URBAN METAMORPHOSIS AND CHANGE IN CENTRAL ASIAN CITIES AFTERTHE ARAB INVASIONS

A Thesis
Presented to
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By

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URBAN METAMORPHOSIS AND CHANGE IN CENTRAL ASIAN CITIES AFTER THE ARAB INVASIONS

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For KURULA VARKEY (1945 - 2001)

who infused me with his great passion for observing the city as a complex palimpsest, and who would have been thrilled to see this research take shape
ACKNOWLEDGEMENTS

This work began with a vision of how cities evolved in the region of Central Asia! Through the course of my research, I have literally had to work backwards to find the ‘clues’ towards clarifying this vision, and searching for processes that produced the complex urban environments described in medieval times and some surviving till present day. While making others believe that I had something important to explain and research was not always easy, the following individuals helped me stay on course, and I am grateful for the enormous confidence they had in my abilities throughout this long process -

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Foremost of all, it was home to a well-developed trading community that was known over a large part of the medieval world. This wall fresco shows rich merchants from Afrasiyab (located north-east of present day Samarqand), dated between the 7th and 8th centuries.

Plan of Samanid Bukhara - 9th and 10th centuries, showing the grid-core and organic-accretive expansion of the city beyond its walls to create the extensive *rabad* area beyond the central core, on all its sides.

Plan of the city of Bukhara showing the formal nature of its inner core (*shahristan*), the *ark* (also shown in the inset), its system of several protective walls, and urban spaces contained within the urban fabric. The Magoki Attar Mosque was (and still is), located at point marked 'A', signifying, as some scholars have attempted to prove, the site of an older fire-temple.

View of the urban space created around the Magoki Attar Mosque outside the southern gates of Bukhara. While this space was once part of the street system of the city; today sedimentation has caused the building to stand several feet below the existing grade.

Reconstructed plan of the *shahristan* of Samanid Bukhara, based on the reworking of a nineteenth-century plan. Tracing the vestiges of the grid structure (top); and modified structure based on remains of the original grid (bottom).

Detailed view of the urban core of Bukhara and the *ark*, with major linkages and urban spaces (A: Magoki Attar *bazaar*; B: Registan located west of the *ark*; C: another public space (smaller Registan?) located to the east of the *ark*, and west of the *shahristan*; and D: Kalyan Mosque ensemble and urban space. [Based on Barthold's illustration of Bukhara]

Sketch plan of Bukhara drawn by the author based on aspects appearing in Narshakhi's *History of Bukhara* and Barthold's research. Clearly, the city had several urban spaces than are immediately apparent today, including a large *maidan* located south-west of the *ark* - shown as "M." Most of the important streets of the city emanated from the city gates of the urban core, leading to the several other towns of the Bukharan oasis. Finally, the *rabad* of Bukhara extended far beyond the innermost core, and was characterized by a numerous densely-populated suburbs separated by extensive stretches of land.

Conjectural plan of Bukhara, as it appeared soon after the Arab
invasions on the city. The formal delineation of the *shahristan*, city gates, citadel and urban spaces happened at this point in time. Most significantly, the main two intersecting streets traced the orthogonal geometry of the ancient grid structure of the core.

(A) View from Kalyan Minaret showing roof of Kalyan Mosque looking towards *ark* at Bukhara. This view also shows the 'other' urban space that existed between the *ark* and the *shahristan* (the location of the two gates of the *ark*, as shown in Figure 15, substantiates this claim). (B) An 1890s view of the Bukharan *ark* and Registan space in front, with its bustling marketplace.

(A) View of large urban space created in front of the Bukharan *ark* - called the Registan. (B) View of urban space created by Kalyan Mosque and Mir-i Arab Madrasa ensemble at Bukhara.

A view of the Kalyan Mosque urban space in the 1890s - the contrast between the dense fabric of the city and these tightly demarcated spaces was a characteristic feature of the Central Asian city that appears to have developed early in the medieval period.

(A) Axonometric of urban space created by Kalyan Mosque and Mir-i Arab Madrasa ensemble at Bukhara. (B) View of domed, *chahar-su* intersections within the covered *bazaar* at Bukhara, creating urban spaces along the street system of the city, connected to larger institutions.

View of the dilapidated walls and gates surrounding the once-densely populated western *rabad* area at Bukhara. While these walls certainly performed a defensive function, at a more significant level this barrier checked the flow of the desert sands into the irrigated hinterlands that were located around the city. The neglect of these barriers in times of political strife caused a large part of the oasis, especially a large part of Bukhara west of the Registan, to return to the desert. The process may have started in the last few decades of the Samanid epoch, exaggerated as a result of political turbulences.

A: Plan of Bukhara (about 9th - 10th centuries), showing some of the main spaces of the city - the Rigistan or Registan (located west of the *ark*), the Samanid Friday Mosque (between the *ark* and the *shahristan*), the Friday Mosque inside the *shahristan*, and the Magoki Attar Mosque (outside the southern gates). B: Fragment of *shahristan* plan in Bukhara, showing modifications to earlier grid structure. C: Irrigation systems of Afrasiyab related to the urban infrastructure of the oasis. D: Afrasiyab - excavation plan of the site, showing extent of the earliest settlement.
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29 View of remains of numerous cities in eastern Iran, seen from the sky, confirming the hypothesis of Iran and Central Asia being an urban region in the early-medieval period, rather than isolated cities.

30 The region of greater Central Asia, centered mainly around Sogdiana between the fourth and eighth centuries, serving as a cultural bridge between diverse worlds.

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34.1 Afrasiyab - view from the mounds of the old city towards the present-day site of Samarqand, focusing on the Registan square. This same view would have existed between the seventh and eleventh centuries, with the city of Afrasiyab extending beyond its southern walls to culminate in a market square, which scholars identify as the site of the future Registan.

34.2 Location of the city of Afrasiyab on an isolated mound; the delineation of the urban district into discernible zones - the qala, shahristan and rabad (labels A, B, C & D show how these zones were not mutually exclusive - therefore C is both the shahristan and the rabad). (Figures below - left to right) Basic layout of street system within Afrasiyab, and the connection of the walled urban district of the later city of Samarqand (located to the south-west and demarcated by a dotted-line); Afrasiyab located within a larger urban district including a hinterland of substantial spread, and contained by an external wall. [Based on Belenitskii's illustrations]

34.3 (Top) Plan of Afrasiyab in the vicinity of future Samarqand, separated from the surrounding landscape by deep irrigation canals. Grayed area shows the location of so-called street of mausoleums - the Shah-i Zinda complex - once considered to be a part of the dense street system of ancient Afrasiyab. (Bottom) Afrasiyab, Samarqand and the extensive, surrounding urban hinterland with its several, smaller settlements, none as large as the two large 'core' cities.

35 The Sogdian city of Varaksha, located in the Bukharan Oasis, west of the city of Bukhara. Top - general view; bottom - corridor (street?) between urban sectors.

36 The region of Ustrushana had several cities in the medieval period (sixth - eighth centuries). Shown here is a reconstruction of the palace of the afshins at the town of Kala-i Kahkana I. Veronina and Negmatov believe that the layout of the palace was very complex - composed of many rooms at multiple levels - but clearly planned. It appears to have opened out towards the town's rabad, a characteristic
that would prevail in several other cities of the Central Asian region over the next few centuries. Significantly, the construction of such a large structure in the urban rabad, versus the core was an unprecedented development. See also, Fig. 35.

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41 The Ayaz-kala 2 with its fortified complex rising from the landscape.

42 General view of the Toprak-kala archeological site, looking towards the remains of the raised citadel, located on the north-western corner of the rectangularly-shaped city. The substantially preserved citadel shows the remains of Fire Temple and High Palace. However, there also existed another Palace-Temple complex outside the confines of the city, built on a comparative scale. This again brings up the relationship between the urban core and periphery.

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The Sogdian Script preserved in a letter describing the business transactions of merchants who frequently traveled outside Central Asia, especially China.

Trade Routes of the Islamic World, around 1000 AD, showing the concentration of urban emporiums in Central Asia and Eastern Iran.

Map showing the several cities mentioned in the text, showing their relative sizes, connections (roads) and provincial boundaries.

Aerial view, the city of Shahpur in Eastern Iran, showing a classic case of the urban-hinterland interaction mentioned in this chapter. Shahpur was founded in the Sasanian times and did not grow to the extent of several Samanid urban centers, hence the urban periphery largely follows the defense lines.

A detailed aerial view of Shahpur in Eastern Iran, showing the expansion if the city into the surrounding landscape along preexisting lines created by the underlying grid, street patterns and agricultural sub-divisions.

Aerial view of the urban sprawl of the city of Hamadan in Eastern Iran, showing the relentless growth of the city into the surrounding landscape, beyond the confines of the earliest walled enclosure.

Aerial view of the urban sprawl of the city of Hamadan in Eastern Iran showing the dominating nature of the original tell that was once the core of the city, now abandoned with only a few dilapidated structures. A modern-day avenue cuts through the urban fabric.

Map of the entire Merv Oasis centered along the Murghab River. The several small and large settlements of the oasis can be seen, in addition to the destroyed network of canals that once sustained the entire region in ancient times.

Aerial view of the Merv Oasis showing the several settlements of the area and the complex network of irrigation canals. All of the urban sprawl comprising the cities of Merv, the irrigation network and the irrigated area was contained by sets of walls, built at different points in the history of the city. Some sectors of the city were summarily abandoned, as new areas were enclosed within fortifications.
The defensive walls of the city of Merv, still-surviving in certain areas. All of these walls were made of adobe, constantly maintained over the centuries, and were in several instances rose between 10 - 20 meters above the surrounding landscape.

A surviving section of the wall at Merv, with typical corrugations forms a koshk, little of which survives above ground to the north west of the Gyaur Kala complex.

The so-called Lesser and Greater Kyz Kalas at Merv, viewed from the south. The grand mausoleum of Sultan Sanjar (built 1153), can also be seen in the distance to the right of the structures.

View of the walls of the Merv Oasis and its many kushk structures (small forts), all characterized by corrugated walls constructed in mud brick.

Aerial view from north-east of the nearly square Hellenistic city - the Gyaur Kala - with its polygonal citadel, the Erk Kala. The walls of the Seljuk city, the Sultan Kala can be seen in the distance, together with the mausoleum of Sultan Sanjar located at its very center.

Aerial view of the much smaller, post-medieval or Timurid city known as the Abdullah Khan Kala, looking west of the modern town of Bairam Ali at Merv. The ruins of the citadel and its palace are located in the bottom right corner of this square enclosure, less than a kilometer square.

Aerial view of Merv with the Razik canal running between the ancient city - the Gyaur Kala on the left, and the Sultan Kala on the right. Cities constructed in such close proximity, evident from the view above, indicate how suburbia could be contained within the walls of a new city, creating a situation where several 'cities' so to say, co-existed next to each other.

Aerial view of the Merv Oasis showing the northern sector of the Seljuk city of Merv, with its citadel - the Shahryar Ark. The ruins of the palace and the kepter khana can be seen at the center of the ark. The oval walls of the northern suburb, Iskandar Kala are also visible.

Aerial view at Merv showing a great tower located on the eastern wall of the medieval city of Sultan Kala, which still survives to the height of about eight meters above the surrounding terrain in some places.

The Merv Oasis, with one of its few surviving watch towers, keeps or
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(Top) The massive mud walls of the Bala Hissar (Fort) at Balkh separating the city from the surrounding plain. First built in the Kushan period, it was extended over the course of the city's history, reaching their maximum size in the Timurid period; (Bottom) Close-up view of the Erk Kala citadel at Merv, built in the early Achaemenid period, beginning the long sequence of cities that occupied the site.

An aerial view of the city of Bam in Eastern Iran, showing the citadel, the maidan area adjoining the citadel, and its dense, compact shahristan contained within the walls.

The urban plan of Bam in Eastern Iran showing the nature of the city in the early tenth century, with its compact shahristan contained within the walls, and an open, urban space equivalent to the Registan in the Central Asian city (this space exists just outside the citadel or ark, just as in the Central Asian examples). However, in this case, the citadel sits inside the walls of the town. Also, the urban space 'begins' at the citadel gates, and connects to another square located deeper within the shahristan.

Two views of the city of Bam, showing (top) - the citadel towering above the fabric of the city, located within the gamut of city walls [much of this citadel was destroyed in a recent earthquake]; (bottom) - showing the walls of the city with remains of structures inside the dense shahristan.

The schematic plan of the East Iranian city with concentric zones, based on Gaube's research on the historical evolution of the city of Bam in Iran. Central Asian cities, while seeming to work on the same schema, were vastly different owing to the non-concentric delineation of their parts, especially the shift of the citadel to a frequently north-western direction vis a vis' the shahristan. Also while the rabad, while being outside the city walls, was just as dense (compact) as the shahristan itself.

Aerial photo of the Takht-i Sulaiman in Iran, showing the survival of the fortified citadel of the city with its several internal structures. Excavations have yet not revealed the nature of the urban tissue that surrounded or contained this citadel structure, though land subdivisions are clearly indicated on aerial photographs such as these, which may be indicative of property subdivisions within the ancient
urban area. The fortifications around this citadel are largely self-sufficient - indicating that it may have been located at a distance from the main *shahristan* (such as the case in Bukhara), rather than attached to its walls.

The city of Bukhara in the 10th century, with its three distinct *rabad* zones extending beyond the limits of its orthogonal *shahristan*. At Bukhara, each *rabad* district was in turn surrounded by a protective wall, which was later largely incorporated into the growth of the city - in effect several walls criss-crossed the huge urban district of the city.

Afrasiyab (the site of the later city of Samarqand), began to grow at a phenomenal rate beginning in the early 9th century. Its *rabad* had already extended beyond the confines of the walled citadel, and encompassed the *Rus-i Taq* and the future site of the *Registan* square. Also the *Namazgah* (*musalla* space for ceremonial prayer, indicated by 'N'), had moved outside the city, into the *rabad*, an indication of the large and diverse populations within the city.

Excavation plan of the city of Penjikent (in present-day Tajikistan), showing the distinct layout of the *shahristan* district versus the citadel located to its west. An outer wall encompassed the entire development, allowing the landscape to meet the walls of the citadel on the western side. While Penjikent resembles Bukhara in the shift of its citadel away from the *shahristan*, it appears that no *Registan*-like space existed between the citadel and the walls of the *shahristan* - this was instead a steep gully that separated the two structures and is also visible today. At Penjikent, instead, excavations have revealed an articulated gate structure (especially along city gates along the southern wall), which formed the setting for an urban space comparable in size and scale to the *Registan*.

Detail of excavation plan of Penjikent, showing the structures within the *shahristan*, especially the densely-built up merchant's street with large dwellings on either side. Also in view is the clearly articulated fortification structure, seen in dashed lines at the bottom of the picture. The location marked 'G' was the a gate structure that preceeded an urban space inside the city walls. Finally, the center of the image shows large structures with built-up spaces around courtyards - these have been identified by scholars as temples.

Two views of the excavations at Penjikent, which show the complex nature of the urban fabric that comprised the city. Large parts of the city are based on an orthogonal grid or rectilinear system of some sort, and these are indications of urban legislative mechanisms within
the city. So was Penjikent an exception, or was it an indication of how all cities in this part of the world began with a core of organized parts, and later became progressively haphazard? Penjikent has only been partially excavated and more work will bring some answers.

77 Motifs and design elements on Chinese textiles showing the synthesis of cultural traditions from China and Sogdiana - a byproduct of the extensive trade and commerce between the two geographical regions.

78 Excavation plan of the Afrasiyab Hill, located north-east of the city of Samarqand, showing the results of excavations completed between 1990 and present day. A citadel from the 5th century BC was the first structure on the site. The first phase of extensive building (marked in purple) is the Hellenistic Period, yielding citadel walls, remains of a palace and a granary. The second phase (marked in red) is the Umayyad & early Abbasid Period, showing two large palaces. The third phase (marked in black) is the late Abbasid phase, showing the remains of a large mosque.

79 Plan of Afrasiyab Hill; Archeologists unearth ceramic tile fragments from the 10th century; View of the excavation showing part of the shahristan; The Afrasiyab Hill - once the site of the citadel.

80 (Top) Excavation plan of Umayyad palace from the 7th century in the Afrasiyab citadel; (Left) Detail of Umayyad Palace plan showing its layout of spaces, and remains of older structures unearthed below.

81 A 1870s view of the city of Samarqand, looking from the Registan Square towards the Afrasiyab Hill in the far distance (marked as A in the photograph). Undoubtedly, this view was an essential part of the landscape of the city, especially in the explosive growth of the rabad in the 9th century.

82 The remains of the Sogdian ruler Varxuman's palace at Samarqand, with examples of paintings on its walls.

83 (A) The Bukharan oasis with its many smaller settlements, especially to the west; (B) The Bukharan Ark and its dense, internal layout of spaces. The Ark at Bukhara is a classic example of a separate, non-concentric citadel positioned next to the shahristan, far removed from examples where the citadel walls actually 'engage' with the fortifications of the city.

84 Two views of the Bukharan Ark, always rebuilt on the same site since ancient times. The Registan space in front of the Ark was the location for the state diwans beginning with the Samanid times.
The walls and gates of Bukhara - several in close proximity to the shahristan and inner rabad were maintained and kept in a state of good repair. Those along the outermost reaches of the oasis fell into disrepair in difficult times.

(A) Fortifications and gates of Bukhara from the 8th to 19th century according to Rempel. The Registan is marked to the west of the Ark. (B) The Samanid Tomb at Bukhara, located within the once-fertile land to the west of the Registan.

The Lyabi Hauz at Bukhara - an ensemble of buildings around public space; The front facade and side facades of the Magoki Attar Mosque, located on an older Fire Temple from Sogdian times; (right bottom) Plan of Magoki Attar Mosque showing excavated plan of temple below the structure.

(Top) Location plan of Varaksha - an important settlement in the Bukharan oasis, located west of the city of Bukhara; (Top Right) Plan of Varaksha Palace by Semenov showing monumental structures clustered around courtyards; (Middle & Bottom) Conjectural views of the Varaksha Palace, showing entrance iwan (middle), and ziggurat-like building elements.

The Ribat-i Malik, located on the road connecting Samarqand and Bukhara. A large, fortified structure, built about 1050 AD, protecting the important trade routes that passed through the Sogdian region. Counter-clockwise, beginning from top left - the crenellated walls of the structure (typical of 9th - 11th century architecture in the oasis); the front facade with a central portal and two framing towers; View of the central pishtaq screen; and brick decorations.

Two aerial views of the city of Penjikent, situated 70 miles south-east of the city of Samarqand. Excavations have revealed the dense nature of the urban fabric within the walled precincts of the city. When the city was abandoned following the Arab invasions, most of the urban population moved to the valley below.

(Top) View of the citadel of Penjikent, separated from the main city by a deep gully; (Bottom) Excavation plan of the Penjikent citadel, showing building masses enclosing containing substantial courtyards - a tradition that prevailed in the urban fabric of the region's many cities.

The fortifications of Penjikent and related excavations. (Top) Elevation of fortification wall showing arrow holes; (Middle)
Axonometric reconstruction of buildings along fortification; (Bottom) Two excavated areas along the walls of Penjikent, with marks in masonry where timber beams once spanned to support the intermediate floors.

93 (Top) Axonometric reconstruction of a residential quarter in Sogdian Penjikent, examining spaces within an aristocratic dwelling - such as those that lined the Merchants Street running north-south across the city; (Left) Sasanian silver plate showing a *char-taq* temple structure, a possible source of emulation for the Samanid Tomb at Bukhara.

94 View of the Zarafshan Valley from the ramparts of Penjikent - regarding the spread-out nature of the *rabad* districts in both cities, the short distance between the two urban centers would have seemed as one continuous urban region to the traveler, rather than as two separate cities.

95 The city of Merv and its location within a vast oasis - (Top) Plan of successive cities in the Merv Oasis, also shifting westwards, and a larger wall around the entire oasis surrounding all of the developments; (Bottom) Map of the Durnali-Changly region, showing irrigation through the Murghab River.

96 While little physical evidence of the city of Nishapur survives today, owing to a series of devastating earthquakes, the region was once known for its superb ceramics. Seen here are examples of Inanimate Buff Ware - from the Ashmolean Collection (top); and Animate Buff Ware.

97 Foundation of the city of Herat, showing a partial quadrangle with early elements of the grid-iron, connected to an ancient mound or tell (the *kuhandiz*). This was the basis for the more developed plan of Herat, as recorded by the India Office Library plan in 1842; (Top right) Bactria or later Balkh (P. Bernard identifies it as "Bactria II"), is supposed to have evolved from Kushano-Sasanian foundations, employing a similar combination of elements.

98 Comparative plans of Penjikent, Paikend, Bukhara, Afrasiyab and Kurgan-tepe at the same scale - showing the relative position of the *shahristan* with respect to the citadel structure.

99 The city of Kuva (Kubo), by 900 AD was an important urban center in the region of Ferghana - of large size, and with a dense *shahristan* and highly developed *rabad* district. Excavation plans show the *rabad* extending on three sides of the *shahristan*, though scholars have differing interpretations regarding the citadel. Excavations in
the shahristan (below) show a dense urban fabric.

100 (Top) Pumpelly's reconstruction of the ancient course of the Oxus (Amu darya), and the Aralo-Caspian Sea in antiquity; (Bottom) the state of drainage in the rivers of Eurasia, Near and Middle East and Russia.

101 N. AlSayyad's proposed analytical model for interpreting the nature of Urban Form in the Islamic City, combining the issues of functional form and physical form.

102 The Stereotypical Muslim City of North Africa, based on text by W. Marcais (1928), Marcais (1945), and J. Berque (1958).

103 (Top) The stereotypical Muslim city of the Middle East, based on Sauvaget's text (1934 - 41); (Bottom) The characteristics of the Muslim city of the Middle East, based on Von Grunebaum's text (1955).

104 (Top) Schematic layout of a typical Muslim city based on Monier's thesis (1971); (Bottom) Schematic layout of the early, medieval Arab city according to Ismail (1972).

105 (Top) The general order of the Muslim city and its arrangement of elements, according to Ardlan and Bakhtiar (1973); (bottom) The structure and main elements of the Islamic city with concentration on Iran, according to Gaube (1979).

106 Model of the typical Islamic town, according to Wagstaff (1983).

107 (Top) The early organization of the amsar of Basra (about 634 AD), according to N. AlSayyad. (Bottom) A reconstruction of the general organization of Basra following the re-development plans of Abu Musa and Zaid (around 675 AD), by N. AlSayyad.

108 (Top) The plan layout of the city of Kufa, 638 AD (Al-Janabi's reconstruction); (Bottom) A schematic reconstruction of the general organization and urban elements at Kufa, according to AlSayyad.

109 (Top & Bottom) A reconstruction of Damascus before the Arab conquest, based on AlSayyad's research. To what extent the Arab interventions modified the orthogonal organization of the city is still a matter of debate among scholars.
(Top) Plan of Islamic Damascus, based on AlSayyad's reconstruction of Al-Munjid's accounts. (bottom) The street structure of Damascus during the Umayyad era, showing the transformation from a gridded structure to a more organic-accractive structure. The outline of the Arab city overlays the Hellenistic city with its regular grid and major monuments (based on AlSayyad's reconstruction based on Gaube).

The Umayyad Caliphate and its influence over the eastern territories about 650 AD.

An aerial photo showing the ruins of Samarra, the sister city to the Abbasid capital at Baghdad. Built between 762 and 836 AD, by successive rulers of the Abbasid line, Samarra was significant not merely for its sheer size and scale, but for the nature of its obsessive rectilinear organization - was it an *amsar* at a large scale?

Examples of the structures that housed the cantonment at Samarra (counter-clockwise from top left) - The Balkuwara Outer Enclosure; the al-Karkh cantonment area; and the al-Dur and al-Mutawakkiliyya cantonment area.

Spectacular brick portal of the Arab-ata Mausoleum at Tim

Map of Central Asia within its larger sphere of cultural influence
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SUMMARY

This work is a study in urban history, in particular, one that examines a crucial period in
the rise and development of large cities and metropolises in the region of Sogdiana within
Central Asia, between the seventh and tenth centuries. The primary focus of inquiry is to
show the effects of inter-relationships between social change, intense urbanization and
religious conversions that occurred within Sogdiana at this time. All of these processes
were initiated as a result of the Arab invasions between 625 and 750 A.D. Sogdia or
Sogdiana, along with the regions of Bactria and Khwarazm, were incorporated into the
Islamic world through the process of conquest that followed these invasions, but once
resistance was extinguished and Islam widely accepted among the populace, these
regions became among the most vital centers of urban life in the Islamic world. Sogdiana,
among these three regions, witnessed the rise, change and unprecedented development of
many large metropolises that were distinct in several ways from the cities in other parts
of the Islamic world. Traditional cities in the Islamic world further west and south of
Central Asia had a dense structure within an encircling wall, and eventually the
residential areas were found to extend beyond the wall, only themselves to be eventually
protected by another wall. However, in Central Asia yet another further stage of
development took place. Here the main administrative functions and markets moved out
into this outer residential area and abandoned the central core. This outer area of the city
(the rabad) became the locus of political and commercial activity. In due course the
process repeated itself - the residential areas overflowing beyond the walls of the rabad,
only themselves to be surrounded by a third outer wall. In this way the Central Asian city
developed into a distinct type, markedly different from cities further west and south.

The examination in this dissertation proposes to determine and detail the modes of this
conversion of these urban centers in the centuries following the Arab invasions, and to
investigate the structures and institutions instrumental in creating Arab cities and Islamic
societies in Sogdiana. In its analysis, while this research is centered mainly on the most
important Sogdian cities of Bukhara, Afrasiyab (later Samarqand), Penjikent and
Paikend, extensive urban and demographic material and population data from the other
centers in the greater Sogdiana region, and from neighboring Bactria and Khwarazm also
serves to supplement the materials for the principal urban centers under study. This study
draws on recent research to fill a critical gap apparent in scholarly studies on the cities of
Central Asia. Most of the earlier urban historical studies have used the Mongol invasions
as a starting point for their observations and examinations, treating the pre-Mongol
period as an unimportant phase in development. This work argues that this viewpoint
should be reversed by demonstrating that the most important developments in the form
and structure of the Central Asian city actually occurred several centuries before the
Mongols arrived on the scene, setting precedents for further developments in the region.
CHAPTER 1
PRELIMINARIES

Figure 1: Ice-field on Europa, Mars – resembling the remains of cities and streets under the shifting sands in eastern Iran and Central Asia.

“The royal seats are two,
in Ctesiphon and Ghumdan.
The kingships are two,
Sasan and Qahtan.
THE Men are the Persians,
The Region is Babylon,
Islam is Mecca, and
The world is Khurasan.

- ‘Isabah al-Jurjani (Yaqt, “Khurasan”)
“This chapter has been compiled for the especial benefit of those who like to acquire a knowledge of the metropolis (amsar) of the Muslims and of the districts into which the several provinces are divided, and who wish to become acquainted with the number of the provincial capitals (qasabat) and their [district] towns (mudun) .... I have in consequence.... written it compendiously and in straight-forward language, eschewing prolixity.”


