauk SSSR, 1954), with an introductory essay by P. P. Ivanov and the translation "newly reviewed and prepared for publication" by Yu. P. Verkhovskii. Both the 1938 edition and the original translation were prepared by Fedor Borisovich Rostopchin, a Persianist at the Institute of Oriental Studies, Academy of Sciences, Leningrad. Rostopchin was purged in 1935 and exiled first to Kazakhstan then Bukhara where he "perished" in 1937 and his name erased from both these works. (See Ia. V. Vasil'kov, A. M. Grishina, and F. F. Perchenok, "Repressirovanoe vostokovedenie," *Narody Azii i Afriki*, no. 5 (1990): 100; and C.M. Miliband, *Bibliograficheskii slovar' otechestvennykh vostokovedov s 1917 g.*, 2nd ed., vol. 2 [Moscow: Nauka, 1995]: 332.)
22. To date I have discovered one of the original documents, or a full copy of the original document from which one of the abridged copies compiled in the manuscript was made. This is document no. 176. The original, which is held at the Firdausi Library in Dushanbe as document no. 120, was published in facsimile by A. A. Egani and O. D. Chekhovich, "Regesty sredneaziatskikh aktov III," *Pis'mennye pamiatniki Vostoka: Istoriko-filologicheskie issledovaniia: Ezhegodnik 1976-1977* (Moscow: Nauka, 1984), pp. 105-6 (doc. no. 103). The authors were apparently unaware that it was related to no. 176 in Rostopchin's (Bertel's) edition. The Research Institute for Inner Asian Studies (RIFIAS), Indiana University, also has a copy of the document cataloged as DuF 3 (see the ms. catalog, *RIFIAS, Central Asian Archives: A Handlist of Microfilms of Manuscripts* [Bloomington, n.d.], p. 25.) The abridged version in the manuscript as published omits the names of those present at the *majlis* at which the document (an *iqrār*) was registered, several lines of honorifics describing the buyer and his father, seals, and a format with a particular visual impact in its use of margins and enlarged script in various places.
23. Other buyers were two other sons of Khwājah Muḥammad Islām, Bahā al-Dīn ʿUmar (doc. no. 214) and Muḥammad Qāsim (doc.nos. 8, 11, 65, 78, 176, 178, 179, 266, 267). The Jānī-Begid, ʿAbd Allāh Khān also is the buyer of record in one case, doc. no.107.
24. See for example, Egani and Chekhovich, *Regesty*, p. 106 (doc. no. 104) the sale by ʿArab Khānum, daughter of the late Kūchkunjid khān in Samarqand; ʿAbd al-Laṭīf, of a *chaharbagh* in the suburbs of Samarqand and a village of pastures in the *tūmān* of Sughd-i Kalān in 1579, among other properties.
25. See I. Miradylov - (opis' 1, kn. 1) nos. 3, 5,10, 14, 15, 32, 55/16, 96, 115, 115/2-4, 115/6, 518, 568,570, 572-4, 823/17, 875, (opis' 1, kniga 2), 1176, 1178, 1181/4, 1193, 1292/9, 1295/328, 1295/31, 1429/1.
26. Nos. 140a and b, 145a and b (in the Rostopchin/Bertels' edition, p. 172, it appears to me that in the two cases [nos. 140 and 145] two *iqrārs* have been conflated I have numbered them a and b, respectively), 147, 153, 154, 156.
27. See e.g. no. 2 (an *iqrar* for the sale of the Gāwkushān caravanserai) where the names of twelve witnesses are listed, including a bowmaker, bath manager, perfumer, the *naqīb*, a seller of shovels, and a textile designer (*naqqāsh*) all of whom probably worked in the vicinity or in the caravanserai itself.
28. See doc. nos. 139, 140 (a), 143.
29. The meaning of the word *khānah* is crucial to understanding the architectural

composition of various kinds of buildings. It appears to have meant a single unit or room. A *hawīlī* (haveli, or compound) in Juzmandūn is said, for example, to contain "*khānahs*, a reception hall (*dihlīz*), a *bālākhānah* (a room or apartment on an upper floor) and an *īwān* (entryway)." (Doc. no. 149). Based on the plans of some "holis" (*hawīlīs*) in present-day Tashkent and Bukhara, these *khānahs* would seem to have been individual and non-communicating rooms, primarily private space for sleeping or storage, built against the outer walls of the compound and linked by a shared portico or simply opening directly onto the inner courtyard.

30. For a discussion of the various terms used for gardens, see R. D. McChesney, "Some Observations," pp. 100-105.

31. The term literally means the "facade of a compound" but seems to be used in the sale documents as the part representing the whole.

32. *Ibid.*, p. 150.

33. Early ideas of the extent of *ḥarīm* territory around a water source, whether public or private, are found in the *kharāj* books. See A. Ben Shemesh, *Taxation in Islam*, vol. 2, *Qudama b. Ja'far's Kitāb al-kharāj* (Leiden: E. J. Brill, 1965) pp. 63- 64; and vol. 3, *Abu Yusuf's Kitāb al-kharāj* (Leiden: E. J. Brill, 1969), pp. 123-29.

34. The term *afdaq* occurs five times in the Juzmandun documents but never with the qualifier *‘āmm* (public).

35. I have proceeded on the assumption that when a canal is unnamed but designated "public" a canal other than the Juzmandūn, Tall-i ‘Alawiyān, or Yarūn is intended.

36. See doc. no. 140 (a)

37. Docs. 139, 151

38. Doc. 146.

39. The most detailed map of the Bukhara region I have seen, a 1:250,000 "Joint Operations Graphic (Air)" map issued by the Defense Mapping Agency (Series 1501 Air, Sheet NJ 41-3), shows an elevation of 741 feet in the approximate location of the village of Juzmandūn.

40. The Soviet General Staff map already referred to shows only two more prominences in the vicinity between Juzmandūn and Tall-i ‘Alawiyān, one at 227 meters (745.4 feet) and the other at 227.2 meters (744.7 feet).

41. Doc. 140 (a).

42. Doc. 147.

43. For other instances of the *rāhraw* as right of way, see docs. 33-35.

44. Most of the documents from nos. 174-196 deal with purchases in Afdaq Bughā.

45. Except when a title suggesting an office or function precedes a name, I have italicized it and left it in lower case. Here I take *dīwān* to indicate that Khwājah ‘Azīz held a fairly high position in the chancellery. Although we do not have strictly contemporary material on offices and positions, the early seventeenth century Balkh writer, Maḥmūd b. Amīr Walī, accorded *dīwāns* a separate biographical heading in his work. (See *Baḥr al-asrār fi manāqib al-akhyār*, I.O.L., ms. no. 575, fols. 304b-305a. The term *chuhrah* is a military rank (ref. in Vil'danova "Podlinnik Bukharskogo traktata" to R. G. Mukminova, "Nekotorye dannyi o termine 'chukhra' po sredneaziatskim istochnikam XVI v." *Trudy AN Tadzh. SSR* (Dushanbe, 1960), pp. 1349-45; also *Baḥr al-asrār*, 4:300b, has *chuhrah* as a court rank, *chuhragān-i khāṣṣah* distinct from *chuhrahs* of "ung wa sūl" (of the right and left wings of the army) (*Sharaf-nāmah*, fol. 224a, 264a)

46. Doc. no. 145 (a). The date given is actually 960 but this appears to be a copyist's mistake, first because Khwājah Islām was the usual Jūybārī buyer up until just before his death in 1563 and secondly because the same date (day and month) is found on seven other documents from Juzmandūn. It is probably safe to conclude that this is one of that group. Document 145 in the Rostopchin/Bertel's edition is in fact the record of two transactions involving two sellers and different properties sold by each. As noted earlier, I have used the numbers 145 (a) and 145 (b) to distinguish them.

47. Doc. no. 145 (b).
48. Doc. no. 151.
49. On the term *rabaḥ* as a form of agricultural architecture, see R. D. McChesney, "Some Observations," p. 104. Here the term would seem to refer to some kind of farm building, perhaps a barn or shed.
50. Doc. no. 140 (a).
51. Doc. no. 140 (a).
52. Doc. no. 149.
53. Doc. no. 240.
54. Doc. nos. 140 (b), 150, 143.
55. Doc. nos. 140 (b), 143.
56. The positioning and occurrence of the *nisbah* name is sufficiently varied to raise the possibility that it was dropped or added as one sought to be identified with, or disassociate oneself from, a locale with which one's father was identified. For example we find it, with the patronymic, in the following ways: where the *nisbah* is only on the father's name (e.g. Khwājah Dūst Mīr b. Khwājah Mīr Muḥammad Juzmandūnī [no. 146]); where the *nisbah* is only on the son's name (e.g., Mīr Pāyandah Juzmandūnī b. Khwājah Sulṭān Bāyazīd (no. 143); where both have the *nisbah* appended (e.g., the present case) and, of course, where neither father nor son uses the *nisbah*.
57. Doc. no. 156.
58. Doc. no. 148.
59. See document no. 233 (two *dīwāns* mentioned) and no. 144.
60. Some evidence of the later importance of the office, in the early seventeenth century, for instance, is the inclusion of holders of the title in a biographical section called "*Wuzarā'wa dīwānīyān*" (Viziers and *diwans*) in Maḥmūd b. Amīr Walī, *Bāḥr al-asrār fi manāqib al-akhyar*, I.O.L. ms. no. 575, fols. 304b-305a. Four individuals are listed there in the following order: *ṣāhib-i dīwān*, *dīwān*, *sar daftar*, *zābiṭ*, a ranking that may indicate hierarchy. See A. A. Semenov, "Bukharskii traktat o chinakh i zvaniakh i ob obiazannostiakh nositelei ix v srednevekovoi Bukhare," *Sovetskoe vostokovedenie*, V (1948): p. 142, for some specific usages from nineteenth century Bukhara.
61. Ḥāfiz-i Tanīsh, *Sharaf-nāmah-shāhi*, ed. Salakhedinova, 1: 171 ff.
62. Ibid. p. 233.
63. Ibid. 2: 28.
64. Ibid. p. 255.
65. It is interesting that Ḥāfiz-i Tanīsh never mentions Tūrum Bī Dūrmān's father's name and the *iqrār*s never mention his tribal affiliation; Ḥaydar Dughlāt, *Tārīkh-i Rashīdī*, p. 237, refers to an Amīr Urūs Dūrmān who supported Shībānī Khān and was governor of Qunduz in 1510, who might conceivably be identical with the "Amīr Bāy Urūs Bī" in the *iqrār*, document no. 144. Tūrum Bī's sons are already prominent in military campaigns in 977 (1569-70) which, if it was his father who was governor of Qunduz in 1510, would probably mean Tūrum Bī was well into middle age when Khwājah Saʿd bought the property in Juzmandūn.
66. E.g., the case Aghā Māhum, the daughter of a *dīwān*, Mawlānā Yār Muḥammad, doc. no. 144.
67. Doc. no. 155.
68. The first Aghā Bigah is mentioned as owning adjacent property in 971 (no. 141) and the second likewise in 972 (no.155).
69. See no. 155 where the sale of two parcels, a 45-*ṭanāb* piece of cultivable land and a five-*ṭanāb* parcel with mulberry, *kujm* (a kind of elm?), *shāhtūt* (black mulberry), pear (*amrūd*) and barberry (*zirik*), and no. 146 where her land is listed as bordering a vineyard which comprises part of the property being conveyed.
70. Doc. no. 155.

71. The sixteenth century is a time of considerable investment in new irrigation systems to expand the supply of cultivable land (see Audrey J. Ahmad "Irrigation in Relation to State Power in Middle Asia," *International Studies* 1, no. 4 [1960]). Those who could afford the investment also enjoyed right of ownership over such new land, and only the consequences of division through inheritance (contingent on not putting the land in trust, which was a popular alternative) would tend to redistribute ownership.

72. A. M. Delcambre, "milk," *Encyclopaedia of Islam*, 2nd ed., is an excellent introduction to the subject. The author cites al-Jurjānī's particularly apropos definition, "[Milk] is a legal relationship between a person and a thing which allows that person to dispose of it to the exclusion of everyone else." Delcambre calls the distinctive feature of milk its perpetual nature but in fact al-Jurjānī's definition may be applied to things of limited duration as well.

73. It is extremely difficult, if not impossible, to count precisely the individual properties mentioned. In the first place many of the transferred properties appear in other *iqrars* as abutting properties. Where this is explicit (something "already mentioned" or "bought from X") I have not tallied it. Secondly, it is difficult to know when the land of X is mentioned a second and third time whether it is a different piece or the same as the one mentioned earlier. Here I have adopted the following guidelines: (1) where an abutting property is mentioned for two adjacent sides of a property, it has only been counted once. When an identical type of property - a *bāgh* or pomegranate grove (*anāristān*) - is mentioned more than once as the abutting property of a group of properties included in the same *iqrār*, it is counted only once. When properties on adjacent sides of a property are owned by one individual, though differently described (e.g., *bāgh-i angūr* [vineyard] and fig orchard [*anjiristān*]) they are counted only once.

74. In fact there may actually have been only five parcels of *mamlakah* land since the *mamlakah* parcels leased by (*bi-tasarruf-i*) Mīrakshāh b. Khwājah ʿAzīz *dīwān* (the brother of Aghā Bīgah) and Mawlānā Shāhum Qulī b. Khizr Aqā mentioned in both no. 142 (dated 24 Ramaẓān 968) and no. 146 (12 Muḥarram 979) are probably the same pieces of land but have been counted twice.

75. R. G. Mukminova, ed., *K istorii agrarnykh otnoshenii v Uzbekistane XVI. v. po materialam "Vakf-name"* (Tashkent: Fan, 1966).

76. The correct Arabic middle vowel here is the *fatḥah*. Most secondary sources, perhaps relying on local pronunciation, use *kasrah* instead.

77. F. B. Rostopchin, ed. and trans., *Khoziaistvo dzhuibarskikh sheikhov*, Introduction by P. P. Ivanov (Moscow-Leningrad, 1974), p. 33.

78. Mukminova, ed. *K istorii agrarnykh*, p. 53.

79. Mukminova, "K izucheniiu sredneaziatskikh terminov *tagdzha sukniyat, ichki*," in *Pis'mennye pamiatniki Vostoka. Istoriko-filologicheskie issledovaniia. Ezhegodik. 1968* (Moscow: Nauka, 1970), pp. 127-34, esp. p. 129.

80. al-Ḥillī, al-Muḥaqqiq al-Awwal, *Shariʿa al-Islām fi'masaʿ il al-ḥalāl wa'l-ḥarām*, ed. ʿAbd al-Ḥusayn Muḥammad ʿAlī (Najaf: Maṭbaʿat al-ādāb, 1969), pp. 225-26. Here the meaning of *suknā* appears to be the right to occupy a property for residence. Presumably the right terminates when the person to whom it is granted ceases to occupy the property. The ʿ*umrā* and *ruqbā* are given much fuller treatment in the text. More contemporary Ḥanafī texts may explain the *suknā* in greater depth.

81. Al-Khwārazmī, *Mafātiḥ al-ʿulūm*, ed. Van Vloten (Leiden, 1895), p. 22.

82. Mukminova, "K izucheniiu", p. 128.

83. G. Baer, "Ḥikr," *Encyclopaedia of Islam*, Supplement (Leiden: E.J. Brill, 1982).

84. Doc. no. 156.

85. Doc. no. 3.

86. Doc. 140 (a).

87. Uzbek State Archives, Fond I-323, doc. no. 32 is the original or a copy of the

original dated 981/1573. In 1671, Khwajāh Saʿd's granddaughter, Āy Pādshāh Bibi, founded her own *madrasa* "outside the old city in the quarter of the mosque of ʿAbd al-ʿAzīz Khan" and drew up an endowment deed. In the Uzbek State Archives copy of that deed (no. 115 in the I-323 fond) is a copy of her grandfather's endowment deed for the Gāwkushān Madrasa, included, perhaps, because the administration of at least some of the Jūybārī *waqfs* had been consolidated some time after her death. A copy of her original *waqf* deed (without Khwajāh Saʿd's Gāwkushān *waqf*) is also preserved in the Firdausi Library in Dushanbe, doc. no. 146 (see A. A. Egani and O. D. Chekhovich, "Regesty Sredneaziatskikh aktov," IV, *Pis'mennye Pamiatniki Vostoka*, 1978-1979 [Moscow: Nauka, 1987], pp. 58-59).

88. [Rostopchin] Bertel's, *Iz Arkhiva*, doc. no. 309, pp. 389-90.

89. *Ibid.*, doc. nos. 286, 287, 288, 295, 296, 298, 302, 303.

90. Egani and Chekhovich, "Regesty Sredneaziatskikh aktov," III *Pis'mennye Pamiatniki Vostoka*, 1976-1977 (Moscow: Nauka, 1984), doc. no. 107 (Firdausi Library document no. 58), pp. 108-9.

91. Ḥājji Mīr Muḥammad Salīm, (*Silsilat al-salāṭīn or Tawārikh-i badīʿā*), Bodleian Library, Oxford University, no. 169, fols. 200a-202a, for the full account of Imām Qulī's pilgrimage trek through Iran, Iraq, and the Arabian desert.

Maylyuda Yusupova

Evolution of Architecture of the Sufi Complexes in Bukhara

Sufism (*al-tasavvuf*) is a mystic, ascetic, and philosophical school of thought within Islam. Sufi teaching aimed at the cognition of God under the supervision of a experienced teacher (*shaykh, pir, murshid*), who taught his followers the techniques and theory of Sufism. The architecture of the Sufi complexes of Maverannah is represented most impressively and in the greatest variety in the post-Timurid capital of Bukhara. There were the *rabats* intended for the Sufis, *khanqahs* or *zawiyas*, and *takiyyas* which appeared at a later time.

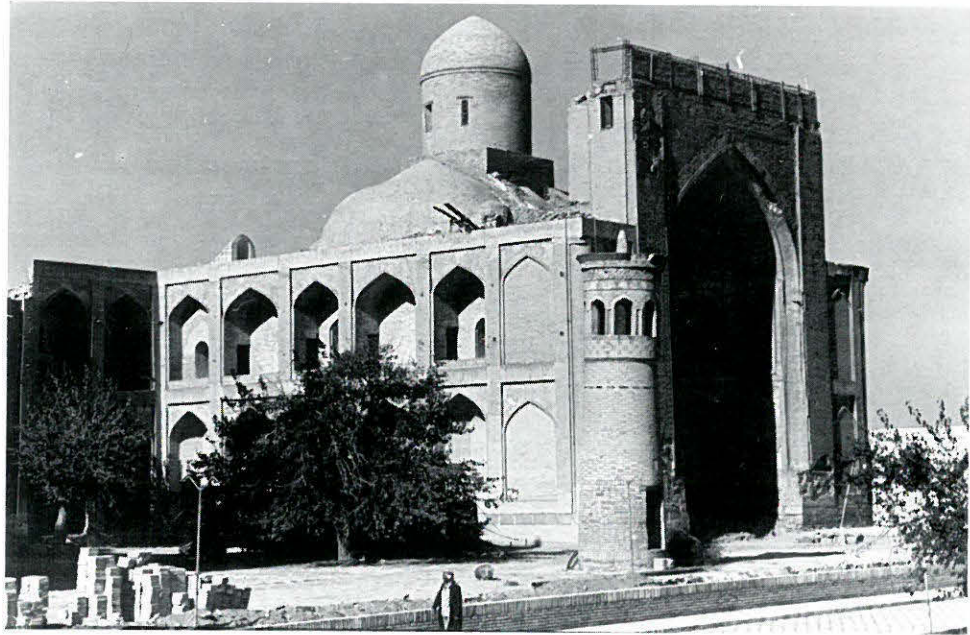
The genesis and nature of these establishments have not been properly studied. The research that has been carried out to define the functions and architecture of different types of construction has led to disputes between specialists and researchers (1,2). Current research can be found in the publications of G. A. Pugachenkova (3, 4 and others), V. L. Voronina (5) and L. Yu. Mankovskaya (1).

Here I will try to provide a more comprehensive and detailed view of all the types and kinds of Sufi prayer complexes. Some of the data not known earlier now allow us to add to our knowledge, or to clarify certain features, of these constructions in the context of the evolution of Sufism itself.

It should be noted that the evolution of the architecture of the Sufi complexes is a complicated and multi-faceted process that has to be considered within the context of the time and the factors that transformed Sufism as an ideology. The development of Sufism had four phases, the first two of which coincide with the periods defined by J. S. Trimingham (6). It should be also mentioned that in this proposed periodization the phases are not clearly demarcated chronologically, as each new period was generated by and developed within the previous one, and the periods themselves only provided the basic trends for the future development of the Sufi complexes.

Phase 1: The first phase, which lasted from the eighth through the ninth century, was the time of the formation of Sufism and formulation of its basic postulates. The first Sufi complexes variously called *rabat*, *zawiya*, and *khanqah*, were constructed all over the Muslim world. Through different routes, by the end of the period they had acquired a similar structure and use everywhere.

Rabats were initially a certain type of Arabic military fortified structure. In Central Asia over the course of time, they became trade and hostel complexes of the caravanserai type and sometimes were used as Sufi prayer centers. In the ninth century, special *rabats* were built for Sufi



A view of
Char Bahr.

complexes of the caravanserai type and sometimes were used as Sufi prayer centers. In the ninth century, special *rabats* were built for Sufi followers. Samani mentions several of them: Muazza ibn Ya'quba (834) in Nasafa, al-Amir (9th century) and al-Murabba (9th century, at the time of Ismail Samani) in Samarqand, and many others (7, pp. 85, 127-28). It is possible that *rabats* were built by the Samanids in their capital at Bukhara, but there is no evidence for it. Those constructions may have been of a courtyard type, as they were genetically connected with the military fortified *rabats* and caravanserais, which characteristically did have that type of construction.

Khanqahs were initially a type of building for wandering Sufis, a place for religious ceremonies, discussions, and sometimes training. Beginning in the tenth century, while still preserving their earlier functions, they became Sufi centers with the formation of a Sufi institution that followed a scheme instruction using a teacher-student (*pir-murid*) method. During the first period of their development, the *khanqahs* varied in their construction and followed no specific type. The *khanqahs* of Maverannahr and Khurasan from the ninth and tenth centuries were of the monastery type, that is, rooms constructed around an inner court. They were often erected over the grave of a renowned Sufi, or a shaykh would start a *khanqah* in his own or somebody else's house and later be buried near it. The mausoleum of the Sufi Shaykh Hakim ibn Muhammad al-Zaimuni (d. 1025) on al-Sufa street (7, p. 61) in Bukhara, for example, belongs to that category - at least it is believed that his *khanqah* was once his private house. The domed mausoleum located on the opposite side of the street was a *chillakhana*, a place for meditation (8, p. 79).

The names of the buildings and the quarter changed over time. In the



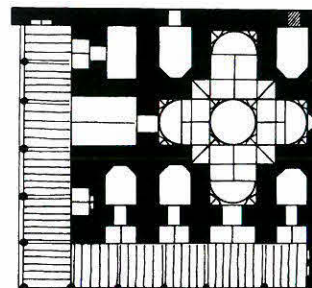
*Khanqah Hazrati
Imam. 16th Century*

fifteenth century, the grave of the Sufi saint al-Damuni is mentioned as on Kui-Sufa street; by the beginning of the twentieth century the Sufi *khanqah* and opposite it the Mazar Khwajah Halim are located in the quarter with the same name, close to Taq-i Sarrafon at the beginning of the street leading to the Karshi Gates (8, pp. 78-79).

The *zawiya* is another type of Sufi complex that spread over Muslim countries. Initially the *zawiya* was a certain part of a mosque or a room placed close to it used for teaching the Koran and reading and writing. Later it referred to the residence for the Sufi priest who preached and taught the *murids*.