By the tenth century, beginning with the cities and urban centers of the Near and the Middle East, and eventually extending into the regions of Central Asia and large parts of the Indian subcontinent, an important transformation process appears to have been initiated in the Islamic world. It had a profound affect on all aspects of urban culture, particularly those discernible and expressed in the physical structure of urban space. As a result, Iranian, Hellenistic, Kushan, Latin, and other urban patterns that had once characterized the settlements and cities in the above regions were steadily modified by Arab occupation and frequently augmented with new Arab foundations, all manifesting to a greater or lesser degree the imprint of Islam in these new environments.

Yet even before this transmutation had been effected, the unity of the Islamic world itself no longer existed. It was no longer controlled by one centralized authority, except at a
Figure 2: Schematic map of the Central Asian region showing the several cities mentioned through the dissertation text; the entire river criss-crossed by several rivers
largely symbolic level. Its sheer size and level of political complexity made uniform legislation of the previous centuries virtually impossible, causing parts to gradually secede away. Regions such as Al-Andalus (Islamic Spain) had defected from the caliphate as early as 756, al-Maghrib in 788, al-Ifriqiyyah (Tunisia and western Libya) in 800, and Egypt in 868. In eastern Persia and Central Asia, the Tahirids ruled as hereditary governors for a short period between 822 to 873, followed by the Saffarids (867 - 908) and then the Samanids (892 - 999), all functioning as quasi-independent representatives of the Caliphate. Likewise, in the region of al-Yaman political power was in the hands of the independent Zaydite dynasty, while in the northern Levant badu ideals had undergone an ephemeral but brilliant renaissance under the Hamdanids. Finally in Iraq the powerful caliphs, already reduced to mere puppets in the hands of their ministers and military commanders, had ceded political power to the Persian Buwayhids in 945. In consequence, the great office of Vicegerent of Allah - the style that had supplanted the original, more modest Vicegerent of the Messenger of Allah - is now believed to have survived merely as a source of legal authority for the rule of a schismatic Commander of Commanders (Amir al-Umara) in a capital located no longer located at Baghdad, but at Shiraz in Fars.1

Scholars have argued that the Prophet Muhammad’s death in 632 A.D. and the political events that it catalyzed appear to have been instrumental in the significant break-up of the Islamic world. In accordance with Arab customs, his demise had terminated the contracts of political allegiance that had been concluded between him and the tribes of Arabia,

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some of which had become restive under Madinah rule. In effect, tribes located near al-Madinah (Medinah) had been fully absorbed into the *Ummah* and shared its interests, but others in the relatively more distant parts of the peninsula now used the opportunity of his death to repudiate the authority of the nascent Islamic state. Abu Bakr, who now acceded to the leadership of the *Ummah*, with the title of *Khaifat Rasul Allah* (“Vicegerent of God’s Messenger”), was able to somewhat mitigate the damage caused and successfully concluded new treaties with some of the nearer tribes. He also employed military subjugation to reincorporate those further away within the *Ummah*. Campaigns were initiated more or less simultaneously against the secessionist tribes of Arabia and against several others that had yet to submit, and new raids were undertaken into nominally Ghassanid territories of the north and the lowlands of Sasanian Iraq.

But beyond the consolidation of the segregated empire after this described break-up, Abu Bakr initiated a remarkable wave of conquests to greatly extend the geographical territory under the empire’s control, a policy also pursued vigorously by his several successors. In these operations, Arab troops occupied territories over a large region extending from

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2 Scholars believe that it is unlikely that Abu Bakr himself used this particular title, it is more likely that later traditionalists probably bestowed it on him. It has been claimed that Umar (second of the Rashidun caliphs), first assumed the title of *Khalifah* with the implication of *Khalifat Rasul Allah* (the deputy of the Vicegerent [i.e. Abu Bakr] of God’s Messenger), a style subsequently abbreviated, according to Ibn Sad on account of its length, but more probably through ignorance of its original form. See Muhammad Ibn Sad (d. 845). *Kitab al-Tabaqat al-Kabir* - Vol. 3/Pt. 1, edited by E. Sachau et al. (Leyden and Berlin, 1904 - 28), p. 202.

3 Shoufani, in a study of the Hurub al-Riddah, has deduced that the term *riddah* was originally applied only to certain tribal groups in Najd and Eastern Arabia who withheld their taxes from the government in Medina, and who were consequently known as the *Ahl al-Riddah*. These appear to have been the powerful clans of the Ghatafan, Tayyi and Tamim. Subsequently the term was broadened to include all of the conflicts that occurred in Arabia immediately following the Prophet’s death. See E. Shoufani. *Al-Riddah and the Muslim Conquest of Arabia* (Toronto, 1973), chapter 3.
Figure 3: The Arab campaigns extending eastwards from Medina, and the subsequent conquest of Persia and large parts of Central Asia
Spain in the west to India in the east. (Figure 2) Their military successes brought the Sasanian Empire to an end, also removing Byzantine control from most of their possessions across the Middle East and North Africa. Likewise, the conquered populations of these regions also came under Muslim rule, although it took several centuries of conversion to Islam to change their religious identities in substantial ways. The majority of the inhabitants of the conquered Byzantine territory in Syria and Egypt remained Christian for centuries, just as the majority of those who lived in territories once controlled by the Sasanians in Iraq and Iran retained their Zoroastrian creed. More significantly, for the purposes of this research, these campaigns also put into operation the process of the great Arab *tamsir*, a term which originally denoted the transformation of separate sections of a military encampment into the quarters of a developed city⁴, and was later broadened by scholars to subsume the urban creation and transformation that accompanied the diffusion of Islam throughout the regions of southwest Asia and North Africa.⁵ It is through this brief introduction to the Arab campaigns, that one must consider the widespread process of urbanization that accompanied the spread of Islam across the conquered territories, including its interventions in the region of Central Asia. Even more complex was the interaction of Islamic urbanism with the strong, pre-existing urban traditions of the regions conquered, imparting a distinctive character to the cities that came under control.

The relentless process of the great Arab *tamsir* and the spread of Islamic urban traditions obviously impart great significance to the role of Arab armies as the agents of urban

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transformation. However, it must be mentioned that even the composition of these armies was not always monolithic; in fact, it was far removed from our present-day definition of the term. The Arabs were not always one unified army, and were instead composed of several diverse tribes, where inter-tribal relations and conflicts determined their mode of settlement. The early campaigns beyond the Arabian Peninsula were undertaken primarily by Arab tribesmen whose natural element - whether they were qarawiyun, raiyah, shwayah, or true badu - was the desert or the steppe, or, at its most benign, the sand-enveloped oasis such as Tayma or al-Madinah. Yet it was these same tribesmen who were required to garrison the conquered provinces without totally despoiling them. The immediate solution was to settle them between successive campaigns in military camps strung along the desert fringe. Such camps were known to the Arab historians as the amsar. Some of the earliest of these amsar were established in the vicinity of Syrian

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8 The term misr (pl. amsar) has borne a variety of connotations at different periods in history and, indeed, for different authors. For the Arab historians of the Rashidun and Umayyad periods, it seems to have meant ‘military cantonment.’ In the tenth century, al-Muqaddasi offered four not wholly congruent definitions of this word: (1) According to Muslim jurists, it signified “a city with a large population, courts of justice and a resident governor, which meets public charges from its own revenue, and is the focus of authority for surrounding territory.” (2) Lexicographers allegedly restricted this term to “a settlement located at the boundary between two regions.” (3) The common people, by contrast, supposedly understood the term to apply to any large and important settlement (balad). (4) al-Muqaddasi himself used the word with specific connotation that is attached to the sense of the term today, that is, “the locale (balad) where the supreme ruler of a territory resides, where the departments of state concerned with fiscal administration (amal) are located, and which exerts a dominant influence over all other urban centers in a region (iqlim).” al-Din al-Muqaddasi. Ahsan al-Taqasim fi Marifat al-
cities during campaigns undertaken after the early wars by Abu Bakr, namely at al-Jabiyah, Hims, Amwas, Tabariyah and al-Ludd. Within a decade after Muhammad’s death, the settlements of al-Kufah and al-Basrah had been established in Iraq, and during the first century of the Islamic era what may be termed as the misr mode of control was extended not only into the formerly Sasanian territories, such as Askar Mukram in Khuzistan and Shiraz in Fars, but also on a smaller scale into the territories beyond the Jayhun (Oxus) river. Similarly, in Egypt, al-Fustat as laid out in 641 near the Roman fortress of Babalyun, to be followed in 643 by Barqah and in 670 by al-Qayrawan, both in the Ifriqiyyah, and by Tagrart in the Maghrib as late as the eleventh century.9 (Figure 6)

In effect, during the first three or four centuries after the Hijrah, the urban hierarchies of large regions of the Middle East, southwest and Central Asia, and North Africa were augmented in two significant ways. At a first level, the physical landscape of these areas was affected by the incorporation of several classes of “created” cities, which included the amsar, ribat, princely establishments and spontaneous foundations. As the term suggests, these created cities were conceived as a complete idea or image, usually by an influential individual. The urban settlements were established and founded, at least in principle, as objects on the landscape, in sharp contrast to the accretive city, which grew outwards from specific conditions of its context. While many of these created cities interacted with pre-existing urban environments, producing interesting juxtapositions, others were substantially removed from any urban context. As a second manifestation of the eastwards movement of the Arab forces and the establishment of control centers, distinct urban regions appeared in the Islamic world, caused in large measure by the

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intense political fragmentation of the centralized empire. These urban regions were characterized by several settlements of varying size, though sharing common spatial and functional characteristics - features that differentiated them from settlements in other regions. Scholars such as Wheatley have described this development as the “transmutation of regions into systems of urban forms.”

Wheatley’s elaboration of these distinct regions within urban systems should be viewed in light of the geographer Muqaddasi’s elaborate descriptions of the provinces of the Islamic domain (mamlakat al-Islam) in his Ahsan. Excerpted in the passage quoted at the beginning of this chapter, Muqaddasi’s writings were in some sense documenting the important urban developments that had characterized the few centuries prior to tenth century, reaching their climax by the eleventh century. (Figure 3)

Scholars believe that the identification of this framework of urban systems within the contemporary Islamic realm is the other significant aspect of Muqaddasi’s work, besides its obvious value in terms of documentation. Based on his essential grounding within the geographical traditions of the so-called Balkhi School of Islamic Geography and

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10 With respect to the concept of an urban system, Wheatley writes: “A city comprises of a set of functionally interrelated social, political, administrative, economic, cultural, religious and other institutions located in close proximity in order to exploit scale economies. A group of such institutional sets, together with their attributes and mutual relationships, constitutes an urban system, an arrangement in which the concurrent operation of agglomerative tendencies and accessibility factors tends to produce a hierarchical arrangement of the constituent parts.” See P. Wheatley. The Places Where Men Pray Together, pp. 58 - 62.

Figure 4: Hierarchical urban systems in the Islamic world in the second half of the tenth century constructed according to the principles enunciated by al-Muqaddasi (bottom); Al-Muqaddasi's functional urban regions (aqalim) and their representative amsar urban centers (top).
Cartography, Muqaddasi proposed the sub-division of the Islamic world into distinct regions or *iqlim*. In his judgement, his fourteen *iqlim* became functional (as opposed to formal) urban regions, wherein the city was recognized as the locale in which the essential qualities of larger systems of social relations are concentrated and intensified. With only three exceptions, his *iqlim* comprised structured systems of hierarchically ordered spatial interaction focused on a single metropolis. Simply put, Muqaddasi was suggesting that by examining the essential, unique qualities of an urban environment within a specific region, it was possible to reflect on the general nature of developments within that region, provided of course that the metropolis (one or more) was critically chosen for this examination. Al-Muqaddasi’s exposition of the spatial and hierarchical arrangement of urban forms in the cultural realm of the tenth-century Islamic world, in a zone up to two thousand miles wide extending for nearly a quarter of the way around the earth, must rank as one of the most ambitious studies of human organization ever attempted in the medieval world. Nor was it to be repeated for almost a millennium, since other topographers and scholars who worked within similar Islamic traditions never reached the level of abstraction represented by Muqaddasi’s work on urban systems.

Even the legendary Ibn Khaldun (1332 - 1406), who was no doubt aware of Muqaddasi’s work, aimed to elicit from the flux of events around him the internal (*batin*) rational...

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13 Muqaddasi’s fourteen *iqlim* were al-Iraq, Aqur (al-Jazirah), al-Sham, Jazirah of the Arabs, al-Jibal, Khuzistan, Fars, Kirman, al-Rihab, al-Daylam, Misr, al-Maghrib, Isqiliyan and al-Mashriq. In the accounts of each, one or two significant metropolises were mentioned - *al-Mashriq* had Iranshahr (Nishapur) and Samarqand. See P. Wheatley. The Places Where Men Pray Together, pp. 85 - 224.

Figure 5: Crossing the Oxus (Jayhun) River was an important step for the Arab armies in 667 AD. Beyond being a physical obstacle that had to crossed, at a symbolic level, it represented the arrival of the Arab armies in Central Asia, and the subsequent control of the entire Mawarranahr region. This crucial crossing is depicted in this nineteenth century etching.
structure that gave form and meaning to external (zahir) manifestations. However, he paid little attention to the spatial expression of the institutions whose nature and evolution he was investigating.\textsuperscript{15} Muqaddasi’s conceptualization of the \textit{iqlim} is seen as an exemplar in this dissertation, particularly in its illustration of how a select number of cities may be employed to study the nature of cities within a geographical region such as Sogdiana.

**The Iqlim of Al-Mashriq**

In 667 AD, Arab forces crossed the Oxus River to enter into the region of Central Asia, the north eastern boundary of the Islamic expansion and one among the fourteen urban regions (\textit{iqlim}) of the Islamic realm proposed by Muqaddasi, indicating that its cities shared common sets of characteristics. \textit{Al-Mashriq} (“The Orient”) was the term al-Muqaddasi used to denote this broad swath of Islamic territories that lay between the provinces of al-Daylam, al-Jibal, and Kirman on the west and al-Sind (now a province of Pakistan), Tibet, and the Turkish tribes of Central Asia on the east. While he acknowledged the political basis of this \textit{iqlim} as, “... al-Mashriq designating the territories of the House of Saman [Samanids],”\textsuperscript{16} he was also aware that the great extent and diversity of this \textit{iqlim} prevented it from becoming a true urban region. Therefore, al-Muqaddasi was constrained to assign within \textit{al-Mashriq} two significant metropolises - Iranshahr (Nishapur) and Samarqand - instead of the usual one as in the other \textit{iqlim}. These two cities functioned, in fact, as the \textit{amsar} of Khurasan and Transoxania, regions


\textsuperscript{16} al-Muqaddasi. \textit{Ahsan al-Taqasim}, p. 7.
that did exhibit together a considerable degree of functional unity.\textsuperscript{17} (Figures 1, 4) Evidently, \textit{al-Mashriq} gained great prominence as a result of the Arab invasions on the regions of Central Asia and Eastern Iran between 625 and 750 AD.\textsuperscript{18}

In its overarching aims to study the evolving character of cities within the \textit{iqlim} of \textit{al-Mashriq} during and after the Arab invasions, this research sets out to examine the region of Transoxania, also known as Sogdiana in ancient times. It focuses on the urban evolution and changes produced by these momentous events on four classic examples of cities in the \textit{iqlim} of \textit{al-Mashriq} known today either from their still-extant urban contexts or based on information in archaeological excavations and reports, in addition to site surveys. These cities are Bukhara, Afrasiyab-Samarqand, Penjikent and Paikend, all of which were modified in significant ways in the three centuries following the Arab invasions (675 to 975 AD), creating conditions for a unique Central-Asian social ecumenae to develop within them. Of the four, Bukhara and Samarqand still exist as cities, albeit substantially modified from how they appeared just after the Arab invasions, though retaining crucial traces of the past. Meanwhile, the site of Afrasiyab, located to the northeast of the medieval city of Samarqand, was gradually abandoned by the 1400s. Today it exists as an archeological site, much like Penjikent and Paikend, where the fortunate state of preservation allows good research.

\textsuperscript{17} P. Wheatley. \textit{The Places Where Men Pray Together}. p. 172.
\textsuperscript{18} The Arab invasions on Central Asia have been the focus of substantial scholarly research. See V. Barthold. \textit{Turkestan Down to the Mongol Invasions} (London: Porcupine Press, 1928); and H. Gibb. \textit{The Arab Conquests in Central Asia}. (New York: AMS Press, 1970). In addition, several publications on the Abbasid Empire also discuss events in Central Asia in substantial detail. See E. Daniel. \textit{The Political and Social History of Khurasan under Abbasid Rule 747 - 820} (Minneapolis & Chicago: Bibliotheca Islamica, 1979).
Figure 6: The chronological development of Baghdad until the end of the tenth century, showing the extensive suburbs that had developed around the round city, creating a distinct zone that was far extensive in its size, population and urban institutions than the round core of the city. Scholars have frequently studied the "Round City" at Baghdad, without examining its suburbs, several of which were in place even at the foundation of the round city.
But what was so significant and remarkable about these urban environments? In part, our answer lies in the social changes that occurred at this point in time, causing a percentage of the region’s population to convert to Islam. Material destruction, on the other hand, was limited; physical encroachments were aimed largely at establishing Arab supremacy through the foundation of institutions to propagate Islam. The biggest cities were left largely untouched, although a large Arab population was settled in them. The Arabs also established the Samanids as their representatives in the region, who in turn developed capitals at Bukhara, Afrasiyab-Samarqand, Penjikent and Paikend and several provincial locations between 820 and 975 AD, embellishing these cities with

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19 In contrast to the region of western Iran, where the Arab conquests had in fact initiated a weak process of non-Arabs to convert to Islam, this process was virtually non-existent in the region of Central Asia, at least in the early campaigns under the Umayyads. Frye claims that conversion to Islam was discouraged, if not actually forbidden in this early phase, in order to preserve the revenues coming to the state. Apparently, the Umayyad caliphate was not a brotherhood of the faithful but almost a business enterprise. See R. Frye. The Golden Age of Persia (London: Weidenfeld & Nicolson, 1975), p. 75. In this connection, al-Narshakhi, however, presents a somewhat different picture. He writes that “... the inhabitants of Bukhara became Muslims, but each time after the Muslims withdrew [for the winter] they apostatized. Qutaybah ibn Muslim converted them to Islam three times, but they [repeatedly] apostatized and became infidels.” See Abu Bakr Muhammad ibn Jafar ibn Zakariya al-Narshakhi, Tarikh Bukhara, translated by R. Frye as The History of Bukhara (Cambridge: The Medieval Academy of America, 1954), pp. 47 - 8.


21 Frye supports the view that these changes were a slow, gradual process producing a unique, culture which absorbed within itself the existing socio-economic, religious and political conditions. See R. Frye. Bukhara: The Medieval Achievement (Costa Mesa/CA: Mazda Publishers, 1997), pp. 14 - 29; and al-Narshakhi. The History of Bukhara, pp. 47 - 8. The Merv oasis is supposed to have had as many as 50,000 Arab families by 671 AD. As perhaps the largest group of Arab settlers outside of Arabia, this helps explain why Khorasan and Merv soon became important centers of Islamic military and cultural influence.
Therefore, at a first level, these cities combined the characteristics of their pre-Arab (Sogdian) past with features initiated by the Arabs and Samanids. This resulted in a modified version of the city that reached its apogee just before the Mongol invasions in the thirteenth century. (Figures 9, 11, 16, 17, 18, 22)

Secondly, this “new” type of city created as a result of the invasions was characterized by the unprecedented development of its suburb or rabad, in place of the traditional city center or shahristan, as had been the case in the other parts of the Islamic world. In effect, the Arab fiat city or amsar, the basis for several of these foundations, was radically modified in several respects to accommodate these changes. The mass exodus of the urban population to the suburban rabad, versus a preference for the crowded shahristan (as in earlier times), was a strong indicator that society had undergone a critical transformation in this period.23 Substantially contributing to this process was the

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23 A. Yakubovskii’s hypothesis is useful here, though it is debated somewhat by later archeologists. Adopting a modification of Barthold’s urban development theory (of the tripartite city), he held the view the view that the shahristan and rabad were established at different times, and that their social and economic structures were also different. The shahristan was peculiar to the pre-feudal period, where a close ‘manorial economy’ as practiced by native aristocrats (dihqan) of Transoxania in the pre-Islamic period. In the suburban rabad, on the other hand, the craft industry, now separated from cottage industry, had begun to grow in the 8th century. In the 9th century, artisans became free from their landlords, which led (though definite evidence is lacking), to the establishment in the 10th century of artisans’ corporations (guilds). The ‘triumph’ of feudalism meant moving everything related to urban life to the rabad, which was the effective end of the shahristan. See A. Yu. Yakubovskii. “Dofeodalnyi gorod v Mavarannakhre v VII - VIII
great administrative stability that now prevailed in the urban environments of Central Asia, tempting peasants and the traditional land-owning dihqan class alike, to move towards the city, occasionally populating the existing shahristan, and more frequently the suburbs, thereby creating multiple cores of development within the urban fabric.24 (Figures 14, 22, 23)

So legendary, large and complex were these urban environments, that at yet another third level, the influence of these foundations in Central Asia spread across Iran and other parts of the Islamic world, and penetrated deep into the interior areas of the Indian subcontinent.25 The huge urban complexes of the Delhi and the Deccan Sultanates, established between the twelfth and fifteenth centuries, employed these Central Asian cities as their obvious models.26 Many of the latter survived in their entirety till the pre-

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25 While how urban patterns from Central Asia may have been emulated in the cities of the Indian subcontinent is still a topic of debate and research, there is some strong evidence at the level of individual buildings and building types. For the migration of the four-iwan madrasa plan to the city of Bidar in central India, under the Bahmani dynasty, see E. Merklinger. “The Madrasa of Mahmud Gawan in Bidar” in Kunst Des Orients, XI, Heft 1 - 2 (1976 - 77), pp. 145 - 57.
modern period, suffering only minor destruction at the hands of Timur in 1398 AD. In fact, travelers and historians familiar with the larger region comprising the medieval Central Islamic world, often commented on how strangers felt at home owing to the similar physical and social setting prevalent across these cross-regional urban networks.27

A Brief Survey of Existing Research on Central Asian Cities

Research into the architecture and ancient cities of Central Asia began with the re-discovery of the region by Czarist Russia in the second half of the nineteenth century, during the invasions of the last-remaining Central Asian Khanates by the Red Army.28 The early accounts, including several by members of the Russian Missions stationed in different parts of Central Asia, were largely descriptive, documentary and ethnographic in their content, concentrating on the mechanisms of urban legislation in the region.29 In addition, urban surveys (including cartographical studies) were conducted by Russian military officers, though more with the purpose of taxation and establishing control

27 Ibn Battuta’s accounts, though written a few centuries following the heyday of Central Asian cities, illustrate these environments in a detailed manner. See I. Ibrahimovich. The Travels of Ibn Battuta to Central Asia (Reading: Garnet Publishing, 1999).
29 See N. Khanykov. Opisanie Buharskago khanstva (Sankt peterburg, 1843); N. Khanykov. “Gorodskoe upravlenie v Srednei Azii” in Zhurnal Ministerstva vnutrennikh del (Sankt peterburg), 8/5 (1844); F. Nazarov. Zapiski o nekotorykh narodakh i zemlykh sredni chasti Azii (Sankt peterburg, 1821); and N. Muravev. Puteshestvie v Turkmeniyu i Khivu v 1819 i 1820 godakh kapitana Nikolaja Muraveva, poslannogo v sii strany dlya peregovorov - Vols. 1 & 2 (Moskva, 1822). Translated into French as Voyage en Turcomanie et a Khiva, fait en 1819 et 1820 par M. N. Mouraviev by M. G. Lecointe de Laveau (Paris, 1823).
Figure 7: Two views of the possible reconstruction of the *amsar* of Kufah as planned. The element of orthogonality appears to be a characteristic feature of Kufah, as also of the other *amsar*. 
Figure 8: An example of some of the detailed research studies done by Soviet scholars on architectural monuments of Central Asia in the second half of the twentieth century - in this case an analysis of the Samanid Mausoleum at Bukhara showing the proportioning systems employed in the design layout of the building. Similar examinations of 'proposed' proportioning systems in other buildings revealed the obvious scientific bias that was applied to the research of ancient examples. This trend gave way to studies on craftsmen, style and patronage in the last decades of the twentieth century.
within these populated settings, than the accumulation of knowledge.\footnote{See I. Gier ed. “Sbornik materialov dlya statistiki Syr-Darinskavo oblasti” in Izdanie Syr-Darinskago oblastnogo statisticheskago komiteta 7 (Tashkent, 1899), and N. Ostroumov. “Madrasy v Turkestanskom krae” in Zhurnal ministerstva narodnago prosveshcheniya 7/1 (1907).} By the first decades of the twentieth century, Russian engineers had begun to repair selected monuments in the conquered cities of the region, leaving most of the urban fabric surrounding these monuments to decay.\footnote{E. Allworth. The Modern Uzbeks - From the Fourteenth Century to the Present (Stanford: Stanford Univ. Hoover Inst. Press, 1990), pp. 210 - 31.} Central Asia also became the focus of the activities of several Orientalist scholars, archeologists, and art historians, and to a somewhat lesser level, of bounty hunters and manuscript scavengers. Over the following decades enormous quantities of cultural artifacts from Central Asia were moved to other parts of Russia, and elsewhere, occasionally for research and study, and often included in museum and private collections.\footnote{This included large and small artifacts, including parts of buildings (especially inscriptions). Also, while this process of looting ‘trophies’ from Central Asia gained large momentum in the early twentieth century, it was well under way in the Czarist times. See E. Allworth. The Modern Uzbeks - From the Fourteenth Century to the Present, pp. 213 - 16.}

In contrast, this period also witnessed several Soviet scholars, such as V. Barthold, who in their pioneering studies on the history of Central Asia, laid firm foundations for future research on monuments and cities.\footnote{Academician V. Barthold (1869-1930), was among the most distinguished representatives of the Russian School of Oriental Studies. He modestly called himself a specialist in the history of Central Asia, although his works on various problems of Oriental Studies have retained significance till present day. These extremely large number of studies are notable not only for their deep insights, but also for the broad scope of the problems studied, geographically going far beyond the boundaries of Central Asia. Barthold’s complete works (Akademik V. Barthold sochineniya or The Collected Works of Academician V. Barthold), were published in 9 volumes, under different titles. The most prominent among these are Turkestan Down to the Mongol Invasion (Vol. 1, 1963).} Barthold may be said to have founded the trend of
urban studies in the Soviet period combining Oriental studies with archeology. In addition to documentation and reports on individual buildings, these included speculative writing on the ancient cities of the region, based on archeological remains, histories and still-extant urban environments. With the revolution of 1917 came the formation of special expeditions to record monuments, and teams of engineers and archaeologists to restore the important monuments in these settings.\textsuperscript{34} The pre-Second World War period was extremely productive, under the leadership of such men as Masson and Zasypkin, followed in the post-war years by Bretanitskii, Rempel, Shishkin, Pugachenkova and many others. By the 1960s and 70s, younger Soviet scholars began to specialize on limited groups of monuments, or on specific aspects of architecture or urbanism, such as formal and spatial typologies, construction materials, methods of planning and complex ensembles of buildings (\textit{kosh}). (Figure 7) Restoration and conservation proceeded hand in hand with archaeological investigation. Many individual monuments and urban sites were thoroughly investigated and published. Unfortunately, few publications included the original drawings and plans, and those plans published often had no scale and orientation. Studies also tended to omit documentation, or cited sources that were inaccessible outside the former Soviet Union. Finally, most of the site work remained at the level of careful documentation and reports, leaving little scope for critical and comparative work over the larger region of Central Asia. While a literal barrage of scholarly research and information was produced in the Soviet era and still continues to be published in the post-

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and The Historical Geography and History of Iran (Vol. 7, 1971), which are frequently referred to in this dissertation.
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\textsuperscript{34} For an interesting account of one such restoration see R. Graefe. “A Wandering of Masses, Principle Sukhov. The Realignment of a Minaret in Samarkand” in \textit{Daidloos}, 37 (Sept. 1990), pp. 40 - 43.
Figure 9: Prior to the Arab Invasions, the region of Sogdiana had a rich culture. Foremost of all, it was home to a well-developed trading community that was known over a large part of the medieval world. This wall fresco shows rich merchants from Afrasiyab (located north-east of present day Samarqand), dated between the seventh and eighth centuries.
Figure 10: Plan of Samanid Bukhara in the ninth and tenth centuries, showing the grid-core and organic-accretive expansion of the city beyond its walls to create the extensive *rabad* area beyond the central core, on all its sides.
Soviet period, almost all of it was, and is still predominantly written in Russian.35 Translations of texts are scarce and lacking, preventing most foreign scholars from doing research. This situation is compounded by the fact that the several unpublished excavation reports on cities in the ancient and medieval periods, undertaken by research institutes in Central Asia, are extremely difficult to obtain and read. Also, access to the several archeological sites spread across the Central Asian Republics is limited to a select few scholars, belonging to the circle of official institutes.

In effect, there were no comprehensive publications or catalogues discussing the architecture of Central Asia until Golombek and Wilber’s publication came into the

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picture in 1988.\textsuperscript{36} Even this particular work, with its large concentration on the architectural monuments of the Timurid period, left the impressive urban environments of the region out of the picture. Till date, a detailed catalogue on the cities of this Central Asian region is still lacking, even though several individual studies and monographs exist, consisting of photographic documentation or based largely on reports of archeological expeditions. It should also be noted that in most of the studies on Central Asian cities undertaken by Soviet scholars, these cities were called either feudal or medieval depending on the period concerned, with little critical concern given to how they served as representative examples of Islamic urbanism, or related to a hypothetical “Islamic city” model, howsoever contentious the elements of such a model may have been.\textsuperscript{37} Soviet historical circles held that the so-called “medieval” cities of Central Asia were consistently part of feudal society from the 6th century until the October Revolution in 1917 and considered them to be of the typical Oriental city type whose development was completely different from examples in Western Europe and Russia. In extension, the long feudal period was sub-divided into an early feudal period (6th to the 9th century), a high-feudal period (9th to 15th century), and a late-feudal period from the 16th century.

\textsuperscript{36} Pugachenkova’s publication in 1981 must be mentioned here, though this was by no means as elaborate as was required to explain the architecture of this diverse region. See G. Pugachenkova. 	extit{Chefs-d’œuvre d’architecture de l’Asie Centrale, XIVe-XVe siècle} (Paris: Presses de l’Unesco, 1981). For Golombek and Wilber’s work see L. Golombek & D. Wilber. 	extit{The Timurid Architecture of Iran and Turan} (Princeton: Princeton University Press, 1988).

\textsuperscript{37} Bolshakov appears to have been the few Soviet scholar to have raised the issues of comparing studies on the Islamic city with archeological reports on the Central Asian city. From among his several publications, results on the mentioned topics are discussed in O. Bolshakov. 	extit{Srednevekovyi gorod Blizhnego Vostoka, VII - seredina XIIIv: Sotsialno-ekonomicheskie otnosheniya} (Moskva, 1984).
Figure 11: Plan of the city of Bukhara showing the formal nature of its inner core (*shahristan*), the *ark* (also shown in the inset), its system of several protective walls, and urban spaces contained within the urban fabric. The Magoki Attar Mosque was (and still is), located at point marked 'A', signifying, as some scholars have attempted to prove, the site of an older fire-temple from the pre-Samanid or Samanid period.
onward; urban studies after the 1950s did not however adhere strictly to such periodization.38

Based on the reading of a large number of Russian sources that concentrate on urban historical research in the Central Asian region, two common themes of interest emerge, and these are considered as important springing points for the purposes of this research. At a first level, there is discussion on the general topographical characteristics of the Central Asian city in the period before and after the Arab invasions, and the complex morphology of the various parts of this urban model. A second discussion concentrates on the examination of the kinds of building types that comprised the *shahristan* and *rabad* of Central Asian cities in the pre-Islamic and Islamic periods, employing several of the assumptions on urban structure and morphology from the first part of the examination.

**Urban Topography in the Central Asian City**

The discussion on urban topography was first highlighted by Barthold, who suggested a tripartite division of the Central Asian city in the pre-Islamic and Islamic periods. These divisions were termed by Barthold as the *quhandidh* (*qala*, *hisar*), *shahristan* (its Arabic equivalent being *medina*), and *rabad* (corresponding to the Persian *birun*). In his terminology, the *quhandidh* meant ‘old fortress’ - usually situated either within or without the limits of the *shahristan*; the *shahristan* implying the ‘city proper’ i.e. the

‘internal city’; while the rabad was the settlement lying immediately outside the limits of the shahristan (also called as ‘the suburban settlement’ or the ‘commercial manufacturing suburb’). The whole complex of buildings and settlements in this particular zone of the city, as Barthold indicated, was called the balad in Arabic sources.\(^{39}\) Following Barthold, three years after his thesis on the physical layout of the Central Asian city, a similar picture was suggested by the Swiss scholar A. Mez, who found similarities between the Near Eastern and Central Asian city. Like Barthold, he also had three main components in his urban model, namely the quhandidh, madina and the ‘commercial city’ (kaufmannstadt), no doubt meaning the rabad.\(^{40}\)

Barthold’s (and later Mez’s) theses on the tripartite division of the Central Asian city is still accepted as valid in Soviet historiography, and critical research on medieval urbanism over the last few decades has constantly re-examined and expanded on it.\(^{41}\) Beyond the primary sources in Arabic and Persian that were employed by scholars in the first half of the last century\(^{42}\), by far the best evidence for the accuracy of these theses is provided by the many archeological excavations initiated in the cities of the region. Most prominent among these has been the ongoing project on the city of Penjikent (in present-day Tajikistan), a city that came into being at the juncture of the fifth and sixth centuries,


\(^{42}\) Barthold describes his sources towards his research in detail. See V. Barthold. Turkestan Down to the Mongol Invasion. pp. 1 - 63.
Figure 12: View of the urban space created around the Magoki Attar Mosque outside the southern gates of Bukhara. While this space was once part of the street system of the city; today sedimentation has caused the building to stand several feet below the existing grade.

Figure 13: (13.1) Reconstructed plan of the shahristan of Samanid Bukhara, based on the reworking of a nineteenth-century plan, and tracing the vestiges of the grid structure; (13.2) modified urban structure based on remains of the original grid.
Figure 14: Detailed view of the urban core of Bukhara and the ark, with major linkages and urban spaces (A: Magoki Attar bazaar; B: Registan located west of the ark; C: another public space (possibly a smaller Registan or public square?) located to the east of the ark, and west of the shahristan; and D: Kalyan Mosque ensemble and its urban space. [based on Barthold's illustration of Bukhara]
Figure 15: Sketch plan of Bukhara drawn by the author combining the aspects appearing in Narshakhi's *History of Bukhara* and Barthold's research. Clearly, the city had several urban spaces than are immediately apparent today, including a large maidan located southwest of the ark - shown as "M." Most of the important streets of the city emanated from the city gates of the urban core, leading to the several other towns of the Bukharan oasis. Finally, the rabad of Bukhara extended far beyond the innermost core, and was characterized by its numerous, densely populated suburbs separated from each other by extensive stretches of land.
and ceased to exist at some period towards the end of the third quarter of the eighth century as a result of the Arab onslaught.\textsuperscript{43} The uniquely undisturbed and preserved nature of this city, as it appeared just before its abandonment at this point in time, presents us with a classic case for the corroboration of Barthold’s original thesis. (Figure 26)

In its heyday, Penjikent consisted of three distinct parts - the walled *shahristan* measuring 13 ha; the expanding *rabad* occupying an area of 20 - 25 ha; and the citadel (*quhandidh*) situated outside the limits of the *shahristan*, to the north-west of the urban district.\textsuperscript{44} Penjikent’s layout, while having the same zones as those in Barthold’s nomenclature, presents a slightly different structure than the circular layout expected from the tripartite subdivisions. Besides being non-circular and non-concentric, that abnormally large areas were given to the *rabad* versus the *shahristan* zone, also raises the question if the former was merely a suburb of the main city or something more substantial. Finally, the question must be asked - was Penjikent’s layout the exception or the rule among urban foundations of this period? Some comparison with other important archeological sites in Central Asia, and particularly in the region known historically as Sogdiana, is possible here, though these sites are relatively more disturbed than Penjikent, and in many cases new urban foundations have closely followed the footprints of the old, thereby partially obscuring the evidence for a tripartite model. More definitive proof that Penjikent may in fact be considered an illustration of the general rule for the topographical structure of the Central

\textsuperscript{43} The first archeological expedition to Penjikent was sent in 1946, headed by Yu. Yakubovski until 1953, M. Dyakonov until 1954, A. Belenitskii until the mid-eighties, and presently M. Masson.

\textsuperscript{44} The city and excavations at Penjikent are discussed in more detail in Chapter 4 of this dissertation.
Asian city is obtained from the accounts of two Arab geographers of the tenth century, al-Istakhri (951 AD) and Ibn Hawqal (978 AD). In al-Istakhri’s descriptions of cities and urban settlements in the region of Fars in Iran, he writes:

“As for the strongholds husun of Fars, there are madinats among them, fortified by citadels hisn. Some of the husun are situated within the madina, while round it are the rabads; in some of them inside the madinats are the quhandidh; in inaccessible mountains there are citadels detached from the settlements. As for the fortified madinats, of these mention should be made of: Istakhr - it has a fortress surrounded by a rabad. Madina Kathah - it has a citadel and a rabad. Ab-Bayda - it has a fortress and a rabad. As-Samaq - it has a citadel, a rabad and a quhandidh. Iqlid - it has a quhandidh and a rabad. Qarya al-As - it has a quhandidh and a rabad. Shiraz - it has a quhandidh, which is called Qala Shah-mubadh Djur, a citadel but no rabad. Karizin - it has a quhandidh and a rabad. Kir - it has a quhandidh and a rabad. Iraz - it has a quhandidh and a rabad. Fasa - it has a fortress and a rabad. Darabdjird - it has a citadel and a rabad. Rubandj - it has a fortress and a rabad. Sabur - it has a wall but no rabad. Al-Djannadjan - it has a fortress but no rabad. Djiftah - it has a citadel hisn.”

In the above text it is significant that the Arabic term hisn is used on a number of occasions instead of the Persian quhandidh, an anomaly possibly explained by the construction of these urban fortresses during Arab rule, hence the use of a particular

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terminology to describe these new structures.46 On closer inspection, this might also imply a distinction perceived by these historians between the physical characteristics of the two structures - i.e. the quhandidh versus the hisn - how they were built and where they were positioned vis a vis’ the urban morphology of these cities. The tripartite urban scheme of cities put forward by Barthold appears to have been familiar to them, including its specific components, and most significantly, how the general scheme differed from one location to another. Correspondingly, two distinct variants of the standard tripartite model appear in the historical descriptions - the concentric model with the citadel positioned at the very center of the scheme, and the non-concentric model with the citadel (quhandidh) moved to one side of the urban district. It is clearly narrated in at least one case, that there was a citadel (hisn) built alongside an existing quhandidh, thereby implying that perhaps the older structure no longer performed its original function, or more significantly, that the modified layout of the city no longer facilitated the older quhandidh remain as a defensive structure. Finally, there is yet another important observation in the account above. On close reading, it provides a very clear picture of the three delineated zones of the city, almost misleading one to believe East Iranian and Central Asian cities on this period were virtual replicas of older cities in the region - which would be an unwarranted conclusion.

A view of how differently these cities had evolved is apparent from a further source of the same period. In the same year (982 AD) as this extract from Istakhri, who had in turn borrowed heavily from Hawqal’s earlier compendium, an anonymous Persian geography

- the Hudud al-Alam (The Regions of the World) - provided a somewhat confused picture of Central Asian cities.\textsuperscript{47} In its descriptions of the important cities in the known parts of the world - Spain, Byzantium and Russia in the west, Tibet and India in the east - the Hudud gave flattering accounts on the size, status and significance of Bukhara, Samarqand, Merv, Nishapur, Herat and Balkh within Central Asia. Regarding the extent of the urban territory in these examples, Bukhara measured 12 \textit{farsang} by 12 \textit{farsang}. Nishapur on the other hand, was merely 1 \textit{farsang} and had many inhabitants. Similarly, other cities were characterized either by their large populations, or by the large and walled urban districts (sometimes called \textit{shahristan}), that accommodated their populations. However, what is unclear is whether the description of Bukhara’s 12 \textit{farsang} by 12 \textit{farsang} included all of its parts (or zones), or were these merely the dimensions of the urban core of the city. Similarly, Nishapur’s 1 \textit{farsakh} appeared somewhat too small for a city as important\textsuperscript{48}, and leads one to conjecture on exactly what part of the city was being described in the account.\textsuperscript{49} Was the Hudud displaying an obvious confusion with


\textsuperscript{48} The \textit{farsakh} is a unit of measurement commonly used in medieval descriptions of these towns. Its exact length differs in different parts of the country according to the nature of the terrain, varying from three to four, sometimes six miles. Within the region of Khurasan, the local interpretation of the term was the distance that a laden mule could cover in the hour. Also, the \textit{farsakh} is Arabicized from the Old Persian \textit{parsang}, and supposed to be derived from pieces of stone (\textit{sang}) placed on the roadside - a historic unit of distance comparable to the league in the European context. The \textit{farsakh} or \textit{farsang} (\textit{parsang}) unit originated in Persia but was used throughout the ancient Middle East and Mediterranean. At it biggest, therefore, Bukhara measured 12 \textit{farsakh} or 72 miles square (!), as per the accounts of the Hudud.

Figure 16: Conjectural plan of Bukhara, as it appeared soon after the Arab invasions on the city. The formal delineation of the shahristan, city gates, citadel and urban spaces happened at this point in time. Most significantly, the main two intersecting streets traced the orthogonal geometry of the ancient grid structure of the core.
Figure 17: (top) View from Kalyan Minaret showing roof of Kalyan Mosque looking towards the *ark* at Bukhara. This view also shows the 'other' urban space that existed between the *ark* and the *shahristan* (the location of the two gates of the ark, as shown in Fig. 15, substantiates this claim).

(bottom) An 1890s view of the Bukharan *ark* and Registan space in front, with its bustling marketplace.
description and terminology for a city that varied from the usual model? Therefore, while
descriptions of the city into qala, shahristan and rabad (citadel, urban core and suburb)
were to an extent accurate, this nomenclature did not quite account for the evolution of
each of the three subdivisions as a well-developed feature of the Central Asian city.
Rather than mere physical subdivisions, the qala, shahristan and rabad now functioned
as separate entities within a larger context - not subservient to each other, as had been the
case in the pre-Arab city. Furthermore, each no longer necessarily preserved its
functional specialty, but was diversified to perform many functions - becoming a ‘mini-
city’ of sorts - all of these combining to form a larger urban region.\(^{50}\) The Hudud
therefore justifiably described strong qala, shahristan and rabad in each of the five
examples. This finding is significant in view of the fact that cities and urban centers in
the region of Iran and Central Asia had a very different character before the Arab
invasions. In the greatly expanded city created after these invasions, each of the
subdivisions had greatly elaborated, and now combined residential, commercial and
institutional areas, instead of the specialized functions mistakenly assigned to each. This,
in effect, created the rich, complex texture of the poly-centric city described by travelers
who passed through.\(^{51}\) Finally, this view is substantially supported by Masson’s
archeological excavations at the city of Termez, where it was found that the shahristan
survived even after the formation of the rabad.\(^{52}\) A further question then arises: were the
distinct terminologies provided by al-Istakhri and Ibn Haqwal to describe these cities

\(^{50}\) This is contrary to the functional specificity of the different parts of the ‘typical’
Islamic city provided in the accounts of several scholars over the past few decades. The
Appendix portion of this dissertation deals with this discussion at length.


completely justified, or do these reveal the use of older concepts to describe unprecedented developments?

In general, from the above accounts and the many excavations completed over the past decades, it appears that cities in the region of Central Asia around the ninth and tenth centuries were extremely large and spread out, in sharp contrast to the well-defined, contained nature of cities in earlier centuries. Prior to the Arab interventions, the few studied pre-Islamic towns had usually covered relatively small areas, and were fairly compact structures. The walls of early medieval Samarqand, by far the largest city in the region until the seventh century, enclosed a total area of 70 hectares, while smaller capitals like Penjikent, Maimurg (Kuldor-tepe), Abgar (Durmen-tepe), Kabudanjaket (Kurgan-tepe), the royal residence at Varaksha, and the self-governing urban community of Paikend, were on the average concentrated within areas of 20 hectares. Even at Bukhara, most estimates have kept the urban area within a 35-hectare limit in this

Figure 18: Two views of large urban spaces in Bukhara. (18.1) Space created in front of the Bukharan ark - called the Registan; (18.2) Urban space created by Kalyan Mosque and Mir-i Arab Madrasa ensemble at Bukhara.
Figure 19: A view of the Kalyan Mosque urban space in the 1890s - the contrast between the dense fabric of the city and these tightly demarcated spaces was a characteristic feature of the Central Asian city that appears to have developed early in the medieval period.
period.\textsuperscript{55} Spurred by the effects of the Arab invasions, in terms of the socio-economic changes it produced\textsuperscript{56}, Samanid cities on the other hand, spilled beyond their limiting walls and formed un-fortified agglomerations covering large areas of formerly rural territory. Estimates by contemporary geographers and historians on the city’s size were virtually impossible, for it was unclear where the urban area actually ended and the rural area began. Therefore, in all probability, it was the unprecedented size of these cities which was chiefly responsible for the differing nature of the accounts by the tenth-century historians, as illustrated above. Also, the so-called ‘centrality’ of organization that had characterized cities in the Middle East, and large parts of Iran, apparently no longer prevailed in Central Asia. No longer was the so-called urban core located at the geometric center of the city. In fact, in most cases, defining where the urban core begins or ends is impossible, not to mention the occurrence of multiple cores creating an extremely complicated urban morphology.\textsuperscript{57} (Figures 9, 22) In an urban landscape of such huge spread, and one equipped with multiple urban cores at various locations within its layout, fathoming the structure of the city as a simplified diagram was no mean task, especially for those who were traveling through these lands. The Mashhad manuscript of Ibn al-Faqih al-Hamadani provides dimensions of ninth century Samarqand, supporting this observation.


\textsuperscript{56} A detailed examination of the ramifications of the Arab invasions shall be included in Chapter 3 of this dissertation.

Figure 20: (20.1) Axonometric view of urban space created by Kalyan Mosque and Mir-i Arab Madrasa ensemble at Bukhara; (20.2) View of domed, chahar-su intersections within the covered bazaar at Bukhara, creating urban spaces along the street system of the city, connected to larger institutions.
“Samarqand is said to belong to the structures built by Alexander the Great. Its walls are
twelve *farsakh* in circumference. Within its limits are gardens, lands under crop and
mills. It has twelve gates. From gate to gate (the distance amounts to) one *farsakh*. On the
top of the wall there are towers with loopholes for battle. These twelve gates are (made)
of iron. Between the gates there is a lodging for watchmen. After you have passed the
sown fields you will come to the *rabad*. There are buildings and markets in it. In the
*rabad* the lands under crop occupy 10,000 *djarib*. One enters the city whose area takes up
15,000 *djarib*. This city has four gates. Then one enters the “inner city”. Its area amounts
to 2500 *djarib*. In it are situated the principal mosque and the *quhandidh* in which there is
the ruler’s dwelling. In this inner city there is an outflow canal.58

Based on al-Hamadani’s dimensions of Samarqand in this account, the walled perimeter
of the city, when converted to modern measures (if a *farsakh* roughly equals 6 km),
amounted to a total of 72 km. Hamadani’s dimensions in *djarib* are given in the table
below, and converted to modern measures (using square meters and hectares). This data
also shows that the “inner city” of Samarqand, its *shahristan*, occupied a substantial area.
In fact, at the very height of its explosive growth, the city appears to have compared well
with the Abbasid capital at Baghdad; its *shahristan* was only slightly smaller than at
Madinat al-Mansur. However, the area of Samarqand as a whole - the *shahristan* in
addition to the ‘suburban settlement’ i.e. the *balad* of the Arab sources - was two and a

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58 Quoted from Ibn al-Faqih al-Hamadani MS., al-Fasl: al-qawl fi Khurasan, by O.
Tsikitishvili. “Two Questions connected with the Topography of the Oriental City in the
Early Middle Ages” pp. 311 - 20.
Figure 21: Views of the dilapidated walls and gates surrounding the once-densely populated western *rabad* area at Bukhara. While these walls certainly performed a defensive function, at a more significant level this barrier checked the flow of the desert sands into the irrigated hinterlands that were located around the city. The neglect of these barriers in times of political strife caused a large part of the oasis, especially a large part of Bukhara west of the Registan, to return to the desert. The process may have started in the last few decades of the Samanid epoch, exaggerated as a result of political turbulences.
Figure 22: (22.1 to 22.4; Clock-wise from upper left-hand corner)
(22.1) Plan of Bukhara (about 9th - 10th centuries), showing some of the main
spaces of the city - the Rigistan or Registan (located west of the ark), the
Samanid Friday Mosque (between the ark and the shahrishan), the Friday
Mosque inside the shahrishan, and the Magoki Attar Mosque (outside the
southern gates); (22.2) Fragment of shahrishan plan in Bukhara, showing
modifications to earlier grid structure; (22.3) Irrigation systems of Afrasiyab
related to the urban infrastructure of the oasis; (22.4) Afrasiyab - excavation plan
of the site, showing extent of the earliest settlement.
half times smaller than the total area of Baghdad. Nonetheless, Samarqand in the ninth-century was still of considerable size. At a third level, Hamadani has left an interesting record of the dimensions of the area taken up by the land under crops in the ‘suburban settlement’, or rather the city-*madina*-itself, as the Arab geographer calls it in this particular case. This constituted exactly two-thirds of the entire quarter of the *rabad*. This would imply that the built-up character of the *rabad* would have been spotty, dense conurbations of residential quarters interspersed, as it were, with cultivated districts, as in the case of Baghdad. Finally, the topography of Samarqand was to an extent identical with that of Baghdad. The only difference was that the ruler’s *quhandidh* was found within the limits of the *shahristan* of Samarqand, whereas at the Madinat al-Mansur, the caliph’s residence and palatial complex occupied the center of the composition. (Figure 5)

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59 While it is useful to make this comparison to illustrate how large the urban sprawl of Samarqand may have been, some scholars have also attempted to compare the development of the Central Asian city with the Middle Eastern city, particularly Baghdad. In this reference, Tskitishvili writes, “…Baghdad too, with its Madinat al-Mansur *al-mudawwara* (the round city), numerous *rabad* and markets, unquestionably appears to be tripartite. The difference in the topography …consists only in that in the center of Madinat al-Mansur, instead of a *quhandidh qal a-hisar-hisn*, there is a palace encircled by a wall with various structures for special purposes.” See O. Tskitishvili. “Two Questions connected with the Topography of the Oriental City in the Early Middle Ages” p. 315.


| Area of the city (shahristan) | 15,000 | 20,490,000 | 2,049 |
| Area of the city under crops | 10,000 | 13,660,000 | 1,366 |
| Area of the “inner city” | 2,500 | 3,415,000 | 341.5 |

Obviously then, the most important aspect of Barthold’s study of the Central Asian city at this point in time was the *rabad*. The development of this feature should be seen as having occurred over a larger geographical region encompassing Central Asia proper and the region of Eastern Iran (earlier called Khurasan). Prior to the Arab invasions on the region, the city had been made up of only three parts or zones, delineated by two sets of walls, namely the *qala*, *shahristan* and the *balad*. In the ninth and the tenth centuries (the pre-Samanid and Samanid eras), this model was radically altered by the addition of a new zone - the suburb or *rabad* - an area where the most important activities of the city were transferred. While Barthold and a number of other scholars believed this suburb or *rabad* to be a mere extension of the city, or suburbia growing beyond its walls, Scerrato, writing several years later, believed that it presence indicated yet another historical dimension which archeological research had identified. He proposed that the *rabad* - which virtually became a city after the first waves of sub-urbanization - attracted administrative and governmental offices as well. This could have been possible only if it became part of the nerve-center of control in the pre-Samanid and Samanid city, attracting activity from the
traditional core of the city. The *rabad* was indeed a new addition to the structure of the Central Asian city in this period; it was the virtual antithesis to the notion of a city as a densely-built up area contained by a wall.

While Bukhara and Afrasiyab (later Samarqand), saw phenomenal growth in this period, this pattern was also true for the other important cities of the region. At Merv, the *ark-shahristan-rabad* tripartite plan no longer held, since in the tenth century, the “true” and prosperous city of Merv - also called the “mother of all cities in Khurasan” by al-Muqaddasi - was essentially the area contained in the elaborate *rabad*. The *ark* at Merv - a defensive structure established in the earlier period - was now reduced to a watermelon plantation, and the *shahristan* - once the district of the greatest population - was almost completely abandoned. Extensive suburbs now stretched along the banks of the many canals of the great Murghab river which criss-crossed the entire urban region. In these suburbs were located the important civic institutions of the city, and attesting to their significance, among the three Jami Mosques in Merv, only the first, the Jami of the Bani Mahan, stood within the original *shahristan*. The second, called the Masjid-al-Atik or ‘the Old Mosque, stood at the gate opening to the Sarakhs road, at the westward Bab-al-Madinah; while the New Mosque of the Majan suburb was outside this gate, where the great markets of the city were to be found. At Nishapur, which was also built on a similar scheme, the main administrative center and the commercial life of the city were in the

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63 For cities in the early period located in Central Asia, see B. Lavrob. Gradostroitelnaja Kultura Srednej Azii (Moscow: Gosudarstvennoe Izdatelstbo Arxitekturii u Gradostroitelnstba, 1950), pp. 16 - 65.
Figure 23: (23.1) Afrasiyab/Samarqand area – schematic plan showing the extent of urban sprawl comprising the city and the rabad, between the 9th and 12th centuries. (23.2) Afrasiyab/Samarqand and the great extent of its suburbs (rabad) surrounded by the outermost wall, within the region - between the 9th and 12th centuries.
This was also the case with the Balkh oasis, which was at one time surrounded by long walls for protection against nomadic invasions. The total length of these walls is given as twelve *farsakh* in total circumference, an indication of the immense size of the oasis, and its sheer density of settlement. By the time of the Arab domination, however, these walls no longer existed, and the city appears to have shrunk considerably, or rather became differentiated into specific areas which were concentric in organization. The settled area was divided, like the other towns mentioned, into the town itself (the *madina* or Persian *shahristan*), and the suburb (*rabad*). Significantly, however, no citadel (*kuhandiz*) is mentioned in this period, indicating that either one did not exist at all, or else that the older structure, which still existed in some form, was probably being used for the same purpose, and did not attract special comment. It is also highly likely, that like Merv and Nishapur, at Balkh too the administrative functions of the citadel had now been accommodated by the elaborate *rabad*.