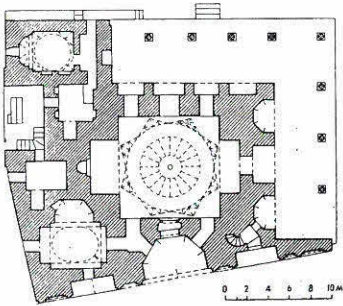
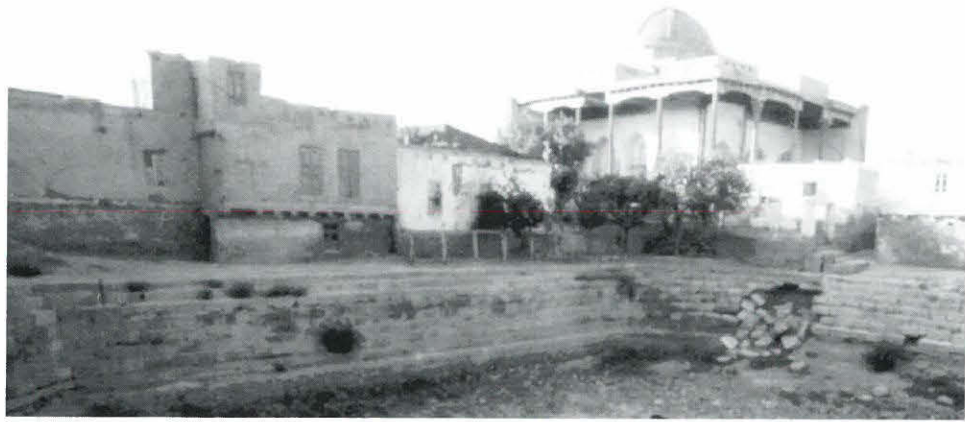
Phase 2: The second phase lasted from the eleventh to the fourteenth century. With the formation and spread of Sufi orders and the more active integration of pre-Muslim saints' cults into Islam, the graves of the Sufi shaykhs became places of pilgrimage, and gradually large Sufi complexes were formed around these burial sites. This was the time when the *rabat*, *khanqah*, and in some muslim countries, *zawiya* became a complex of buildings that included a saint's tomb, a small mosque, a dwelling for the shaykh and his family, rooms for reading the Holy Koran and teaching pupils (*murid*), cells for the pupils, and a free hostel for travelers and pilgrims. Often a cemetery was established nearby where members of the order or even ordinary people could be buried if they wished (11, p. 72).

The functions and kinds of buildings called *rabats*, *khanqahs*, and *zawiyas* of the fourteenth century are so similar that it is nearly impossible to find any distinction between them in either use or architectural form. The only distinguishing feature is in the use of the terms themselves. A *waqf* document of 1326 in which Shaykh Yahya, a grandson of the renowned Sufi shaykh Saif al-Din Bukhari, states that he "donates to the memorial

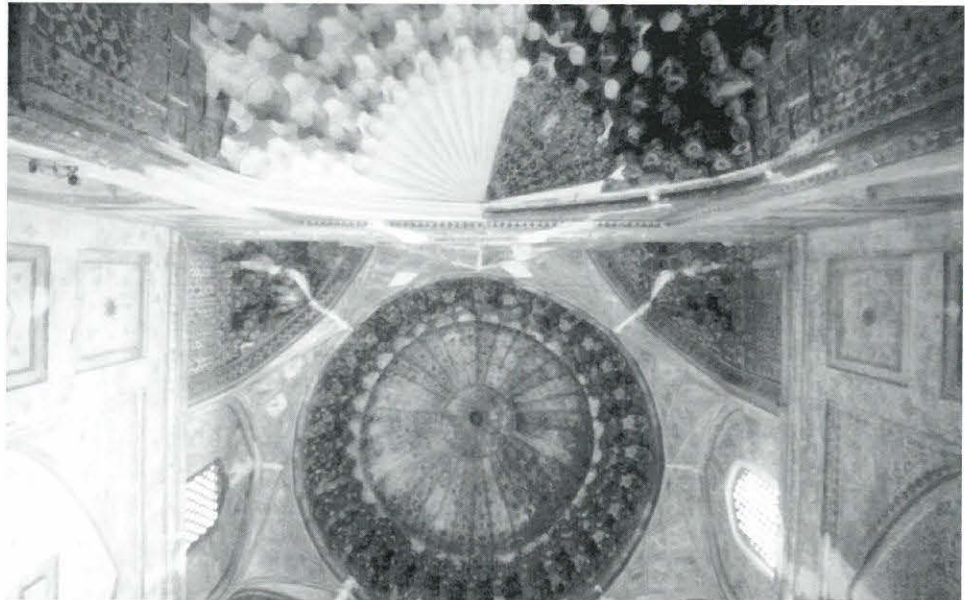


*Khanqah Hazrati Imam.
Plan*

The Khanqah
 Khwajah Zainutdin,
 16th century.
 Above: Exterior
 view from the tank
 Below:
 Interior
 with dome
 and mihrab.

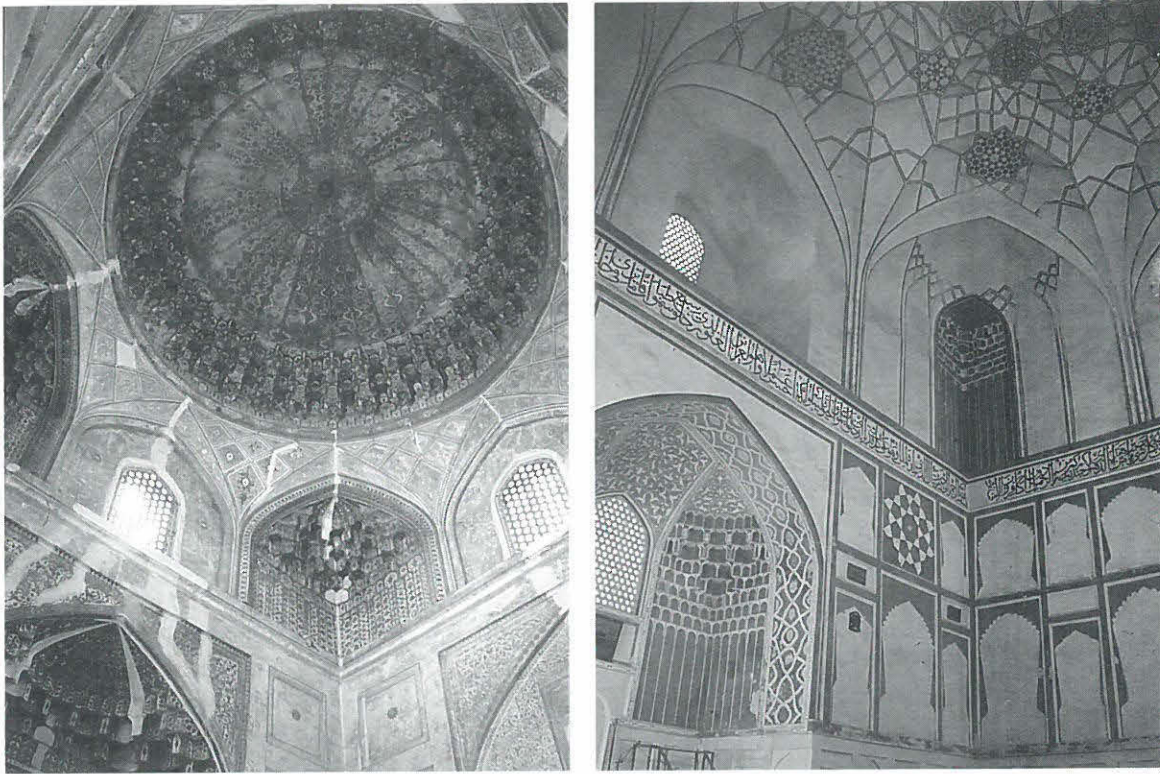


Plan of Khanqah
 Khwajah Zainutdin.



complex of his grandfather and the benefit of those who permanently live in this holy place and for the poor, his real estate numbering 11 villages." In this document, a *khanqah* is mentioned as a structure standing next to the Bukhari mausoleum to its south and is described as a complex spread along the perimeter of the courtyard (9, p. 167). The Moroccan traveler Ibn Battuta, who visited this *khanqah* complex in 1333 and witnessed the last years of Khwajah Yahya's life (d. 1335-36) uses the term *zawiya* for exactly the same structure. He writes: "The *zawiya* which bears the name of Shaykh Saifaddin Bokhari, where we stayed is very large and possesses huge *waqfs*; the income from these allows them to serve meals free to all arriving visitors"(10, p. 82). Like Ibn Battuta, other foreigners who visited the *khanqahs* of Central Asia called them *zawiyas*.

Based on the *waqf* documents (9, p. 167) and travelers' descriptions (10, pp.



82, 92-93), the majority of Central Asian *khanqahs* of that period were constructed around a shaded courtyard with a pool. Examples are the *khanqah* of the Kusam ibn Abbas mausoleum in Samarqand, and the *Khanqah* Saif al-Din Bukhari in Bukhara, one of the largest and most highly praised among many others.

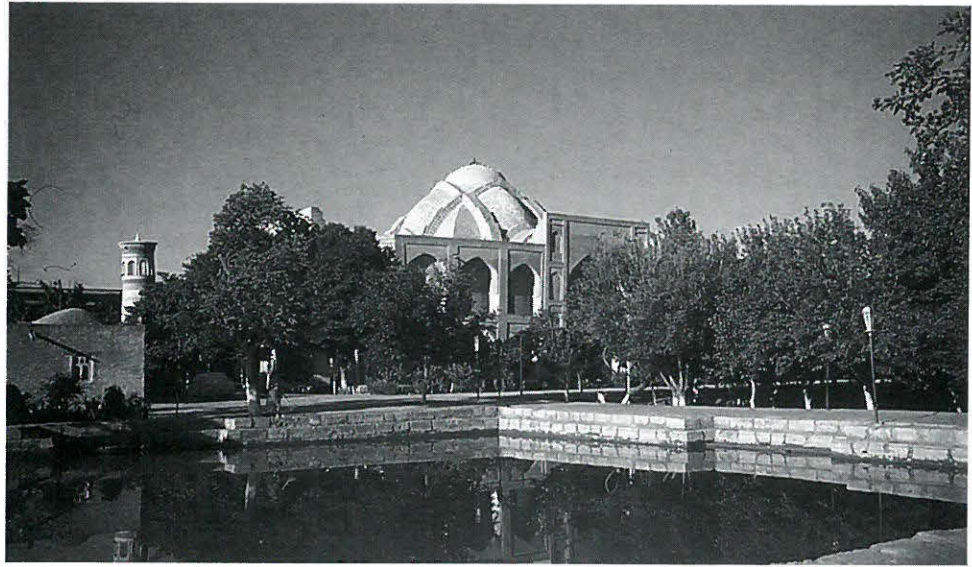
Phase 3: The third phase lasted from the fourteenth to the seventeenth century. During this time, Sufism, ascetic and democratic at the beginning, underwent considerable change. The Sufi priests began an increasingly active cooperation with the authorities and were enriched by donations. Now the former mausoleum *khanqahs* of the courtyard type were transformed into memorial religious centers (often with *dakhim* burials). The notion of the *khanqah* now referred, not to the whole complex, but to a certain group of structures with ceremonial space. Those buildings were monumental and sumptuous, built with funds supplied by wealthy donors, often the ruler.

By the end of the fourteenth century, Timur's architects put many of the functions of the former *khanqah* courtyard complexes into one multichambered portal cupola construction. The *khanqah* of Ahmad Yassavi in Turkestan can be cited as an example. This huge building erected with an archaic double dome was not suitable for the highly earthquake-prone zone of Maverannahr. It remained a grand experiment; its construction was never used again.

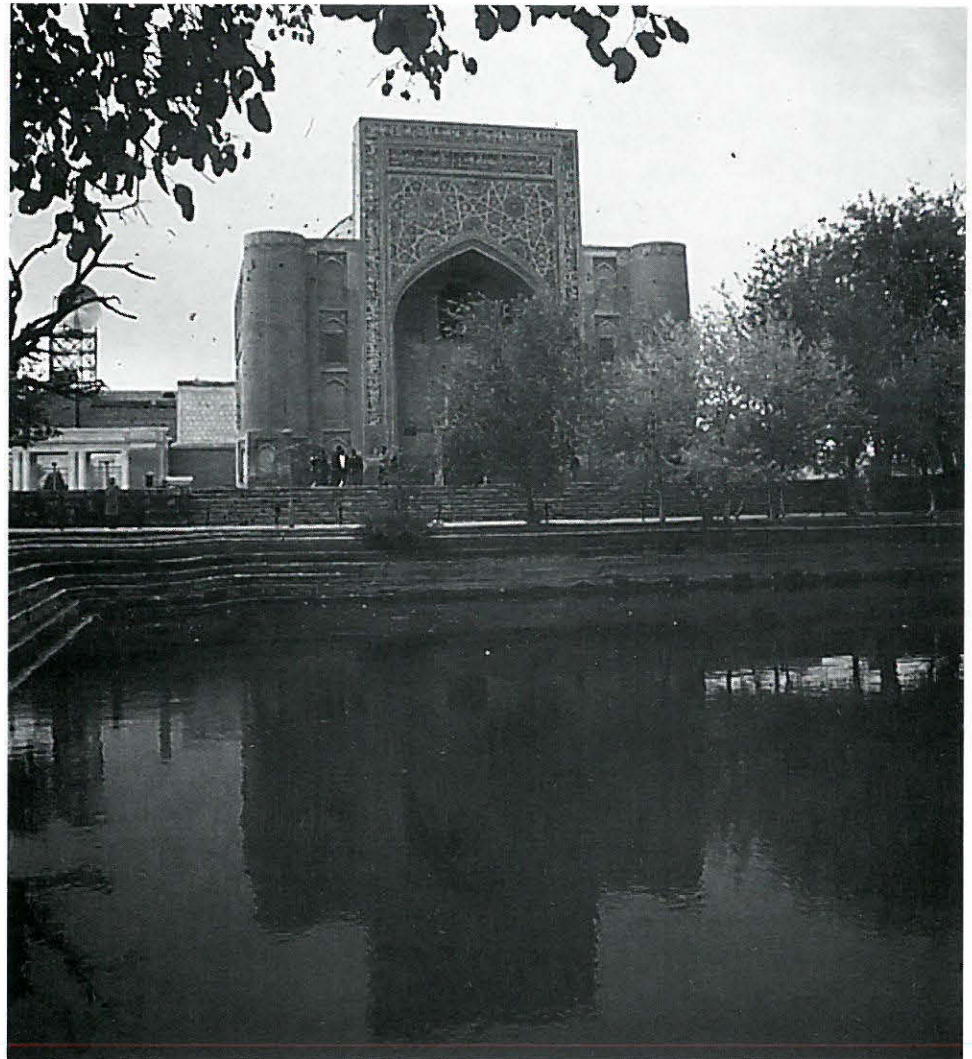
The most traditional buildings were the Sufi complexes with a small courtyard in which was a *hauz* (pool), trees, and flowers. A *khanqah* hall

Left:
The dome of the
Khanqah
Khwojah
Zainuddin. Right:
Khanqah in the
complex of *Bahauddin*
Nahshbandi,
16th century.
Interior of the hall.

*The Khanqah of Bahaud-
din Bliss Bukhari seen
from the tank.*



*Khanqah of Nadir Divan
Begi (17th century)
on Labi Hauz
square at
Bukhara.*



dominated the elements built along the perimeter of this courtyard. We can distinguish two types of hall and, within each type, two or three subtypes. This type of building remained dominant in Sufi architecture up to the twentieth century.

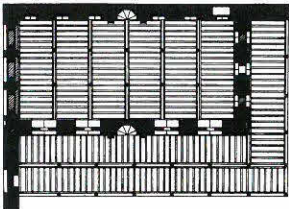
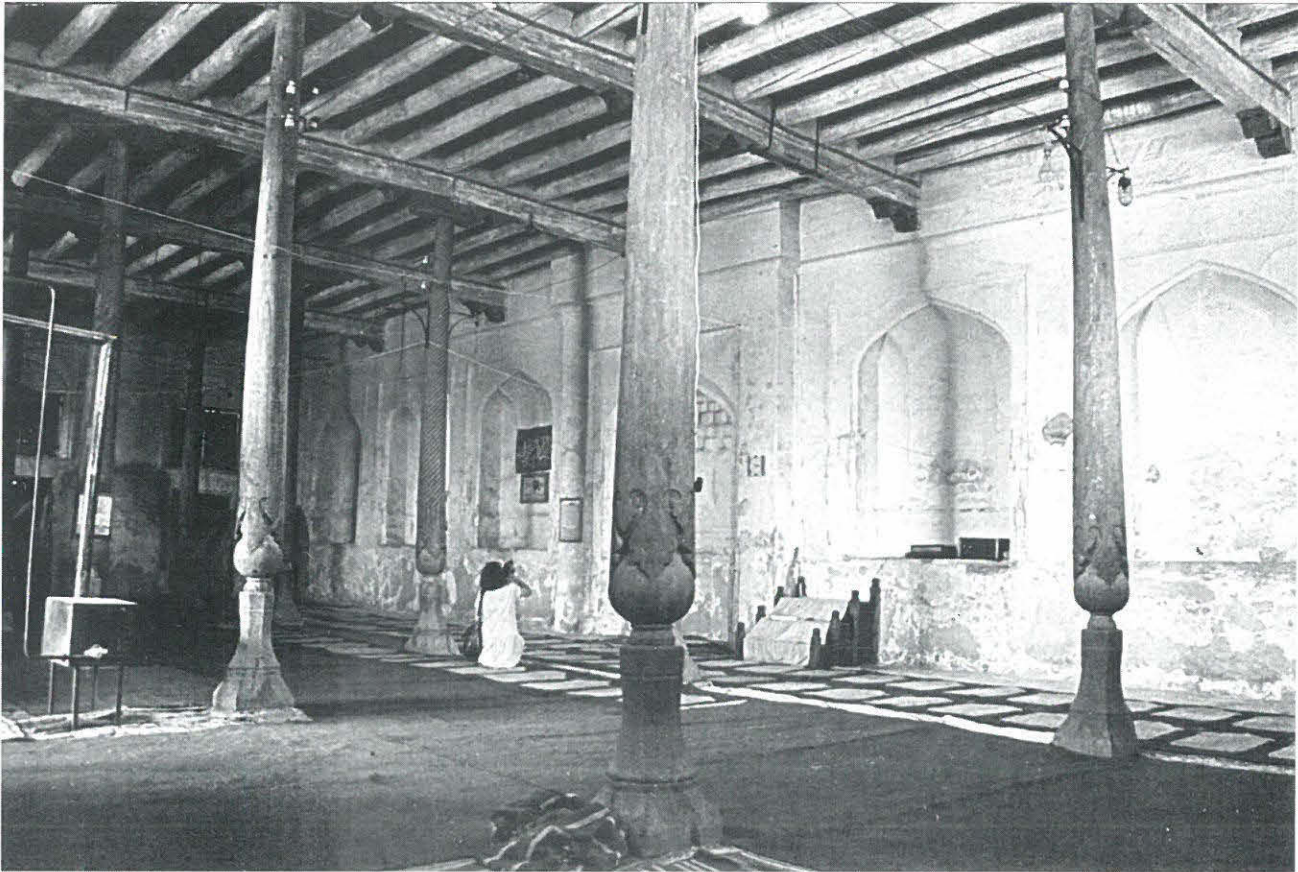
In Bukharan architecture of the fifteenth-seventeenth century, we can identify the second type of monumental *khanqah* construction. This building had a domed hall, often with *hujras* in the corners of the building or by the sides, surrounded on two or three sides by a terrace, with a roof supported by columns - an *iwan*. This type of *khanqah* is generically linked to the dwellings in which the Sufis established their cloisters in the earliest period of the development of their teaching. As a result of evolution, by the early fifteenth century *khanqahs* of this type came to have a more magnificent appearance. According to the *waqf* documents, the Muhammad Khwajah Porso *khanqah*, built in Bukhara between 1407 and 1408, included "a colonnaded *iwan* on the northern, eastern and southern sides. This *khanqah* is built of fired brick, *ganch* (a kind of gypsum), and rock (*sangi-kuh*)," and was in all probability a domed structure (1). It was the first time in the history of medieval Central Asian architecture that such a building was erected, but it became a widespread architectural form during the second period, and survived in Central Asia up to the twentieth century.

In the course of the third phase, *khanqahs* of the earlier type were used less frequently. However, one can distinguish two subtypes based on the type of roof that covered the hall:

1. *Khanqahs* with *iwans* surrounding a domed hall which is square in plan, like the Khwajah Porso *Khanqah* in Bukhara, the Sufi Dehkon (15th century) in the Bukhara region, Khwajah Zaineddin, and Hazrati Imam (16th century) in Bukhara.
2. Buildings with *iwans* in a columned hall which is rectangular or square in plan, such as the Shoyahsi *Khanqah* (16th century) and Mawlana Sharif (17th century) in Bukhara.

From the fifteenth to the seventeenth century, a new, more exuberant and magnificent second type of *khanqah* dominated the architecture of Sufi complexes. In the second half of the fifteenth century certain changes in the architecture of the *khanqah* were brought about by features in the development of Sufism. First, the strengthening of the saint's cult turned the *khanqahs* near mausoleums into shrines. That led to the change in application of the term *khanqah* that limited it to the ritual structure in the hall - a *zikkhāna* with cupola sometimes surrounded by cells (*hujra*).

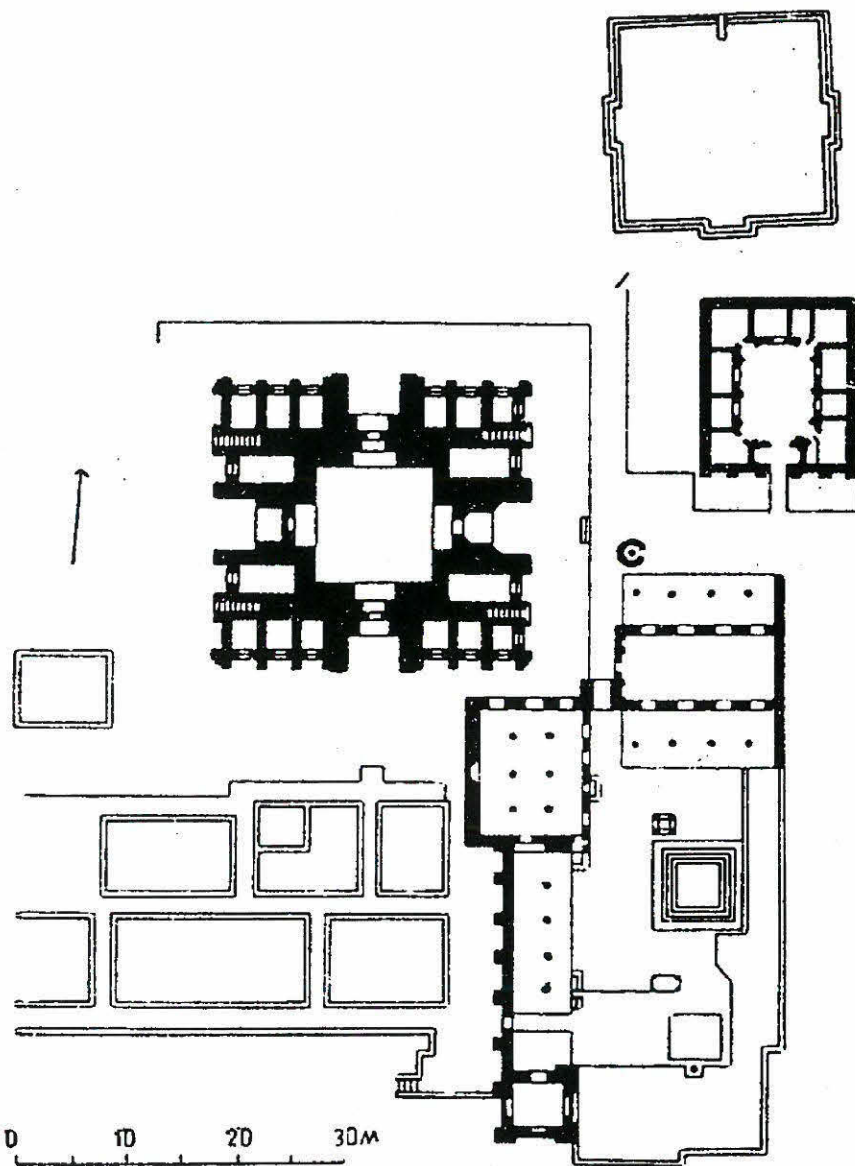
Second, the increasing strength of the Nakshbandi order in Central Asia had its influence. The *pirs* did not approve of the erection of mausoleums over their graves, and the towns did not provide a great number of dwellings and hostels with services. The *pirs* therefore encouraged the idea of giving up the pilgrimage for a low *zīkr* more characteristic of the rich and respected *murids* in the society. Their slogan was "Hands are for labor, and hearts are with the God," or, in other words, be productive in life and retain the desire to recognize God. Among the followers of this movement



*Khanqah Soyansi.
Interior view and plan.*

were not only artisans and merchants but also wealthy citizens, the nobility, sometimes even rulers, and renowned poets and scholars. The members of the order were able to live with their families and only meet for prayer, sermons, evening prayer, and sometimes for training and ritual meals, for which purpose there was no need for a large building for housing and services. Some *khanqahs* served as cloisters for the Sufis. They were erected in the city's center as isolated buildings with no facilities for other functions and no other structures.

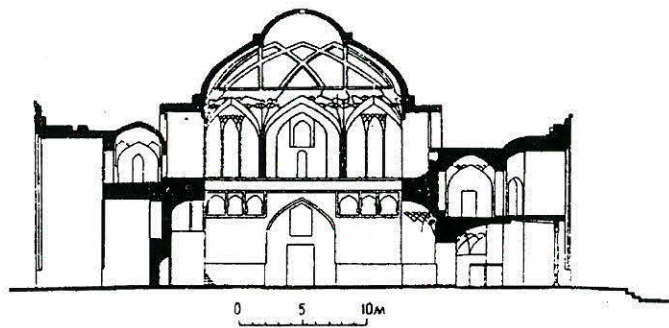
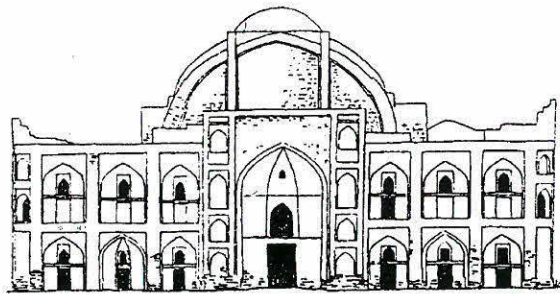
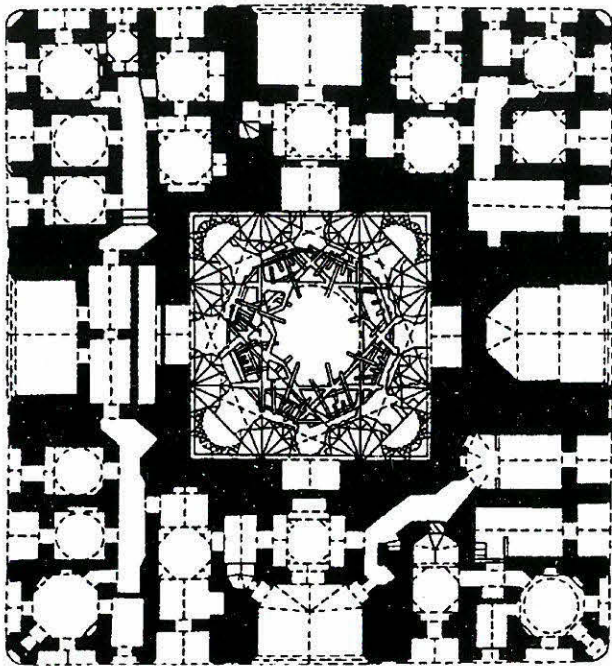
One further innovation was in the plan and construction of the *khanqah*. A new type of earthquake-proof reinforcement was introduced at that time which involved crossing pendentives, which served as the basis for the cupola construction, and smaller shield-shaped pendants that added to the strength of the building. They were introduced during the Timurid period in the second half of the fifteenth century, and afterwards were successfully developed in Bukhara constructions of the sixteenth century, especially in the domed *khanqahs*. According to the new system, four powerful arches overlapped the space, leaving some distance in the corners. They rested on eight massive buttresses located on the side of each axis of the construction. This made deep niches in the hall axes at the sides that gave the structure of the building its cross shape and enlarged its square. This new construction also allowed for additional cells or blocks of



*Khanqah of
Bahauddin Bliss
Bukhari, 16th
Century.
General plan of
the complex.*

cells on two levels in the corners of the building in place of the massive walls and buttresses. The cupola soffit was crossed by four powerful load-bearing arches and the space between was covered by shield-shaped pendentives with a small dome. As a result, the size of the dome was reduced, and the weight of the reinforcement was also reduced. Sometimes in the Bukhara *khanqahs* built in the sixteenth century, the four crossing arches are used as stiffening ribs reinforcing the dome (e.g., the Khanqah Bahauddin) or a dome of medium size was carried on a high and well-composed barrel vault (Khanqah Kasim Shaykh, Hazrati Imam, and the Char-Bahr).

From the fifteenth to the seventeenth century in Central Asia, most *khanqahs* had this portal-cupola construction built with a large ceremonial



*Khanqah of
Bahauddin
Bliss Bukhari,
16th century.
Plan and
sections.*

hall, a domed *zikhkhana* with a square or cross-shaped plan in the center, and a cell or a group of cells on two levels in the massive corners. The stairs leading to *hujras* and to the roof also began in the corner of the main hall. This type of construction belongs to the *khanqah* of the second type. It was mainly used in Bukhara for structures with rich donors near the graves of Sufi saints. Examples dating from the sixteenth century are the *khanqahs* of Bahauddin Nakshbandi, Abu Bakr Sa'ada, and Hakim Mulla Mir, not far from Bukhara.

There are also some rare examples in Maverannahr where *khanqahs* of the second type were built in the central town square, like the *khanqah* of Ulugh Beg (15th century) in the Registan Square at Samarqand and the *khanqah* of Nadir Divan Begi (17th century) on Labi-Hauz Square in Bukhara.

Among the *khanqahs* of the second type in the Bukhara region three main compositional variants can be identified: One is based on a central-plan composition: examples from the sixteenth century are the *khanqah* of Kasim Shaykh, in the seventeenth century, Bahauddin Nakshbandi (the second-phase construction), Yar-Muhammad Atalyk and a *khanqah* in Peshku. Another uses a longitudinal axial or deep-plan composition: examples from the sixteenth century are the Hakim Mulla Mir and from the seventeenth Nadir Divan Begi in Bukhara.

A third subtype is the *khanqah* with a frontal composition. Not far from Bukhara are two of these buildings: the sixteenth century *khanqah* in Faizabad, and the first phase of construction of the *khanqah* of Bahauddin

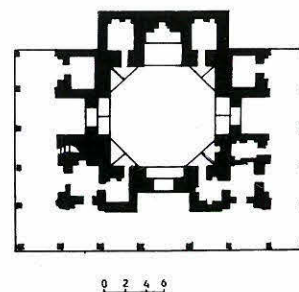
erected between 1540 and 1551 by Abdu'l Aziz Khan. In 1642-45, Nadir Khan surrounded this latter building with cells placed in two rows, turning the frontal composition into its final central composition. Another example of a *khanqah* with a frontal composition can be found in a drawing by an unknown sixteenth century Uzbek architect.

Phase 4: The fourth period lasted from the eighteenth century through the nineteenth. It was a period of decline in Sufism, and combined with economic development caused an equal decline in the construction of *khanqahs*. In the Bukhara oasis, they were mainly small-domed and sometimes flat-roofed constructions decorated with columns and a two-sided iwan with columns often combining the functions of the *khanqah* and the local mosque. This type of *khanqah*, together with one-storied *hujras*, *darvazakhana*, *takharatkhanas*, and other elements formed the perimeter construction of the courtyard that comprised the town *khanqah* type - a hostel for Sufis. The *khanqah* of Khalif Hudaidat, Khalif Niyazkul, Maulana Sharif, the mosque-*khanqah* of Kui, *Khanqah* Shayahsi, and others in Bukhara are examples of this type of construction.

In the muslim world of the early thirteenth and the fourteenth century, a Turkish type of *khanqah*, the *takiyya* or *tekke* appeared, which flourished in the sixteenth century, spreading through all the regions of the Arab east (11, p. 272). They were impressive Sufi complexes (2 pp. 277-78). *Tekkes* appeared in Central Asia later, were not so large as elsewhere, and had a different meaning and structure. In Bukhara in the nineteenth and early twentieth century *tekkes* had the same form as the courtyard hostels for Sufis and served not only as a shelter for pilgrims and paupers, but as hostels for traveling artisans seeking employment. These were built by the town's crafts guilds (1, p. 126). Each guild constructed its *tekke* in the quarter where that particular trade was located; its guests were considered to be members of the local guild and were obliged to participate in all kinds of religious ceremonies and civil events (weddings, funerals, etc.) of the mahalla where it was located (8, p. 116).

To sum up, the Sufi cloisters in Maverannah and, in particular, in Bukhara were mainly complexes with a *khanqah* hall dominating the architectural elements around the perimeter of a courtyard. The *khanqahs* were principally of two types, each further divided into two or three subtypes. The heyday of the Sufi complexes in Bukhara was in the sixteenth - seventeenth centuries, when architects developed efficiency and compactness in plans and earthquake-proof constructions and schemes, expressive and well planned for the *khanqah* type that developed in the Timurid period.

The most rational features of the *khanqah* of the first type, with a columned *iwan*, were developed in the Bukhara *khanqah* built near the tombs of the renowned Sufi shaykhs Khwajah Zainutdin, Hazrati Imam, and others; the specific features of the second type, which was more monumental, were developed in Bukhara's *khanqahs* erected near the tombs of the renowned Sufis like Bahauddin Nakshbandi, Kasim Shaykh, Hakimi Mulla Mir, and others.



0 2 4 9

Khanqah of
Peshku.
16th Century.

It should also be stated that the *khanqah* of Khwajah Zainutdin, dating to the beginning of the sixteenth century, was considered to be the earliest construction of the columned type in Bukhara. Based on the *waqf* document for the Khwajah Porso khanqah in Bukhara, which has a three-*iwan* plan, it may be stated that the *iwan* type of *khanqah* already existed in Central Asia a century earlier, by 1407, in the reign of the first Timurids. Later on, in the eighteenth and nineteenth century, the *khanqahs* of the first, earlier kind became dominant in Bukhara: they were domed *khanqahs* (Khalif Khudaydat) or columned *khanqahs* with a flat roof (Khalif Niyazkul) with *iwans* on two sides. These buildings frequently combined the functions of a *khanqah* and a local mosque or were a part of a Sufi courtyard complex.

REFERENCES

1. L. Yu. Mankovskaya, *Tipologicheskiye osnovy zodchestva srednej (IX nach. XX vv)* (Tashkent, 1980).
2. T. U. Starodub, "Srednevekovaja arhitektura, svjazannaja a sufizmom: hanaka, zavija, takija" *Sufizm v kontekste musulmanskoj kultury* (Moscow, 1989), pp. 268-80.
3. G. A. Pugachenkova, *Zodchestvo centralnoj Azii, XV v* (Tashkent, 1976).
4. G. A. Pugachenkova, "Qhanaqah Baha al-Din," *Maskan* 7-8 (1993), pp. 5-7.
5. B. L. Voronina, "Arhitektura Srednej Azii, XVI-XVII," *Vseobshchaja istorija arhitektury, vol. VIII* (Moscow, 1969).
6. J. S. Trimmingham, *The Sufi Orders in Islam* (Oxford, 1971), pp. 90.
7. Sh. S. Kamaliddinov, "Kitab al-Ansab," *Abu Sa'ad Abdulkarim ibn Muhammad as-Sam'ani kak istochnik po istorii i istorii kul'tury Srednej Azii* (Tashkent, 1993).
8. O. A. Sukhareva, *Kvartal'naja obshchina pozdnefeodal'nogo goroda buhary* (Moscow, 1976), pp. 116.
9. O. D. Chekhovich, *Bukharskie dokumenty XIV veka* (Tashkent, 1965).
10. N. Ibraghimov, *Ibn Batutta* (Moscow, 1988) pp. 69.
11. "Islam," *Enciklopedicheskij slovar'* (Moscow, 1991), pp. 72.
12. Central Archives of Uzbekistan, Fond I-323, no. 1291/I6 (30).

Suburban Ensembles of Bukhara

The great Japanese humanitarian of the 20th century, Ikeda, once said, "Nothing leads us to an understanding of other peoples better than touching their cultural roots." The preservation of the culture of the peoples of Central Asia is primarily a humanitarian task. For many centuries, camel caravans traveled from China to Europe, a distance of over six thousand kilometers. They braved a dangerous route that passed through deserts, fields, and the narrow mountain passes of Central Asia with goods to be traded. Among those goods was silk, the most expensive product of that period and a very fine fabric, whose production Chinese craftsmen had kept a carefully guarded secret for many centuries. That was why the 19th century German geographer the Baron Ferdinand von Richthafer called this route from east to west "the Silk Road." The great Silk Road influenced the development of major urban centers and generated trade between countries along this route. As a result of this association between the Middle and Near East, a unique transcontinental culture developed in these countries. Great architectural monuments and fine goods were not only the result of a thriving economy but also the reflection of a philosophy which aspired to assimilate various other cultures of the world.

Bukhara is one of the oldest cities in the world and its great historical role and contribution to economic and cultural development is difficult to measure. One of the major cities on the great Silk Road, Bukhara, during its over twenty-five centuries of existence, had a considerable influence on the cultural development of other cities along the route as an intermediary between Eastern and Western cultures. As the capital of an "empire" and one of the largest cities of the Muslim East, Bukhara contributed significantly to the spiritual and physical development of humanity. It was the city of great thinkers and artists like Muhammad Narshakhi and Ibn Sina. Bukhara was a miracle, an exotic city, and a wonder. Marco Polo visited it and called it the most magnificent of all Asian cities. Densely grouped single-storied buildings made up a unique three-dimensional composition, which also served as a backdrop to majestic architectural ensembles. Narrow streets without windows ran through the quarters and opened up unusual perspectives of impressive scale and architecture. From the roads leading to the north and northwest gates, the image of the city was incredibly beautiful. Bukhara is rightly called an open-air museum. In a city with a population of 300,000 people, there are more than 500 architectural monuments in different styles. Many of them have been added to the structure of the contemporary city. According to data from the Bukhara State Museum, there are 293 monuments and 253 residences

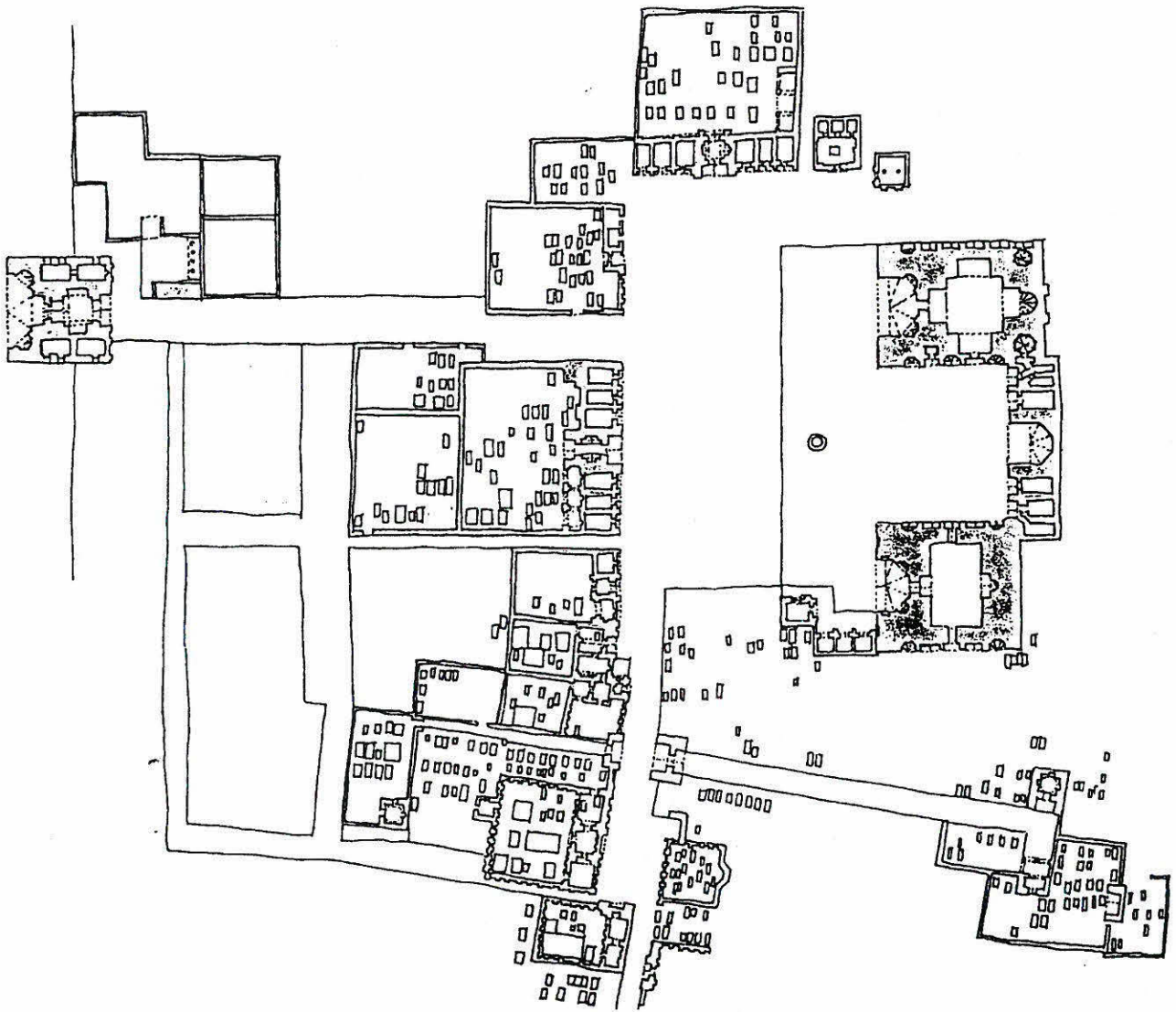
currently under state protection. Among the architectural monuments are 99 mosques, 37 *madrasas*, 9 mausolea, 9 *khanqahs*, 15 caravanserais, 9 *sardoba*, 9 minarets, 5 *hammams*, 3 domed bazaars, the Shahrud and Hauzi canals, the fortress wall, gates, and other buildings. Many of these are part of architectural ensembles, of which there are fourteen: the Ark, Poi-Kalian, Mohi-Hosa, Char-Bahr, Bahauddin, Kwajah-Zinautdin, Hosrati-Imam, Labi-Hauz, Bolo-Hauz, Maulana-Sharif, Khalifa-Hudaidat, Gavkushan, Hausi-Nab, and Abdukadiri geloni. Of these ensembles, the Ark, Poi-Kalian, Kwajah-Zinautdin, Khasrati-Imam, Labi-Hauz, Bolo Hauz, Maulana-Sharif, Khalifa-Hudaidat, Gavkushan, Hausi-Nab and Abdukadir geloni are public centers. The Sitorai-Mohi-Hosa belongs to a system of gardens and parks, the *Charbagh*, and was the country retreat of the amir of Bukhara.

The Char-Bahr and Bahauddin ensembles belong to the Ziaratgoh shrine. Char-Bahr is the tomb of the saint Abu Bakr Caada. Ziaratgah is where Shaykh Bahauddin Nakshbandi was born and is buried. The architectural organization of cult complexes are, as a rule, the result of many years of existence, aggregations of buildings linked over time. The place where the Char-Bahr ensemble is situated bears traces of its ancient culture.

There are a number of hills around the contemporary city called tepe; they represent the remains of feudal castles and villages. There has been no special investigation of these hills, but the village of Sumitan (now called Char-Bahr), where there is a necropolis and which consists of 27 buildings, has long been in existence. Char-Bahr village is six kilometers east of Bukhara. The ensemble is 200-300 meters from the Bukhara-Alat-Chargou highway. In addition to its large necropolis, its largest buildings are the *khanqah* and the mosque and *iwan* with *hujras* (cells) between them. The remaining 24 buildings are identified by numbers assigned in 1924, when the schematic plan of this ensemble was drawn. None of these buildings has a name. In 1927, the Char-Bahr mausoleum complex came under state protection and became the subject of study for various researchers.

At the beginning of the 16th century, the nomadic Uzbeks led by Shaybani Khan, the founder of the Shaybanid dynasty, occupied Central Asia. The first half of this period was marked by local wars. In the second half of the 16th century, as a result of several victories, Abdullah Khan (1557-98) united all the districts in the region of Bukhara and created a strong centralized state. Under his rule, Bukhara reacquired its political and cultural importance. There was extensive construction of new madrasas, mosques, and *khanqahs*. This was also a period of peace for Bukhara. The authority of Shaykh Khwajah Islam Juybari, who was also known as Khwajah Kalon (the great khwajah), grew rapidly. He assisted the khan in both small and large ventures. Out of his great respect for and trust in him, Abdullah Khan decided to build a madrasa, *khanqah*, and mosque surrounded by gardens and parks in Sumitan near the shrine (mazar) of his ancestor Abu Bakr Caada.

In 1558, craftsmen built the foundations of the buildings in Sumitan. The master masons and builders worked so hard that all the buildings,



Top: Char Bahr ensemble.
Left: View of Char Bahr.



planned for completion in ten years, were built in a much shorter time. These majestic buildings with portals and arches were decorated with distinctive, ornamental, colored glazed tiles. There was a beautiful garden with rare trees near Khwajah Islam's mazar . The six kilometer long road from the garden to the city was flanked by trees so the *khwaja* could travel in shade. The servants and ministers of Abdulla also built gardens around Sumitan. The Char-Bahr complex was built over a long period of time. The oldest part of this complex is the mazar of Abu Bakr Caada, one of four saints named Abu Bakr, and some family tombs, which were built like courtyards, surrounded by walls and porticoes with rooms. Between 1560 and 1563, the complex with the main buildings was built. It consisted of three buildings linked to each other and built on a single foundation. To the left was the *khanqah* and to the right, the mosque. Between them were the *iwan* and monks' cells on the first and second floors. The *khanqah* and mosque were faced on the east by their heavy portals elaborated with lighter strips of mosaic, with ledges and niches. The portals of the *khanqah* and mosque looked onto the plaza between them, which was also the courtyard of the *madrassa*. It is a very unusual composition.

The courtyard of the *madrassa* formed by the left and right elevations of the *khanqah* and mosque gives great importance not only to the buildings, but also to the streets and open space, in an unusual architectural design. The opening up of the plaza of the *madrassa* and the design of the side elevations of the building as elements continuing up the streets represented an advanced design. The large buildings of this complex were at a slight distance from the old part of the necropolis. New funerary courtyards and porticoes with rooms were added to the old part of the necropolis, repeating the form of the great plaza before the main building. The reorganized ensemble was marked by a small minaret on the main axis of the plaza in front of the *khanqah* and mosque. The plaza was completed when built from the south and from the city side.

The cruciform plan of the *khanqah* retains the traditional double-dome construction on a tall cylindrical drum, which sits on the octagonal building. The dome differs from that of the Kalian *madrassa* only in its decorative pattern. The ceiling of the great rectangular hall of the mosque was very distinctive and high and known among Bukharan architects as a Char Zamin. Across the hall are two thick beams supporting two small arches, which support the high and narrow cylindrical drum bearing the dome. The sides of the hall are covered with independent arches connected to the main arches. On the intrados, the construction elements are emphasized. The soffit of the dome is beautifully decorated. The sides of the hall are of a stucco called *gurtas*, carved in low relief. The combination of construction and decorative elements, when the construction elements are not hidden, but decorated, holds out hope for the present. Every epoch contributes its own constructive and decorative forms, which are dictated by the architectural context, level of structural progress, and the tastes and needs of society. Dome construction and design methods in the Char Bahr ensemble are not only of practical value, but are useful for historical and



*Side view of
the Khanqah
of Char Bahr.*

cultural studies. The architecture of the Char Bahr complex retains the importance of decoration in building and construction, an aspect of avant-garde architecture in every epoch.

The main shrine of Bukhara is the *mazar* of Muhammad Ibn Jelal al-Din Muhammad, also known in the Muslim world as Bahauddin Nakshbandi. Khwajah Bahauddin (1318-89) was famous as a righteous man, clairvoyant, and miracle worker. According to information from contemporary sources, he reached perfection as a Sufi. After his death a Sufi brotherhood was organized, called the Tarikat Nakshbandiya, based on his teachings. In Bukhara, Bahauddin is considered the patron saint of the city. His tomb is greatly honored and is a site of pilgrimage for all Muslims. The tomb of the shaykh is in his homeland, Kasri Orifon Kishlok, 10 kilometers northeast of Bukhara. The shrine or *dahma* of the shaykh was the earliest building of this ensemble. As *ziarat* from the Ka'ba was an important attribute, a *qibla* wall with a mihrab was incorporated into the divan.