At this point, in the absence of archeological excavations on the site of the Balkh oasis, Barthold made some conjectures on the urban subdivisions of the city. Using the model provided by the other, larger towns of the region, he formed the view that at Balkh too, the innermost part of the city - the *shahristan* - was surrounded by its own special wall. In addition, he used the word *rabad* to describe the area between this inner wall and the outer wall of the town, though the term itself originally seemed to denote this outer wall. We may extend this conjecture further on the basis of the little information that we have concerning the history of individual cities, especially the relatively detailed information

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65 V. Barthold. *Turkestan Down to the Mongol Invasions*, p. 78.
by Narshakhi on the urban topography of Bukhara in the tenth century. It became apparent to Barthold, therefore, that the *shahristan* was in fact the earliest part of the town of Balkh, serving as the virtual anchor for the foundations of cities around it in the course of its history. It appeared to have originated at the time of the exclusive domination of the landed aristocracy, while the representatives of the merchant and artisan classes lived in the *rabad*, where the markets were also concentrated. As the landed aristocracy declined, and the merchant-artisan class rose, life shifted more and more from the *shahristan* to the *rabad*. The creation of the *rabad*, and the massive migration of population to it owing to the increased sense of security outside the urban walls, evidently produced a very different kind of city from one which had existed prior to the Arab invasions. No longer was it concentrated about a single point or area. With the creation of the *rabad*, usually an uneven growth that dominated a small part or all of the city’s periphery, the older center or core of the city no longer remained its only focus. Several, if not many centers, developed at various locations within the *rabad*, each one concentrating about a group of public institutions and possibly an urban space. The public center, as it were, actually stretched and spread out to create an unprecedented poly-centric city, obviously reconfiguring the public-private relationships in radical ways by restructuring the patterns of land-use; thereby residential areas became partly commercial, commercial areas residential and partly institutional, and major linkage arteries cut through residential districts changing their intrinsic character.

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Figure 24: (24.1) Samarqand and the Shah-i Zinda Complex - built at the southernmost edge of the city of Afrasiyab, within the area of the so-called *rabad* district. (24.2) Plan showing the largest extent of the urban district of Afrasiyab and Samarqand.
Figure 25: (25.1) The Shah-i-Zindah Complex at Samarqand, which was once part of street system of Afrasiyab, based on excavations; (25.2) An outdoor equestrian festival in Afrasiyab, looking towards the ruins of Samarqand, 1890.
This also meant that communities from within the city migrated out in large numbers, and vice versa. That such changes did really happen within the urban environment of a large city, such as in Bukhara, is seen in one particular neighborhood of the city. This was a part of town to which great importance was attached in the eighth century, and where the Kash-Kushans, rich-merchants of foreign extraction, had retired after Qutaybah’s conquest of the town in 721 AD. Tomaschek writes that they were descendants of the Kushans or Hepthalites, who gave up their houses in the shahristan to the incoming Arabs and built for themselves 700 castles amidst gardens elsewhere, and settled their servants and clients there, so that the population of the new town rapidly exceeded that of the old. The locality received the name of the “Castle of the Magians” (Kushk-i Mughan), and here for the most part were to be found the temples of the fire-worshippers.

Social unrest in the Samanid period, associated with the escalation of land prices in the part of the city occupied by the Kash-Kushans, appears to have led to the destruction of most of these palaces. In Barthold’s view, building material, especially idols from the castle gates, were reused in the construction of the Friday Mosque in the city. Based on Narshakhi’s descriptions, Barthold sites the Kushk-i Mughan near the Gate of the Street of the Magians, locating it in the north-western part of the town.69

Character of the Structures of the Central Asian Shahristan and Rabad

In addition to the description of the physical topography in the Central Asian city, Soviet historiography has dealt extensively with the character of the structures that comprised

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69 V. Barthold. Turkestan Down to the Mongol Invasion, p. 108.
the *shahristan* and *rabad*, particularly those in the cities of Bukhara and Penjikent. Until the early decades of the last century, textual sources such as Narshakhi’s *Tarikh-i Bukhara* led Soviet scholars to conclude that the *shahristan* of pre-Arab Bukhara (and consequently of others cities) was characterized by large, farmstead-type, fortified structures and houses with plots attached to them. This so-called “farmstead theory” was advocated by A. Yu. Yakubovski, Lavrov and Sukhareva. However, it was opposed by Veronina, based on the results of the archeological excavations carried out at Penjikent, and later by Belenitskii, both of whom categorically rejected the farmstead character of structures in the Bukharan *shahristan*.

On closer examination, however, while there is presently little excavated evidence for the existence of farmstead-like structures in several Central Asian cities, there have been found in the area of the *rabad*, versus the *shahristan*, certain very large structures, combining residential and commercial functions! These structures are called *ribats* by scholars, and their fairly extensive existence is historically well-illustrated in the case of the city of Paikend. In the words of Narshakhi, there seem to have been a very large number of such structures outside the city gates of Paikend. Structures similar to the

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71 “Baikand (Arabic for Paikend) is considered a city and the people of Baikand do not like anyone to call Baikand a village. If a citizen of Baikand goes to Baghdad and is asked from whence he comes, he replies that he is from Baikand and not from Bukhara. It has a large grand mosque and prominent buildings. There were many *ribats* around the gate of Baikand till the year 854 - 5 ... The reason for this is that Baikand is an exceedingly fine place. The people of every village built a *ribat* there and settled a group. They sent them their living expenses from the village. In the winter, when the attacks of the infidels occurred, many people from every village gathered there to attack [the
ribat, but performing a defensive function, are also documented through Pumpelly’s study of the numerous castles or kurgan dotting the area around the city of Merv oasis. Ascribed to the era of Arab rule in Central Asia and beyond, these constructions dot the countryside for a space of fifty miles from north to south and forty miles from east to west, forming one of the most significant features of an otherwise unmarked landscape. A brief reconnaissance indicates that the old cities of Merv were surrounded by a dense suburban and the presumably agricultural population, clustered around these kurgan - which created a dense rabad district. Teeming villages were supported by the Murghab river, not only in the districts presently under cultivation, but also in regions at present waterless. These suburbs would have in all probability accommodated the large populations boasted by cities such as Merv. Most of these kurgan were built almost entirely of sun-dried mud bricks, and consisted of old houses and palaces, rectangular forts with very thick walls, round towers protecting the fields and villages, and old canals guarded by miles of walls flanked with square towers.72

Free-standing castles or rural settlements of this kind within the rabad, partially fortified and significantly isolated from the main city wall or at a substantial distance from it, were not accidental developments. Their existence and continued use and re-building, even until the pre-modern period, indicates that they had an important role to play within the area of the rabad. Also, in contrast to the period prior to the Arab invasions, now it appears that fortifications were no longer required, nor did they perform their traditional

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role of defending the city against attack. Barthold has, on the basis of early Islamic sources, shown that city citadels in this period were sometimes even abandoned completely, already seen at Merv and Balkh. Therefore, beginning with the Samanid period, while no new fortifications were built around *shahrastan*, the older ones were neglected and allowed to fall into disrepair. In Paikend, where city walls had been constantly strengthened and restored during the last three centuries of the pre-Islamic period, minor repairs to the fortification were done only once and in one place through the Samanid period, positively dated to the ninth century or later. Furthermore, no Samanid fortification has been found in other Sogdian cities up to that date, with the exception of one area of repair to brickwork on the citadel wall at Afrasiyab. The picture appears striking in contrast to the earlier periods, when constant repairs and enlargements led to the appearance of walls which were ten or more meters thick in practically each and every city of the region.73

In contrast to these fortified structures found in the *rabad*, archeological excavations investigating the *shahrastan* areas of some cities have uncovered a different tissue type. An outlying eastern area of the Penjikent *shahrastan* measuring 3 ha appeared to be compactly built-up, with three regular meridional and latitudinal streets, two of which were 5 meters wide and one only 3 meters wide. The two distinct kinds of private dwellings within this system were the aristocratic house, and the substantially smaller craftsmen's house. Each aristocratic house was entered through an arched doorway that

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Figure 26: (26.1) The Shah-i-Zindah complex with its narrow winding streets, believed by scholars to be the southern part of Afrasiyab; (26.2) General view of Samarqand from the Afrasiyab hill.
opened on the street on both sides of which would often be a row of shops and workshops. The dwelling was organized around a large, two-storied, reception hall, sometimes 80 sq. meters in area (860 sq. feet), equipped with benches along the sides. This hall was covered by terrace roof supported by four carved wooden columns, in the center of which opened a lantern. A spiral ramp in a stairwell led to the upper rooms, which included a small salon, possibly reserved for the women, which opened on the exterior by a window with small columns (frescoes also show corbelled balconies). Frescoes embellished these halls, which served as settings for banquets, worshipping the family deity and recital concerts of legends and epic sagas. Some researchers have claimed that the smaller rooms adjoining this reception space were chapels with fire-bearing altars, but they may simply have been heated winter rooms. The craftsmen's houses on the other hand, though considerably smaller in size and scale, often had reception halls and painted walls on a more modest scale. In contrast to the larger houses, the spaces here were vertically stacked spaces and connected by flights of steps.74 (Figure 26)

Finally, the so-called “quarter” constituted a very complex entity within these cities. If it is not unreasonably anachronistic to project backwards on the basis of information obtained from Islamic documents, it may be conjectured that the fundamental unit of settlement was the fortified village (called the dih, rustaq, or the qurya). These appear to have existed in such profusion as to constantly amaze visitors to the province of Central Asia. A group of such villages made up a rural district (sometimes termed as the kura),

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and a number of districts in turn formed a canton (*nahiyya*). It was not uncommon for the *nahiyya* to have an “urban” center of some sort, really a large village, from which it would take its name. The “quarter” therefore consisted of several cantons clustered around a large central “city.” Thus the “Nishapur quarter,” for instance, really referred to the city, surrounded by at least a dozen cantons, each of which might contain hundreds of individual villages. One must be constantly aware of this structure, since it is not always clear from the sources whether the term “Nishapur” (or any other), refers to the city proper of that name, the entire area identified by its ‘biggest’ component, or some part of the hinterland.

While finding out the exact nature of the grid in these cities, particularly the *shahristan*, may be somewhat premature, considering the state of archaeology in the region, there may be yet another way to discern its underlying presence. A closer examination of the residential tissue located within the grid-iron system reveals that the now largely-invisible grid extended deeper than mere surface. It influenced the actual plan forms and architecture of buildings within the urban fabric, and the nature of public spaces created between them. The now-demolished Madrasa Bughara Khan, within the Shah-i-Zinda complex built by the first Qarakhanid ruler of Samarqand around 1050 AD, and the surviving Rabat-i-Malik, situated near Kermine on the ancient road connecting

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75 R. Frye. *The Golden Age of Persia*, pp. 107 - 9. Several scholars (including E. Daniel) have followed the terminology suggested by Yaqt, but it is not uniformly applied in other sources. The Farsnamah, for example, implies that the *kura* was a larger unit, which Frye links with the Persian *ustan*. The theory of the tripartite division of the city was developed in several works by Barthold.

Figure 27: (27.1) Penjikent - General plan showing citadel located to the west of the main *shahristan* (with main bazaar street running NS, temple complex, and residential clusters); (27.2) Penjikent – Reconstruction of the main temple square; (27.3) Penjikent - Axonometric of excavated main monumental complex.
Figure 28: (28.1 to 28.5 anti-clockwise from top left)
(28.1) Paikend - shahristan 2 showing checkerboard plan organization of the urban district, main avenue and citadel; (28.2) Paikend - Excavated plan of buildings arranged along the main avenue of the city (running about EW); (28.3) Paikend - shahristan 2, excavation of supposed pharmacy building; (28.4) Paikend - Caravenserai, plan; (28.5) Paikend - Citadel walls, 3rd and 4th centuries (top); Citadel walls, 5th century (middle); shahristan 2, towers from 5th and 6th centuries (bottom).
Samarqand and Bukhara, built in the tenth and eleventh centuries, are good examples.\(^{77}\) (Figure 23) So too are residential dwellings from the Kushan period excavated at Taxila, Pushpkalavati, Mathura and Penjikent. While obviously pre-dating the Arab invasions on Central Asia by several centuries, they are nevertheless valuable implying that the grid-iron structure in the pre-Samanid and Samanid period had its origins in the Kushan period, or was its faithful reconstruction.

With the changes caused by the Arab invasions, Sogdian and pre-Islamic cities grew in number. The great increase in urban population caused a marked densification of the urban fabric, changing the character of these cities to a substantial extent. At Penjikent, one-storied houses of the fifth century were replaced by two or three-storey buildings in the sixth and the seventh. In the course of the seventh century, the open spaces between buildings and yards were largely eliminated, while by the eighth century, the upper stories of the houses were extended on cantilevers over the streets, creating the phenomenon of fully-covered lanes.\(^{78}\) Despite land pressures within the shahristan, suburban housing within the *rabad*, on the contrary, did not form a continuous fabric. Excavations by the Moscow Museum of Oriental Art have showed that at the well-preserved environs of Durman-tepe, a large city in present-day Uzbekistan, there were about a dozen castles and strongly built manor houses. Similar conditions are also


It must be remembered, moreover, that in the ninth and tenth centuries a sharp distinction was not drawn between the *shahristan* and the *rabad*. The latter, when it existed, was not, as has been seen, a true suburb, but rather a part of the city itself, often set within the walls, as in Samarqand. The focal points of these cities were the market places, surrounded by the shops of the artisans and merchants and the *caravanserais*. The main streets of the city (*shahristan*), laid out in a uniform network, centered on these squares. The number of main streets varied depending on the size of the city and the density of its population. Nishapur is presumed to have had more than fifty, while at Bukhara only an estimate can be made by an analysis of the nineteenth-century city, as proposed by Belenitskii. Scerrato believes that the streets were often broad and well-constructed, and almost all of them were paved in stone, as at Samarqand and Bukhara. Next to the market place was situated the most important building of the city - the mosque. The other administrative buildings of the city were usually, though not always, located on another square.80

**Focus of Research in this Dissertation**

“The country of Samarkand is about 500 miles in circumference and broader from east to west than from north to south. The capital is six miles or so in circumference, completely

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enclosed by rugged land and very populous. The precious merchandise of many foreign countries is stored here. The soil is rich and productive and yields abundant harvests. The forest trees afford a thick vegetation and flowers and fruit are plentiful. Shen horses are bred here. The inhabitants’ skill in the arts and crafts exceeds that of other countries. The climate is agreeable and temperate and the people are brave and energetic.”

*(Xuanzang, Buddhist Records of the Western World, AD 646)*

In light of this background, two themes are proposed in the investigation covered in this thesis. The first is consideration of the evolving physical structure of Central Asian cities in the three centuries that immediately proceeded the Arab invasions and analysis of them through evidence gained from reports of archaeological findings, interpretations of primary literature and writings from the ninth and tenth centuries, and other secondary sources. The four cities to be examined in detail will be Bukhara, Afrasiyab-Samarqand, Penjikent and Paikend. Centrally, the research will propose to examine the hypothesis that a new early, medieval “urban type” developed in the Central Asian region between the seventh and tenth centuries, which was markedly different in several of its formal and spatial characteristics from the older cities and settlements of the region. In most of the built examples, this urban type or model would have been essentially a re-working of pre-existing, indigenous urban settlements from the pre-Arab period. In some examples, elements of the pre-Arab past would have been apparent in their entirety, re-interpreted as new urban elements, but in other cases, these would exist merely as vestiges guiding the overall restructuring of each city. The first level of inquiry therefore will include an
investigation of those aspects of urban form from the pre-Arab past which were retained or rejected, and those that were modified and re-used; the new aspects that were introduced, and the kinds of new cities that were created in the process.

At a second level, the thesis will be concerned with evaluating the consistency of a single, characteristic urban model of Central Asian cities in the early, medieval period. It will begin by delineating the essential characteristics that are proposed for a hypothetical, new urban type, debating to what extent each one was a unique development, and how the effective combination of several of these features produced an urban environment vastly different from the pre-Arab city. At this level, it will utilize the existing studies in the literature dealing with the form and structure of early Islamic cities (amsar) and East-Iranian cities, to reveal contrasting sets of characteristics. Since most scholarly works on the cities of the Islamic world written between the early part of the twentieth century and present day have essentially conflated descriptions of specific cities or regional variants through a general model (the so-called “Islamic city”), this process would significantly demonstrate how even the few studies on Central Asian cities have been seriously affected by these generalizations. Simply put, no longer can Central Asian cities be slotted or categorized by employing the largely reductive, general model of the Islamic city. This documentation hopes to demonstrate that a more specific model, incorporating specific characteristics of cities within the region would be more appropriate in this respect.
At the micro scale, the first of the specific characteristics of Central Asian cities to be established in the thesis will be that specific urban spaces were created in the city. It will be established that most major crossroads, junctions and culminations within the urban district were marked or signified by means of such urban spaces. Through time, these acquired an increasingly formal character, and while this formality was sometimes created through the size and shape of the space itself, in other instances, the location of important public buildings on or around them was instrumental in their creation. While the exact nature of public buildings around urban spaces differed in a number of examples, certain structures remained constant. Of special note were buildings that performed civic functions at the urban scale. The ark or citadel, for example, in the majority of cases had a registan space fronting it. Alternatively, or in addition, several of the main mosques and madrasas of the city seem to have had an urban space associated with each of them. Finally, the most important, or central part, of these cities, its ‘navel,’ was frequently marked by a vaulted, multi-directional structure, called the chahar-su. (Figures 16, 17, 18, 19)

As a second micro-characteristic, Central Asian cities of the early, medieval period were clearly demarcated into three or more frequently four zones - the qala, the shahristan, the rabad and the balad. In contrast to the east-Iranian or Islamic antecedents of these cities, these triple or quadruple-zoned arrangements were not necessarily concentric. In studying

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While urban (public) spaces within Central Asian cities have been frequently documented and described by scholars, the evolution of these spaces has rarely received detailed treatment in scholarly writing. In any case, more importance appears to have been attached to the achievements of the Timurid and post-Timurid period, possibly owing to the visible buildings from this era. For the early period, see N. Nemtseva. “Istoki kompozitsii i etapy formirovaniya ansamblya Shakhi-Zinda” pp. 52 - 53.
them, the dissertation will assemble the evidence that the qala or citadel, which typically moved to the west (north-west) of the shahristan, was separated by an open space from the main city. Finally, it will be shown that the triple or quadruple-zoned arrangement of the city was not just conceptual. It is clearly described in literary accounts as defined by specific walls - the qala wall, the shahristan wall, the rabad wall and the balad wall. (Figures 14, 20)

On a macro-scale, vastly deviating from the popular notion of the Islamic city as a disorganized, non-orthogonal accretion in quarters, there is the overwhelming proof of the existence of grid-planning in several Central Asian cities. The fidelity of adherence to the grid varied from case to case. While it appeared largely complete in some foundations, thereby a determinant for the overall shape of the city and the distribution and size of its urban blocks, in others, it permeated only part of the overall structure. It will be shown that, in all the main cities certain ‘main streets’ and the resulting block systems were gridded, while other parts of the city followed different systems of organization, sometimes grids at slightly varied orientations. These partial or complete grid systems also affected urban patterns and building types within the urban contexts. Further, that the orthogonal plan-forms of certain building types, such as the mosque, the madrasa and the caravanserai, conformed to the uniformity demanded by the grid system. That, additionally, urban spaces within the grid system also evolved to become largely geometric, thereby requiring orthogonally-organized plans for the buildings that fronted them.
At the same time as the manner in which the grid served as an organizational device in these cities is being investigated, it will be also shown how its very integrity underwent change, and that several of the urban foundations were gradually modified from relatively ‘unbiased’ grid systems to networks of spaces connected by linkages of varying character: that this trend was accentuated by the tendency of cities to move or grow out beyond their walls, typically towards the west. Certain parts and zones of the original foundations appear to have been virtually abandoned in this process. Finally, the survey will show how the original foundations, each of which had been characterized by having an inner core with habitation at the center (monocentric), were gradually modified to become foundations having multiple-cores, or in other words poly-centric in nature (habitations of the center and the peripheries). At a detailed level, the investigation will study the repercussions of these changes and how they included the addition to each of a suburb or rabad during the ninth and the tenth centuries (the pre-Samanid and Samanid eras), causing a radical modification to the earlier model of each city, thereby transferring the most important activities of each city to the rabad. Further, that some of the most elaborate examples actually contained several shahristan transformed to become rabad, and multiple other rabad.
CHAPTER 2

URBAN AND REGIONAL FRAMEWORKS IN CENTRAL ASIA BEFORE THE ARAB INVASIONS

Figure 29: View of the remains of numerous cities in eastern Iran seen from the sky (see upper left-hand corner), confirming the hypothesis that Iran and Central Asia were densely inhabited urban-regions in the early-medieval period.

“If you have nothing to tell us but that on the banks of the Oxus and the Jaxartes, one barbarian has been succeeded by another barbarian, in what respect do you benefit the public?”

2.1 Geographical Overview: Central Asia as composed of Sogdiana, Bactria and Khwarazm

The region of Central Asia was by no means culturally homogenous through the course of its history. Its enormous size and varied physical subdivisions created distinct conditions and peculiar developments that affected each of its areas. (Figure 28, 29) For the purposes of this research, it would be useful to begin by defining the historical core of Central Asia, a region known as Transoxiana.¹ This was a term coined by scholars to account for the location of this region beyond the River Oxus as one approached it from the classical world of Iran, more specifically from its northeastern province of Khorasan. The Oxus (or Oxiana) River, a Latinized form of an ancient Iranian word, was known to the Arabs as Jayhun. It is known today as the Amu Darya (literally the Amu River), based on a local variant, Amu, and the Persian word for lake or sea, darya, borrowed by Central Asian Turkic with the connotation of river. The region of Transoxiana began east of the Oxus and extended even further eastwards to meet the second, though relatively minor lifeline of Central Asia, namely the Jaxartes or the Syr Darya. However, despite the connection of the Amu and Syr Darya with this term Transoxiana, and the enormous significance of the two rivers in sustaining the culture of the region since ancient times, the historical center of gravity of Transoxiana lay elsewhere. This was along a third river of the region called the Zarafshan (literally “gold-strewing” in Persian).² The Zarafshan,

¹ For the purposes of this research, I shall be mainly concentrating attention to urban developments in the core of Central Asia, essentially Transoxiana and the immediate region around it. This would include both sides of the Amu and Syr Darya, as well as briefly the oases of the Taklamakan desert of present-day Xinjiang.
² G. Le Strange. The Lands of the Eastern Caliphate, p. 446.
like the Amu Darya, originates far to the east in the Pamir Mountains\(^3\), then flows further
to the west, first in its own valley between the protrusions of the Pamirs called the
Turkestan and Zarafshan ranges, then through the central lowlands of present-day
Uzbekistan. While it ultimately appears to head for a junction with the Amu Darya itself,
instead it disappears into the sands of the Kyzyl Kum desert.\(^4\) Irrigation derived from the
Zarafshan has supported dense agricultural and urban settlements since antiquity, and
existing cities like Samarqand and Bukhara (Uzbekistan), or archeological sites such as
Penjikent (Tajikistan), are only the best known examples. In addition to the Zarafshan,
several smaller streams such as the Kashka Darya also rise in the southern watershed of
the Zarafshan range, flowing southwest and westwards, somewhat parallel to the
Zarafshan, towards the Bukharan oasis, but again disappear before reaching it. The
Kashka Darya has, in turn, nourished historical places such as the Timurid Shahrisabz
(Kesh), and Mongol Karshi (Nasaf).\(^5\) In cumulative effect, through the combination of
pockets of great fertility (oases) created by the Oxus, the Jaxartes, the Zarafshan, and
their several smaller tributaries, Transoxiana was therefore a fertile and an important

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\(^3\) Barthold states that the name Zarafshan (Zarafshan) is not found in historical texts prior
to the eighteenth century, so the original name may have been different. V. Barthold.
Turkestan Down to the Mongol Invasions, pp. 82 - 83.

\(^4\) Some scholars are of the view that the Zarafshan was once a tributary of the Amu Darya
itself, but now ends in a marshland south-west of Bukhara, without reaching its former
Tauris, 2001), pp. 6 - 8. Frye, however, states that this marshland is what remains of a
wide delta created by the Zarafshan and the Amu Darya in ancient times. See R. Frye.
The Heritage of Central Asia - From Antiquity to the Turkish Expansion (Princeton: Markus Wiener Publishers, 1998), p. 23. This should be seen with reference to a larger
map of Central Asia, and its possible waterways in antiquity. See the research proposed
in the early 1900s by Pumpelly. R. Pumpelly. (Ed.). Explorations in Turkestan -
expeditions of 1904, Vol. 1 & 2. (Washington: Carnegie Institution of Washington,
1908).

\(^5\) Useful atlases for the countries of Central Asia include the Atlas Uzbekskoi Sovetskoi
Sotsiallisticheskoi Respubliki (Tashkent-Moscow, 1963). Also see R Frye. The History
of Ancient Iran (Munich: Beck Verlag, 1983), pp. 5 - 6.
region, a literal gateway, bridge and bottleneck that lead to the three fascinating worlds that lay beyond its borders - Greater Eurasia, China and India.

In addition to demarcating the southern limit of Transoxiana, historically the Oxus River also represented a strong physical border separating Iran from Central Asia - a point of concern all those who desired to cross to the other side, including Alexander the Great, the Sasanian monarchs, the Turks and Arabs, and even the units of the Red Army in the early nineteenth century. At another level, it also served as a line of distinct demarcation for the socio-cultural milieu of the populations on either side, a difference that persisted conspicuously through the course of Central Asian history. It is from this river that the entire surrounding tract, extending from the Amu to the Syr Darya (the Oxus to the Jaxartes), appears to have received its name. It was recorded by Darius in his inscriptions as Sugdam or Sugda, with the Avestan and Greek equivalents as Sughdha or Sogdiana.

Therefore, the people who inhabited the area came to be known as the Sogdians, while the Zarafshan River itself came to be called the Soghd.

Scholarly research over the last few decades has made it evident that the Sogdians had resided in Transoxiana for several centuries prior to the Arab conquests. They spoke an Iranian tongue, for Sogdia, like much of Central Asia prior to these invasions, was an Iranian-speaking region. While their language (called by some scholars Sogdian), is now

8 Regarding Sogdiana, Jacobson also mentions that Aristobulus called this river as the Polytimetus, but its ancient native name was the Soghd. H. Jacobson. An Early History of Sogdiana, p. 6.
extinct, scholars believe that one trace of the rich culture of the Sogdians still survives in the toponomy of the several towns in the region, whose names end in -kent, -kand, -kat or other variants of this Iranian word meaning “town”. Appropriate examples are Penjikent, Uzgend, Samarqand, Numijkat (the original name for Bukhara), Tashkent and Yarkand.9

Another vestige of this original culture is the fact that a sizable component of the population in certain pockets of Central Asia is still Iranian-speaking or bilingual Iranian-Turkic (although some time after the Islamic conquest a shift occurred from Sogdian to Farsi, the language of Fars, a province in southern Persia, which developed into modern Persian).10 That the Sogdian culture was still intact in the tenth century, and to some degree assimilated into the practices and beliefs of Islam, is attested by the accounts of contemporary Muslim geographers who called the country (Sogdiana) the Bilad al-Sughd (Land of the Sogdians), and the Zarafshan river as the Wadi al-Sughd (Sogd river). As mentioned earlier, the Arabs used the term Mawarannahr (“That which is beyond the river [Jayhun]”), for the region of Transoxiana, also following the same psycholinguistic process. Correspondingly, by employing the Syr Darya as a demarcation line marking the northern limit of Transoxiana, all of the land that lay outside this domain was the Turkestan or the Bilad al-Turk - the abode of the Turkic nomads.11

9 Regarding the survival of the Sogdian language, in the 1930s, Soviet researchers discovered that the inhabitants of several villages in the remote Yagnob Valley of Northern Tajikistan still spoke the ancient language, surviving as a dialect descended from Sogdian. Known as Yagnobi, this is a language spoken today by around 2000 local inhabitants. J. Tucker. The Silk Road: Art and History (Chicago: Art Media Resources, 2003), p. 269.
10 S. Soucek. A History of Inner Asia, p. 5.
11 S. Soucek. A History of Inner Asia, p. 25.
If Transoxiana was the geographical and cultural core of Central Asia, then southeast of it lay the historical territory known as Bactria, sandwiched between the Hisar range of mountains that ran south and parallel to the Zarafshan range and the Hindu Kush Mountains of Afghanistan. In contrast to its northern and southern boundaries, the delimitation of Bactria on the east and west is less clear-cut, though one important feature has earned special mention in several accounts. This is the so-called “Iron Gate,” which was a defile located about half-way between the cities of Balkh and Samarqand (about 3 km west of Derbent at the Buzgala in Uzbekistan) that broke the low mountain range extending from the Hisar range southward toward the Amu Darya. This ancient passageway connected Bactria and Sogdiana, and was used by conquerors, ambassadors, pilgrims and merchant caravans. Its name was more than a mere legend - an actual gate reinforced with iron is supposed to have existed there, erected by the Kushans to protect their empire.12

Figure 31: The Arab conquest of Iran, Soghd, Ferghana, Chach, Khwarazm and Semirechye, resulting in the control of some of the richest and most important cities of the medieval Islamic world.
Figure 32: (32.1) Excavation plan of the city of Penjikent (present-day Tajikistan); (32.2) Reconstructed temple structure located at the center of the city of Penjikent; (32.3) Excavation of an unidentified structure at Penjikent.
Figure 33: The city of Penjikent - excavations of the palace located on the site of the citadel (north-west of the city). The citadel in this case is separated from the urban district by a deep gully, similar to several other urban examples from the same period.
Like Sogdiana, Bactria was home to a sophisticated urban culture, attested by the presence of a large number of cities, including several urban foundations established by Alexander the Great. Of these, Bactra was most prominent as the capital of ancient Bactria; it became the Balkh of the early Islamic centuries and flourished as an important urban center until its destruction by the Mongols in 1221. It eventually recovered, but since the end of the fifteenth century has had to yield primacy to the funerary sanctuary of Mazar-i Sharif, located a short distance to its southeast. The originally Iranian Bactria came to be known as “land of the Tokharians,” or Tokharistan in the early centuries, as a result of this group’s migration into its territory. Unlike their kinsmen who settled in northeastern Sinkiang and asserted their ethno-linguistic individuality at Turfan, Karashahr and Kucha, the Tokharians of Bactria, memorable as the people who played a leading role in the creation of the Kushan Empire, became Iranized in Bactria without traces of their original identities. Today the region of Bactria corresponds to northern Afghanistan, southern Tajikistan and southeastern Uzbekistan and Turkmenistan.\textsuperscript{13}

Northwest of Transoxiana and bordering the Aral Sea lies the region called Khwarazm. Historically, Khwarazm, like neighboring Sogdiana and Bactria, was better defined by its core than by its limits. The lowermost course of the Amu Darya and its sprawling delta estuary fringing the southern shore of the Aral Sea was essentially the core of Khwarazm, and was since ancient times home to a flourishing agricultural and urban civilization,

\textsuperscript{13} While a detailed discussion on Bactria is beyond the scope of the present research, it was critical in terms of the foundation of some of the oldest cities of Central Asia, following the invasions of Alexander the Great. See W. Tarn. The Greeks in Bactria and India (Cambridge: Cambridge University Press, 1966); G. Woodcock. The Greeks in India. (London: Faber, 1966).
typically Iranian in its style and character. Medieval Khwarazm functioned as an important commercial link between Eurasia, the Middle East and Russia, for it was through it that the most important trade routes between the three worlds passed. This trade was further stimulated by the Islamization of Central Asia and the rise of Urgench as the chief city in the region from the tenth century onwards. Caravans carrying merchandise from and through Central Asia struck out across the broad plateau between the Aral and Caspian Seas known as Ust-yurt (“elevated ground” in Turkic), and headed towards the Volga river. Other traffic headed for the broad Mangyshlak peninsula on the Caspian coast, where they boarded ships for the presumably less arduous maritime voyage towards the Volga. These caravans communicated with the Turkic qaghanate of the Khazars at Itil and later with the Bulghars at Bulghar (near the later Kazan).

Two other regions - Ferghana and Khorasan - which also surrounded Transoxiana throughout its history should be mentioned here. Ferghana lies east of Transoxiana, and is a valley of roughly elliptical shape, enclosed by the Tianshan and Pamir mountain ranges on the north, east and south. This valley is crossed by a river called Naryn along its upper course in Kyrgyzstan and then, after it has crossed the Uzbek border and received the Kara Darya, it becomes the Syr Darya. Ferghana could also be considered as included in the expanded region of Transoxiana, since it lies to the north of the Amu Darya. Like Sogdiana, Khwarazm, and several other regions of Central Asia, Ferghana has been a land of an ancient agricultural civilization nourished by the several streams descending from the surrounding mountains with the Syr Darya and Kara Darya being the most

prominent. Ferghana was colonized early by the Sogdian merchants, who traveled through the valley on their way to China and Mongolia. Today the greater part of Ferghana lies within the easternmost province of the republic of Uzbekistan, except for some fringes shared by neighboring Kyrgyzstan and Tajikistan.

The province of Khorasan (literally “Land of the Rising Sun” or “Orient” in Persian), lies to the south of Transoxiana. In pre-Islamic and early Islamic times, Khorasan was an important region and had in pre-Islamic and early Islamic times a large area comprising central Turkmenistan and northwestern Afghanistan, including the important cities of Nisa, Merv, Nishapur and Herat. In the Middle Ages, several of these cities lay on the Silk Road’s trunk routes linking Sinkiang through Samarqand with points further west, as well as routes going to Bactria, India, Khwarazm and Russia. Khorasan was the focus of the Arab invasions prior to Transoxiana, and in several ways set the stage, as it were, for socio-cultural developments elsewhere. The name Khorasan still exists today but is restricted to the original territory’s south-western segment as Iran’s province of Khorasan (Ustan-i Khorasan, with Meshed as the capital).

In conclusion, while the traditional center of Central Asia - Soghd or Sogdiana - was defined as the region sandwiched between the Amu and Syr darya, and dominated by the city of Afrasiyab (later Samarqand), at a more significant cultural level, it extended

17 S. Soucek. A History of Inner Asia, pp. 9 - 10.
Figure 34.1: Afrasiyab - view from the mounds of the old city towards the present-day site of Samarqand, focusing on the Registan square. This same view would have existed between the seventh and eleventh centuries, with the city of Afrasiyab extending beyond its southern walls to culminate in a market square, which scholars have now identified as the site of the future Registan.
westwards to the oasis cities of Bukhara and Paikend, east to encompass a substantial portion of the Ferghana valley including the city of Penjikent, northeast to the area of Chach (present-day Tashkent), and beyond to Semirechye in the foothills of the Tianshan Mountains.

### 2.2 The Merchant Empire of the Sogdians

“Men of Sogdiana have gone wherever profit is to be found.”

*Xin Tangshu* (New Tang History)

Sogdiana’s long history is replete with the accounts of the continual conquest of the region by several armies, all attracted by the unique potential of the region as a veritable bridge to diverse cultures, and by its resilient and sophisticated urban culture. None, however, held Sogdiana for very long, particularly owing to the unique political status of the region - that of not belonging to any single power or dynasty. The first among the conquering armies were the Persians of the Achaemenid Dynasty (559-330 B.C.). The inscription of the Emperor Darius I (522-486 B.C.) at Bihisutun (dated 6th century B.C.) counted Sogdians among the subjects of the kingdom, and Sogdiana comprised the areas of Khorasmia (Khorasan), Parthia and Aria in the 16th Imperial Satrapy. After the destruction of the Achaemenids by Alexander the Great (336-323 B.C.), Sogdiana was one of the regions which boldly opposed the Macedonians, evidence that it was among

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the important players in the politics of the region. Finally, Alexander subjugated the region and married Roxane, daughter of the local chief Oxyartes. At his death, the Macedonian Empire broke up, and Sogdiana was briefly incorporated in the Greco--Bactrian kingdom, but was soon to become an independent state, though constantly submitting to the incursions of nomadic populations. As a consequence of an intense period of migration, Central Asia and Northern India now passed under the control of the enigmatic Kushans (circa 50 B.C. to 250 A.D.), a dynasty originating from today’s Gansu region in Western China, which adopted the Iranian language of Bactria written with the Greek alphabet, and which protected Buddhism. The Kushans were in turn destroyed by the Sasanids of Persia (224-642 A.D.), who occupied the territories of Bactria and Sogdiana. The Sasanids were defeated by the Hephtalites (mid. 5th to mid. 6th century A.D.), another nomadic population; they killed the Persian Emperor Peroz (459-484) and took Sogdiana. Meanwhile, in the period between 563 and 568 A.D. an alliance was formed between the Persian Emperor Khusrow I (531-579) and the Qaghan of the Western Turks Istemi (circa 553-576), that completely destroyed the Hephtalite kingdom; they shared the dominions of the defeated enemy - Bactria going to the Sasanids and Sogdiana to the Turks. Under Turkish rule, Sogdiana entered the golden period of her history and was practically independent, creating conditions for the unprecedented development of the region over the next few centuries.

Beyond this brief overview of her early turbulent history, Sogdiana within Central Asia was unique in ways that must be examined at some length if we are to obtain a comprehensive picture of the region at this point in time. First and most important was
Figure 34.2: (Figures above - left to right) Location of the city of Afrasiyab on an isolated mound; the delineation of the urban district into discernible zones - the qala, shahristan and rabad (labels A, B, C & D show how these zones were not mutually exclusive - therefore C is both the shahristan and the rabad). (Figures below - left to right) Basic layout of street system within Afrasiyab, and the connection of the walled urban district of the later city of Samarqand (located to the south-west and demarcated by a dotted-line); Afrasiyab located within a larger urban district including a hinterland of substantial spread, and contained by an external wall. [Based on Belenitskii's illustrations]
the de-centralized nature of the Sogdian political organization, a direct contrast to the centralized rule that had been prevalent among the imperial Kushans and the Sasanians a few centuries earlier. Frye has characterized Sogdiana similar to the Greek city states, which wielded enormous control over the immediate territory surrounding the city. In the Sogdian context, the power and influence of the landed aristocracy (dihqan) in their fortified villas was a force to reckon with. In addition to the dihqan, this included merchants and heads of guilds of craftsmen, all of whom approached the landlords in power and influence, and certainly in wealth. Correspondingly, Sogdian merchant dwellings in Penjikent, Samarqand and in other cities of this time were typically large and impressive, displaying an unexpected opulence for inhabitants of small cities.\textsuperscript{20} This was in sharp contrast to the hierarchical divisions of Sasanian society by profession, which had relegated merchants to the bottom of the “lower” rung, even though commercial activity was regarded as a necessary and legitimate pursuit.\textsuperscript{21}

At a second level, the Sogdians were the most important trading power in the region of Central Asia. With the Late Roman-Early Byzantine and Sasanian empires to its west, the Russian steppes and Perm region to its north (the so-called “Fur Road”), Bactria and India to its south, and China to its east, Sogdiana was ideally located to establish the vast trade network that allowed its citizens to serve as prime middlemen facilitating the exchange of goods, as well as ideas, from one civilization to another.\textsuperscript{22} Thus, from at least the third century AD., Sogdian merchants were traveling regularly to and from the

\textsuperscript{20} R. Frye. The Heritage of Central Asia, p. 185.
\textsuperscript{22} J. Lerner. “The Merchant World of the Sogdians” in Monks and Merchants, p. 222.
Upper Indus River region (present-day Pakistan), where they met their Indian counterparts arriving from Kashmir and the lowlands of Gandhara. Their activities are documented in inscriptions and graffiti in northern Pakistan.\(^{23}\) Also significant are the paintings at Bagh and Ajanta in Central India, where the individuals dressed in caftans, boots and pointed caps may well have been Central Asians and more precisely Sogdians. Trading also occurred with far-flung areas such as Ceylon and along the maritime trade routes that linked India to Canton (Southern China). In the Bangkok Museum, Buddhist reliefs testify to the presence of Sogdian donors bringing gifts to the Buddha.\(^{24}\) Further eastwards, hectic trade activity was established in Xinjiang and China proper by the early fourth century AD., as attested by the so-called Ancient Letters, dating to 311 AD., and by contemporary Chinese chronicles. So conspicuous were the Sogdians that the Khotanese applied the term *suli* (Sogdian) to any merchant, regardless of his ethnic origin.\(^{25}\) Groups of Sogdian merchants also traveled to other cities of Central Asia to form colonies in these locations. Westwards, another important trading colony in Crimea (Ukraine) was represented by Sugdaia (or Soldaia as she was known by Marco Polo),


\(^{24}\) The monk Kang Senghui, who is credited with introducing Buddhism to southern China, came from a Sogdian family that had settled in India; his father was a merchant in south China, where Senghui was born. See P. Bagchi. *India and Central Asia* (Calcutta, 1955), p. 39; and P. Bagchi. *India and China: A Thousand Years of Cultural Relations* (Calcutta, 1981), p. 45.

whose name betrays her obvious origins. The process increased significantly after the Turkish conquest of the region. The Turkish *qaghan* appears to have employed the Sogdians as diplomats for trade with the other powers in the region, and the Sogdian language became a sort of *lingua franca* along the Silk Road. Byzantine chronicles record that in 568 A.D. a Turk-Sogdian delegation lead by a certain Maniakh reached Constantinople in order to obtain permission to trade and eventually to form an important anti-Persian alliance. Finally, under the Tang Dynasty (618-906 A.D.), the Chinese defeated the Western Turks and between 650 and 675 A.D rendered Sogdiana a protectorate. However, this too was merely a nominal act and the region remained practically independent, functioning exactly on the patterns of its past. In essence, the Sogdians’ overlords, whether nomadic mercenaries, Hephtalites, Turks or Tang, supported their mercantile activities by making the roads safe, as successful trade greatly benefited them all.

At a third level, among the most important characteristics of Central Asia, especially true of Sogdiana in the seventh century A.D. was the tolerance of many religions coupled with a native, local form of Zoroastrianism. In this sense, Frye believes that Central Asia was radically different from Sasanian Iran, where Christianity had made great strides by about


Figure 34.3: (Top – left & right) Plan of Afrasiyab in the vicinity of the future city of Samarqand, separated from the surrounding landscape by deep irrigation canals. Grayed area shows the location of the so-called street of mausoleums – now the Shah-i Zinda complex – considered to be once part of the dense street system of ancient Afrasiyab. (Bottom) Afrasiyab, Samarqand and the extensive, surrounding hinterland with its several smaller settlements, none as large as the two ‘core’ cities.
Figure 35: (35.1) The Sogdian city of Varaksha, located in the Bukharan Oasis, west of the city of Bukhara. (35.2) General view; bottom – corridor (street?) between urban sectors.
600 A.D, while the Zoroastrian state church with its many rituals had been frozen. Effectively, Sogdiana in Central Asia had done away with the centralized and hierarchical church as found in Iran.\(^\text{28}\) A parallel may be drawn here with the late Roman Empire before Constantine. In both cases, aside from the adherents of universal religions such as Christianity, Judaism and Manichaeism, there was a general respect for the local pantheon of gods and goddesses. In addition, certain tutelary deities in certain localities would receive special worship from the local inhabitants, while in some cases a private cult of the local ruler could assume the proportions of a state cult. The Sogdian religion also appears to have synthesized religious practices from geographical areas around it. These ranged from several rituals, festivals and cults (including that of the souls of ancestors or *fravashis*) from Iran and representations of the Goddess Nana on a lion from the Saka rulers of India to nomadic funerary lamentation ceremonies, reminiscent of the Ashura ceremony of Shiite Iran. However, Buddhism’s impact on Sogdiana is still a matter of some debate. Some scholars argue that for reasons still unknown, it failed to attract the pragmatic, prosperous merchants of Sogdiana, versus the tremendous popularity it had gained in China, Bactria and elsewhere in Central Asia.\(^\text{29}\) Others regard it as an intrinsic part of Sogdian civilization, proven by many surviving monuments from the ninth and tenth centuries.\(^\text{30}\)

All these factors appear to have had important ramifications on the nature of cities and settlements in Sogdiana. First, it made individual cities in Sogdia extremely powerful, thereby actually compromising an attempt towards creating a larger solidarity of cities or

\(^{28}\) R. Frye. *The Heritage of Central Asia*, p. 188.
city-states within the region. (Figure 30, 31) Several of the largest urban centers of the region, including the ones selected for the purposes of this research, held numerous smaller ones within their cultural and economic hegemony, often within the confines of the same oasis or irrigation network.\textsuperscript{31} At another level, while it is true that substantial cross-cultural exchange and active trade occurred between the individual cities of the region and beyond, these developments were in no way legislated by a centralized body of control or practices. This was especially true during and between periods of outside rule, when the number of city-states significantly increased, and they grew especially decentralized, with an elite of knightly landowners lording over large, irrigated estates, and rich merchants who were on a social par with the knights. Though some scholars have likened this social and political situation to that of feudalism, this may be an exaggeration. There was little stability in succession of rule, and it would seem that the community, or some segment of it, had a say in the selection of rulers. Bukhara, for example, had no ruler, but a group of individuals who made the important decisions. In the case of Penjikent, the city had its own income and own officials. Sogdian society thus displayed a highly developed economy but a weak state system, with little centralization. It was this lack of centralization that made the area especially vulnerable to the attack of the Arabs, yet adaptive to change once the status quo had been settled once and for all after the invasions. At another level, the relatively autonomous nature of cities within Sogdiana had ramifications for the physical character of these cities. For one thing, the more important cities (or virtual city-states), were large, frequently encompassing huge geographical areas, containing within their gamut urbanized pockets, farmland and rural

Figure 36: The region of Ustrushana had several cities in the medieval period (sixth - eighth centuries). Shown here is a reconstruction of the palace of the *afshins* at the town of Kala-i Kakhana I. Scholars Veronina and Negmatov believe that the layout of the palace was very complex - composed of many rooms at multiple levels - but clearly planned. It appears to have opened out towards the town's *rabad*, a characteristic that would prevail in several other cities of the Central Asian region over the next few centuries. Significantly, the construction of such a large structure in the urban *rabad*, versus the core was an unprecedented development. See also, Figure 35.
Figure 37: Kala-i Kahkaha I. Reconstruction of the Palace of the *afshins* - Throne Hall, by Veronina

Figure 38: Chilhurja - a reconstruction of the Palace by Mamajanova
settlements, on the lines of urban conurbations. In addition, the lack of centralized authority produced a combination of a feudal and a merchant society\textsuperscript{32}, reflected in the occurrence of dense urban cores, which in turn were surrounded by a number of \textit{kushak} or castles, around which villages were clustered. Several sets of protective walls surrounded these developments, most patronized by private individuals.

2.3 Urban Culture in the Sogdiana region

Prior to the arrival of Islam in Central Asia, Sogdiana appears to have had a flourishing urban culture. This comprised of a complex network of large and small settlements, a trend that extended to its several immediate neighbors, including Khwarazm, Ustrushana, Ferghana, Chach and Ilak. While scholars have debated on the exact beginnings of this development, through archeological excavations it has now been established with some degree of certainty that some of the oldest settlements date to the sixth or fifth centuries B.C.\textsuperscript{33} Within this scenario, settlements such as Kurgancha, Sad-tepe and Lolazar on the right bank of the Amu darya, appear to have been the basis of the urban layouts of future cities on the same sites. Others smaller settlements actually combined to create urban conurbations, while a few others appear to have vanished completely and are known today only through their archeological remains and descriptions. Many of these settlements and cities went through phases of growth, enlarging several times from their initial size to accommodate the increased populations, then undergoing alternate shrinkage and expansion to accommodate the dynamics of their changing populations.

\textsuperscript{32} R. Frye. \textit{The Heritage of Central Asia}, pp. 185.
The period beginning with the third and fourth centuries AD seems particularly important in this respect. At Samarkand (called Afrasiyab in this period), for instance, urban-rural migrations around the fourth century were followed by the construction of the so-called “second wall”, enclosing an area of 66 hectares, built inside the perimeter of the ancient wall of the capital city. In this case there were apparently not enough people to defend the old wall, which was almost 6 km long.\textsuperscript{34} By the fifth century, these changes had resulted in the reduction of the territory of Afrasiyab by one-third, and the development of a large necropolis (2 - 3 ha) on a site formerly occupied by urban districts.\textsuperscript{35} The stabilization of life within the new, considerably smaller limits of Afrasiyab was marked by the construction in the late fifth or early sixth century of a defensive system of two parallel rows of walls with two deep ditches. Simultaneously, after a decline lasting about half a century, the citadel was restored, as evidenced by its surviving kushak.\textsuperscript{36} It has been suggested that this new fortification system of Afrasiyab, marking the revival of the city after its profound decline, might have been built at the same time as a fortified line of long walls (\textit{Kampir-duval}) that defended the entire domain of Soghd in the region of Afrasiyab.\textsuperscript{37} Whether the \textit{Kampir-duval} defended the region against nomadic intrusions, functioned as the limit of a socio-economic zone (as a political border in the present-day


\textsuperscript{36} T. Lebedeva. “Keramika Afrasiaba V - VI vv. n.e” in \textit{IMKU}, no. 23 (1990), pp. 160 - 68.

context), or marked the edge of the oases settlements, are possibilities still only partially researched. (Figure 32, 32, 32)

Located within the region of ancient Sogdiana, Afrasiyab was evidently no ordinary city. Based on available evidence, most of it again archeological, scholars have suggested that it served as the grand capital and emporium of the entire Soghd region.\(^{38}\) Through its history, it appears to have been legislated through some form of centralized government, though there are two diametrically opposed views suggested here. The first has confirmed the existence of a ruler, supported by a legend of a Soghd preserve called “Paradise” by the Greeks and known in Iranian languages as \textit{basista}.\(^{39}\) Numismatic evidence from the third and second centuries B.C., on the other hand, has led some other scholars to suggest that the “great socio-political potential of society”\(^{40}\) or the level of Central Asian society in the second half of the first millennium B.C. equaled “the late stage of primeval communal system.”\(^{41}\) Both of these pictures allude to the critical division of society, so imperative to the very existence of this city on its strategic, isolated, location on a hilly plateau and accentuated by the deep streambeds that separated the city from its surrounding terrain. There appears to have been considerable effort and organization of

\(^{38}\) This is discussed at length in G. Shishkina. “Ancient Samarqand: Capital of Soghd” in \textit{Bulletin of the Asia Institute} 8, pp. 81 - 99.


labor to level the rim of the plateau before the line of defensive line of walls could have been built, measuring a huge 5.5 km in circumference and attesting to the enormous spread of the city.\textsuperscript{42} Apparently, so large was the domination of the central city of Afrasiyab over its surrounding region, that there was no other settlement that could indeed be called a city within a radius of 20 - 30 km from this urban center, and the towns that encircled it were markedly smaller in their overall areas (17 - 28 ha).\textsuperscript{43} (Figure 33 - A, B) Also, in contrast to Afrasiyab’s explosive growth, these smaller, nevertheless significant cities grew at a relatively slower rate. Penjikent, located 60 km east of Afrasiyab, measured 13.5 hectares without its citadel, while the overall urban district of Bukhara (also without its citadel), measured a substantially larger 34 hectares.\textsuperscript{44}

By the seventh century, therefore, the city of Afrasiyab had expanded to cover almost the entire plateau of its site, with a total area of 219 hectares, an increase of almost 350% from the earlier period. In fact, the economic growth was so rapid that it appears that the new urban fortifications, put up in the early sixth century, soon became inadequate to protect the city. The old urban districts of the earlier periods were now revived, and because room to build new urban quarters was desperately needed, the

\textit{nauces} of the necropolis that had occupied the site where the ancient city had previously stood were destroyed and moved outside to new locations. Quarters with houses for aristocrats were erected on the recently deserted areas. At this point in time, yet another third defensive

\textsuperscript{43} G. Shishkina. “Ancient Samarqand: Capital of Soghd” in Bulletin of the Asia Institute 8, p. 89.
Wall was also constructed around Afrasiyab, though the exact history and reasons for it construction are still not completely researched. It enclosed a part of the ancient city’s territory south of the fortifications of the early medieval city. Scholars have suggested that most likely its construction was connected to the rise of the city soon after the completion of the double ring of defenses in the late fifth or early sixth century, when the rapid increase of population in the old deserted urban territory of the city had not been foreseen. This new wall would have also enclosed the portion of urban sprawl that had spilled outside the defensive walls.

2.31 Khwarazm

Afrasiyab shared its unique settlement patterns with its several neighboring regions, first among these being Khwarazm, which lay west of Sogdiana. According to Arab geographers, between the fifth and seventh centuries, Madinat al-Fir, the capital of Khwarazm, was the country’s largest and most strongly fortified town, the historian al-Baladhuri even comparing it to the city of Afrasiyab. It consisted of three parts surrounded by a moat - the al-Fir citadel, the old town and the new foundation. By the tenth century, the old town and citadel had been almost completely destroyed by the Amu darya changing course, and the new foundation grew into a town known as Kath. The presence of a similarly large citadel located within strong fortified walls was also seen at

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46 Al-Baladhuri. The Origin of the Islamic State, being a translation of the Arabic of the Kitab Futuh al-Buldan of Imam Abu-l-Abbas Ahmed ibn Jabir Baladhuri, translated by F. Murgotten. (New York: Columbia University, 1924), p. 188.
Hazarasp, another important town in Khwarazm, according to Balami; at the royal residence of Toprak-kala; at Berkut-kala; and at Ayaz-kala fortress. Berkut-kala also demonstrated a bi-partite subdivision of the urban area - one containing buildings occupied by craftsmen and organized around a market square; the other portion exclusively containing housing. At Ayaz-kala, distinct areas of the town developed into the palace and dwelling zones, alongside the citadel. Finally, at the royal residence of Toprak-kala - a town specially built to serve a large number of palaces - the layout of the town, which covered 17.5 ha, was marked by great regularity throughout its existence (second to sixth centuries). Archeological excavations have revealed five distinct urban areas - the “city”, citadel, High Palace, a suburban palace-temple complex, and a walled embankment.