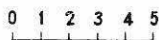
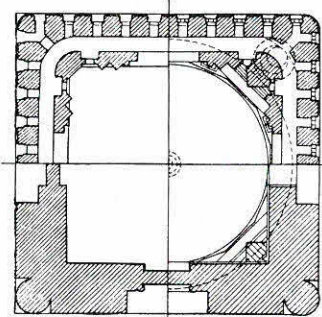
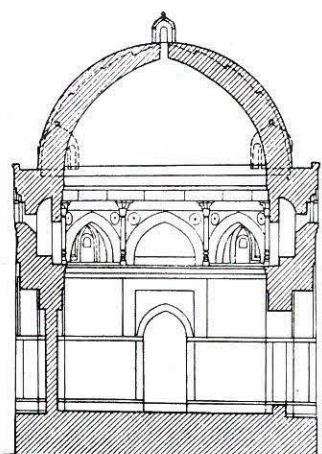
As the number of pilgrims grew, there was an increase in the number of madrasas and *chillalkhanas*. Elements of the landscape, the pool of water and trees, were not forgotten. The courtyard (*hasiri*) was surrounded by a wall. The entrance into the necropolis was initially to the west. It looked

like a *chartaq* with a suspended ritual wooden beam (*chabandi*). In the *chartaq* were mosques, rest houses for travelers, and other buildings. The *chartaq* was connected to the courtyard by a street with high stone walls on both sides, which protected the tombs. The creation of a spiritual atmosphere was determined by the meaning of the place. The streets led the pilgrims to the courtyard containing the relics of the *shaykh*. The straight lines of the streets, geometric composition, natural material of the walls, the black and gray marble all met the requirements of this task admirably.

One of the significant buildings of the ensemble is the Khanqah Bahauddin dating from about 1544-45. It is situated in picturesque fields among trees, pools, and buildings - which were added later - a summer mosque, *madrasa*, *iwan* and minaret. Square in plan, with a cruciform hall, deeply arched portal niches, and a group of rectangular *hujr* (rooms) in the corners, the *khanqah* is a massive and static composition crowned by a dome. Like other buildings of the same period, it has an interesting interior with fan pendentives which radiate from the corners to the dome and make the space very attractive. It recalls the lighter architectural forms of wood-frame construction, an architecture no less attractive than the more monumental one. The ceiling of the northern mosque is decorated with gilded and painted murals. In the preparations for the 675th anniversary celebration of Bahauddin's birth, all the buildings, except the family tombs, were restored for use.

The Role of Bukhara in the Creation of the Architectural Typology of the Former Mausoleums of Mavarannahr

Mausoleums have a great significance in the monumental architecture of the Muslim world. The Ash-Shafiya cemetery in Cairo (13th century), the Shah-i-Zinda necropolis in Samarkand (14th - 15th century), Taj Mahal in Agra (17th century) and many others rank among the masterpieces of world architecture. However, different from mosques, the mausoleums came into existence later, well after Islam had been stabilized. To erect a burial monument was strictly forbidden in earlier times, as it was against the basic tenets of Islam. The Hadith ascribes this interdiction to the Prophet Muhammed himself, who preached that a Muslim grave should be ascetically simple and not marked by any structure or roof. The corpse, wrapped in a shroud, was laid with its face directed to Mecca in a grave distinguished only by a small mound and eventually by a headstone and/or by two sticks in the ground at the head and the feet of the body. The ascetic manner of burial had deeper meaning given the modest lifestyle of the former Arab nomads. The lack of funerary monuments, as well as any other burial paraphernalia, indicated Islam's opposition to the rituals of the ancient heathen cults and Christianity at the time. It was also an expression of the policy of Islam in its struggle with other religions. That interdiction was strictly observed during the Caliphates of the Ommayyads and the early Abbasids. However, the situation had been changing over time. The glorification of a powerful person was a significant feature of Eastern cultures even in pre-Islamic times. It grew more pronounced during the formation of the great khalifat or Caliphate. Thus, the Caliph, and nobody else, might be worthy of a burial-vault. When the Caliph al-Muntasir died in 862, his Greek mother requested permission to construct his tomb in Samarra. She was granted permission and subsequently, the Caliphs al-Muttazi and al-Muhtadi were also buried there. The ruins of this mausoleum, called the Qubbat as-Sulabiyya, were found during the excavation of a hill at the west bank of the river Tigris. The excavation revealed the structure: a high platform and walls, preserved up to a height of five meters, and three graves (the discovery of graves confirmed it as a mausoleum). The architectural composition is reminiscent of Byzantine architecture. The mausoleum is octahedral in plan, with its walls crowned by a dome, including a square space with four



Bukhara.
The Samanid mausoleum.
Plan and section.

openings, on axis. Since then, the interdiction of the Hadith was invalid and the Caliphs took the lead in constructing mausolea in all eastern Islamic countries.

One of the earliest architectural traditions to adopt this innovation was that of Central Asia. At the turn of the 10th century, a mausoleum was erected for the ruler of the Samanid dynasty in Mavarannahr. It was constructed during the reign of the outstanding Samanid king - Ismail (892 - 907). An ancient waqf document contains evidence of the donation of land by Ismail for the *mazar* (grave) of his father Ahmed b. Asad. The *mazar* was located outside the ancient citadel of Bukhara and is now on the Char-Gumbazon street, in the western part of the city, which topographically was the same location as the Samanid mausoleum. In addition, there was a wooden plate on one of the facades above the entrance. The script on the plate, in classic Kufic calligraphy, includes the name of the grandson Ismail-Nasr II b. Ahmad (who ruled between 914 - 942).

There are three tombs in the mausoleum, and this fact eliminates a possible contradiction in dates. Constructed by Ismail the Samanid for his father, the mausoleum became the burial place for himself as well as for Nasr II b. Ahmad. Existing sources also tell us that at the Naukand cemetery, located far south of the Samanid mausoleum, there was the mausoleum of his son Ahmad, who died in 914. Following the first dynastic burial vault, there was widespread construction of mausoleums around Mavarannahr.

Another mausoleum of the Samanid epoch survives until the present day. In the high mountains in the Narpai district of the Samarkand region, there is a small hidden cemetery containing a mausoleum named after a person called Arab Ata. The Kufic calligraphy of the Arabic script that frames the mausoleum portal contains the date of construction, erected by the order of the Samanid ruler, Huh b. Mansurabi in 367 AH / October - November 977. The significance of this monument has been proved by the fact that a famous architect from Bukhara was appointed for that project, and the emir himself sponsored its construction.

Altogether, there is evidence of the high authority of the person in whose honor the mausoleum was constructed. The name of this person did not remain in the memory of the local residents. "Arab Ata" is only a nickname (which means "father of Arabs"). Presumably, he was one of the high-ranking Arab clergy, who had settled in this remote mountain district. Until today his cult is still observed by the locals, mainly a cattle-breeding population. The evidence of the existence of this cult over the centuries is another building near the mausoleum, the Ak mosque, which dates back to the 16th century (the date is based on the architectural forms and methods of construction). Thus, the existence of two Samanid monuments proves that mausoleums in Mavarannahr had been constructed for the nobility as well as for honored Muslim clergy.

From an architectural viewpoint, the monuments represent two basic types of composition: one with a central dome and the other with a portal dome. Both types experienced a long process of development seen in funerary monuments in Central Asia. It should be emphasized that from

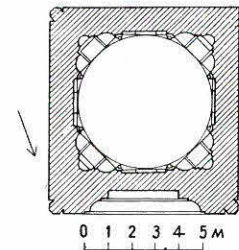
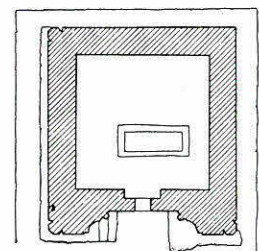
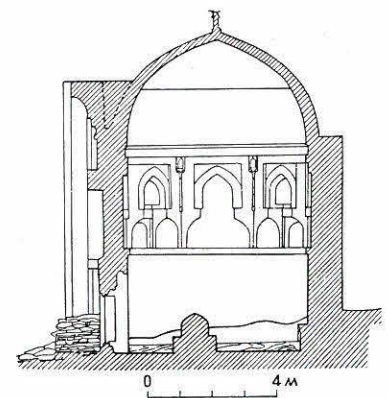
the early medieval ages on the basic construction material in the monumental architecture of Central Asia was clay (in its variations as stucco or adobe brick). However, by the 10th century baked brick became the dominant material. The use of baked brick opened up for architects new possibilities of construction, design and decoration. This is amply demonstrated in the both the mausolea mentioned above, which are further described in the following section.

The baked brick used to construct the mausoleum also serves as the principal material for architectural decoration. This is achieved with bricks laid either horizontally or vertically, angled or flat, and/or by double bricks with a wide seam between them. The Samanid mausoleum was constructed of baked bricks of a smaller dimension. The form is designed as a cuboid space crowned by a hemispherical dome. A low plinth supports the cube. The entire composition is strictly symmetrical and all facades are equal in dimension. A large arch is in the center of the facade surface, behind which is an arched passageway. A series of small arches is at the top of the facade, behind which is the narrow encircling gallery, which serves here as a reveal for the masonry. The corners are flanked by strong, short, three-quarter columns at the top of which are small domes (supposedly of later origin).

The simplicity of the exterior architectural details reflects the design of the interior. The flat walls are broken at the axis by the arches. Above them is the octahedron drum supported by corner squinches and which serves as a transition to the bowl of the dome above it. Together these elements create the texture of the walls and extremely expressive details. In addition, the borders are made of polished bricks in the form of disks or four-petal rosettes.

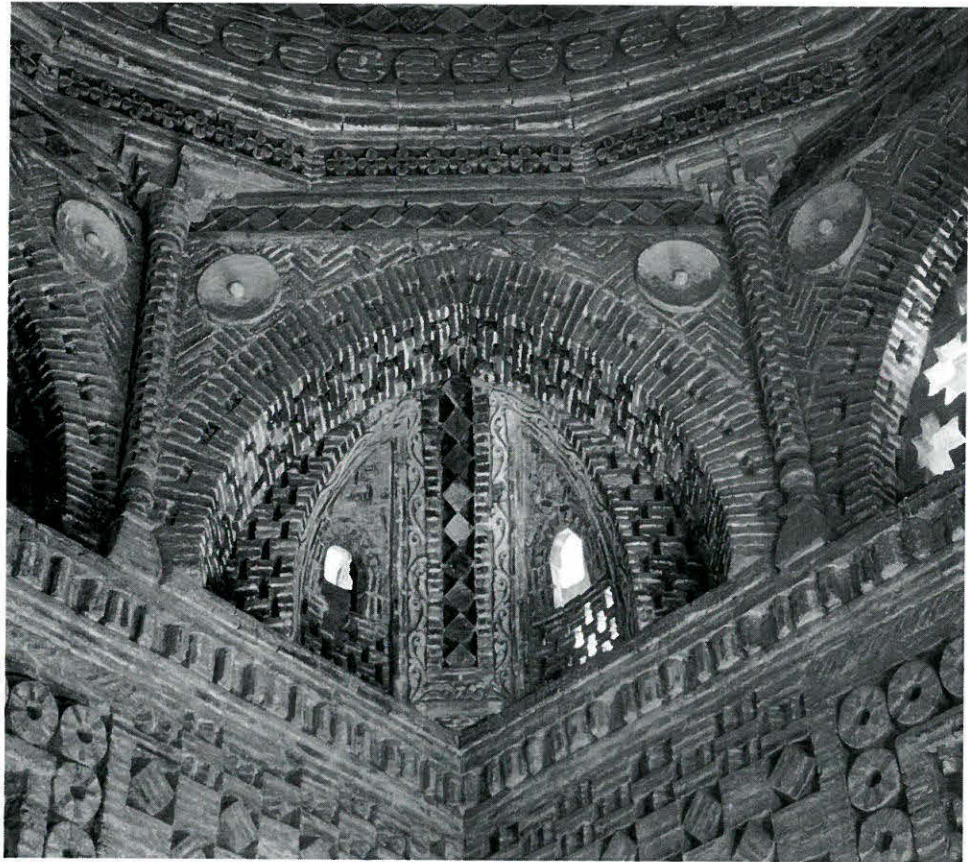
The close study of the detailing in the Samanid mausoleum reveals the existing connection with the architectural traditions of pre-Islamic Soghd (the ancient region which was comprised of the territories of Samarkand, Bukhara and Kashkadarya regions of present Uzbekistan, and part of Tadzhikistan). The mural paintings from the Soghdian temple at Penjikent (5th - 7th centuries) had attracted attention to the image of a catafalque, depicted with a hemispherical dome, arcature and short corner columns. This organization is similar to the general structure of the Samanid mausoleum. Terracotta disks and rosettes are known in Soghdian architecture, again, similar to those on the wall borders of the Samanid mausoleum. There are further similarities in the corner columns of the interior. Though essentially innovative, the Samanid mausoleum had a definite connection with the local pre-Islamic architecture.

The Arab-Ata mausoleum is a special monument. It exhibits the dominance of new stylistic features, which belong to the new stage of development of medieval architecture, more closely correlated to the ideas of Muslim culture. The building is also constructed in baked brick, and is square and small in dimensions. The masonry work is in coupled bricks with wide joints in between. This constructively rational method enhances the texture of the masonry, and thus generates the general expressiveness



*Celernie Tim.
Arab-Ata mausoleum.*

*Bukhara.
The Samanid mausoleum.
Interior decoration.*



of decoration. The building is a square in plan, crowned by a high pointed dome. However, the spatial symmetry of the entire composition is broken by an enhancement of the front facade as a raised portal where the principal decorative details are concentrated. Regarding formal development, the low plinth and large, pointed entrance arch are highlighted. Above the arch, there is a triple arcature and all these elements are flanked by U-shaped frames (the top part of which has not survived). There are octagonal columns in the corners of the portal. The portal is partially decorated with a masonry design and partially with carved stucco. Two types of ornaments are used: geometric (ghiriland), which appear in different variations at the lower end of the front arch and in the arcature; and a wide strip of epigraphic decoration filled with Arabic script in Kufic calligraphy which contains information on the date mentioned above. The interior is characterized by its squinches, which are constructed on two levels. They form small hemispheres and create a three-leaf figure, which is repeated on the walls of the lower ends of the arches. The decorative brick columns between them create a smooth transition to the spiral masonry of the dome. Similar to the Samanid mausoleum, they imitate the forms of the wooden columns of Soghdian architecture and have wide capitals with curving end volutes.

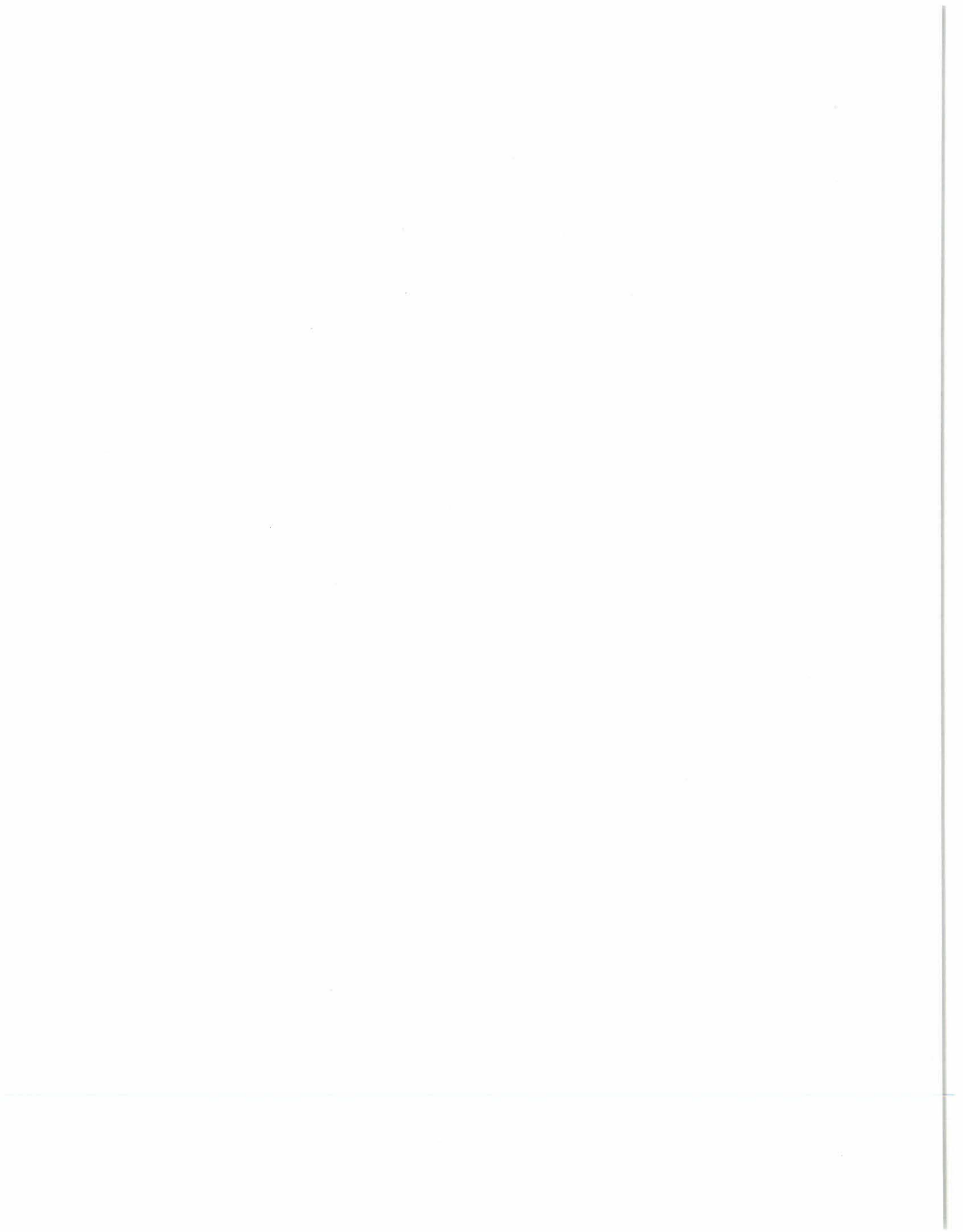
The idea of a portal was widespread in Central Asia and in the far reaches of the Iranian kingdom even in pre-Islamic architecture. Since then, however, this idea acquired special significance and became almost a standard element in monumental architecture of various functions. An innovation in the Arab Ata mausoleum was the inscription bounding the portal. Arabic epigraphy played, at the time, a special didactic and esthetic role in architecture.

The analysis of the proportions of the Samanid and Arab Ata mausoleums allows us to conclude that, in general, a geometric regularity dominates in the design of their plans, facades and sections. The design is based upon the correlation of sides and diagonals of the squares in progressively descending order.

We need to remind ourselves that the period of the 9th - 10th century was a remarkable one in the history of the Eastern world and characterized by significant developments in mathematical science. As well as learned treatises scholars invented the methods of practical geometry, which were widely used by the engineers and architects of the time. In the 11th - 12th centuries, a great number of magnificent tombs were erected in Central Asia. They were built for sultans and *khans* as well as for founders of Sufi orders and honored Sunni clergy. Architects endeavored to incorporate unique features in each building. But the basic typology remained the same as that created by the Bukhara architects under Samanid rule, when two types of graves were developed - the center-domed type and the portal-domed type.¹

NOTE:

1. The literature on Samanid mausoleums is very wide ranging, attracting the attention of scholars since the 19th century. A bibliography of these mausoleums can be found in the book of M.S. Bulatov "Mavsovei Samanidov-hudojectvennaia djemchuzchine architecturi srednei aziv," Tashkent, 1976. There are a few other publications about these monuments. The mausoleum Arab Ata, due to its location far from the city, was discovered only in 1958 by Mr. V.I. Leonov. It was studied further in 1960 by Ms. G.A. Pugatchenkova, see "Mavzolei Arab Ata. Isskusstvo zodchih uzbekistane," II, Tashkent, 1968.



Annette Gangler

Bukhara from the Russian Conquest to the Present

The urban development of Bukhara since the Russian conquest of 1868 was studied by urban planners from the University of Stuttgart during a three-week study trip in the summer of 1995. They concentrated on two questions: what were the conditions that led to the dissolution of the central area? and what were the influences that traditional forms of housing were, and are, subject to? The group also included historians from the University of Tübingen who studied the genesis of the historic city.

Urban Development under Colonization

To determine the changes that have taken place, we were able to refer to a number of historic plans. One came from a travel account of 1823 by E. Ebersmann, entitled *A Trip from Orenburg to Bukhara*; it shows a compact, enclosed city with three prominent elements: the citadel (22 m high), the *shahristan*—that is, the elevated medieval city— which was said to have been enclosed by a wall of ca. 1 km by 1 km, and finally the *rabad*, or residential quarter, divided by a main canal and enclosed by a city wall of ca. 6 km by 6 km. Around the city was the oasis, once also protected by a wall of 72 km by 72 km; it had canals, rows of trees, and roadways, and the farms and estates typical of an oasis. At the crossroads lay villages, in which 700 families are said to have settled after the Arab conquest.

On the map of 1886 made by Captain Poslawski, the city with its three main elements was still more or less the same as it had been on the map of 1823. Many streets branch off from the gates of the outer wall and meet in the center, south of the *shahristan* (fig.1). The way the streets ran through the city and their depiction as narrow passageways suggest a firmly established street system that allowed us to draw conclusions concerning the growth periods of the city. Along the main roads leading into and out of the city lay the cemeteries, where a slight increase in the building density can be observed. Within the city the Great Mosque and the *madrasas* as single buildings can easily be made out, as can the beginnings of the main bazaar areas. Another main element on this map is the square in the west, representing the most recent enlargement of the city at that time.