2.32 Ustrushana

The region of Ustrushana was also closely linked to Sogdiana by its historical destiny and ethnic, linguistic and cultural history. It had originally been part of Sogdian territory, but thereafter developed its own unique identity as the area became increasingly urbanized. Ustrushana occupied a large area along the left bank of the middle reaches of the Syr darya, the foothills and gorges of the western Turkestan range, the headwaters of the Zarafshan river and along its two primary tributaries - the Matcha and Fan darya. Its rich agricultural and mineral resources, and its situation along the main trans-Asian route

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Figure 39.1: Berkut-kala, eastern Khwarazm. Castle structure from the fifth to seventh centuries - aerial view.
from the Near and Middle East to the heart of Central Asia, played a considerable role in its growing importance around the eighth century. In Ustrushana, by the early Middle Ages, new towns and settlements with the characteristics of the rising feudal system had replaced those of the ancient period. While this contrasted sharply with the massive cosmopolitan cities of the Sogdian mainland, in both cases a feudal-based, autocratic body appears to have legislated these cities. Within Ustrushana, during the seventh and eighth centuries, the old capital at Kurukada (Ura-tyube) was replaced by the intensive growth of the city of Bunjikat, located 20 km to the south of the modern town of Shahristan. Gradually, a new historical map of Ustrushana came into being, that divided the country into several rustak (regions), both on the plains and in the mountains, with important towns such as Vagkat, Mink, Shaukat, Kurkat, Havast, Savat and Zaamin, and relatively smaller country settlements centered on castles and estates (Ak-tepe, Dungcha-tepe, Tashtemir-tepe). Cities also appear to have combined with castle settlements in some cases. The suburbs around the capital at Bunjikat were a case in point. Here several noblemen’s castles with strong fortifications and elaborate architectural layouts, such as Chilhujra and Urta-kurgan, existed on the fringes of the city. (Figure 34)

2.33 Ferghana

In contrast to the economic and cultural upsurge that characterized the cities of Ustrushana, the region of Ferghana (Pa-khan-na in the Chinese sources), was in a different position. Here the trend encouraged the territorial disintegration of the country into a series of small regions and domains that experienced a markedly uneven development owing to turbulent political developments. From its control under a single, powerful ruler in the first quarter of the eight century, Ferghana came under the hegemony of two different rulers in 726 AD - the first subject to the Turks and controlling the north, the second subject to the incoming Arabs and ruling the south. Finally, 739 onwards, all of Ferghana came under the Turk Arslan Tarkhan.

While Ferghana contained several large and densely populated cities, its cities also had a clearly specialized morphology, and several changed radically in the few centuries before the Arab invasions. The city of Khujand, in the western part of Ferghana, on the banks of the Syr Darya, typified this period of great change and expansion. From the second to the fifth centuries, it had remained largely within the same territorial limits as during ancient times, its central nucleus occupying an area of approximately 20 hectares. During the sixth to the eight centuries, Khujand experienced a series of rapid growth and radical changes to its basic layout and fortifications. In this process, the eastern half of the old city was transformed into a new citadel approximately 8 hectares in area, using parts of the eastern and northern walls of the old city as foundations for the new citadel walls, while a western wall was built anew. Parts of the former city moat were left around the east and south walls of the new citadel, and at the foot of the west wall a new moat was dug. The ancient citadel was converted into the inner palace arc of the new citadel. Most
significantly, this medieval remodeling effectively transformed Khujand into a large city with three main distinct areas - the citadel, the town itself, and the commercial and craft quarter with a strong system of fortifications.\textsuperscript{54}

Khujand is mentioned in the Arabic and Persian sources in the second half of the seventh century and in the Tang shu description of events in the second half of the eighth century (chapter 221). According to Arab scholar Yaqut, it was incorporated at an early date into the domains of the Haytal (Hephtalites). During the 680s, it was first unsuccessfully raided by a detachment of Arab forces, and later involved in the Sogdian campaign against the caliphate in 721 - 22, when military action took place at the gates of the commercial quarter of the city, opposite whose strong walls the invaders’ catapults were set up. During the medieval period, the territory of Khujand had its own ruler, bearing the title of \textit{malik} (king). The territory was, however, not very large, and apart from the city of Khujand itself, it included the town of Kand and Samgar - both medium-sized cities with a citadel-castle, town of some spread, outlying buildings and civic organization; and several smaller settlements in the cultivated areas along the Syr darya and in the delta portion of Khujabakyrghan.\textsuperscript{55} Besides Khujand, two other important centers in Ferghana were Kasan - the first capital of Ferghana; and Akhsikat - located on the banks of the Syr Darya. Smaller cities during the seventh and the eight centuries included Ursat, Kuba, Osh, Uzgend, Bamkakhush and Tamakhush, some particularly important as trading posts owing to their proximity to the territories of the Turks.. Among these, the total area of


Uzgend was 20 - 30 hectares and consisted of three specialized urban zones - the citadel, the town itself (later the *shahristan*), and the commercial and craft quarter (later the *rabad*). Osh, also consisted of a *shahristan* with a *kuhandiz* and a *rabad*, was regarded as a large and beautiful city.

2.34 Chach and Ilak

Two other areas, namely Chach and Ilak (Shash in Arabic and Shi-Luo in Chinese), neighbored the region of Sogdiana, and gradually emerged as significant historical and geographical entities over the first half of the first millennium. Situated along the Parak and Ahangaran tributaries of the Syr darya, both came under the control of the Hephtalite state in the fifth century, thereafter incorporated within the western Turk Kaganate in 606 AD. The period between late second to the eighth centuries (known as the Kaunchi II and III, and Ming-uruk periods), appears to have been particularly significant for the growth of cities and settlements in Chach and Ilak. Scholars suggest that these sites showed two kinds of urban layouts - the so-called geometric and the amorphous. Towns of the first type were probably influenced by the ancient Central Asian urban cultures, while the second type reflected the semi-nomadic lifestyle of agricultural and stockbreeding economies indigenous to the region. The process of town-building was also accompanied by the general development of the region’s settled agricultural life, and scholars have observed a significant shift to sedentary farming practices, based on artificial irrigation and the building of protective dykes and small reservoirs. In addition to these changes that affected the several rural settlements (more than 250 have been identified), the fourth
to the seventh centuries also witnessed the growth of the important town of Chach, with its distinct citadel, ruler’s palace and *shahristan*.\(^{56}\)

### 2.4 Borrowing from the Past: Developments from Antiquity to the Sixth Century A.D.

This historical overview of urban developments in Sogdiana and its neighboring regions would be incomplete without an examination of the centuries of successive urban building and re-building that occurred in all the regions of Central Asia. This palimpsest of successive developments may be considered to have set the tone, as it were, for the form of the Central Asian city, and more specifically the Sogdian city, in the period before the Arab invasions. These developments also infused certain specific urban mechanisms within these cities, which continued to encourage them to grow in an unprecedented manner until the middle of the eleventh century.

The meteoric career of Alexander the Great appears to have left the first indelible marks in this process. Succeeding his father in 336 BC, he invaded Persia, defeated Darius III a few years later, and then moved swiftly eastwards with his huge armies, conquering one kingdom after another. This assimilation of new horizons and unknown lands into the Hellenistic domains caused mass migrations of populations away from the traditional

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Figure 39.2: The early Middle Ages complex near Ayaz-kala 2, between the fifth to seventh centuries. Labels on the figure -1. Palace; 2. Ayaz-kala 2; 3. Dwellings
Figure 40: The Ayaz-kala 2 with its fortified complex rising above the surrounding landscape.

Figure 41: The Ayaz-kala 2 site showing the ruins of the palace structure near the fortified complex.
It involved the adaptation of new habitats and locales to suit the needs of an existing socio-political economic structure; and in many cases the re-creation of a ‘familiar’ physical environments of the city or army-camp in a foreign land. Two urban models were perceived in the resulting developments of this period. The first was rooted in the long-standing Hellenistic traditions of Asia Minor and outstandingly exemplified by Attalid Pergamon - the ultimate monumentalization of the old, freely developing Greek city, with or without the benefit of the currently fashionable Hippodamiam practice. The other, represented in Greek cities established in the freshly conquered lands of Egypt, Syria and eventually Bactria, embodied the skills of “checker-board” or Hippodamiam planning while at the same time assimilating the indigenous cultural traditions of the conquered peoples.

Undoubtedly, this second kind of urban foundation, which embodied the physical attributes of an existing ‘type’; was not only easier to replicate and establish, but functionally more useful in its significance as an armed camp for a large traveling army, such as that of Alexander when it moved through the regions of eastern Iran and Central Asia. Moreover, it was a convenient method for setting up centers of Greek military and political authority in lands with a long, but largely alien tradition of urban civilization, which may not have suited the foreign conquerors. The city was the only thinkable Hellenic component of the creative dialogue between the East and West, and it was

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57 J. Pollitt. *Art in the Hellenistic Age*, pp. 1 - 16.
Figure 42: General view of the Toprak-kala archaeological site, looking towards the remains of the raised citadel, located on the northwestern corner of the rectangularly shaped city. The substantially preserved citadel shows the remains of Fire Temple and High Palace. However, there also existed another Palace-Temple complex outside the confines of the city, built on a comparative scale. This again brings up the relationship between the urban core and periphery.
Alexander's vision to creating a city in each territory he either passed through or conquered.\textsuperscript{60}

The region of Bactria was conquered by Alexander the Great in 327 BC and thereafter for more than seventy years remained under the control of his successors. Of the seventy or so legendary ‘Alexandrias’ founded by him, and the two score ‘Seleucias’ initiated by his commander of the same name, many, if not all, demonstrated clear characteristics of the Hippodamiam urban plan, embellished with interesting features of the local urban idiom.\textsuperscript{61} Some among these cities were Alexandria in Aria (Herat), Alexandria Prophthasia in Drangiana (Phrada), Alexandropolis (Kandahar), Alexandria in Arachosia (Ghazni), and Alexandria ad Caucasum (now identified with ancient Kapisa, modern Begram).\textsuperscript{62} While it is presently impossible to form even a rough estimate of the population of Bactria during the period of Greek domination, there is little doubt that its agricultural lands were peopled by a relatively prosperous peasantry, while the ‘the thousand cities of Bactria’ was a familiar phrase to Greeks all over the Hellenistic world. There is confirmation in the records of early Chinese travelers, such as Chang-kien, who in the second century BC was impressed by the fact that the Bactrians lived in ‘walled cities’. In this same account, we are told of the existence of seventy such cities in the outer province of Ferghana alone, and thereby it is likely that there were at least several hundred fortified places in Bactria proper in his time.\textsuperscript{63}

\textsuperscript{61} J. Ward-Perkins. Cities of Ancient Greece and Italy, pp. 20 - 21.
\textsuperscript{62} W. Tarn. Alexander the Great, p. 61.
Presently it is hard to imagine where so many ‘cities’ could have stood. Even Balkh, the modern Bactria, is today a mere shadow of the populous city of classical times, and most of the places which Greek or Chinese travelers described in antiquity have long been covered over by silt and shifting sand. The Hellenistic records themselves, though surprisingly scanty about information on Bactria, suggest that there existed at least a dozen cities founded by Alexander, the Seleucids and the Bactrian kings—all organized on the basis of the traditional Greek polis, which were undoubtedly centers of local culture with temples, theaters and gymnasia. There may have been twice as many military colonies in relatively marginal areas, retaining the native names of the villages on which they were based, and therefore not immediately recognizable as typical Greek or Hellenistic communities, though in the course of time they too may have grown into considerable towns. Even so, it would be virtually impossible to imagine more than fifty locations in the whole of Bactria which may qualify in any way as a city. One satisfactory explanation for the thousand Bactrian cities described by the Greek chroniclers is put forward by Tarn, who has suggested that under persistent threat of nomadic invasions from the east, the Bactrian kings organized numerous rural communities for self-defense, so that they became veritable fortified villages - not cities *per se* in the typical definitions of size and scale.\(^64\)

In the wake of Alexander the Great, the Macedonian Greeks, supplanting the Achaemenian Persians, had established an empire that extended from Syria to Central Asia and the Punjab. Overstretched, under-protected, the realm was constantly eroded by its subject peoples - the Iranian and once-nomadic Parthians - until the Greeks were

expelled west across the Euphrates.\textsuperscript{65} In sharp contrast to the orthogonal, gridded nature of cities that had evolved in the Alexandrine period, the typical Parthian urban center was circular, incorporating the legacy of the palace city of Sennacherib at Nineveh, which had served as the important cult center of Ishtar between 704 and 681 BC of the Assyrian period. Nineveh is believed to be Sennacherib’s grand new palace - “the palace without rival” - which fell to a coalition of the Medes and Babylonians in 612 BC.\textsuperscript{66} In the absence of any other Parthian or Sassanian cities surviving in entirety, the large number of still-intact wall-stucco panels at Nineveh allows us to make some conjectures regarding the physical form of the city. Primary evidence comes from depiction of scenes of war and the conquest of enemy cities, and military camps on the surviving wall-panels. The subject of these depictions is always cities and urban foundations, represented as circular, roughly-oval structures with strong walls and defensive bastions. In addition, a moat is usually shown as surrounding the entire city, so that the attacking armies are either inside or outside this defensive barrier.\textsuperscript{67} Significantly, within the strong urban walls there also appears the unmistakable horizontal road forming the long axis of the oval enclosure created by the city walls. Prominent buildings and numerous tent-like structures fill up the rest of the space. While at one level the walls, moat, and structures within the fortified enclosure may be mere diagrammatic representations of narrated events, yet on another level they may be a ‘representative shorthand’ for the main


\textsuperscript{67} This may be seen on several of the relief panels described in Russell’s book. Examples include the Siege of Alammu (pp. 26 - 7); the Assyrian Camp in the Mountains (pp. 58 - 9); the Defeated City (pp. 70 - 1); the Royal Chariot of Assurbanipal (pp. 124); and the Siege of Lachish (pp. 204 - 8), among the many examples. J. Russell, J. Sennacherib's Palace without Rival at Nineveh, pages as above.
Figure 43: Aerial view of the Toprak-kala site, showing the enclosure of the walls, the remains of the grid-system within the urban layout, and the ruins of the citadel structure on the northwestern corner of the city.
Figure 44: (44.1 to 44.6, from top left, clockwise) 
(44.1) City of Hatra, 2nd century AD; (44.2) Takht-i Sulaiman in the Mongol Period; (44.3) Royal Chariot of Assurbanipal, detail of Slab 6/Room 36, southwestern palace, Nineveh; (44.4) Assyrian Camp in the mountains, Slabs 3 & 4, southwestern palace, Nineveh; (44.5) Nineveh, mound of Kouyunjik –aerial view looking west, 1933; (44.6) The siege of Lachish, Slab 13, southwestern palace, Nineveh.
elements of the urban foundations in Assyrian times, reflecting closely if not exactly the physical forms of the objects depicted.  

There is some evidence that this conjecture may in fact be true. Within the larger geographical area of the Tigris-Euphrates region, where Nineveh was located, the circular city does appear have been a popular form for new urban foundations. The Parthians used a roughly circular form between 247 BC and 227 AD, creating Hatra in the 2nd century AD. Its legacy was then passed to the Sasanians, whose city of Ardashir-Khvarreh was founded by Ardashir I between 226 and 241 AD. Finally, the crowning achievement of the Sasanian reign, the Takht-i Sulayman of Khusrau I (531 - 79 AD), and the Abbasid capital of Baghdad, built in the second quarter of the seventh century, were also based on circular plans - testimony that the prototype still survived at that point in time. While this seeming preoccupation with the circular urban scheme appears to have been popular in the western fringe of the Sasanian world, the eastern fringe - bordering the regions of Central Asia and Bactria - seems to have employed a very different urban

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68 Based on the careful analysis of the relief slabs, and comparing them with recent excavations (such as the one at Tell ed-Duweir by Ussishkin, Russell believes that “...these have provided convincing evidence that Sennacherib was concerned with spatial verisimilitude not for its own sake, but rather as a means of constructing the image of a very particular place.” Therefore, the relief panels would be a valuable source of reliable information. See J. Russell. Sennacherib's Palace without Rival at Nineveh. pp. 205 - 8.

69 Colledge also takes note of the “...vaguely circular shape of the cities under Parthian control or influence.” See M. Colledge. Parthian Art, p. 34.

model. Based on orthogonal layouts and variations of grid-patterns, this derived from the physical character of the still-extant cities of the Seleucid Greeks. Foremost among these was the city of Dura-Europos, which was initially “Parthianized” till 150 AD, and came under Roman occupation between 165 and 256 AD.

But the above analysis provides us only with a few answers. Other important aspects of the Parthian and Sassanian cities are still not clear, perhaps for lack of systematic excavations. Were the circular or orthogonal, fortified structures we have examined, ‘cities’ in the first place? Were they complete cities, or merely surviving citadels located within larger urban agglomerations that have largely disappeared? Surviving structures within the Takht-i Sulayman, for instance, though of immense size and scale, are far too limited in area to accommodate the large urban communities described in the accounts. Within these cities, in what kind of settlements were these large urban communities housed? To what extent were these settlements planned? How did they actually grow and expand? Most cities in Parthian and Sasanian times, including the largest ones among them, appear to have been first established as military garrison camps and subsequently expanded to include larger populations. The first gesture of making the boundaries of the city was therefore marking out its round enclosure of walls. A case in point here is that

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of Ardashir I (226 - 241 AD), who is credited with the foundations of several cities. One among these - Ardashir-Khvarreh (the ‘Glory or fortune of Ardashir’, the later Firuzabad) - was transformed into an administrative district from a military outpost. Based on a circular urban plan, it was surrounded by a wall with four gateways positioned at the cardinal points. Furthermore, the various urban districts were delineated by main streets radiating from the center and dividing the city into 20 sectors.\(^74\) Al-Tabari’s account on Shapur I (241 - 271 AD) the other hand, talks of orthogonal (square) foundations (versus circular ones). Bishapur was probably built in 262 AD on his orders, six years after Shapur’s triumph over Roman emperor Valerian. Based on a Greek plan, here the two main streets intersected at right angles dividing the city into four main districts, which were also of regular layout.\(^75\)

This characteristic urban layout - whether orthogonal or circular - which focused on the citadel as its center, is also seen at Ctesiphon. As the administrative capital of the Sasanians, it was most important in economic and strategic terms. The urban conurbation consisted of a group of towns known as the *madain* (literally ‘the cities in Arabic), two of which were Veh-Ardashir and Veh-Antiokh-Khusrau (located in the Shad-Kavad district in Iran). The monumental Taq-i Kasra, dating from the early Sasanian epoch, and extended during the reign of Khusrau I, was also located within this city. The center itself


\(^75\) Pope comments on the difference between Parthian and Sasanian city planning. He mentions that the regular or checker-board layout was seen in a number of Sasanian cities. According to Mustawfī, Shapur I also laid out the city of Nishapur (which was named after him), in the form of a checker-board with sixteen squares. A. Pope. *A Survey of Persian Art* - Vol. I, pp 574 - 5.
Figure 45: (45.1 to 45.5, counter-clockwise, from top left) 
(45.1) Dura-Europos under Roman occupation, 165 - 256 AD; (45.2) Mathura, the second Kushan capital; (45.3) Kushan foundation of Sirsukh at Taxila; (45.4) Taxila, c. 50 BC. - 150 AD; (45.5) Topraq Qala - axonometric reconstruction of the palace-temple complex.
was defined by locating the royal palace and dynasty’s fire temple there. In summary, Parthian and Sasanian cities influenced the form of the Central Asian city in two distinct ways. Firstly, as precedents from a golden past, the strong walls of these cities inspired similar constructions to be initiated in new urban foundations in Central Asia. On a second, and more significant level, the predominantly circular and orthogonal form of the Parthian and Sasanian city (or whatever remained of it), seems an obvious inspiration for the construction of the citadel or shahristan within the Central Asian city. From its more centered and focused location, which was often the case in the Parthian and Sasanian capitals, it may have gradually moved to the fringes owing to the development of specific parts to the city - i.e. the shahristan, the outer city and the suburbs. While only excavation can prove this conjecture with certainty, evidence that this occurred is clearly demonstrated in the cities of Bukhara, Merv and Balkh.

The Kushans were the next important influence in Central Asian urbanism, particularly crucial for the study of pre-Arab city form. In their urban layouts, the Kushans obviously had a unique cultural advantage. While their own origins made it possible to combine Iranian beliefs with Chinese ideas of city-making, the nature of pre-existing settlements within their domains, and cultural contacts with Augustan Rome provided them with an equally robust town-planning practice. The Kushans, therefore, adapted their cities to the character of a regularly-planned town with walls like those of the Hellenistic Greco-Bactrian kings. The notion of the Roman castrum was used in

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combination with local Central Asian practice\textsuperscript{78} - producing a city with a strongly-
Hellenized core, situated within a more graded matrix consisting of the typical inner and
outer city. Begram and Peshawar, situated in the northern parts of the empire, may have
had this kind of urban character, though only excavations will prove this for certain.
More definite evidence, however, is provided at Bukhara, where clear characteristics of
this system in the 9th and 10th century are seen owing to the city’s development under
the Kushans earlier in the 4th century AD.\textsuperscript{79} (Figure 43)

Similarly Taxila, the Mauryan city on the Bhir Mound, was replaced under the
Greco-Bactrians in the 2nd century BC by a new city at Sirkap, which remained in use up
to the early Kushan period. Shaped in the form of an irregular trapezium, it stretched
1300 m north to south and 900 m (at its widest) from east to west. Topographically, it
was divided into two unequal parts - a lower northern and an upper southern city.
Remains of the walls along the dividing line still survive, indicating that the division was
in fact an important physical feature. The city was intersected from north to south by the
main street\textsuperscript{80} with side-streets running off at right angles to it. Each of the spaces between
the side streets (which were 36.5 m or slightly more apart) contained blocks of buildings,
and were occasionally divided by alleyways. Shops lined both sides of the main street, as
well as shrines and stupas. Dwellings were situated behind the shops. East of the main
street was the royal palace, and nearby, some more opulent looking two-storied

\textsuperscript{79} A. Belenitskii et al. Crednebekobii Gorod Credneii Azii, pp. 219 - 32.
\textsuperscript{80} This main street is called the “spinal street” by several scholars. J. Marshall. Taxila: An
Illustrated Account of Archeological Excavations Carried out at Taxila under the Orders
of the Government of India between the years 1913 and 1934, Vols. I - III (Cambridge:
dwellings. In the city and surrounding areas, there were Buddhist stupas, monasteries and shrines. Some 650 m outside of the north gate was the non-Buddhist Jandial temple. Early under the Kushans, Taxila was again transferred to the new site at Sirsukh. This new Kushan city, founded under Soter Megas, covered an area of 1370 x 1000 m, and has yet not been completely excavated, though certain features are prominent. Organized in the form of a parallelogram, the Kushan city lies in an open plain protected by a small river near the eastern part of the south wall. Here an original Central Asian castrum system combined with the methods of the Roman castrum.81

Scholars are of the view that the most significant development in the Kushan period with reference to the expansion and spread of city and urban life was the effective blending of Central Asian, Hellenistic and Indian town planning into a single form. Yet another variation of the Kushan city, seen in urban centers located deep within the Indian mainland, appears closer to this view. Part of the capital city of Mathura was therefore a regular, planned town, organized on a grid. In addition, it adapted to its riverine location - the pre-conceived structure modified to accommodate site conditions. Finally, it was surrounded by thick, strong walls, similar to those prevalent in urban foundations in Central Asia. Finally, in the western part of this fortified city was a mud-brick fortress with corner bastions, located at the crossing point of two main streets - presumably the trade routes that passed through the city.82 Mathura’s combination of features is also

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81 Ghosh writes that “Taxila [with special reference to Sirkap], was not a representative Indian city...” which actually supports the notion of the Kushan city as a hybrid of several influences. See A. Ghosh. The City in Early Historical India (Simla: Indian Institute of Advanced Study, 1973). p. 61.
82 J. Tucker. The Silk Road: Art and History, p. 36.
resonated in some other Central Asian cities and ruined sites, such as Airtam (near Termez), Afrasiyab, Tali Barzu, and Toprak-kala.

Walled cities and settlements were not the only Kushan constructions. There were, in addition, fortified posts protecting the economic centers and roads between the main capital cities of the empire. These were found especially in the northern parts of the Kushan realm, and were erected in the vicinity of villages and unfortified isolated farms. These fortified posts and caravanserai were placed along the overland communications to safeguard caravan trade. The mud-brick ruins of Ayaz Qala, Gyaur Qala, and Kunya-uaz represent the various types of fortifications that defended the northern border of the empire. The striking feature of these structures was that each had a vast court behind huge mud walls, where the garrison was probably housed. The bulwark consisted of semicircular towers, vaulted corridors, and arrow-like loopholes. As far as the present observations allow, it can be concluded that a system of fortified posts protected the traditional Silk Route along the route Shibarghan - Balkh - Tashkurgan - Kunduz - Khanabad - Taliqan and further east. These posts were either rectangular structures in the open plain or polygonal walls along the meandering curves of rivers and canals. These constructions are defined by scholars as tepe (hills). While they are of different sizes, common to all is a slight elevation at the center or corner - probably the watch-tower of the garrison.\(^{83}\)

The greater part of the Kushan Empire consisted of arid country, the cultivation of which was dependent on irrigation. During all periods of strong central government, therefore, there flourished a well-developed system of canals. The remains of such a system still survive in the vicinity of the city of Balkh, attesting to the extensive urbanization of the region initiated in the Kushan realms. Therefore, if irrigation works and canals were any indication of extensive Kushan urbanization, then Bukhara provides us with another feature of the now extinct Kushan city. These are the massive walls around the city, remains of which still survive, which enclosed and protected the irrigated part of the oasis against the sands of the desert as well as hostile nomads. They enclosed not just the city, but rather an entire urban region (Al-Narshakhi measures them as 72 km. x 72 km.). Enclosing ensembles of urban foundations and canal networks within walls appears to have been a convention in Central Asia, and periodic restorations on these great walls were done till 830 AD. The towns of Merv, Samarqand and Chach (now Tashkent) and other oases also had similar walls.

From the mid-5th to the mid-6th century, Central Asia came under the influence of the Hephtalite tribes. Scholars believe that three sectors composed the Hephtalite economy - urban, settled agricultural and nomadic - and while urban settlements did not outnumber rural settlements, yet the economic, political, religious and cultural role of the towns were far more important than that of the villages. Among the cities known from this time are Balkh, Termez and Kafyr-Qala, of which Balkh is believed to have been the largest.