On a map of 1871, showing over 400 public buildings, which all seem still to have been functioning, the Russian military facilities such as garrisons and munitions depots are shown. However, the plan shows very little of

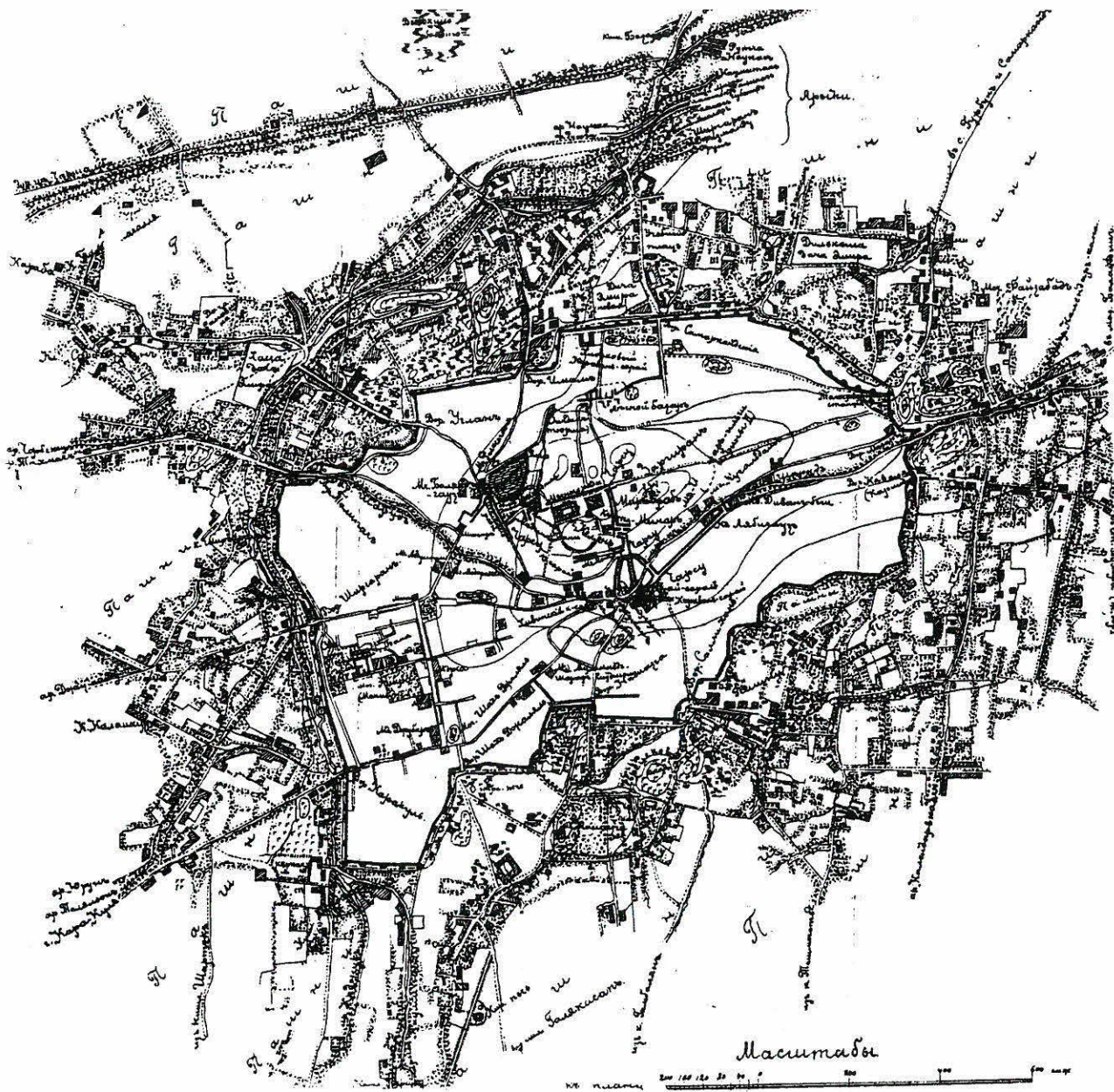
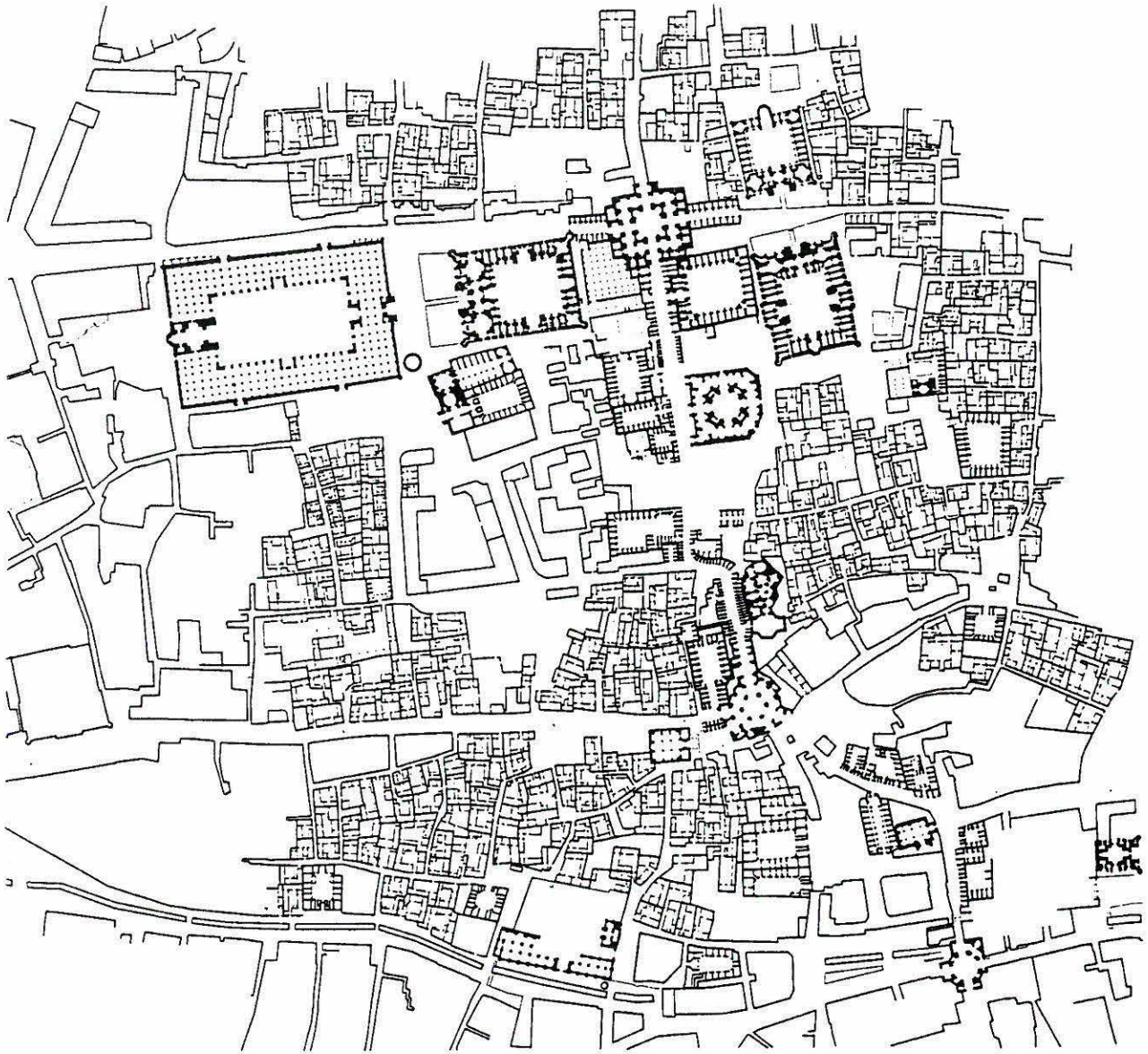


Fig. 1. Plan of 1886

the residential areas and the structure of the bazaar. According to written sources (Situyakowsky, 1889), there were 365 residential quarters, 60 inner-city bazaars, and 20 additional bazaars situated at the gates; the largest of them was the one located at the Samarqand Gate. The most important bazaar for foods, the Sukhavera, was said to have been in the area surrounding the Registan. In his writings of 1868, Vambery describes the area between the Ark, the Amir's Palace, and the Great Mosque as very lively. A complex and dense bazaar structure with adjoining caravanserais could be found between the street crossings covered with domes, which still exist today. As can be seen in old photographs, most of this bazaar was covered, and single shops were turned toward the street.



An exact reconstruction of the city center is hardly possible. On the basis of the plan of the land registry in a scale of 1:500, we analyzed the buildings that still exist today and compare the result with an aerial view from 1930. A number of caravanserais and shop units that no longer exist could be reconstructed from this view showing the former structure of the linear bazaar with its small shops and caravanserais behind. The plan showing the reconstruction of the buildings that existed in 1930 clearly shows the beginnings of the disintegration of the traditional bazaar structures (fig. 2). This disintegration began during the "civilizing mission" that started with the colonial expansion of Russia into the steppes and oasis cities in the middle of the nineteenth century. After the conquered areas were united

Fig. 2. Detailed plan of the Old City. Reconstruction from 1930 photo.

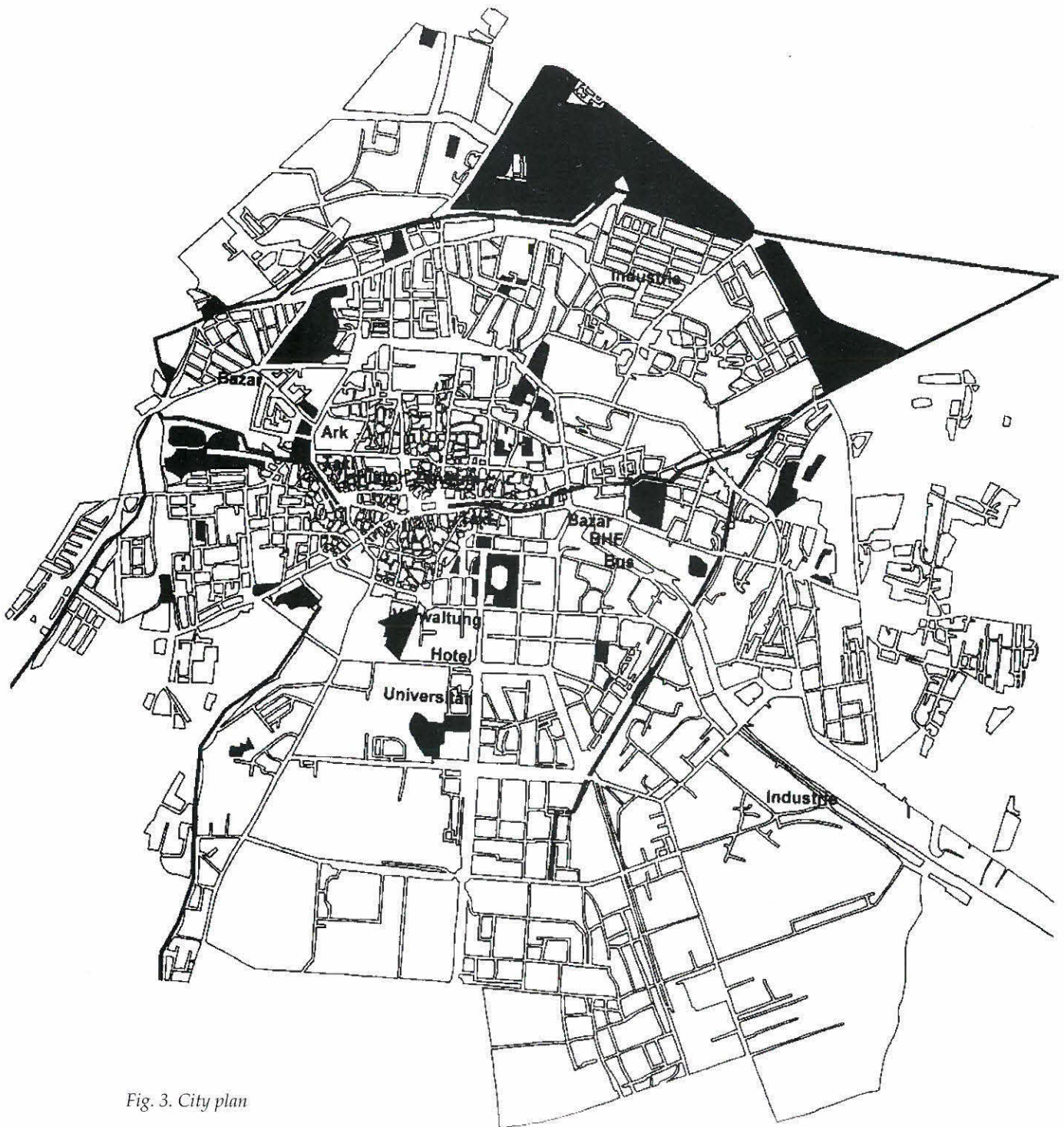


Fig. 3. City plan



Fig. 4. Old City structure

under the government of Turkistan in 1867, the hitherto sovereign amirate of Bukhara was placed under its protection.

In the aerial view of 1930 the city is still bounded by its medieval walls, seemingly unchanged. With the disintegration of the sovereign amirate of Bukhara, however, an internal process of political change began to take place, which was reflected in the appearance of the urban structure. The military interests of the Russians, at first manifested in the building of barracks and garrisons, soon shifted more and more to economic interests. The structure of the economy, in both trade and business, was changed to suit the Russians. The complex culture of the oasis became a monoculture centered on cotton. Through the building of the trans-Caspian railroad, which crossed the amirate of Bukhara beginning in 1899, this development was encouraged bringing the first laborers for the railroad and the cotton fields into the country.

Outside the walls of the historic city, the first four Russian colonial settlements were built, and along the railroad track 13 km southeast of Bukhara the new Russian colonial city of Kagan was established. The settlements were planned along the lines of the Garden City, an ideal popular even in Russia from 1902 onwards (see, e.g., Wladimir Semjonow, *The Planning of Cities*, 1912; Prozorowka for the Kazan Railroad Company of Moscow). The settlements had wide, orthogonal streets, irrigation ditches, and tree-lined avenues. Detached, one-story buildings prevailed in these settlements. Through Russian imports trade shifted to the suburbs, where new centers with public buildings and markets were to be built.

Development under the Soviets

The Russian penetration of Central Asia was rapid, and it was so radical that the assumption of power by the Bolsheviks in 1917 took place almost without resistance, partly because the Muslim population did not take part in the Revolution. However, in 1920 there were severe battles in which 75 percent of the city was said to have been destroyed, and the population fell from 70,000 in 1911 to 50,000. In the same year, Bukhara became the People's Republic of Bukhara and socialist rebuilding began with an all-out attack on Islam.

In 1929 the first five-year plan for the industrialization and the collectivization of agriculture went into effect. With the beginning of an accelerated industrialization and the abolition of private property, the idea of the Garden City lost its meaning, and the search for new socialist forms of housing and of settlement structures began. In 1922 the first communal houses were built in Moscow, and in 1930 two different urban concepts were being debated through the competition for the new industrial city of Magnitogorsk (in the southeastern Urals). The model of urbanism – Sozgorod – was planned as a compact, regular formation with a number of green areas and multi-story buildings for 2,000 to 4,000 inhabitants,

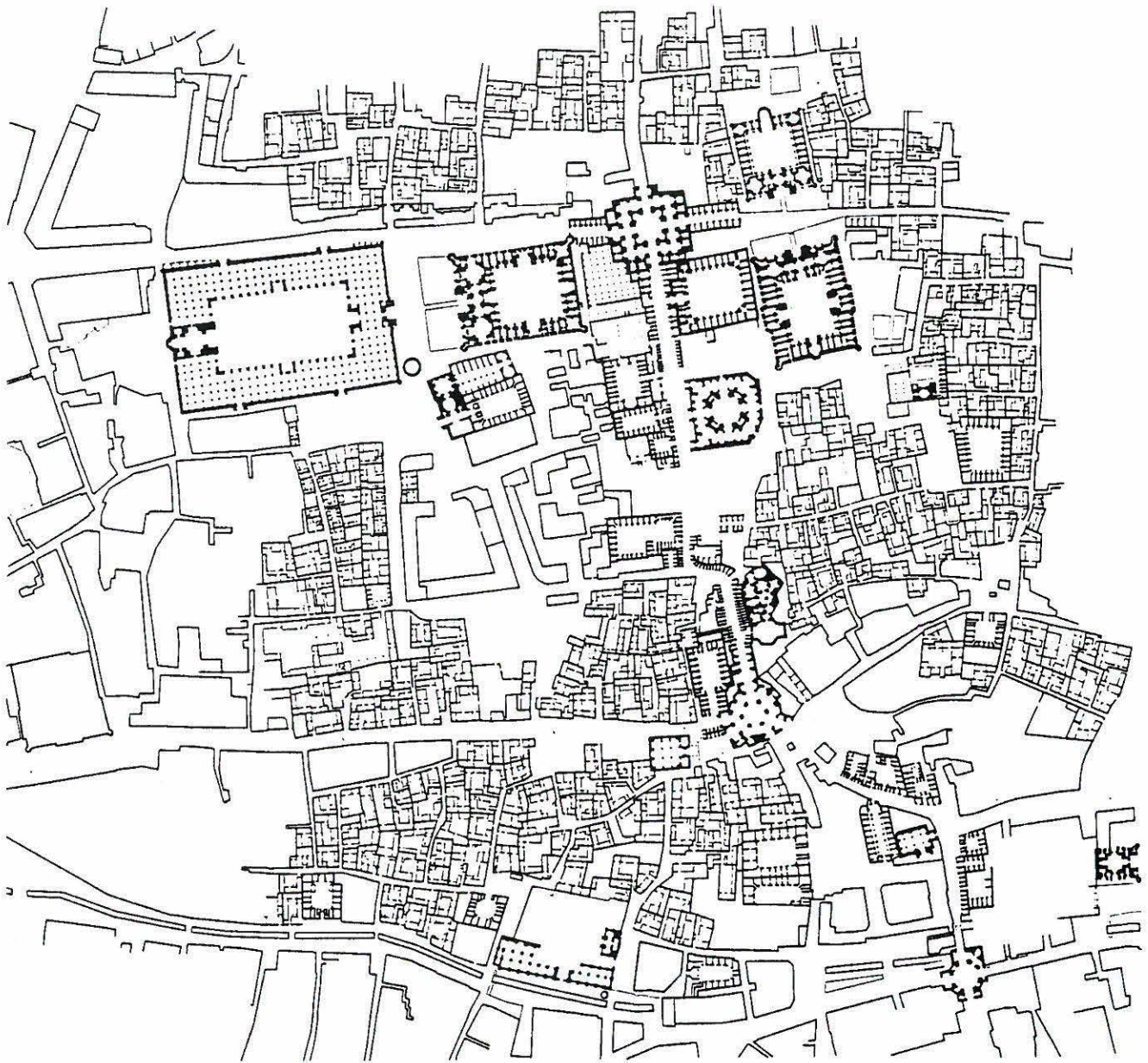


Fig. 6.
Detailed plan of the Old City,
1995

close to the adjoining industrial complexes. The model of "disurbanism" propagated the idea of a dispersed ribbon-like city strung out along the traffic routes, dissolving the differences between the city and the countryside. Both ideas were pursued in the planning of two hundred new cities in the Soviet Union, and it was not until 1960 that the unified model of the "terraced-system city" (Gradow) came into being. The aim was to create a new culture eliminating all ethnic and religious differences in the population.

These ideals are manifested in the urban development of Bukhara as well as in the overall plan of the city and the distribution of its functions today. Large industrial areas were developed, especially in the southeast along the railroad leading to Kagan. New housing projects had to be built. Four large parks were built and the system of roads extended. Public transport (trolley bus) was laid down along with broad ringroads to accommodate high-speed city traffic. To carry out revolutionary ideas for new forms of



*Fig. 7.
Traditional courtyard house.*

housing and settlement, the Institute of Urban Planning at the Academy of Architecture of the USSR planned urban extensions which came closer to the first models of urban planning. In 1962 a city enlargement was planned along the lines of "disurbanism," using a city axis which led south as its spine. The element connecting this newly planned part of town to the

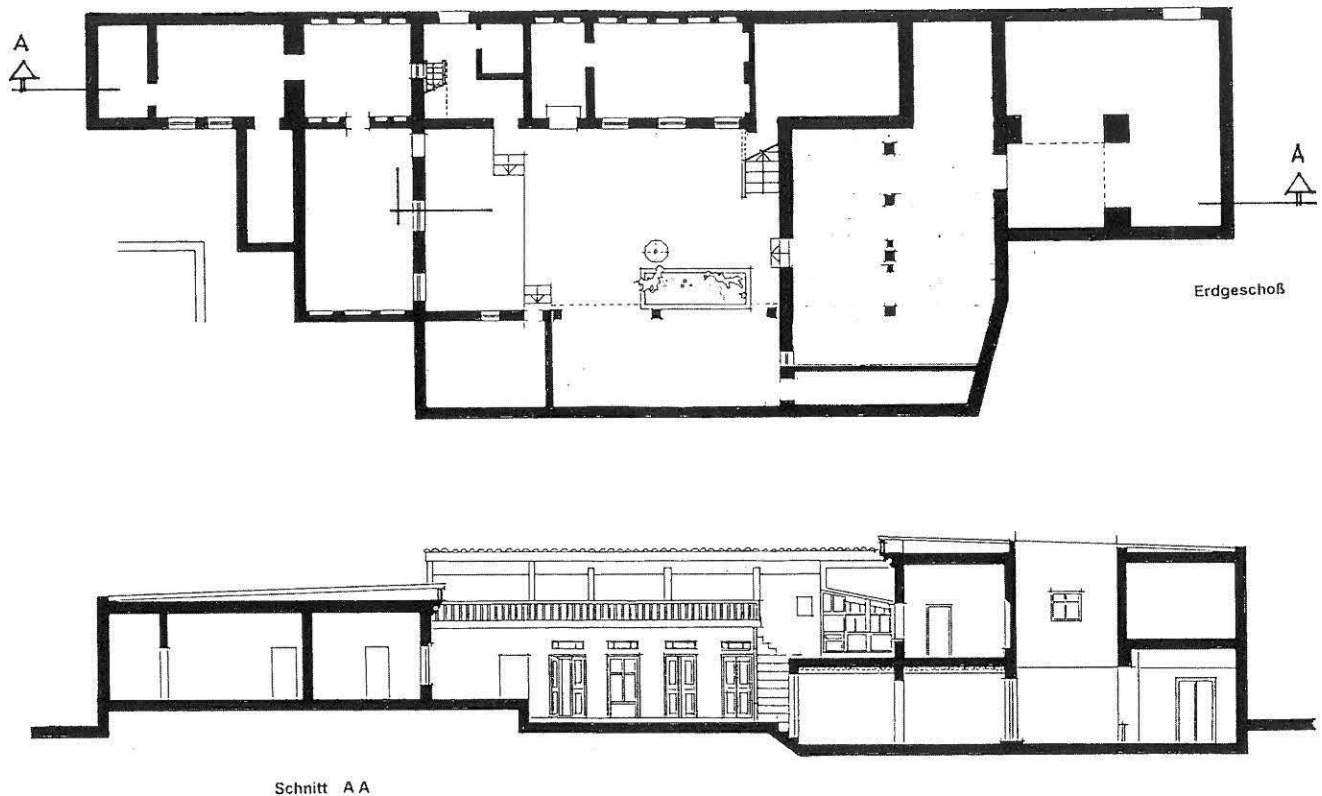


Fig. 8. Traditional courtyard house (ground floor/section)

historical city was a large city square, useful for political demonstrations and military parades (fig. 3).

A prospect almost 150 m in width was divided into lanes and parking strips with five rows of trees which was to function as the city's new center near the main crossroads. A municipal administration building, tourist center, and university were started. With this plan the city sought to cope with the rapid growth of the population and the resulting housing shortage. Between 1960 and 1975 the population doubled from 70,000 people to 140,000; today Bukhara has a population of approximately 300,000.

The Development of the Center under the Soviet Regime

Through this rapid process of growth, the historical part of the city lost more and more of its importance, a phenomenon common to many rapidly growing cities of the time, but reinforced there by the influence of ideology and politics. The historic city lost its function as a center, a process that had already begun with the Russian conquest in 1868. In place of the urban elements destroyed by the war, new centers of socialist culture arose. New types of buildings for social and administrative functions were built. There were facilities for workers' clubs, the Palace of Soviet Culture, libraries,

museums, administrative buildings, schools, universities, hospitals, clinics, and department stores (fig. 4).

Many of these large, extroverted buildings developed along the edge of the historical part of the city, but Soviet power had to be represented in the center of the old district of the city as well. Especially in the southern bazaar the old, additive, complex structure of the historical part with its introverted buildings was torn down, to be replaced by a new center consisting of public facilities (such as the House of the Soviets, a cinema, and the post office) as well as government-run shops and stores with a range of items (household articles, books, furniture) developed in combination with a new street system. These new multi-story buildings with their extroverted orientation, together with the widening of the streets and the creation of new streets that went with them, led to the destruction of the historical structure of the quarter. This development was supported by naming Bukhara as a "museum city," in which, not the whole historic city, but only a selection of single, historically important buildings were to be isolated for viewing as monuments.

In the plan for 1976 the problems of the historical center seem to have been realized and understood for the first time. There the historical city is defined as being worthy of conservation as a whole, but the actual measures taken were restricted to the development of the edge of the historical city center with new bazaars – the *kolchozes*. As the state cooperatives and national trade organizations were not flexible enough to feed the population, providing basic foods for the people had been taken over by these *kolchozes*.

Large *kolchoz* markets developed along the edge of town, together with smaller markets in the centers of the new housing areas. The *kolchoz* market consisted of a covered market hall where a weekly market was held. Around this covered market was a secondary hall for meat and dairy products; outside that were clusters of small, stationary or temporary, market stands.

The single *kolchozes* were obliged to supply the city with its needed goods on certain fixed dates. Through the constant increase in the privatization of the sale of agricultural products, a kind of supply and demand developed that enhanced the desirability of the *kolchoz* markets even more. A new system began to grow up in the *kolchoz* market with the sale of produce directly off the trucks. Although the prices were still state-controlled, this represented a new kind of shop (fig. 5).

Along with these new units, a lively oriental market with a new cultural diversity developed in the area around the Great Mosque as well as along the streets leading to the city. The historicizing, newly built shops around the Ark and the mosque, however, prove that traditional structures such as the bazaar cannot simply be revived. The processes of growth and development in the center as well as in the peripheral areas of the city had already gone too far. The center has lost its importance, as can be seen from the large open spaces inside it.