Hsuan-tsang (writing in 629 AD), describes Balkh (or Po-ho), as the Hephtalite capital, with a circumference of about 20 li, well-fortified and thinly-populated. Buddhist was the official religion of the Hephtalite empire, and some 100 Buddhist vihara serving about 3000 monks dotted the city of Balkh. Outside the town was a large Buddhist monastery, later known as the Naubahar. Of the same size as Balkh was the medieval town of Termez, which according to Hsuan-tsang, lay on an east-west axis and also measured 20 li in circumference. Termez had some 10 sanghrama (monasteries) that accommodated 1000 monks. While excavations have yielded little information about the city between the fifth and the seventh century, it appears to have consisted of a regular shahristan, or town (roughly 10 ha in area), and a large suburb enclosed by a wall. The total area of the city was approximately 70 ha and the entire town was surrounded by a wall about 6 km long. It is also likely that there was a citadel. Chaganiyan was the third Hephtalite city mentioned in Hsuan-tsang’s accounts after Balkh and Termez. In terms of circumference it was 10 li and had five Buddhist monasteries. It has been identified with the site of Budrach, which even in Kushan times had an area of 20 ha and at the end of the period under consideration occupied a much greater area than the Kushan town. This expanded town had a rectangular citadel, a fortified shahristan with an area of 50 ha and, beyond

that, a large suburban area with farms, forts and religious edifices. The capitals of other regional domains within the Hephtalite Empire were roughly similar to or larger than the capital of Chaganiyan. The capital of the province of Hu-sha (Vaksh) had a circumference of 16 - 17 li\(^2\) and is the site of Kafyr-kala in the Vaksh valley. It has a walled citadel (measuring 360 x 360 m), located in one corner of the rectangular town, which, like the citadel, and was surrounded by a wall with towers. An important central thoroughfare divided the city into two parts, and on it stood the important public buildings of the city - aristocratic dwellings, religious and commercial buildings. Outside the town and beyond its walls lay extensive suburbs.\(^3\)

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93 B. Litvinskii & V. Solovev. Srednevekovaya kultura Tokharistana v svete raskopok v Vakhshskoy doline. (Moscow, 1985).
MAWARANNAHR: THE ISLAMIC CIVILIZATION IN CENTRAL ASIA CREATED THROUGH THE ARAB INVASIONS

“...[the Arabs established] their seat of government on the edge of the desert and the sown, using an existing city like Damascus where possible, or founding a new one like Kufa, Fustat, or Qayrawan, where it was not. These garrison cities were the Bombays, Calcuttas, and Singapores of the Arab Empire, the ports of the desert through which the provinces were first penetrated, then conquered, and for a while governed.”


3.1 Prior to Islam

For several centuries before the arrival of Islam in Central Asia, many conquerors had crossed the region, most frequently raiding its cities for their wealth and prosperity. However, few among these ever chose to make this region as the epicenter of their empire. In fact, it would be fair to say that to a large extent, Central Asia had always been loosely incorporated within great empires whose centers lay elsewhere. The invasions of Alexander were among the first foreign intrusions in this respect, and caused the establishment of several cities characterized by their Hippodamian layouts and substantial Greek populations. However, even these urban foundations did little to establish a permanent armed base of any sort in Central Asia with lasting ties to the Hellenistic
homeland. Following the death of Alexander, the Hellenistic connection waned and finally disappeared altogether. This was followed by the Sasanian Empire, which controlled much of the Merv region and the large eastern province of Khorasan. However, it too lay largely centered around its major capital cities in the Fertile Crescent, rather than settlements within Central Asia, which were undoubtedly a source of substantial revenue. Thereafter, north and south of the Amu Darya, dynasties of pastoralist origin exercised a more or less strict suzerainty over local dynasties after the collapse of the Seleucid Empire. Since the decline of the Kushans in the third century, the Kidarite and Hephtalite empires had also dominated much of Bactria and Sogdiana, until the conquests of the Turk empire in the middle of the sixth century. In summary, while Central Asia had always remained an important component of all these empires, it had seldom functioned as the focus of imperial expansion for any of them.

In view of this situation, scholars have argued that for most inhabitants of Central Asia, imperial rule was relatively remote. It was only felt through the often-unjustified demands of tax-collectors, or the passage of imperial armies and governors, but otherwise appears to have had little impact on the daily lives of its people. For the most part, all components of its population - farmers, merchants and dihqan alike - adapted to the demands of distant emperors or khans without radically changing their traditional lifestyles. Urbanized regions and especially cities were of course more intensely impacted than the rural countryside. In addition, within the many major cities of the region, such as in Bukhara and Samarqand, or in regions such as Khwarazm, the local rulers or dihqan still held significant powers. They even formed urban dynasties of their own, such as the
khudat of Bukhara, who while serving as the nominal regional representatives of the Caliphate at the larger scale, exercised authority within the confines of their respective cities or limited regions. Exaggerating this scenario were the geographical peculiarities of Central Asia, mainly its large physical distance from the centers of the empires that controlled it, and the concentration of dense urban populations in small, localized pockets within the vastness of the region. In the pre-Islamic period, the political and economic centers of gravity of Central Asia appear to have been concentrated around the Merv oasis in the west, the Balkh oasis south of the Amu Darya, the string of significant oases along the Zarafshan River (including Samarqand and Bukhara), the Khwarazm region to the south of the Aral Sea, and the oases located along the Syr Darya from Ferghana Valley to Chach (later Tashkent) and on to the Aral Sea. While these centers experienced unprecedented growth and urban development, the other areas of the region appear to have been markedly rural, accounting for their relative isolation.

Within this setting, trade and agriculture were the two most important preoccupations of Central Asian rulers in the pre-Islamic period, since the prosperity of the region depended on these. Rulers aggressively maintained irrigation canals and qanat, and protected their borders by establishing frontier garrison forts and ribat, and building caravanserai for incoming traders. While it is not easy to detect any long-term economic trends in this era, Soviet studies on the irrigation systems prevalent in Khorezm have shown that there were

1 As one among the theses advanced in his important work - Turkestan Down to the Mongol Invasion, Barthold argues that “...during the period immediately preceding the Arab conquest [over Eastern Iran and Central Asia], the power in Mawarannahr belonged to the landowners’ class - the dihqans - who lived in fortified castles and in war-time formed a cavalry of knights. Alongside this hereditary aristocracy there existed a moneyed aristocracy whose mode of life was not much different from that of the dihqan...” V. Barthold. Turkestan Down to the Mongol Invasions, p. xxix.
signs of decay in the fourth and fifth centuries, corresponding also to the reduction of urban life. Then, from the seventh century onwards, these irrigation systems again began to be expanded and rebuilt in newer and more sophisticated ways. In particular, there appears a complex and more distributed system of smaller canals. A more ramified system of canals could support larger populations, which presumably provided the demographic foundations for the emergence of strong local states. In time, these canal networks became so elaborate that in Khwarazm, and other parts of Central Asia, local rulers began to live in forts built at strategic points along these irrigation systems, which gave them great power over settlements downstream.² (Figure 44) Commercial wealth also expanded from the sixth century onwards in Central Asia. It supported the local commercial and aristocratic elites, as well as a multitude of regional rulers, sustaining a luxurious lifestyle superbly documented in the surviving murals at Penjikent which date from the sixth to the eighth centuries.³ The accumulation of wealth and the patronage it created also nourished a flourishing and sophisticated secular and religious architecture, and the fields of art and literature. Literacy appears to have widespread in the towns (spelling and writing books for school children have been found in Sogdia and the Tarim basin), and even in the steppes. Likewise, many Buddhist monasteries thrived from Bactria to Khotan to Tun-huang and institutions, such as the famous astronomical observatories of Khwarazm, maintained a level of scholarship as high as anywhere else in the world. Supporting the wealthy aristocracy was a large population of urban craft

² Steps to secure irrigation through a network of canals were continuing developments from ancient times. Archeological records show some canals and settlements in the Central Asian oases long before the coming of Alexander, and extensive layouts by the Kushan period. A. Mukhamedjanov. “Economy and Social System in Central Asia in the Kushan Age” in History of the Civilizations of Central Asia - Vol. 3, pp. 265 - 77.
workers, petty traders and other workers, whose cramped quarters have been excavated at Penjikent.\textsuperscript{4}

Keeping order within such a diverse socio-cultural milieu was a task shared by everyone. Most of the population, whether pastoralists or irrigation farmers, kept arms and were expected to use them, so that it was always possible, at least in principle, to form an emergency army by drafting ordinary citizens.\textsuperscript{5} However, most \textit{dihqan} and local dynasts maintained their own personal retinues of professional soldiers, whom they supported through the revenues of trade, taxation and raids. For the \textit{dihqan}, living in fortified manor houses, lavish hospitality was a way of maintaining regional networks of influence and patronage. Istakhri, writing two and a half centuries after the arrival of the Arabs in Central Asia, was astonished at the hospitable traditions of the \textit{dihqan} class, and cited the example of a Sogdian landowner family that prided itself on having its doors open for a century, feeding and lodging between 100 and 200 travelers each day.\textsuperscript{6}

But these descriptions of Sogdiana prior to the Arab invasions should in no way be construed as a period of peace, at least not politically. The few centuries before the Arab invasions are characterized by a number of scholars, including the most prominent,

\textsuperscript{5} R. Frye. \textit{Bukhara: The Medieval Achievement}, p. 73.
\textsuperscript{6} C. Bosworth. \textit{The Ghaznavids}, p. 32 - 33.
Figure 46: (46.1) The irrigation system of ancient Chorasmia – canal network in the vicinity of Dirgildzhe; (46.2) Plan of an ancient vineyard in the region of Chorasmia.
Barthold, as a period of general unrest and incessant war. The first semblance of stability in the region seems to have appeared in the mid-fifth century AD, when the Hephtalites or the White Huns of Turko-Mongol origin, moved from the Altai Mountains to the steppes of western Turkestan. Occupying the area between the rivers Ili and Talas in the east, and the Aral Sea in the west - they began moving south, across the Syr Darya, into the region of Transoxiana and Bactria. In the process of their ascent to power, the entire eastern part of the Sasanian empire fell to them, including the rich and important province of Khorasan. Their virtual disappearance from the region between 563 and 567 AD was mainly due to the arrival of serious opponents in the northern steppes - the Turks; and a simultaneous attack by the embittered Sasanians from the west. The warring factions shared the Hephtalite possessions - the Turkish Khan receiving Sogdiana, and Shah Khosroes Anushirvan receiving Bactria. The arrangement was, however short-lived, for not only did the Turks immediately invade Bactria, but in addition Khan Yabghu began conspiring with Constantinople, in the hope of causing the Silk Route to summarily bypass Persia.

Barthold has argued that by this time (about the end of the 6th century AD), the so-called ‘nomadic Iranians’ had been finally dislodged from Central Asia, leaving behind the urbane and sedentary Central-Asian Iranians, viz. the Sogdians, who were in a position to successfully exploit the extent and power of the Turkish empire. It is the commercial interests of the Sogdians, who retained the monopoly on the above-mentioned silk trade,

9 V. Barthold. Four Studies on the History of Central Asia, pp. 6 - 7.
which apparently brought about the rupture of diplomatic relations between the Turks and Persians, and the exchange of embassies with Byzantium. The Sogdians - a predominantly Persianate population located at the cross-roads of cultures, seem to have also developed a syncretic culture composed of elements of several regional religions, namely Zoroastrianism, Manichaeism and Buddhism. Furthermore, perhaps as a characteristic element of their cosmopolitan nature owing to the intense trade and commerce passing through the region, the Sogdians had the apparent capacity to accommodate and tolerate new religious ideologies in time. This particular feature was to greatly contribute to Islam's success in this region over the next few centuries.

With the arrival of the Turks in Central Asia, there were some important changes to the socio-political structure. The larger region was now divided into a number of small states, each ruled by a prince. Among these princes, the most powerful ruler was the prince of Samarkand, who bore the title ofikhshid. However, even theikhshids were only the first among the land-owning nobility, and, were like them called dihqan, commanding land-territories, villages and estates. Even though the dihqan all vowed allegiance to the Great Khan, to a greater extent they led independent lives.¹⁰ This was the level of politics that shaped the daily lives of the villagers and townspeople in Khorezm, Bactria and Sogdiana, or of the pastoralists along the Syr Darya, even if wars amongst the great imperial powers frequently disrupted their lives. Most villagers lived in communities linked by the collaborative demands of irrigation agriculture, and the need to cope with the often oppressive fiscal demands of local landlords or dihqan. Therefore, when Arab armies first entered Central Asia in the middle of the seventh century, they represented

just one more external threat for the people of the land. Yet within the span of the next two centuries, Islam had dramatically transformed the cultural traditions of the most settled regions of Central Asia, and was beginning to modify the cultural life of the pastoralist regions as well.

3.2 The Arab Invasions on Central Asia

The first attempts by Arab armies to advance into Inner Eurasia were through the Caucasus, where they were checked by the Khazars in 653 - 5 AD. The Khazar resistance to the Arabs was understandable in view of the prosperous trade that operated between this region and Central Asia, especially Sogdiana. Impetus to the Arab campaigns was gained through the persecution of the last Sasanian leader, Yazdegird, and the eventual collapse of the Sassanian empire between 642 - 51 AD. The Arabs captured the Sasanian outpost at Merv in 652 AD and employed it as a base for their future campaigns. This campaign affected Merv markedly, since apart from the lucrative tribute to be paid in kind by the local population, Arab troops were also quartered in the town, a practice also followed in other conquered cities of the region, such as Bukhara

11 Barthold has also quoted Abu Ubayda (via Baladhuri), maintaining that in contrast to our other sources, the first expedition of the Arabs across the Oxus river was actually undertaken when Abdallah b. Amir was the governor of Khorasan. That the Arabs devastated the province of Maymurg (located south-east of Samarqand [then Afrasiyab], and west of the city of Penjikent) from 650 - 655, is also corroborated in the Chinese sources of the Tang period. See V. Barthold. Turkestan Down to the Mongol Invasion, p. 6. Penjikent, the easternmost city of Sogdiana, has often been suggested to be the capital of ancient Maymurg.

12 S. Soucek. A History of Inner Asia, p. 56.
and Qum. Most significantly, a very large number of Arab families were settled in these cities to retain these as distant outposts; the Merv oasis is supposed to have had as many as 50,000 by 671 AD. As perhaps the largest group of Arab settlers outside of Arabia, this helps explain why Khorasan and Merv soon became important centers of Islamic military and cultural influence. By 730 AD, most of these initial settlers had become farmers, and put strong roots in the Merv region.

Encouraged by these initial successes, the Arab armies crossed the Amu Darya in Mawarannahr in 655 AD. However, even these attacks are believed by several scholars to have been mere raids conducted with the singular purpose of plunder and booty. Detailed accounts of these expeditions indicate that the repeated failures to gain permanent territory may have actually been due to the intense internal factionalism among the Arab forces themselves, who were still largely composed of different tribes.

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13 In Qum, the Arabs were settled in villages near the city. Tarikh-i Qum: Hasan b. M. Qumi, ed. Jalal ad-din Tehrani (Tehran 1935), p. 244. In Merv, the Christians complained that half of their possessions were taken from them, in addition to the imposition of the karâj and jîzya. O. Braun. Das Buch der Synhados (Stuttgart: 1900), p. 347. Similar instances of the Arabs settling in parts of Bukhara, and actually displacing the local population are described by Barthold and Gibb. The Kash-Kushans, rich-merchants of foreign extraction (suggested by Tomaschek to be descendants of the Kushans or Hephthalites), gave up their houses in the shahrîstan to the Arabs and built for themselves residences outside the city. See H. Gibb. The Arab Conquests in Central Asia (London: The Royal Asiatic Society, 1923), p. 39; and V. Barthold. Turkestan Down to the Mongol Invasion, p. 108.


15 S. Soucek. A History of Inner Asia, p. 57.

16 It was also the result of Muawiya’s policy to move the center of authority from the tribes to the caliphate, which brought understandable opposition from the tribal chiefs. R. Frye. The Golden Age of Persia, pp. 75 - 76. H. Gibb. The Arab Conquests in Central Asia, pp. 15 - 28.
Termez was the first city conquered by the Arabs in the Mawarannahr region in 689 AD. It revolted against Arab authority, and its ruler Peroz (Firuz), son of the last Sasanian Shah Yazdegird, sought the help of the Tang forces in return for his territory becoming part of the greater Chinese empire. This event also coincided with the outbreak of fresh tribal feuds that occupied the Arabs of Khorasan, leaving the princes and city-states of Transoxiana largely free to regain their independence, until Ummaya, the next Arab general re-commenced the campaigns in 696 AD. Persia, with Termez, had meanwhile been consolidated as a Tang province (named Po-S’), with its capital at Zaranj, with Firuz as the Chinese viceroy, although this arrangement only lasted for a short time.

3.2.1 The Umayyad and Abbasid control of Khorasan and Mawarannahr

The permanent domination of the Arab armies and their achievements in the Mawaraanahr region began during the reign sixth Umayyad caliph, al-Walid (ruled 705 - 15). Aided by his famous viceroy Iraq al-Hajjaj, this was largely due to his general Qutaybah bin Muslim - whose strategic abilities of conquer and warfare are described in the Arabic texts as nothing short of sheer genius. Qutaybah’s unmatched success lay in his ability to unite all parties in Khorasan in their prosecution - Persians, Arabs, Qays and Yemenis. In the face of campaigns as protracted and severe as these invasions, it was no small matter to retain the enthusiasm of the armies; nor could this be explained solely due

17 H. Gibb. The Arab Conquests in Central Asia, pp. 23 - 4.
18 S. Tolstov. Drevnyaya Kultura Uzbekistana (Tashkent, 1940) pp. 33 - 35. Also see H. Gibb. The Arab Conquests in Central Asia, p. 22.
to the attractions of a rich booty. Qutaybah's success was therefore, in large measure, due to his great talent for administration, rather than his leadership, which his authority and position would have obviously allowed. In part, he was able to get his campaigns financed through prosperous Sogdian merchants. Most significantly, he seems to have realized, as no other Arab governor in the east before him, that in a province such as Khorasan, the safety, security and prosperity of the Arab government in the long run would greatly depend on the cooperation and rapport with the Persian populace who formed so large a majority in the region.20 Initially, many of the independent, mercantile city-states tried to play off the Arab attacks, setting off Chinese authority against Muslim influence, but eventually perceiving greater stability under the over-lordship of the Muslims, they all came under their control.21

Qutaybah bin Muslim can rightly be considered the founder or consolidator of Arab and Islamic power in three crucial segments of Central Asia - Tokharistan, Sogdiana and Khwarazm. Through the course of his several campaigns that conquered Merv, Bukhara, Samarqand and several other smaller cities in quick succession, he enjoyed the crucial support of the viceroy Hajjaj and Caliph Walid. These circumstances were to dramatically deteriorate with the death of the former in Kufa, and of the latter in Damascus, causing the development of an unfavorable status quo with Walid’s successor Sulayman (715 - 17), who not only dismissed Qutaybah from the governorship of Khorasan but also machinated the events leading to his death in 715 AD. Qutaybah’s

death was understandably detrimental to the cause of Muslim expansion in Central Asia. The lack of leadership for the Arab forces was heightened by the daunting challenge of consolidating Islamic rule in Transoxiana. Tensions also stemmed from a variety of other factors, foremost being inter-tribal rivalry (pitting tribes of the Arabian south - the Kalb, against those of the north - the Qays), the rebellions of local commanders, and frequent apostasies of opportunistic Central Asian chieftains who had converted to Islam when the turbulence seemed to create conditions to promote their own interests. Arab governors also tried to fight off frequent interventions by the Turgesh tribes from the Semirechye, usually allowing local rulers to remain in power, even if Arabic wali were appointed to supervise them. In fact, they needed the skills and experience of indigenous ruling dynasties used to constant feuding, for during the eighth century, Mawarannahr remained a frontier region. In the 720s, Arab governors began to build ribat, frontier forts with cavalry garrisons, directed mainly against nomadic incursions. These were often paid for out of private endowments, and many of the fighters who lived in them were religious volunteers, or ghazi. Despite this, the Turgesh kagan, Su-lu, defeated the Arab armies in 720 and 723, and became a major force in the region before his final defeat at their hands in 737 AD. Soucek also argues that in addition to this largely preventive policy, when the jihad was resumed over a century later, its leaders were no longer the Arabs but the Ajam, essentially Iranians both before

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and after their conversion to Islam, their chief target being the conquer of lands beyond the other river that lay to the east - the Syr Darya.\textsuperscript{26}

By middle of the eighth century, the region of Mawarannahr was the focus of complex international rivalries that stretched across the whole of Eurasia, involving its three principal players - the Arabs, Tibet and Tang China - in addition to several minor allies. Scholars believe that two major events occurred around the year 750, which were to determine the course of Central Asian history for the next few centuries.

The first of these was the emergence of the Abbasid caliphate, which replaced Umayyad control over the region. Led by a Persian, Abu Muslim in 750 AD, with a Khorasani army comprising of large numbers of disgruntled Arab settlers from the Merv region, as well as contingents from other parts of Mawarannahr, the last Umayyad caliph was defeated at Marwan. A new caliph from the Abbasid branch of the Prophet’s family was also installed, and Abu Muslim, who had led the expedition, was murdered in 755 AD by the second Abbasid caliph al-Mansur. These developments set the stage as it were, for a predominant reliance on Khorasani troops by the Abbasids, including the main garrison at the new capital of Baghdad (appropriately called al-Mansuriyya), founded in 762 by caliph al-Mansur. The second decisive event was the Arab victory over the Chinese at the battle of Talas in 751 AD. The Abbasid caliphate resumed its assault on Mawarannahr immediately after its establishment in 750 AD, initiated by Abu Muslim’s lieutenant Ziyah b. Salih, who suppressed rebellion in Samarqand and Bukhara with great bloodshed. Meanwhile, the Chinese, who had already weakened Tibet after the fall of the

\textsuperscript{26} S. Soucek. A History of Inner Asia, p. 62.
Turgesh in 737, made a final attempt at the direct control of Central Asia, despite the substantial geographical distance between the two regions. In 749, a Chinese army claimed Chinese suzerainty over the region of Ferghana. In response, Ziyah b. Salih marched against the Chinese army in July 751, and defeated it at Talas, thus ending Chinese ambitions west of the Tarim basin.27

Scholars believe that the Abbasid caliphate, revived as the result of these two momentous events, based on Khorasani armies for support, and free from the threat of the Chinese or Tibetan rivalry, now began to consolidate control over the region of Khorasan and Mawarannahr. It is also believed that in contrast to the earlier period, only now did Islam begin to penetrate more deeply into the lives of Central Asia’s inhabitants, though conversion itself was a slow process. The urban centers were affected first, and while this should have implied cultural incorporation within the Abbasid empire, the gradual fragmentation of the Abbasid empire ensured that politically Khorasan and Central Asia remained relatively independent from the caliphate. Early in the ninth century, Khorasan again served as a launching pad for a second coup on the caliphate at Baghdad, this time bringing al-Mamun to the throne in 813 AD. In a replica of events from the historical past, a small contingent of Khorasani soldiers under the commandership of Tahir b. al-Husayn were able to overthrow a large army. As a result of the process, Tahir was made

27 According to Barthold, this historic day determined the fate of Central Asia. Instead of becoming Chinese, as the general trend of earlier events seemed to presage, it was to turn Muslim. V. Barthold. Turkestan Down to the Mongol Invasion, pp. 195 - 6. Grousset believes that the Chinese disaster at Talas might probably have been repaired, but for the internal strife and revolutions which occurred at the end of Hsuan-tsung’s reign. China, victim of a civil war of eight years’ duration (755 - 63), lost at one stroke the empire of Central Asia. See R. Grousset. The Empire of the Steppes (New Brunswick NJ: Rutgers University Press, 190), pp. 114 - 120.
the governor of Khorasan in 821, and after his death in 822, the position passed on to his sons and grandsons until 873. Tahirid Khorasan was centered on its capital city at Nishapur, and accepted the suzerainty of the caliphate. However, within Khorasan, the Tahirids acted with great independence, thereby contributing to the fragmentation of power in the Abbasid domains as a whole, and Khorasan in particular.28

In 873 AD, the Tahirids were replaced by a new regional dynasty, of entirely non-aristocratic origin - known as the Saffarids - who conquered Nishapur and seized power, employing a local army recruited in part from the Karijite ghazi, or warriors of the faith. The dynasty was founded by Yaqub, a copper smith (saffar) from the turbulent and bandit-ridden southern province of Sistan, whose power was never accepted by the Abbasids in Baghdad. However, Yaqub’s brother and successor, Amr, achieved greater legitimacy by securing formal appointment as the caliph’s viceroy in Khorasan. By the time of Amr’s defeat in 900 AD, at the hands of the Samanid rulers of Mawarannahr, the Abbasid caliphate had lost all but this nominal suzerainty over the lands of Khorasan and Mawarannahr.

3.2.2 The Samanids

The Samanids arose in the region of eastern Khorasan, supposedly taking their name from Samankhuda - literally meaning, “the lord of Saman,” a village in the Balkh region - a member of the ancient Iranian landed nobility who claimed descent from the famous

Sasanian king Bahram Chubin. They therefore, essentially arose from a family of *dihqan* or the landed aristocracy of the pre-Muslim times. After an initial phase of affiliation, they gained quasi-independence from the Caliphate of Baghdad in 874 AD, and after 886 AD also had the right to strike their own silver *dirhem*. On the whole, the majority of the Samanids seem to have been very capable rulers. They exercised justice and created policies for their urban and rural subjects. The prosperity of their possessions came from their active involvement in trade over a large region in Central Asia and other areas of the Islamic realm, even to distant parts of Europe and Scandinavia. In addition to textiles and articles of arts and crafts, the main base of the empire’s income and its investments were in the slave trade. Frye is of the view that the Samanids mainly derived their slave resources from the large Turkish populations of countries bordering their territories. These slaves were used at the Samanid court or forwarded in large numbers to the Caliphate at Baghdad where Turkish slave soldiers or Mamluks had played an important political role.

### 3.3 Impact of the Invasions

Scholars have proposed two contrasting views on the interaction of the Arabs with the native population beginning with the first century of their occupation over the region of Central Asia. Both views are extreme in their viewpoints, and should be reviewed carefully to gain a comprehensive understanding of the situation. The first describes

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30 For a good overview of the Samanids, see C. Bosworth. *The Ghaznavids*, pp. 27 - 34.
rampant cruelty, murder and unmitigated ferocity meted out against local populations, followed by innumerable forced conversions to Islam by the Arab forces.\textsuperscript{33} The second view supports these changes as a slow, gradual process producing a unique, culture which progressively absorbed the existing socio-economic, religious and political conditions that had prevailed in this region since antiquity.\textsuperscript{34} In contrast to the region of western Iran, where the Arab conquests had initiated a weak process of non-Arabs to convert to Islam, this process was virtually non-existent in Central Asia, at least in the early campaigns under the Ummayads. Scholars such as Frye have in fact claimed that conversion to Islam was discouraged, if not actually forbidden, in order to preserve the revenues coming to the state from the areas of substantial non-Islamic populations. Apparently, the Ummayad caliphate was not just a brotherhood of the faithful but almost a business enterprise.\textsuperscript{35}

Detailed accounts on specific cities in this time period, such as Bukhara, have survived, and allow us to investigate further. Narshakhi's narrates the first process in the following lines -

\textsuperscript{33} Knobloch puts this version across in his book but cites no sources for his arguments. See E. Knobloch. Beyond the Oxus, pp. 24 - 26. Barthold also cites eleventh-century writer al-Biruni's account, wherein “...the Arab conquerors, and especially Quaybah ibn Muslim, in Persia, Sogdiana and Khorezmia exterminated the priests, together with their books.” Barthold however states that this may be an exaggeration, since Biruni was in all probability recalling the narrative of the conquest of Persepolis by Alexander. V. Barthold. Turkestan Down to the Mongol Invasion, p. 1.