The Development of Housing under the Soviet Regime

The changes that took place in the traditional areas of housing might best be understood through a comparison with the newly built areas of the city. During our brief stay in 1995 we tried to set down a precise account of the densely built fabric of the historic city and compared this analysis with the spread-out structure of the new parts of the city in the south and with those housing areas that have been growing north and east of the city since the independence of Uzbekistan in 1991. In addition, we surveyed 160 households comprising 825 inhabitants in the historical city, 40 households with 160 inhabitants in the southern development, and 10 households with 53 inhabitants in the north.

Housing structure in the historical city

To record the housing structure of the historical city we first documented the external changes, such as new streets and open spaces resulting from the destruction of buildings. The basis for this first step was a map of the land registry in a scale of 1:500. The interiors of almost 500 houses were documented with drawings and photographs. They were then located on a map of buildings that existed in the historical city in 1995 (fig. 6). The dense structure of the quarter is characterized by one- and two-story houses with inner courtyards. It is assumed that the quarters were still entered through dead-end streets until 1945; a map of the historical city of Tashkent showing the planning of a network of broader streets, set on top of this old system, suggests that the same was done in Bukhara.

The outer facade of the houses is blank. Wood and clay are used as the traditional materials for building, giving the impression of a poor town rather than an urban center. The same half-timber construction is

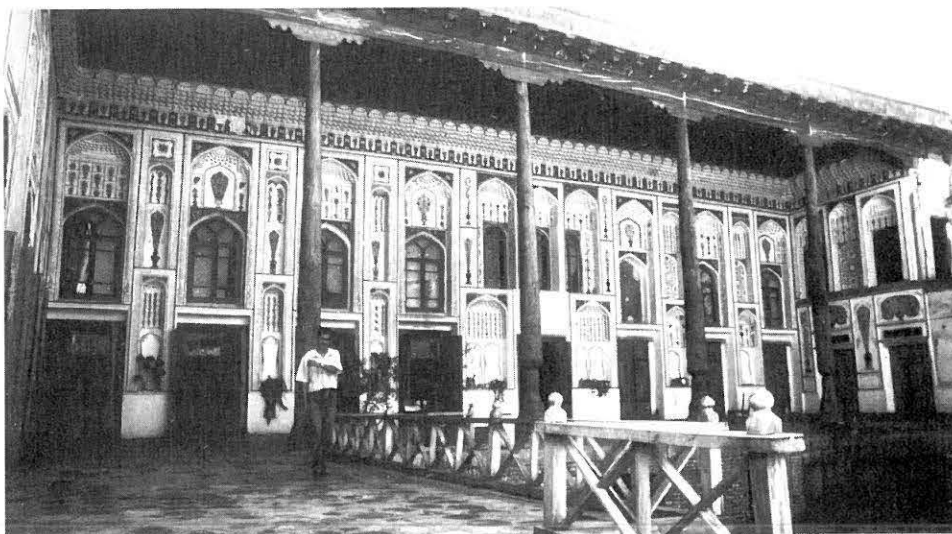


Fig. 9. Loggia of a rich house (Falzullah)

described in medieval sources as well as in travel literature from the eighteenth century. The materials and the technique of their application are perfectly suited to the extreme climatic conditions.

The houses themselves all have an inner courtyard, regardless of the size of the property on which the house is built. All the rooms are grouped around the courtyard and are directly accessible from it. A typical element of all the houses is the split level: one level is underground because it is warmer there in winter and cooler in the summer (fig.7). The two levels form roofs and terraces with differing orientation to the sun (fig. 8).

The kitchen is very important in all of these houses, demonstrating how strong the agricultural roots of this urban culture are and how unaffordable modern household equipment is to this day. Many of these houses also still have stables. All these stables and rooms for cooking and washing as well as the courtyard itself require easy access. It is part of the living space itself and is an important characteristic of the houses in Bukhara. The large wagons that were needed for provisioning a large household were probably parked there.

As in all Islamic cities, the separation of private and public spaces is an important consideration in both the urban fabric and the houses of which it consists. A special room close to the entrance performs the function of reception room for guests. Larger rich houses still follow the same principles of architecture. The main courtyard has a facade on the southern side, thus facing north. Above the basement level is a wide terrace covered by a shady loggia on four slender wooden columns. Fine stuccowork and fields of painted ornaments decorate this facade (fig. 9). The meeting point of wall and ceiling has been worked out in an especially fine manner, as it is crafted with a stalactite-like element which gives the impression of a lofty canopy. Behind the loggia are the reception rooms. The walls of the interior are similar to the outside facade and divided into painted fields and niches as well. The ceiling has a fixed number of wooden beams, signifying the wealth of a family.

All these details have names, as do the rooms of the house. The basic setup of these houses with their differentiated rooms and their decor has its roots in a long Central Asian tradition. The loggias that can be found on many public buildings such as the Mosque of Bolo Hauz or the Mosque at the Ark also show a consistency throughout the centuries until the Russian Revolution. There are no city palaces to be found in Russian classicism or Art Nouveau, as we know them from other cities colonized by the French or the English. The society in Bukhara maintained its tradition until change was forced upon it through the outlawing of private property.

Many houses in the city were abandoned, became run-down, and were turned into housing for the poorest classes, often functioning as a spontaneous, informal neighborhood. None of the infrastructure was changed, so that this part of the historical city seemingly developed into a slum, because until the independence of Uzbekistan only the new residential quarters in the south were developed.



Fig. 10. Plan of Pablo Neruda, a residential quarter under the Soviet regime.

Housing structure in the southern district

In accordance with the models that have their roots in the beginnings of modernism, urban development tended to follow the ideas of "disurbanism," and the housing areas were realized according to ideas about the socialist city (Sozgorod) with its graded urban model.

This ideal city model, which was almost exactly followed in the city's enlargement of 1962, had 250,000 inhabitants and central facilities like sports facilities, a hospital and centers for trade, administration, and culture. The new city was divided into areas of housing and industry, called *rayons* with a population of 40,000. These *rayons* were in turn divided into quarters for approximately 10,000 people, called *microrayons* (fig. 10).

Fig. 11. Apartment block
Pablo Neruda



A *microrayon* consisted of four quarters, each quarter was made up of four housing complexes. These housing complexes were four- to five-story buildings that stood together on one block (fig. 11). They are accessible through a driveway and a parking lane that runs parallel to the boulevard. Social facilities are located at street level on the sides of the blocks that face the street. Today these facilities consist merely of small kiosks that provide necessities to the *microrayons*. The entrances to the apartment buildings are accessible through the courtyards, where there are plantings, play areas, rubbish bins, and places to dry laundry. More and more huts made of corrugated iron and serving as garages are also springing up in these courtyards. By the entrances are benches where the people in the neighborhood meet.

The balconies that face the courtyard have been enclosed because of the need for more living space or privacy. These apartments, originally conceived for the "new family" structure, are far from ideal under social, political, and economic conditions that have ended any idea of the "family as the primary cell for society" which was supposed to result from equal rights for women, who would thereby be freed from housework (Lenin, 1919, 7th Party Convention) and various models for urban planning and development. In both the forms of living and the type of building, rationalization and standardization prevailed. Industrialized building in standardized housing types using lightweight construction and prefabricated elements became the doctrine of the state in the sixties. The possibility of combining and prefabricating profitable mini-apartments was of great importance. The principle of equality, the small socialist family, and the belief in technology and progress in general shaped the basic concepts of the forms for living. In many respects these forms contrasted strongly with those of a traditional society which had developed gradually under the influence of climate and culture.

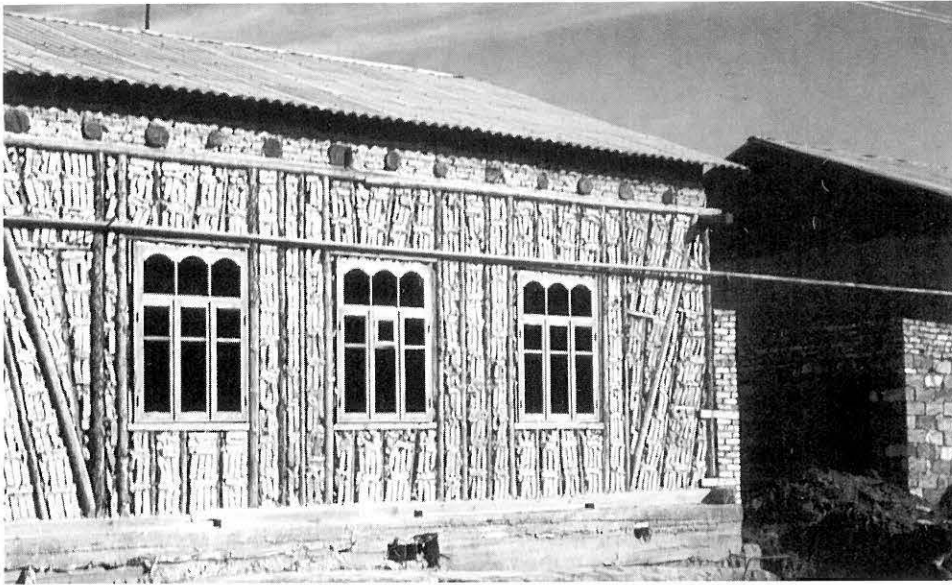


Fig. 12. New residential areas in the north, buildings constructed in traditional material.

Housing structure in the northern city since 1991

Since the independence of Uzbekistan in 1991 and the introduction of capitalism and privatization, the old forms of living seem to have become highly regarded again. Many people are investing in houses in the historic city. In the north, as a continuation of the old expansion of the city and corresponding with the ideas of the Garden City, new housing areas are developing that are quite similar to the traditional structures in the historic city; the urban fabric of these new areas consists of private lots of about 150 to 400 sq. m that can be built on individually.

It is not wide access roads or huge public squares that present the new ideal, but rather the small pathways which develop automatically when a lot is built on and buildings are connected with its neighbors and shops. The street gradually develops as an urban space as the infrastructure is added to suit the new situation. Prefabrication does not seem to be an issue anymore. Traditional materials and techniques again prevail as they take into account the climatic conditions of the area (fig. 12) better than prefabrication does.

Many customary patterns, such as the driveway, the central courtyard, and the reception room are also being revived in places. Often enough space is left for new rooms which can be added later – for instance, if the son of a family marries. This is one advantage to the house with an inner courtyard; it allows for expansion and change depending on the social and economic conditions of the family at any given time and explains the popularity of this building type. Responses to our questionnaire show that the inhabitants still think that a house with an inner courtyard presents the most desirable form of living both for the inhabitants of the historic city and for the new city in the south. The courtyard itself was referred to as the most important factor in maintaining the quality of life – not only does it

offer more private space outdoors, but it also allows greater flexibility in living space inside the house.

In Soviet housing areas the average living space was approximately 8 sq m per person; the average for those living in houses with inner courtyards is 30 sq m per person (including the area of the courtyard itself). Many families who cannot afford a house in the new areas being built today prefer a house in the historic city they can remodel to the housing complexes built in the sixties. The progressive remodeling of houses in the historic city has produced some neighborhoods with a strange mixture of traditional houses and informal settlements.

The problem of providing adequate infrastructure is by no means solved in any of the housing areas, not even the socialist housing, where many apartments have no running water above the first floor. This is also a factor when it comes to judging the traditional houses with their courtyards; they are looked upon more favorably than they are in other Islamic cities, where the transition from extended family to small family has already taken place. In Bukhara the proportion of large family to small family is still about equal, in spite of the fact that almost 100 percent of all women work, much higher than the percentage of working women in other Muslim countries such as Syria and Egypt. Courtyard houses also have the advantage of providing spaces that can be put to agricultural uses, making of the house a kind of farm, which seems to have had a long tradition in Bukhara, and they can also be put to very modern uses as well.

The problems of the old city of Bukhara and of its periphery can only be grasped if one understands the city and its development as a whole.

The Soviet Interpretation and Preservation of the Ancient Heritage of Uzbekistan: The Example of Bukhara

The towns of Central Asia have had a long and rich history, but since the beginning of the twentieth century, city planners considered that the principles underlying the organizational plan of Central Asian towns belonged to a bygone age. Unlike their eastern neighbors, however, who remained underdeveloped and frequently found themselves under the socioeconomic and political domination and influence of industrialized societies, the towns of Central Asia belonged to the technologically evolved world of the USSR.

The ideological foundations of the Soviet Union required a clean sweep before "the ideal society" could be constructed, and this generated a new kind of ideological domination. The "clean sweep" not only involved major destruction but was also frequently accompanied by new interpretations and reconstructions following norms established by the Marxist-Leninist ideology. The traditional Muslim town was unable to meet this test: its history, its ancient heritage, and all it stood for, according to the revolutionaries, represented "the feudalism" of past centuries.

How was this heritage interpreted and changed to correspond more closely to communist ideals? and why was it preserved at all? New development took precedence: "The historical and architectural value of the traditional town stems from its conglomerate of monumental architecture. Planning requires the predominance of a modern architecture that corresponds to modern aspirations ... modern architecture is based on socialist sources and should not be a reminder of the past."¹ Thus, monumental buildings were built to commemorate communism and provide new landmarks for the city.

The population was encouraged to move out of the traditional town and into the large developments that rapidly acquired the status of modern towns in the Soviet mind. These ensembles were replicated all over the USSR without any consideration for regional, climatic, or cultural differences, although one might well ask how could populations live in similar architectural layouts in regions as different as Siberia and the Central Asian steppe. Soviet ideology tried to establish similarities between urban layouts all over the USSR, but when it came to applying this urban structure to the social one, the differences between regions became very evident.

Bukhara, one of the oldest towns of Central Asia, has an urban landscape that reflects the various stages in the rich history of the region extending over a period of two thousand years. It is one of the few towns in Central Asia and in the Muslim world to have retained almost all its original layout, and even today the traditional town has maintained its irrefutable quality. A considerable number of articles have been published by Soviet researchers such as K. C. Kriyoukov² and L. Mankovskaya,³ on the preservation of Uzbekistan's historical monuments. These researchers are, however, biased and frequently prisoners of the logic and concepts belonging to the Soviet ideological system, particularly the jargon used by nearly all Soviet researchers. Some of the Ministry of Culture's⁴ archives are an incomparable source of information which has hardly been exploited by local researchers because their existence was kept secret by the administration. Many documents representing various general plans⁵ of Bukhara are still considered to be highly confidential even today. My research work was completed thanks to meetings with specialists like I. Notkin, who was responsible for developing the ancient centers in Uzbekistan, and K. C. Kriyoukov; I was frequently denied access to written documents.

Nowadays, the fragmentation of the USSR has changed a number of economic, social, and cultural factors that are essential to the future of the towns. The Soviet town designed for the classless society is now an anachronism; it has lost its modern town status in favor of newer models. Can the ancient town center that was relegated to "the material culture of the people" for so long and then reduced to a tourist site acquire new status and become the quarter for the new privileged bourgeoisie as in cities elsewhere?

The Soviet Ideological Interpretation of the Ancient Architectural Heritage

According to Marxist-Leninist ideology, the culture of earlier centuries was the expression of the feudal mode of production and the town's heritage and its monuments were symbols of that feudal mode. Deprived of its history, its memory, its symbolic origins, the ancient heritage was redefined according to the new ideological concepts of Marxist-Leninism - in other words, in accordance with the force that caused it to be transformed into the peoples' product and become their "material culture." Only after interpretation and, above all, the obliteration of any trace or meaning of origin would "architectural monuments be able to evoke respect for the history of the people, their cultural heritage and their works."⁶ Once everything was returned to the people it would result in the unification of all the cultures of the immense Soviet empire, thereby creating an "international culture" in the framework of a "classless society". In 1918, Lenin signed a decree requiring the classification and conservation of artistic and historical monuments whether belonging to individuals,

*Bukhara Master Plan, 1977,
The Central area and
surrounding rayons.*

organizations, or other entities. Each monument was filed and classified into two types:⁷ cultural buildings that demonstrate outstanding artistic expressiveness, and buildings whose value rests on their historical significance.

Art and architecture were assessed according to standards and norms linked to the ideology. Buildings with any religious connotation, such as cemeteries and mausoleums (which constituted one quarter of Bukhara's territory⁸) and obviously mosques, were frequently demolished. In particular, the campaign against religion was actively pursued until 1940, following the proclamation of the law against any spiritual influence in 1937. At the same time, 70 percent of the residential district of Bukhara was destroyed, essentially the Sufi-influenced districts (the Juybari district,⁹ the Ark district near the Bukhara citadel, and the district known as Sari-Kiyaban). In 1940, 35 buildings in Bukhara were classified as "material culture" - only four of them were mosques and two mausoleums, though an inventory had listed 360 mosques in Bukhara in 1917. A necropolis of 16 hectares dating back to the sixteenth century was not included in the 1940 inventory, a victim of its associations with the Juybari Sufis.

Having given the ancient heritage its new and "real" meaning, i.e., the expression of the "culture of the proletariat," classified the buildings in accordance with this new reference, and destroyed some of those considered unclassifiable, the regime assigned to the heritage the role of assisting in the development and consolidation of that same culture.

Changing the Role of the Architectural Heritage

The first museums of the history of "the exploits of the revolution" and atheistic propaganda clubs were organized in some of the palaces of Bukhara. The state allocated other buildings to various ministries. According to the leaders, these new functions assigned to the buildings that had become "the property of the people" would develop "loyalty to Communist ideals" and "the considerable possibilities of forming the New Man in the utilization of historic buildings."¹⁰ This new role for historic monuments resulted in their devaluation vis-a-vis the Soviet heritage. Although the budget for their maintenance was the same, the historic structures soon suffered from substantial management problems. In addition, buildings erected in commemoration of the exploits of the revolution were regarded as having greater value, and they undoubtedly did represent the new ideology. Memorial complexes were built in honor of Lenin, the Communist Party, and the Revolution and were always used for demonstrations in the name of Communism.

Having transformed the ancient heritage into "the property of the proletariat," the people were made responsible for its protection: "The people should, and have a duty to, safeguard and protect historical buildings and other cultural values" and "this protection is the responsibility of the state and of the people."¹¹ Committees were set up for their

preservation. Once the committee was established, people worked on restoration and historical preservation. These committees were found throughout the Soviet Union. In Turkestan, for example, a committee called Turkomstaris concentrated mainly on the restoration of the fifteenth-century Ulugh-Beg Madrasa minaret at Samarqand. After the national constitutions for the Central Asian republics were established in 1925, a committee was created, called Credakomstaris, which dealt with all the republics of Central Asia and Kazakhstan. This committee managed local committees including one called Bukhkomstaris, which was in charge of the preservation and restoration of the historic buildings of Bukhara and financed by the central government in Moscow. Although the central government did not want to finance these committees, it could not dissolve them in view of all the proclamations in favor of "respect for cultures," so it solved the problem by decentralizing and creating the republic committees.

The Uzkomstaris was created in 1930 for the protection, study, and restoration of the historic buildings of Uzbekistan and is still managed locally. The decentralization process meant that the central government lost control of the committee although it could still continue to criticize it. Since the ancient heritage was being restored solely because it had been interpreted as the "material expression of the culture of the proletariat" and since the Soviet heritage was even more representative of this "material culture," it was naturally assumed to be superior in value as well. Certainly historic preservation was low on the list of Communist priorities. When importance was given to the preservation of a historical building, the individual was immediately accused of being reactionary, or the committee was accused of not paying sufficient attention to revolutionary monuments and of having neglected the central government's instructions.

In 1940, the Popular Soviet of the People terminated the activities of the committee by declaring it nonexistent. The function of the committee was transferred to the Council of the Commissioners of the People of Uzbekistan with instructions to devote more attention to revolutionary monuments and buildings. When some of the presidents of this commission were suspected of emphasizing the importance of the ancient heritage over that of the revolutionary one, they too were charged with the crime of opposing Communist ideals. Punishment ranged from exile to execution. Umnikov, the ex-head of the Turkomstaris, was arrested and exiled; the ethnographer Gavrulov died in a concentration camp. Finally, the Uzkomstaris committee was dissolved in 1943.

The role of protecting ancient monuments was then assigned to a committee on architectural policy, an arm of the central government. In 1957, a committee was set up for the protection of historic buildings under the Council of Ministers of Socialist Uzbekistan, but it too was soon dissolved. A central organization for the protection of buildings was set up within the Ministry of Culture, under the direct control of the political authorities and was forced to comply with its cultural laws

БУХАРА

ПРОЕКТ ДЕТАЛЬНОЙ ПЛАНИРОВКИ ЦЕНТРАЛЬНОЙ ЧАСТИ ГОРОДА

ОПОРНЫЙ ПЛАН



УСЛОВНЫЕ ОБОЗНАЧЕНИЯ

- Промышленные предприятия
- Коммунальные здания
- Учреждения
- Жилищно-коммунальные объекты
- Объекты культурного наследия
- Земли общественного назначения
- Объекты паркования
- Дороги и автомобильные парковки
- Пешеходные дорожки
- Сады и скверы
- Парковая зона

БАЛАНС ТЕРРИТОРИИ

СРАВНИТЕЛЬНЫЕ ТЕРРИТОРИИ		
	Всего	в %
Промышленность	48,9	4,29
2,2-этажные жилые здания	34,84	4,93
3-5-этажные кирпичные здания	3,68	0,79
Сельскохозяйственные постройки	137,14	34,9
Сельскохозяйственные территории	104,8	26
Общественные здания	2,25	2,34
Ресурсы - земля	7,99	2,1
Жилищные вводы	24,69	7,77
Введенные на территории общ-ва	2,99	2,03
Остаток поверхности	10,47	0,97
Земли общественного назначения	2,5	0,66
Земли культурного наследия	29,7	8,05
Скверы и сады	11,9	2,7
Итого	272,41	100
А. свободная территория	27,16	2,1
Далее	245,25	100

МАСШТАБ 1:2000

Государственный Проектно-исследовательский институт градостроительства УзССР
 Директор института - А. Б. Исмаилов
 Руководитель проекта - А. Б. Исмаилов
 Автор проекта - А. Б. Исмаилов

The New Heritage Status in the 1960s

Beginning in the 1960s, the meaning of the term "ancient heritage" began to change. Until then, individual buildings were preserved and restored. From that time on, entire old towns were considered to be of importance, and their protection was integrated into general town planning. This change took place during the years when decolonization was taking place all over the world, requiring a new definition of the status of the old town centers (for example, in Algeria), in terms of the colonial legacy, modernization, and the growing economic importance of tourism.

On May 11, 1961, the Uzbekistan Ministry of Culture established a general management for the conservation of buildings considered to be "culture material" and for museums. This organization made a number of detailed plans of the old town centers. One of the first was that of Bukhara, which was made in 1965. General town plans could no longer be designed without taking the old town center into consideration, and were rejected if they neglected to do so. "The ancient heritage must be an integral part of the development of the modern idea of the town. It was not only to be seen as a vestige of the town's artistic and cultural history, but also a means of expressing the beauty of renovation and the creation of the construction of the central part of the town," was the policy written into the detailed plan of the ancient town center of Bukhara in 1965. Some 53.5 hectares of central Bukhara and particularly the zones around ancient buildings were to be protected according to this plan, a modest number when one considers that the old town actually covered approximately 300 hectares. No new building was authorized in this area; in addition, a construction zone was established in which no buildings of more than two stories could be constructed. This mainly affected the northern sector of the town.

The detailed plan of 1965 also called for the construction of a main road that would group the historic buildings along a single street. This main road, lined with buildings and considered aesthetically to be one of the most beautiful, would serve to give the tourist an impression that would establish an image of the town. The tourist would then have seen the historic buildings without having to visit the "real Bukhara" with its mahallas, streets, and lanes, an area which in any case a foreigner was not allowed to go without an official tour guide. Preservation went hand in hand with tourism; "the general plan had the main objective of developing national and international tourism as well as the protection of buildings."¹² In the detailed plan of 1977, entire chapters were dedicated to organizing tourism. Various itineraries were planned and the time it would take the tourist to follow each of them was calculated. Each building was given a new function and classified according to one of three categories:

- buildings suitable for viewing
- buildings that could retain its original function, e.g., baths, residential architecture
- buildings that could be adapted to new uses while retaining their architectural value.

*Side: Plan of
Central Bukhara, 1965.*

The main objective was to give the tourist the impression of traveling through time by creating an atmosphere of past ages along preselected boulevards. This effect was achieved by "reconstructing and adapting architectural buildings to reestablish the atmosphere of olden times on major tourist itineraries."¹³ Everything was designed for the benefit of the tourist. When buildings were not judged to be sites of touristic interest, they were used for commercial or administrative services.

Preservation efforts were also used as propaganda vis-à-vis other countries in the Soviet bloc, particularly a number of Muslim countries. Restoration would be stepped up during anniversaries or other celebrations to demonstrate to other countries the interest it took in preserving ancient buildings. In 1980, for example, UNESCO sponsored a jubilee in honor of history's thousand most famous scholars, of whom Ibn Sina (Avicenna) was one. For the occasion, forty buildings and mausoleums were restored in the historic center of Bukhara. Another group was restored in 1983 on a similar occasion, the 1200th anniversary of the birth of Muhammad ibn Musa al-Khwarazm, a mathematician and astronomer from the town of Khiva. But the official reason was always given as "the need to preserve the artistic heritage for future generations. This, in turn, required improving the restoration organization of architectural buildings; cultural construction has to go hand in hand with preserving the people's heritage."¹⁴

Confrontation of the Traditional Town and the Soviet Town

Until 1944, buildings were erected without any planning; the few Soviet-type residential apartments built in Bukhara belonged to industrial entities (the silk factory, the cotton factory) and were located near them. The residential zone was 98 percent local, and the urban landscape of the period was also traditional. As in any Muslim city, the mahalla, or neighborhood, constituted the basic element in the town structure. These districts developed in close proximity to one another and formed a territorial unit in which local people often spent their whole lives. Each one originally had a public center, a chao-khanah (teahouse), mosques, the majority of which had been demolished, but a few given over to other uses – mainly community centers), and shops. This territorial unit was directed by an aksakal, called the Comiteti Ra'ssi during the Soviet period, elected by the residents of the district. A mahalla population ranged between 450 and 800, though some had as many as 2,300 to 2,500.

The mahalla reflected traditional society, based on the extended family network and reinforced by traditional organizations; it was the place where residents and their descendants were born and spent their lives, unless governments or natural disasters intervened. Family and friends formed the structure of local life and the key to its identity.

After 1940, when the first general plan for Bukhara and historic towns in general (Samarqand, Khiva, Kokand) were drawn up the town centers

began to change.¹⁵ In 1938 an intense period of Russification had been initiated that involved not just policies of enforcing the use of Russian practice and language but the actual import of Russian citizens to settle in the area, thus generating the need for Soviet-type residences for the newcomers. Bukhara was expected to increase its high-rise buildings by 85 percent.

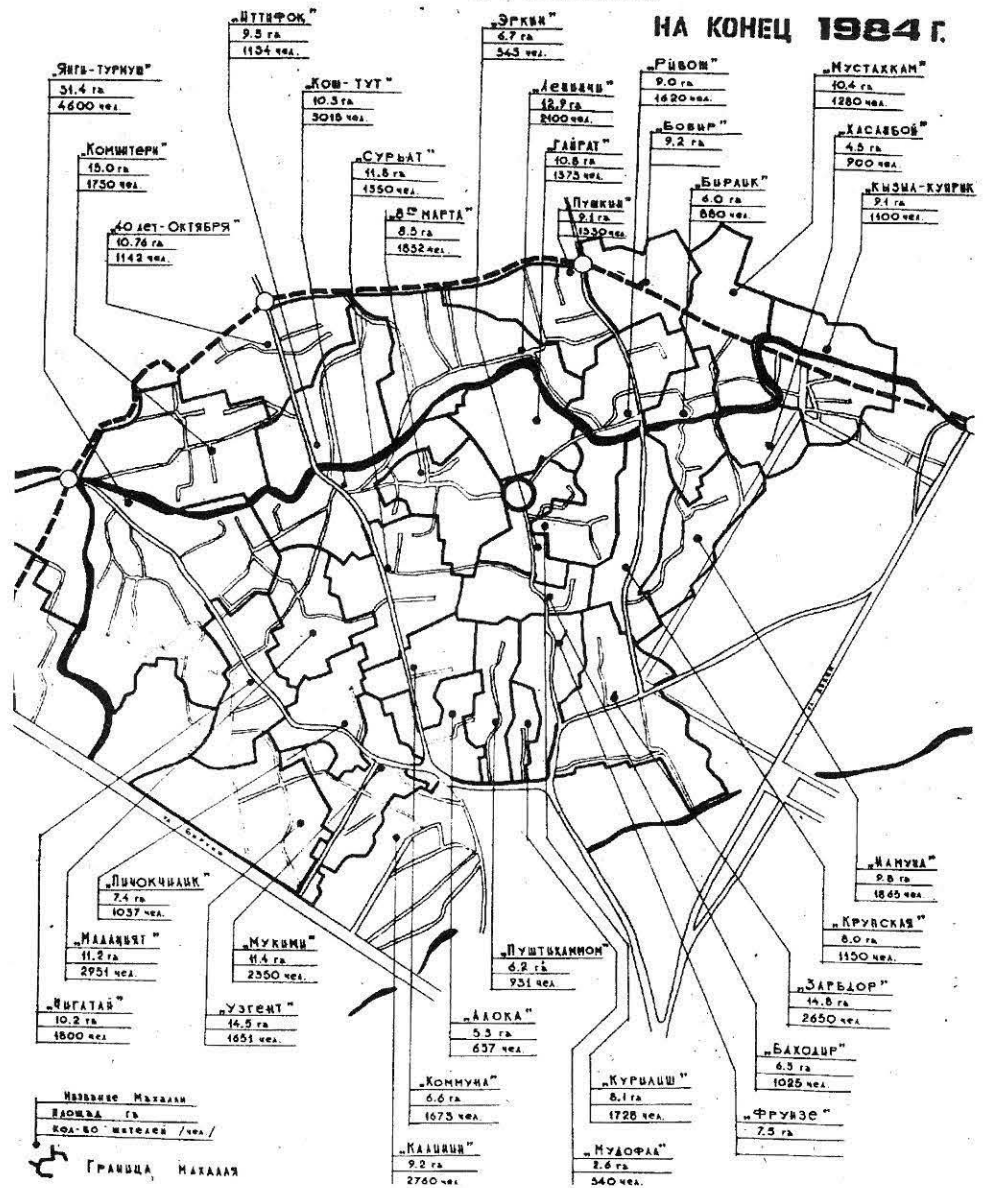
The general plan of 1940 demanded that "buildings planned for the future development of the town center be impressive and that this will be impossible unless new and important buildings are put up, e.g., a Supreme Soviet building, an administrative center, etc."¹⁶ All of this took place at a time when policy emphasized educational and cultural control. The "social condenser," to use the Soviet expression, was obviously both architecture and urbanism. It was at this time that the major architectural ensemble of Bukhara was built. New boulevards, which still indicate the street network and the beginning of the construction of the Soviet town, also date to this period. The first detailed plan of the Soviet district was drawn up in 1947.¹⁷

The Soviet district consists essentially of a micro-rayon, an autonomous community provided with everything needed for the welfare of the residents. It made its appearance in the 1950's together with industrialization and it greatly restricted diversity in residential districts. Its territory was delimited by a main road served by public transport. Streets crossing the micro-rayon were narrower. Residential buildings were built around a communal courtyard-garden located close to the main road to reduce the distance between the public transport stops. In a central zone were schools and daycare centers. The building complexes were provided with a services block (grocery shops, a *chao-khaneh*, and a cafe), a committee for the residents called *domkom* which took care of local problems. The *domkom* had a committee building which doubled as a community center. In it were clubs for Communist propaganda, a hairdresser's salon, a post office, a savings bank, and a chemist's shop.

A rayon linked several micro-rayons separated by the major road systems. The center of a rayon consisted of a vast complex of institutions and services: a park, a stadium, a supermarket, restaurants, and cinemas. This organizational scheme was used all over the USSR,¹⁸ regardless of climatic or cultural differences in its various regions.

Between 1960 and 1970 the same town was replicated all over the USSR. The idea was to make "this ideological town" the town of the future. That meant that the policy toward the old town center was to empty it of its population and hand it over entirely to tourists to admire its buildings. In 1940 the historic center of Bukhara had an area of 500 hectares and a population of 80,000; by 1990 it had shrunk to 130 hectares and a population of 38,700. In addition, since the old houses no longer conformed to modern notions of comfort it was decided to replace them with new construction, though still allowing buildings of only one story and typical of the traditional design.

ТРАДИЦИОННАЯ ФОРМА РАССЕЛЕНИЯ В РАЙОНЕ „СИБЗАР“



Traditional forms of the quarters of Bukhara, 1987.

The streets of the old town were infrequently paved, and some were unsuitable for vehicles; in places a thick layer of dust covered the ground. Until 1960, people had to fetch water from a fountain quite far from the district, and even today much of the old town still lacks sanitary facilities and running water. Food was prepared over charcoal fires. These inconveniences encouraged the population to move out of the old town and settle in the vast Soviet housing complexes designed with modern comforts (a phenomenon of Westernization and modernization typical of many countries at the time, especially the oil rich countries of the Middle

East). This population movement was actively encouraged by the state: individuals who wanted a new apartment frequently moved into the old town for a short period just to obtain one faster. Nevertheless, many people still remained in the old town center, 93 percent of the indigenous population of Bukhara still resides in the old part of the town. North of this zone the proportion drops to 78 percent, and southwest, where the Soviet-type district is located, to 38 percent.¹⁹ The traditional town has resisted change and is still socially representative of the local community. The urban organization represented by the mahallas is so persistent that the state has tried to restrict their size in order to control them more effectively. Typologically, the traditional town and the Soviet town appear to be essentially opposites: the winding passages and blind walls of the first vs. the straight alignment and openness of the second; the proportions of built-up and empty space are inverted; the courtyards, the street grid system, the squares only represent 30 percent of the entire mahalla surface with the remaining 70 percent occupied by buildings, whereas in the Soviet districts buildings only take up 20 percent of the ground surface. However, the individual courtyard of the one-story buildings could be compared to the collective courtyard of the micro-rayon, just as the domkom, the community center, resembles aksakal of the mahallas. In addition, some of the micro-rayons, when the social and space proportions permit it, operate like mahallas and are even called mahallas.²⁰

The strong links established in the mahalla and the need for a collectivity persist even after entire districts have moved away. Soon the residents request facilities for the creation of a mahalla committee, and, if the state does not respond, they collect contributions to build their own center. This phenomenon occurs when the proportion and the dimensions of the micro-rayon allow it and the population is majority Uzbek. Some micro-rayons are too big or too mixed in population for neighbors to establish these contacts: in the Soviet district called Chilanzar in Tashkent, for example, the international population and its size discouraged such a development, and there is no community center or social activity of the rayon type (in Russia even domkom are rare compared to Central Asia). These links are most frequent in micro-rayons with a population of no more than 2,000 to 3,000 inhabitants, which is equivalent to the maximum size of the traditional mahalla.

The appropriation of public space was more easily accomplished in the Central Asian regions than in Russia, allowing the collective group to retain its importance as the basis for the social structure of the Muslim regions. If the goal of the Soviets was to build a town that was "national in form but socialist in essence," the goal of these micro-rayons was to be "socialist in form but nationalist in essence." The residents transformed and readapted their towns according to their needs. Does this mean that the "ideological town" was unable to create the New Man that was announced by Marx? With the breakdown of the Soviet world new models have appeared as well as new regulating elements.

The Collapse of the USSR

Designed for a classless society, the Soviet town was completely taken over by the state. The liquidation of the USSR to the advantage of the independent states and the transition to a market economy overturned the system that regulated the town and brought about a new rich "bourgeois" class and real estate speculation, while depriving it of resources. What does this mean for the historic town center? Will it become prey to the new bourgeoisie?

Lack of public resources and very little foreign investment have led to the neglect of buildings, already a problem in the Soviet era. The accelerated degradation of the residential quarter apparent during the Soviet period continues. Buildings designed to last for at least 25 years already need restoration. The important role played by factories who maintained their own micro-rayon as well as their own commercial center for their employees led to a proliferation of small centers, none of which had the character of a real urban center, with its density and uniformity of construction.

The old town center was the exception; it did seem to have these attributes. Residents of the old center are therefore now considered by the general population to be particularly fortunate. Can we therefore draw the conclusion that it will become the privileged area of the bourgeoisie? Even during the Soviet era, there was already a certain amount of mixing: the intelligentsia, the Uzbek nomenclatura, and the professions had their own districts there. In Tashkent, the Uzbek nomenclatura districts were near Lenin Square - now renamed Mustakilik (Independence) Square - and other important Communist buildings. Essentially, this arwa has managed to keep its privileged status and has become the diplomatic quarter. But the nomenclatura district in Bukhara was and remains the traditional town center, with some in new districts built in the traditional style in the northern part of the town.

The bourgeoisie that has grown out of the old Soviet nomenclatura have been buying up old houses in the old town center and rebuilding them to accord with new European standards. The old town center is also the only protected zone of the town. Building permits are not granted for high-rise buildings, and it is the only part of the town to be protected from the noise of the major Soviet boulevards. This return to the traditional city is a definite trend. A study of the old-town center and its inhabitants, using questionnaires, polls, etc., would be advisable, particularly because the Western model seems to be the most favored one among the nouveaux riches, and foreign films and travel are the chief sources of inspiration for new Uzbek houses. But Western society is going through its own end-of-the century crisis, and new technologies are spreading new values throughout the world.

NOTES

1. Taken from research by Alexandrovitch (1990) on the first general plan of Bukhara in 1940.
2. K. C. Kriyoukov, "Organizatsionnye formy okhrani pamiyatnikov arkhitekturi Uzbekistana 1920-1990" (Organizational forms of protection and restoration of the architectural monuments of Uzbekistan, 1920-1990), *Arkhitektura i staitel'stva Uzbekistana* 8 (1991), p. 34.
3. L. Mankovskaya, "Pamiyatniki arkhitekturi i sovremienni' gorod" (Architectural buildings and the modern town) in *Arkhitektura i staitel'stva Uzbekistana*, 1967, p. 57.
4. I should like to express my gratitude to Mrs. L. Redveladze, who helped me to consult documents that are normally inaccessible.
5. The general plans were meant to establish guidelines for planning and economic development in a town for a period of 25 years. They were accompanied by detailed plans for certain parts of the town, mainly the town center. The planner was always confronted with the reality of the town's evolution, however, and revised planning became necessary. In addition, urban development was not coordinated and the general plan not always followed.
6. Kostoshkin, Rol' pamiyatnikov istorii kulturi v patrioticheskoi' vaspitanii (The role of historical and cultural buildings in developing patriotism) (Moscow: Sbornik naoutchnikh trudov, 1986).
7. The classification was provided by Kriyukov, a specialist on preservation and a lecturer at the Restoration Institute of Tashkent, during an interview in May 1996.
8. The detailed plan for the center of Bukhara, dating from 1965, indicated that the construction of the town center had been made on the site of one of the largest cemeteries in the southwestern sector of the town, p. 9.
9. The Juybar district was situated in the western sector of Bukhara along part of the main boulevard called the Khayaban, which stretched from the Juybari district to the Char-Bahr complex (a necropolis dating back to the sixteenth century). The followers of Khwajah Juybari, a Sufi fraternity of Bukhara dating back to the Shaybanid era (sixteenth century), lived there.
10. Kostoshkin, cited above, n. 6.
11. L. Rempel', *Pravda Vastoka*, 25 March 1968.
12. The same system can be found in Samarqand but with another purpose. There, the ancient town center had been dissected by large boulevards along which Soviet-type buildings had been built that blocked the view to the mahallas and thus created an urban structure that left the visitor with the image of a Soviet town.
13. Detailed plan of Bukhara, 1977, p. 39.
14. According to an official decree by the Ministry of Culture of Socialist Uzbekistan, dated 24 April, signed by Mr. Rachidov, secretary general of the Uzbek Communist Party, Archive no. 74P.
15. The first general plan was drawn up in Moscow at the state institute for town organizational projects (Guiprogor Institute) in 1931 and was finished under the management of state projects in 1940. It planned for a population of 80,000 people in a territory of 1,260 hectares.
16. See M. Abramov, *Guzari Samarqanda* (Tashkent, 1989).
17. General plan of Bukhara (Moscow, 1940), p. 129.
18. See "Poyacnitel'naya zapiska k proektou zactroyki otdel'nikh Rayonov (Explanatory note regarding the construction project of a Rayon), Proekt detalnoy planirovki (detailed planning project), Moscow, 1947, Archive no. 190.
19. An excellent analysis of the subject was made by Z. Tschbotariova in her book entitled *Districts under the Burning Sun* (Tashkent, 1988).
20. These figures date from 1990 and were taken from a sociological study by A. V. Kazan for the Institute of Urbanism (Uzniipgdostroitel'stva), Archive no. 1604.

Attilio Petruccioli

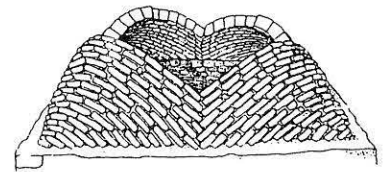
An Atlas of Building Elements in the City of Bukhara

Architectural restoration work has primarily been focused on great historic monuments. Although theories of restoration are fluid, there is a pragmatic general agreement, following UNESCO's principles, that a project of restoration should bring a building back to the best condition possible and make it useful again. In order to preserve the historic and aesthetic value of the building it is generally accepted that the monument may be totally or partly frozen in time.

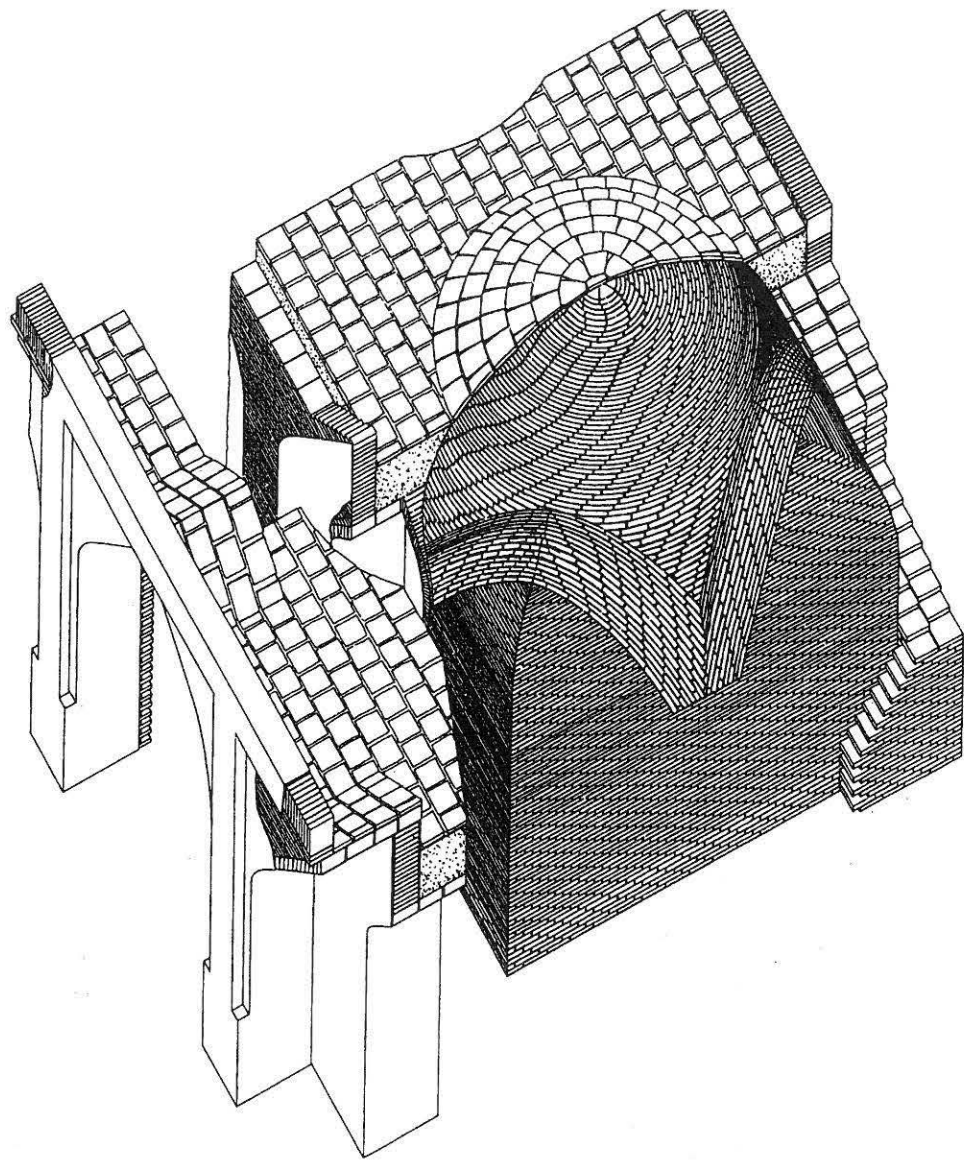
The urban fabric and vernacular architecture have, on the contrary, long been victims of neglect. In many countries monuments are isolated from the urban fabric by a complete demolition of its surroundings, and wide streets have been constructed through the middle of residential districts, tearing the fabric. Additionally, when dwellings are restored they are generally victims of hurried modern construction techniques.

I do not support the idea of the urban fabric as environmental context, as was proposed after the conference of Gubbio in 1960, which suggests extending the concept of the monument to the entire walled city and also suggests a folklorist function for the fabric. I would instead put forward the idea of the urban fabric as a structure in which each element is logically related to the others. The enormous importance of the fabric lies in the fact that elements such as subdivisions of plots and units, additional structures on top of roofs, and encroachments into courtyards are all reflections of the daily life of the inhabitants. The urban fabric has an ethical value because it holds the expression of people's hopes and struggles. A restoration project dealing with it must be based on the idea of transformation and process, which allows continuity between past and future. The importance of the urban fabric comes from being the record of historical memory and that is where the principles of proper future designs are located.

Currently we face a deep crisis in building construction. Traditional knowledge of construction, of techniques and types, has been lost to



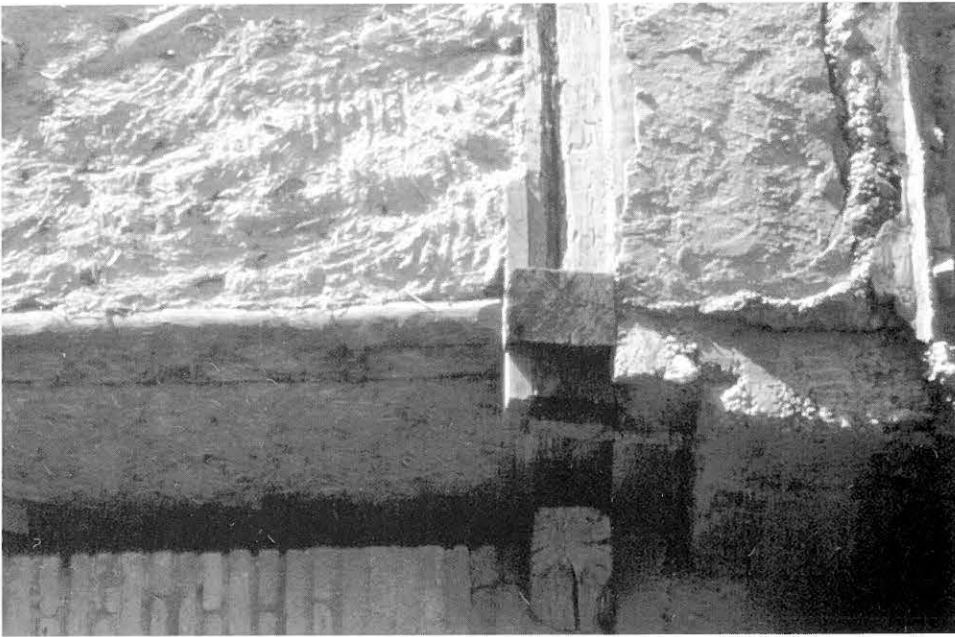
Typical brick pattern of a dome structure



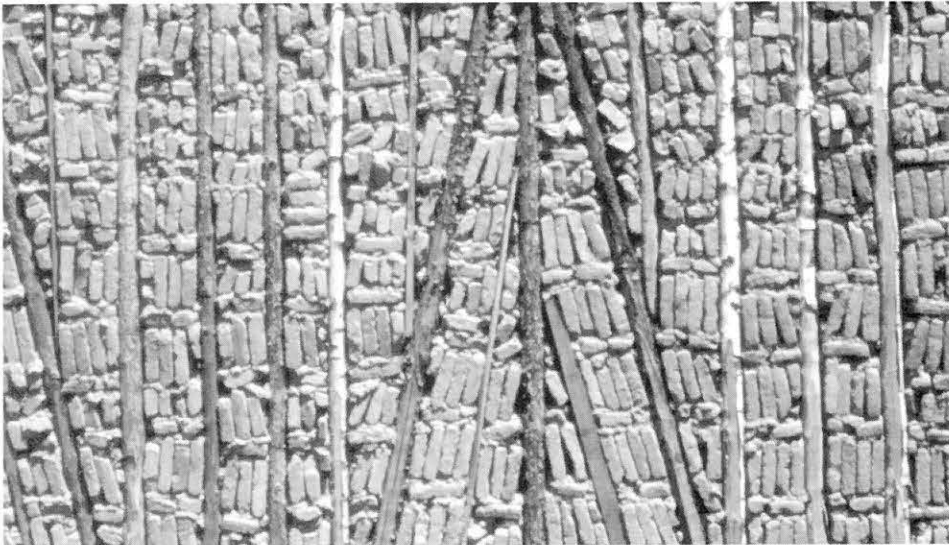
Isometric view of a typical karawansaray's module, dome and its front

most people. The ideology of Modernism, which required a separation from tradition, has favored the use of completely new materials and techniques. The disasters created in restoration work by reinforced concrete, with the Parthenon at the top of the list, are endless. This is particularly true in Central Asia where seventy years of prefabricated building techniques have led to two fundamentally erroneous principles underpinning any restoration work. Restoration has come to mean creating a replica or completing unfinished or partially ruined monuments. Conservation is translated into demolition and substitution of the residential urban fabric.

A codified methodology for the restoration of more modest architecture, mainly traditional masonry buildings, does not exist. Conservation is allowed to progress on a case by case basis, thus being subject to the decisions of particular owners, and to the availability of increasingly rare local labor skilled in traditional construction technologies.



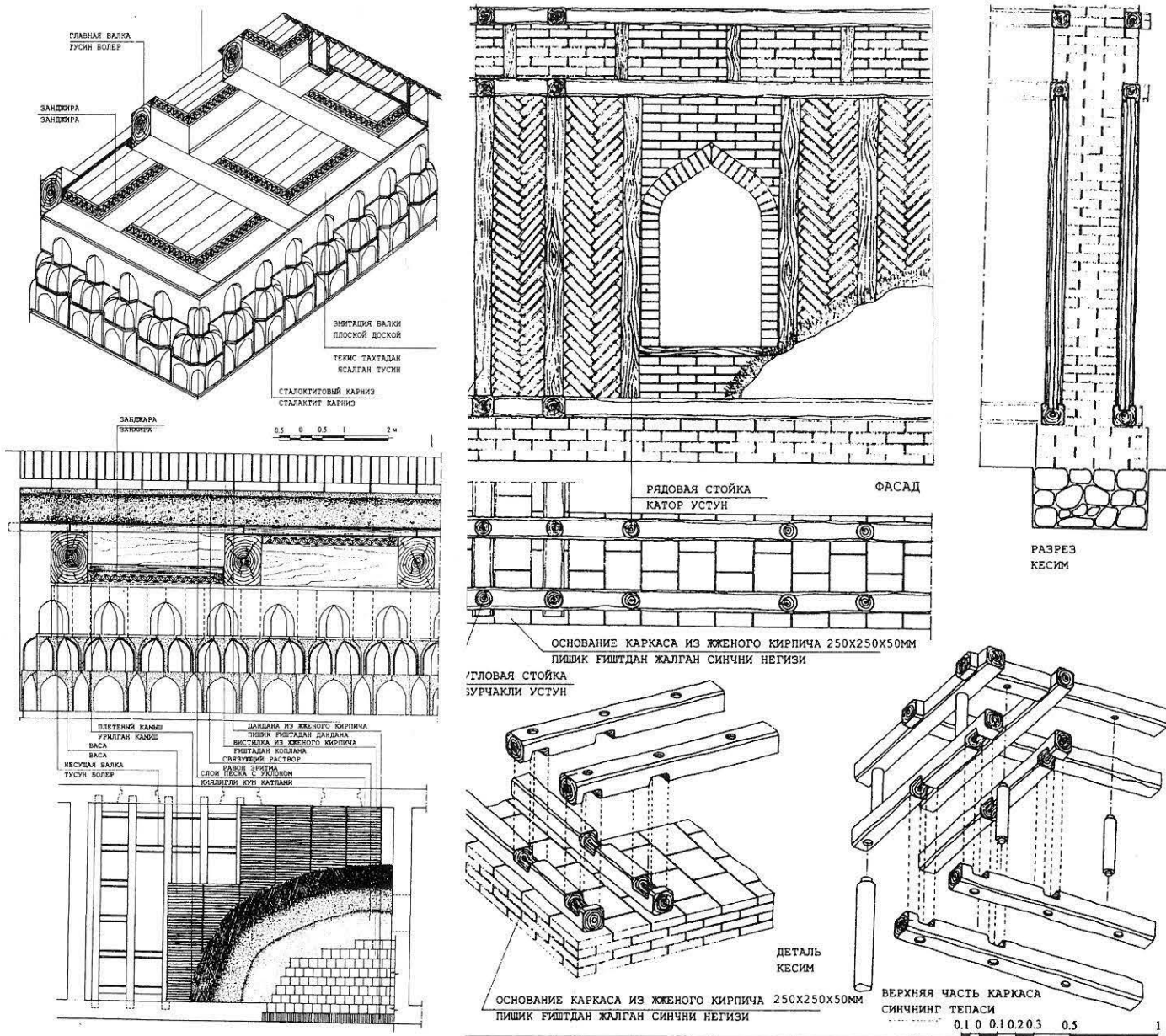
Detail of the wooden beam-post joint at foundation



Clay masonry filling of the wall



Preparation of the wall finishing, i.e., mortar of mud and straw



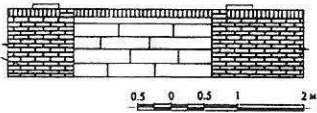
Isometric and cross section view of the roof structure, roofing and ceiling. The bottom of the figure shows the roof framing, lath and plaster based ceiling. Right: Details of the typical structural module and its masonry filling, whose no load bearing conditions enhances the seismic performance of the structure. Next page: above: Details of the paving and carved wood post at the entrance of the loggia. Below: To the left, details of the brick construction technique of the beginning of the century; to the right, details of the roofing system of the same period.

The Atlas is a first important step towards the establishment of a reliable reference point for those involved in restoration and conservation projects in this period of crisis.

There are no precedents in the Islamic world and only two examples in Europe. The *Manuale del recupero*, created by the Architecture and Planning Office of the Municipality of Rome, is one of the most successful attempts. But because of the specific nature of the construction techniques described, it has little chance of being used outside its particular cultural and architectural context.

The other example is the French *Arts et metiers*, the so-called *compagnage*, which has been published without interruption since

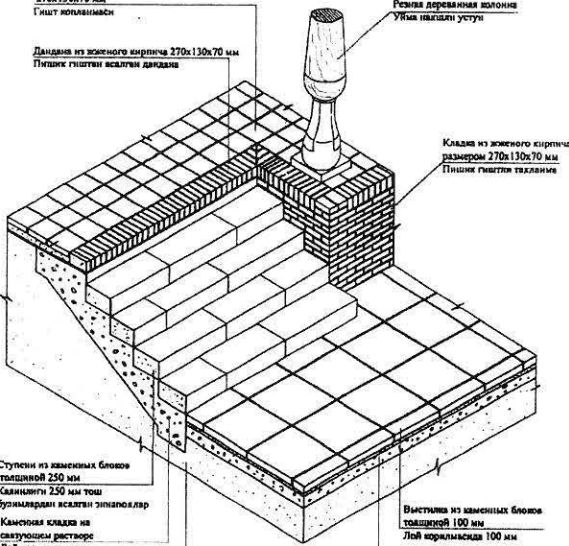
Кладка из жженого кирпича
размером 270x130x70 мм
Плинтус глиняный талкыма



ВИД СПЕРЕДИ
ТАРЗ

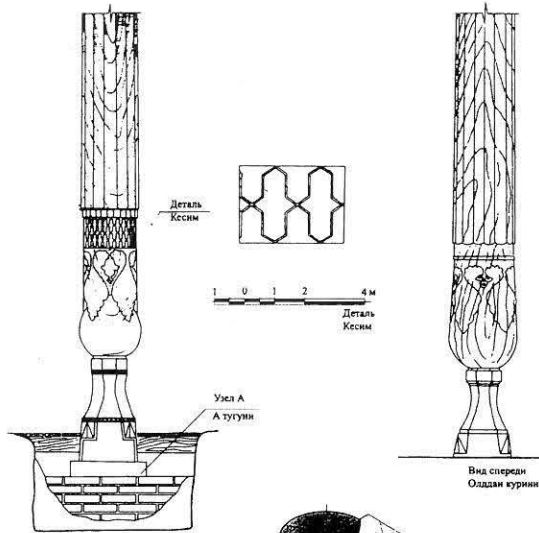
Выстилка из жженого кирпича
270x130x70 мм
Глишт корымасын

Далдама из жженого кирпича 270x130x70 мм
Плинтус глиняный асалган даядала



Выстилка из жженого кирпича
толщиной 100 мм
Лой корымасында 100 мм
ковалында ковалыган том
булмалары
Песчаный слой
Куу ветпанын

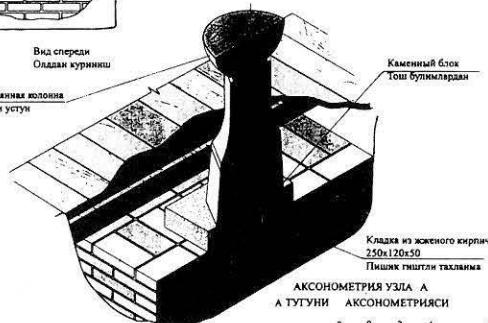
0.1 0 0.1 0.2 0.3 0.5 1 метр



1 0 1 2 4 м

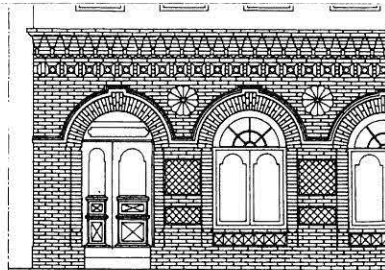
Деталь
Кесим

Вид спереди
Олдан кууриши

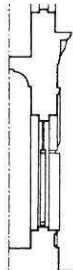


АКСОНОМЕТРИЯ УЗЛА А
А ТУУНИ АКСОНОМЕТРИЯСИ

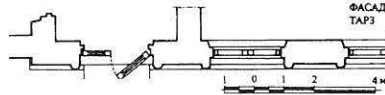
2 0 2 4 8 м



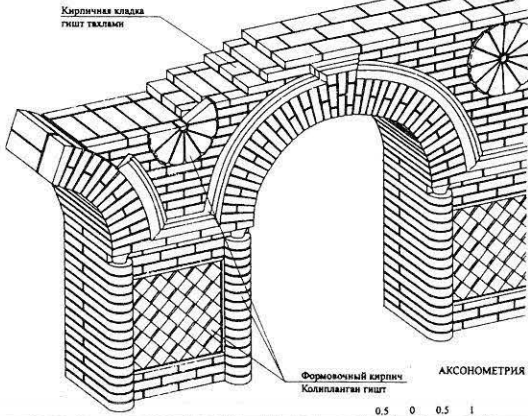
ФАСАД
ТАРЗ



РАЗРЕЗ
КЕСИМ

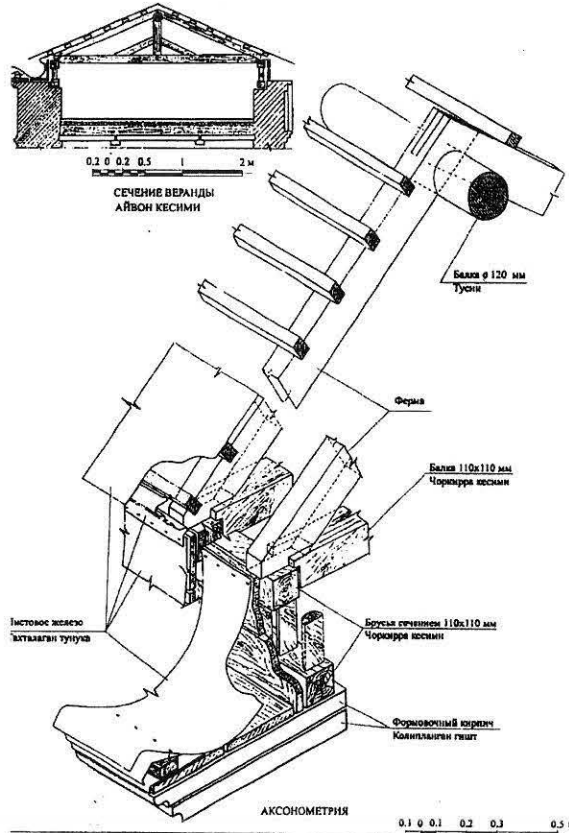


ПЛАН



АКСОНОМЕТРИЯ

0.5 0 0.5 1 2 м



АКСОНОМЕТРИЯ

0.1 0 0.1 0.2 0.3 0.5 м

1700. Its specialized information is subdivided according to different types of construction: from vaults, foundations, and masonry, to mortar, plaster, and stucco. It's an extraordinary compendium of cultural heritage and patrimony.

The objective of the Atlas is two-fold. First, it aims to compile scientific knowledge of building components typical of the geographical area being studied. And secondly it provides a set of criteria for restoration and rehabilitation, focusing on the improvement of the functional performance of individual elements as well as of the building as a structural whole.

The Atlas is organized as a repository dedicated to the art of building. It consists of highly detailed working drawings accompanied by written information in Russian and Uzbek, and it indicates with great precision the materials, building components, techniques, tectonics, and resources used in the local urban fabric.

Compiling the Atlas was done in two phases. The first was an on-site survey of the building's measurements and tectonics, with particular attention to partially degraded structures to allow an in-depth understanding of the layering of construction details. This phase was focused on understanding the building as a structural whole, concentrating on its finite building components and relative assembly, in categories such as the following: Masonry: construction techniques and construction details; Vaults: brick cross vaults and false vaults with *muqarnas*; Ceilings: double warp ceilings, lacunar and caisson ceilings; Roofs; Floors: various geometries and textures; Doors: plank doors with inset panels, door hardware; Windows and *Musharabiyyas*; Stairs: materials, construction techniques, tread and raiser proportions.

The second phase consisted of on-site research in local archives of extant drawings, documents, construction contracts and bills. This phase was an in-depth compilation of historical and archival research and analysis, which lead to a better historical understanding of the surveys, and to a formulation of categories of the different components according to qualitative and quantitative types and their principal variations. The historical period under examination ranged from the 18th century to the early 1920s.

The next step in the creation of the Atlas is to illustrate the process of restoration, rehabilitation and structural improvement as an integral part of the building component's evolution, which can be understood by careful analysis of the structural elements. Topics to be covered include construction and restoration of vaults; interventions relative to the flow of lateral walls; static improvement of

wooden ceilings; and structural improvement of staircases. Finally, an example of structural restoration will be included to illustrate the theoretical and technical knowledge required to make extant structures resistant to earthquakes.

The Atlas in its final form will be a manual which aims to fill a gap in the restoration and rehabilitation of minor architecture. It will offer guidelines to construction firms, local craftsmen, designers and contractors. It is not intended to be a set of prescriptive norms, but rather a collection of instructions to be absorbed into the local building codes. The value of it lays in the fact that it is not directed towards professionals of a single category, but is compiled for the benefit of a wide variety of users.

Otherwise stated all photos and drawings by the author.

Revitalization of the Heritage of Uzbekistan

Uzbekistan is one of the regions in the world where world civilization has been developing for millennia. Such kingdoms as Bactria, Soghdia, and Khwarazm, contemporaries of Hellenistic Greece, Rome, and Achmenid Iran, were established in the territory of Uzbekistan. The Great Silk Road went through it, connecting East and West.

In the late Hellenistic period, a great kingdom known in history as the Kushan empire was formed in the south of Uzbekistan. The monuments of that time, represented by large settlements with a territory of tens of hectares, survived until the present in Surkhandarya, Kahkadarya, Samarqand, Bukhara, and other regions. They have been thoroughly studied by archaeologists, historians of art, and architects from Uzbekistan, and in the last ten years by numerous international scholars in Japan, France, Germany, and elsewhere. The ancient objects and works of art found at excavations in Dalverzin-tepe and other sites have been exhibited in many countries.

The history of these legendary cities and monuments, thanks to the achievements of science, is beginning to come to light. Among the remarkable discoveries of recent years are the magnificent palace of the Khwarazm kings with a great number of festive halls (3rd century); numerous castles, keshik (6th - 8th century); mural paintings; a palace at Varahsha, the residence of the Bukhara kings, whose halls were decorated with splendid carved stucco and murals; the palace of the Afrasiab kings also with mural painting; and the palace of the Termez kings.

The cities and settlements of Uzbekistan continued their development in the 9th and 10th century. They were active in trade, especially the cities located on the caravan routes from the Middle East to the Far East and India. Their monumental buildings were constructed in baked, not adobe, brick. The outer covering on the domes dominated the exterior architecture. The layers of baked bricks were also designed with ornaments. The famous Samanid mausoleum (11th - 12th century) is an example of this technique and is rightly considered to be the pearl of Central Asian architecture.

Thanks to the Silk Road, the cities of Uzbekistan of the 11th and 12th centuries were constantly in the process of economic development and expansion. A great number of buildings were constructed. Bazaars became the centers of urban life and trade. Caravanserais, warehouses, and baths were located in close proximity to each other. Minarets were erected next to mosques. A high level of skill was developed in the ornamental arts - in

carving on wood, alabaster, and clay, and in epigraphic decoration of buildings.

The zenith in the development of urban life and architecture in Uzbekistan was reached in Samarqand during the reign of Timur and his successors. The Timurid dynasty constructed the Great Bibi-Khanum mosque, the magnificent Gur-Amir mausoleum sparkling with colorful glazed tiles, and the mausoleums of the Shahi-Zinda necropolis. Significant monuments were also erected outside Samarqand: the architectural complex of Khwajah Ahmad Yassavi in Turkestan; the splendid Aq-Sarai palace, and memorial complexes in Shahrisabz; and numerous buildings in Herat and other Central Asian cities.

Our great cultural heritage was mentioned by the president of Uzbekistan in a speech at the opening of the first session of the legislature (Oliy Mazlis): "The conservation and restoration of the unique historic monuments created by the Uzbek people and belonging to the national property is a very important part of our spiritual program. This national treasure has been inherited from our ancestors. That is why we must also take care of it and preserve it and hand it down to future generations."

When Uzbekistan became an independent republic, the preservation of its history and culture became part of state policy. Legislation on the "Protection and exploitation of monuments of history and culture" was enacted. These regulations deal with all matters of protection, restoration, conservation, and exploitation. Uzbekistan became a member of UNESCO. The monuments of the historic district in Khiva (1990), and the historic center in Bukhara (1993), are included in the list of the International World Cultural Heritage. During the last few years considerable sums of money, much more than in previous years, have been invested in restoration projects.

In 1994 Uzbekistan celebrated the 600th anniversary of the birth of Mirza Ulugh Beg, the great scholar, astronomer, and mathematician, whose contributions to knowledge are invaluable. The organization for the protection of the monuments of Uzbekistan celebrated the event with extensive restoration and renovation of all architectural monuments connected with the name of Ulugh Beg. Two years later, the government of the republic decreed 1996 to be the "Year of Timur" in honor of the 660th anniversary of the birth of that great statesman and military leader, sponsor of science and culture, and supporter of the development of the Great Silk Road. In Samarqand and Shahrisabz, the birthplace of Timur, extensive restoration, conservation, and landscaping were undertaken at the monuments of Timur himself and the Timurid dynasty. In 1997, Uzbekistan celebrated the 2,500th anniversary of Bukhara and Khiva. All of these were supported by the Resolution of the 28th Session of the General Conference of UNESCO, and the last two were celebrated worldwide.

More than seven thousand monuments are now registered as under state protection, including 2,500 architectural monuments and more than 2,700 archaeological sites. Ten cities are included in the list of cities with concen-

trations of important architectural monuments, including Samarqand, Bukhara, Khiva, Shahrisabz, Tashkent, and Kokand.

The government of the Republic of Uzbekistan also passed an important measure to protect monuments and the environment by naming part of Khiva city a state Architectural Reserve. The territory of the reserve follows the boundary of the existing walls, including all complexes and buildings which have value as historic, artistic, and architectural objects. Following the success in Khiva, historic architectural reserves were also announced in the historic centers of Samarqand and Bukhara. Today the territory of the Bukhara Reserve covers about 200 hectares and contains a hundred and twenty-three architectural monuments. Twenty monuments are used as museums, fifty monuments are set up for tourists, and another fifty are used as workshops for craftsmen. The Uzbektamirshinoslik Institute, the only scientific center in all Central Asia, eleven production workshops, and the "Kadriat" restoration workshop, which restores and conserves old paintings are located there. A measure of the high level of restoration work in the old city of Bukhara was the receipt, in November 1995, of the prestigious international Aga Khan Award for Architecture.

State inspectors in all regions of the republic are in charge of monitoring the physical condition of the architectural monuments, the appropriateness of their use, and the quality of restoration and renovation works. The area of the restoration work includes almost all regions of Uzbekistan, even the distant regions of the Karakalpak Autonomous Republic. Today, reconstruction has changed from dealing in terms of a single monument to the reconstruction of whole architectural ensembles and historical centers of ancient cities. Thanks to these measures, many monuments have been saved and have become tourist attractions, such as the Registan ensemble, the royal necropolis of Shah-i Zinda, the Bibi Khanum architectural complex, the Amir Timur mausoleum complex, the Rukhabad complex, and Imam Bukhari memorial in Samarqand; the Kalian minaret and mosque, Mir Arab madrasa, Labi Hauz ensemble, Ulug Beg and Abdulaziz Khan madrasas, Citori I Mokhi Hosa suburban ensemble, and the Bahauddin complex in Bukhara; the architectural monuments of Ichan-Kala in Khiva (Kunja Ark, madrasa, and the mosque of Muhammad Amin Khan, Islam Khwajah minaret, Tash-Khauuli palace, Juma mosque), Khudoyar Khan palace and Dakhmai Shahan necropolis in Kokand; Dorus Saodat ensemble, Dorus Tilovat, and the famous palace of Timur in Shahrisabz; and the memorial of Khakim al-Termezi in Termez.

When establishing master plans, monuments of history and culture are considered to be the central objects not only in the large ancient cities, but also in smaller settlements. Because of the dynamic development of contemporary urban life, it is essential to establish detailed master plans for the ancient cities of Uzbekistan. Plans have been made for Bukhara, Samarqand, Khiva, Shahrisabz, and Tashkent, where the borders of protected zones have been identified and areas of controlled construction and protected landscape marked. Similar projects are expected to be formulated for the protection of other cities of Uzbekistan that have

concentrations of monuments. All these plans have become a reality thanks to the intellectual contribution of scholars and the mastery of the republic's craftsmen.

Two thousand seven hundred archaeological sites are also located in the territory of Uzbekistan, and they are no less valuable than the architectural monuments. Among them are the ancient capital of Soghdia, Afrasiab, the capital of the Kushan empire, Dalverzin-tepe, ancient Khalchayan, Neseft, Kanka, and many others known from the historic sources and more recently from archaeological finds that have astonished scholars of art and history. Unfortunately, the conservation of adobe construction still remains a problem, and we are appealing to all interested countries to contribute resources towards a solution.

We also have problems involving the methods of conservation and restoration of the monuments, use of some construction materials, recession of subsoil water, structure of the monuments, and the manufacture and use of ancient construction and decorative materials. This international conference will, we hope, encourage cooperation and the contribution of participants to the conservation and revitalization of these precious monuments which belong to the whole world. We encourage other countries to participate in the revitalization of the monuments of Uzbekistan.

Finito di stampare
nel mese di Novembre 1999
dalla Tipografia Art. Aldo Palombi snc
00166 Roma - Via V. Sartori, 80