\textsuperscript{34} Frye's book on Bukhara is in fact illustrative of the latter view, demonstrating how Islamic Iran amalgamated the past with the religion and civilization brought in by the Arabs. See R. Frye. Bukhara: The Medieval Achievement.

\textsuperscript{35} R. Frye. The Golden Age of Persia, p. 75.
“.....each time a Muslim army came to Bukhara it raided in the summer and departed in the winter...The inhabitants of Bukhara became Muslims, but each time after the Muslims withdrew they apostatized. Qutaybah ibn Muslim converted them to Islam three times, but they [repeatedly] apostatized and became infidels. The fourth time he made war he seized the city and established Islam there after much difficulty. He instilled Islam in their hearts, and made it [their religion] difficult for them in every way. They accepted Islam in appearance but in secret worshipped idols.

Qutaybah thought it proper to order the people of Bukhara to give one-half of their homes to the Arabs so that the Arabs might be with them [mix together] and be informed of their sentiments. Then they would be obliged to be Muslims. In this manner he made Islam prevail and imposed the religious laws on them. He built mosques and eradicated traces of unbelief and the precepts of fire-worshippers. He labored a great deal and punished everyone who broke the decrees of the religious laws.”

Narshakhi wrote the History of Bukhara, the source of this passage, in 943 AD for the Samanid amir Nuh ibn Nasr. His views of course may of course been partly inaccurate owing to the narration of events in the distant past, through throughout the book he seems to hold Qutaybah in high esteem. For instance he repeatedly evokes the blessings of Allah on him. We also get the first hints of Islam having found a niche for itself among the social bourgeoisie, to which scholars like Narshakhi evidently belonged.

In 712/13 AD, Qutaybah built a mosque inside the citadel in Bukhara, and offered a reward of two *dirham* to everyone who attended the Friday prayer. Could this indeed be construed as coercion to convert for the population of the city, or was it aimed at a particular set of people? Such a picture would cause us to infer that in Bukhara, as in the other urban contexts of Central Asia, it were initially the lower social classes who flocked to embrace Islam, thereby increasing the strength of Muslims. The rich landed aristocracy, on the contrary, were possibly less inclined to do so, unless it was the result of personal relationships between the landowners and highly placed Arab leaders. A case in point was that of Saman Khuda, progenitor of the Samanid dynasty, who accepted the faith at the hands of the Arab governor Asad ibn Abd Allah. Also, the rich urban merchants who held no land had less cause to refrain from accepting the new religion, for the harsh sanctions against conversion would not have applied to them. Some others were swayed to renounce their old religion at the prospects of new avenues of trade to be gained in the dynamic, expanding Arab empire.

Hodgson supports the other view that the Arab tribesmen established themselves in occupied cities and territories as rulers or as ultimate dispensers of the land revenue, according to ways which had been traditional conventions prevailed in a given area, without actually incapacitating the real producers. They therefore left the internal life of the conquered Christians, Jewish, Mazdean and Buddhist communities to proceed on their own, provided that political supremacy was left to the Arabs. For the time being therefore, the prevalent culture after the invasions continued to be Hellenistic, Sassanian,

Persianate, Sogdian or whatever had existed locally, while the Muslim Arabs themselves carried with them as much of the old Arabian culture as could have possibly survive transplanting. This was reinforced by a reconstituted tribal system, based on the garrison towns set up in the conquered territories that appeared to reinforce such affiliations, howsoever tenuous. On the larger imperial scale, the smaller tribal units had lost their importance and tribal groups now tended to coalesce into larger alliances. In each garrison town therefore, two or three tribal blocs were formed, which in turn recognized allies in corresponding blocs elsewhere.\textsuperscript{39}

Possibly the greatest change wrought by the Arab colonization of Central Asia was that on the status of aristocrats or \textit{dihqan} in the pre-existing social structure of its urban centers. Prior to the invasions, most of these \textit{dihqan} had endeavored to extract the maximum profits in their tenure of authority over a region, acquiring real estate, which in some cases they and their descendants retained even after their deposition. In time, these \textit{dihqan} became the virtual agents of the Arabs, and questions began to be asked about the collection of \textit{kharaj} or tax from natives who had embraced Islam in the process of the invasions. The most pious of the Ummayad Caliphs, Omar II (reg. 717 - 20 AD.), disallowed not only such levying of taxes from converts, but also their mandatory subjection to the ordinance of circumcision. To some extent therefore the uncontrolled powers of the previous \textit{dihqan} were now put in control, and a clear distinctions began to be made between \textit{kharaj} (land-tax imposed on all who owned landed property, including the \textit{dihqans}), and \textit{jizya} (poll-tax imposed on non-Muslim populations).\textsuperscript{40} In addition

\textsuperscript{39} M. Hodgson. The \textit{Venture of Islam}, pp. 228 - 29.
\textsuperscript{40} V. Barthold. \textit{Turkestan Down to the Mongol Invasion}, pp. 180 - 193.
economically, the Arab domination meant an enforced diversion of all trade towards the heartland of the Caliphate, and an interruption, at least for the time being, of contacts with China.\footnote{E. Knobloch. Beyond the Oxus, pp. 55.} In summary, the Arab invasions established two basic changes that connected and subordinated the countryside to the city, seriously undermining the unchallenged authority of the dihqan in pre-Islamic times. At a first level, the loosely-organized, highly ceremonial political order of pre-Islamic Sogdia gave way to a centralized, bureaucratic administration. At a second level, local land relations were replaced by Islamic law and urban directed administrative usage.\footnote{Lambton states that in the early sources on Sogdiana, the term dihqan did not have the same meaning as the one attributed to them in the Sasanid empire, when they were viewed as members of the ‘lesser nobility.’ So while they could be heads of villages, they could also be members of landed gentry with small (modest) to substantial holdings (sufficient to be called a district or vilayat). A. Lambton. "Dihkan" in Encyclopedia of Islam - 2nd ed.} The new relationship between the countryside and the city was increasingly expressed through such diverse institutions as the government administrative organization, the judicial organization and semi-official and unofficial organizations and agents, such as the muftis, the schools of law and educational institutions.\footnote{J. Weinberger. The Rise of Muslim Cities in Sogdia, 700 - 1220, p. 38.}

Hajjaj and Qutaybah were also able to reach on certain agreements with the local dynasties who had previously ruled many of the city-states, effectively initiating the enrollment of many non-Arabs in the army - a move instrumental to the success of Islam in Central Asia. In addition, the mass-conversions described above allowed Qutaybah to create auxiliary troops, called mawalis or clients, alongside his own Arab soldiers. Their participation played a major role in the consolidation and maintenance of Arab rule in the
conquered territories. Probably at this time too, the *lingua franca* popularly used by the Arabs and their subjects seems to have been Persian - a development possibly accounting for the spread of the language in place of the local dialects.\(^{44}\)

### 3.3.1 Dynamic Economic and Commercial Expansion in the Urban Centers

By the first half of the tenth century, a large part of Central Asia witnessed significant economic and commercial expansion catalyzed as a result of the Arab invasions. This process was furthered by the establishment of the Samanids as the governors of the Arab forces, when a competent and strong government centered at Bukhara created the pre-conditions for such an expansion. Indeed, it appears that for the next few centuries, Samanid Mawarannahr, with its prosperous cities and towns became a sort of economic and even cultural dynamo for the rest of the Islamic world.\(^{45}\) While all of the Sogdian cities expanded to varying degrees over this period, Bukhara is a superb example of how momentous these changes were. From its role as a prominent city in the Kushan and Hephthalite eras, Bukhara assumed position as the most important city of the medieval Islamic world, ascribed the superlatives of size, grandeur and population in the Samanid period. Beginning in the eighth century, a second line of walls was built around Bukhara, enclosing the major markets of the city as well as the ancient town center, the *shahristan*. Eleven gateways within this wall led to the busy commercial center of the city. In addition, Bukhara’s bustling local economy depended on a complex system of local waterways, almost all of which were artificial and maintained through a complex system


\(^{45}\) This has been argued in the several works by Frye. See especially R. Frye. *The Golden Age of Persia*. 
of urban legislation. Describing the canals of Bukhara in the Samanid era, al-Muqaddasi writes:

“The river enters the town [Bukhara] on the Kallabadh side; here sluices are constructed, forming wide locks and built of timber. In the summer flood season one after another of the beams is removed according to the height of the water, so that the large part goes into the locks, and then flows to Paikend; without this skillful arrangement the water would be reverted to the town ...below the town are other sluices ...built in the same manner. The river cuts through the town, passes through the bazaars and disperses (in canals) along the streets. There are large open reservoirs in the town; on the edge are structures of planks with doors, which serve for ablutions ...The water is turbid and a lot of refuse is thrown into it.”

Served by such an intricate system of water distribution, Bukhara obviously was crowded and had a notorious reputation for its bad air and water. As typical of the many cities of medieval Europe, here too urban growth was probably accompanied by the emergence of a sizable population of urban poor, whose living conditions were appalling, and who, unlike the wealthy merchants and dihqans, had little chance to escape these conditions by

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46 V. Barthold. Turkestan Down to the Arab Invasions, pp. 103 - 4, citing al-Muqaddasi.
fleeing to their country estates in summer. The city of Samarqand, in contrast, was described as relatively more salubrious than Bukhara, though again of substantial size. Medieval visitors reported that a considerable part of its urban area was occupied by gardens; in fact each house appears to have possessed one of some size. Viewing the town from the summit of the citadel, no buildings were to be seen because of the trees in these gardens. This manifold expansion of cities into important urban centers was also seen in the flourishing region of Khorezm. Its small villages and fortified farms were now transformed into wealthy, commercial towns with large populations. According to al-Muqaddasi, the Khorezmian capital at Kath contained a magnificent mosque and a royal palace, and had many notable scholars and merchants. Its muezzins had no equal in the Abbasid lands for their ‘beauty of voice, expressiveness in recitation, deportment and learning.’ Yet these attributes in no way detracted from the uncomfortable properties of the cityscape and therefore he appropriately added:

“... the town [Kath] is constantly flooded by the river, and the inhabitants are moving (farther and farther) away from the bank. The town ... contains many refuse drains, which everywhere overflow the high road. The inhabitants use the streets as latrines, and collect filth in pits, whence it is subsequently carried out to the fields in sacks. On account of the enormous quantity of filth strangers can walk about the town only by daylight.”

48 V. Barthold. Turkestan Down to the Arab Invasion, p. 88.
49 V. Barthold. Turkestan Down to the Arab Invasion, p. 145.
Widespread urban expansion and the building of protective walls around cities also appear to have sharpened the division between urban and rural populations. For one, the extensive network of towns depended largely on the produce of irrigation agriculture. Their revenues and taxes sustained these systems, in itself a costly and complex business. To function efficiently, and serve large populations, such as one in the urban district of Bukhara with its enormous hinterland, dams, canals and underground *karez* had to be kept clear from silt, water pumps and wells had to be built and maintained. Furthermore, the political, legal and military problems connected to these processes were even more complex. These included protecting the intricate system from destructive enemy attacks, mobilizing labor for maintenance work, and legislating authorities deciding on the consumption and quantities of distribution. Evidently, agriculture supported by such ambitious irrigation systems, and the towns it sustained could thrive when governments were strong, well-organized, and willing, in partnership with regional rulers and local landlords, to invest in and organize the labor levies necessary to maintain and protect waterways. However urban wealth also depended on good relations with pastoralist communities through whose lands passed the several trade caravans that that generated so much of Central Asia’s commercial wealth.

### 3.3.2 Cultural Renaissance in Central Asia

The creation of strong, stable governments and commercial prosperity stimulated a cultural renaissance which made Mawarannahr, for a period of time, the cultural,
intellectual and scientific center of Islam. Prosperity, the presence of large numbers of
Arabic settlers brought through the invasions, and the privileged position of Khorasan
and Mawarannahr within the existing Abbasid Empire, encouraged local elites, especially
those residing within the urban contexts, to patronize writers and scholars. In addition, for
all its sense of political stability, Central Asia still remained very much a frontier zone,
the eclectic traditions of which encouraged the exchange of ideas, expedited by the
enormous influx of trade passing through the region. As a result, Islamic culture
blossomed in Samanid Mawarannahr. As Islam spread, so did the languages of Islam.
Arabic, the language of scholarship and theology throughout the Abbasid empire, spread
in the east; indeed the geographer al-Muqaddasi claimed that the purest Arabic of his
time was spoken in the region of Khorasan. Arabic was also the official language of the
Samanid bureaucracy, even though Persian was the main language in towns and Sogdian,
though dying out at this point in time, was still spoken in many villages.50 Persian
flourished as well as Arabic, though in modified forms showing strong Arabic influence.
Many people from the region, like al-Biruni, whose native language was Khorezmian, in
fact had to learn Arabic and the new, islamicized forms of Persian written in Arabic
script.

In the “Silver Age” of the Samanids, Bukhara became a cultural center that attracted
scholars from all parts of the Muslim world.51 It became, as one contemporary put it: ‘the
focus of splendor, the shrine of empire, the meeting place of the most unique intellects of

50 R. Frye. Bukhara: The Medieval Achievement. pp. 44, 60 & 103 - 04; and R. Frye. The
Golden Age of Persia. p. 171.
51 Frye employs the term “silver age” to describe the cultural achievements of last few
decades of the Samanid epoch, even though politically this was somewhat turbulent. R.
the age, the horizon of the literary stars of the world and the fair of the greatest scholars of the period. Al-Biruni described the remarkable book bazaars of Bukhara\textsuperscript{53}, while Ibn Sina (Avicenna; 980 - 1037) used the library of the Samanid ruler Nuh b. Mansur of Bukhara and celebrated its many virtues.\textsuperscript{54} It was within this atmosphere of academic excellence that scholars taught theological and religious studies to students in their own homes or those of their patrons, or near the mosques. Scholars have suggested that such gatherings may have been the origins of the *madrasa* building - the Islamic precursor to the modern university, wherein special endowments (*waqf*) were established to support scholars and provide them with lodging and libraries, usually in proximity to a mosque.

Encouraged by lavish patronage and the vigorous intellectual patronage of the Samanid world, thinkers and writers from Khorasan and Mawarannahr now helped to incorporate within Islamic thought the Hellenic and Persian traditions of Sasanian Persia. Firdausi (c. 940 - 1020), who wrote the heroic epic, the *Shahnama*, was born in north-eastern Khorasan, near the modern-day city of Mashhad, and his great epic preserved much of the region’s older Sasanian culture. Its gods - Ormazd and Ahriman - and the endless conflicts between Iran and Turan (lands north of the Amu Darya) reflect the dualism of Zoroastrianism. The epic’s central hero, Rustam, belongs as much to the pastoralist as to the agrarian world, and its account of the past ends with the Arab invasions. Central Asia also contributed much to developments in Islamic philosophy and science, mainly through the work of Ibn Sina, who was born near Bukhara but spent time in various parts of Iran. He probably did more than any other scholar to incorporate the concepts of

\textsuperscript{54} V. Barthold. *Turkestan Down to the Arab Invasion*, pp. 9 - 10.
Aristotelian thought within the Islamic tradition. Khorezmian scholars were particularly important. Here, complex engineering demands of building and maintaining canals encouraged original work in mathematics. Under Caliph al-Mamun, al-Khwarazmi (d. 850), pioneered the use of place-value system in numerals in Muslim mathematics, thereby building on Indian and Hellenic traditions.
“A single letter shines between two points and this single sign, L., marks the forename. Next is engraved what I believe to be an M but which is incomplete: A\. A part has gone missing where a piece of stone has broken off. Is it a Marius, a Marcius or a Metellus who lies here? No one knows for certain. The broken letters rest here, their lines mutilated, and in the confusion of characters the meaning has been lost. Should we be surprised that men should die? Monuments crumble; death even comes to stones and names.”

AUSONIUS, *ON THE NAME, ENGRAVED IN MARBLE, OF A CERTAIN LUCIAN*
4.0 The City in Eastern Iran and Central Asia prior to the Arab Invasions

Scholars, including Frye, believe that the heritage of Sasanian Iran which was transmitted to the Arabs through the invasions was enormous, for in their control over large parts of Eastern Iran, the Arabs had conquered the entire Sasanian empire, literally intact in several respects. A complete model of imperial rule was thus presented to the Arabs by the Persian realm, and the Arabs borrowed more from Sasanian Iran than any other source.¹ For the purposes of this research, the continuing tradition of urban models, complemented by the splendor and authority of the shahanshah or king of kings, vested in the grand Sasanian court at Ctesiphon served as the strongest precedent. By the seventh century, though several provincial capitals had also acquired some of this authority, to a large extent the hallowed presence of the Sasanian state still prevailed, a prince of the royal family was still maintained as the sole candidate for the throne in the face of rebels. Ctesiphon - called by the Sasanian kings as the ‘heart of Iranshahr’ (literally the land of Iran, the domain of the shahanshah) - was a complex of seven towns called ‘the cities’ by the Semitic-speaking inhabitants of the land, who also termed it Mahoze or ‘metropolis’. This designation was adopted by the Arabs, who called the complex in Arabic as the al-Mada’in. The impressive architectural landmarks within Ctesiphon’s urban landscape included the Aiwan Kisra (the Taq of Kisra or Chosroes) - the famous palace audience court of the Sasanian kings.² Within this scenario, they had practiced transhumance, spending most of the year in their capital at Ctesiphon, and only moving to cities of the highlands of Iran for the duration of the summers. Several

provincial centers, including Bishapur in Fars, Hamadan and Istakhr, periodically fell in and out of royal favor, and this practice, now in other hands, appears to have continued until the foundation of Sultaniyya at the end of the thirteenth century. This combination of factors also appears to have led to the development of a rather different kind of city in Iran, essentially one that was characterized by a loose conurbation of small and large settlements, creating a sprawl that collected around each oasis, clustering around a core made up by the major city of the oasis, and radiating outwards along the complex network of qanat lines.

Colledge believes that these kinds of urban layouts or urban conurbations, assumed a “vaguely circular shape”, a trend that began under Parthian influence over Iraq, Persia and Central Asia. On the same lines, the Parthian-period suburbs of Merv formed a very wavy surrounding ring, while the early Parthian re-foundation of Ctesiphon, the ramparts of Carrhae (Harran), Takht-i Suleiman and Hatra of about the first century AD were more closely, and probably more deliberately, circular. Philostratus (I, xxv), in his

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4 Frye writes that it would be valid to assume that Sasanian cities were not greatly different from their Islamic counterparts, which means they were on the whole collections or agglomerations (conurbations) of smaller urban settlements. Greater Baghdad therefore, in essence followed the pattern of Sasanian al-Mada’in, although the original round city may have been copied from ancient Sasanian settlements such as Firuzabad. See R. Frye. The Golden Age of Persia, p. 23. Chapter 1 of this dissertation has already discussed the topography of Baghdad, comprising of the main city (core), and extensive, diversified suburbs.
5 M. Colledge. Parthian Art, p. 34.
7 M. Colledge. Parthian Art, p. 35.
Figure 48: Trade Routes of the Islamic World, around 1000 AD, showing the concentration of urban emporiums in Central Asia and Eastern Iran.
Figure 49: Map showing the several cities mentioned in the text, showing their relative sizes, connections (roads) and provincial boundaries.
accounts, alleged that even Parthian Babylon had the same form\textsuperscript{8}, though reconstructions by Parrot show a largely orthogonal city in the so-called neo-Babylonian period, probably depicting only a detailed view of the urban core (or inner city) with its monumental structures and not the extensive suburbs.\textsuperscript{9} In this regard, the German excavations conducted between 1899 and 1917 have largely substantiated Herodotus’ account of the Babylonian fortifications, describing an inner city delineated as an irregular rectangle with a perimeter of almost five miles.\textsuperscript{10} Beyond these inner cores, with their typical level of order and hierarchy and individual buildings referenced to their own immediate contexts, scholars believe that little additional urban organization existed.\textsuperscript{11} Kostof has suggested that shanty towns, laid out in an irregular and accretive manner, surrounded these organized cores.\textsuperscript{12} Such were the cities, which Frye believes the Arabs saw as they passed through areas of Iraq and Persia, still incompletely characterized into the schema of citadel, city proper and suburb.

Our notions of the size and scale of pre-Islamic Iranian cities are further clarified by archeological surveys conducted in the Diyala river basin north-east of Baghdad and in the region of Khuzistan. These have established the great extent of cultivated land under the Sasanians in the area of the Fertile Crescent, indicating a practice that in all probability also extended to the other parts of the empire located eastwards, and said to

\begin{footnotesize}
\textsuperscript{8} Philostratus, died in AD 244. De Vita Apollonii Tyanei - Vol. I - VIII, p. 244.
\textsuperscript{11} S. Lloyd & H. Miller. Ancient Architecture, p. 57.
\end{footnotesize}
have been accompanied by the multiplication of urban settlements on an unprecedented scale. Frye believes that this trend continued unbroken into Islamic times, causing the impoverishment of the countryside by the mass influx of peasants (and *dihqan* following the Arab invasions) into the huge metropolises that controlled each oasis. Finally, there was an increased and widespread use of walls as a means of protecting Sasanian cities and their citadels, especially on the frontiers of the empire. In the central parts of the Sasanian empire the Arabs did not find massive fortifications in the towns they captured, testifying to the concentration of military forces on the frontiers, where towns were better fortified. Yet the use of boundary walls to enclose gardens, houses and parts of the city was an ancient practice in Iran, not just for reasons of privacy or defense, but also as a means of restraining the ever-encroaching desert or steppe.

Archeological excavations in the Central Asian Republics have revealed similar features for several of the large settlements of the region, including the existence of extensive walls and fortification systems around oases, for example around Bukhara, Merv and Samarqand. While these walls were primarily built at great expense and labor to ward off attacks by nomads, they also served as a barrier against the sand and encroachment of the desert. As a case in point, the land located west of the city of Bukhara is now largely semi-arid desert, whereas in the pre-Islamic times irrigation had made the area around the ruins of Varakhsha habitable and fertile. The Samanid Necropolis, the location for the still-surviving mausoleum from the Samanid period, appears to have been part of this

extensively irrigated area. Therefore, on lines similar to developments in Sasanian Iran, the ‘defensive wall’ pattern was just as widespread in Central Asia in the pre-Islamic period. Within the large walls that surrounded the extensive lands of the oases - the urban areas, the fields and fallow zones - there were included not only villages and towns but also many fortified villas or castles of the landed aristocracy (*kushk*).17

4.1 The *Fustat* and *Ribat* as models of Arab Urban Expansion

In addition to these examples of cities extant in Eastern Iran and Central Asia at the time of the Arab invasions, it has been argued by scholars that the Arabs carried with them the notion of an urban type as they moved eastwards through the course of their conquest.18 In this view, the spatial expression of their conquests (called *futuh*, sing. *fath*) was the establishment in foreign lands of the Arab form of settlements known as *fustat* and *ribat*. Of these, the former were mass encampments of makeshift tent settlements that in time grew into permanent cities as Arab immigrations were encouraged, while the latter were border garrisons that gradually developed into fortress towns and became the nuclei of important cities.19 From amongst these several *fustats* and *ribats*, a substantial number were also designated as *misl* (pl. *amsar*) - centers that specifically served to manage and

16 al-Narshakhi described several smaller settlements in the Bukharan oasis which shared this irrigation network around the ‘mother’ city - Karmina, Nur, Tawais, Iskijkat, Shargh, Zandana, Vardana, Afshina, Barkad, Ramitan, Varaksha, Baiand and Farab. Many of these are called *towns* while some are called large *villages*. See al-Narshakhi. The History of Bukhara, pp. 12 - 19.


legislate the conquered territories.\textsuperscript{20} Beginning with the early campaigns, Caliph Umar b. al-Khattab (634 - 44 A.D.) in Medina is said to have instructed that the Muslims should be settled in these garrison cities rather than be dispersed through the countryside.\textsuperscript{21} This would enable them to maintain their military control and discourage them from becoming assimilated and losing their religious and ethnic identity.

The \textit{misr} settlement was ideally suited to the establishment of Arab cantonment (garrison) cities in foreign territories, and several were established in the vicinity of, or even within the structures of some existing cities. Some of these early administrative centers acted as links between the capital of Islam - where the decisions of the \textit{fath} were made (e.g. at Medina in Hejaz) - and the existing settlement system in the conquered region. These \textit{amsar} also acted as the outposts of the empire for further \textit{futuh} in adjacent areas, serving as springboards for new campaigns. Within the general tradition of the \textit{fustat} and \textit{ribat} it is therefore crucial to examine this urban type and its relation to the processes of Islamic urbanism based primarily on the transformation, foundation and evolution of cities resulting from the Arab conquests and the spread of Islam into the lands of the previously Sasanian, Hephtalite and Sogdian empires. The assimilation of Arab interventions within the physical structures of Central Asian cities was divided into three main stages - the foundation of new Arab cities; the incorporation of existing cities within new foundations; and the assimilation and emergence of an integrated settlement pattern. In all instances, beyond the physical changes that were initiated, it was the

Figure 50: Aerial view, the city of Shahpur in Eastern Iran, showing a classic case of the urban-hinterland interaction mentioned in this chapter. Shahpur was founded in the Sassanian times and did not grow to the extent of several Samanid urban centers, hence the urban periphery largely follows the defense lines.
Figure 51: A detailed aerial view of Shahpur in Eastern Iran, showing the expansion of the city into the surrounding landscape along pre-existing lines created by the underlying grid, street patterns and agricultural sub-divisions.
greatly increased degree of urbanization that accompanied the conquests which will be one of the focal issues of this inquiry.22

The first step in the development of these early Arab foundations was the dispatching of forces by the order of Amir al-Muminin, the Commander of the Faithful, to the designated area of the campaign. After the military operations were complete, a military camp was established at the fringes of this area, but not far away from the existing centers of population. The camp housed the tribesman and their families who comprised the initial campaigners, as well as the other muqatila (warriors), and their families who continued to gradually migrate to the area. The great numbers of the warrior tribesmen necessitated the allocation of separate sections (khitat) for the different clans. Soon the initial camp took on the appearance of an organized garrison town, where parcels of land were distributed to the arriving clans. The final stage in this primary form of settlement was the decision to formally declare this first nucleus of the Arab settlement as the regional capital and the chief city of the occupied lands. After this act, known as tamsir, the city was now called the misr (capital) of the region. The decision to declare a town as the misr was a right of the khalifa (caliph), who theoretically chose the town site after consulting with his generals. The population of the early Arab cities continued to be engaged in the military campaigns during the years of the conquest. They depended for their livelihood on booty and on state annuities and stipends (khums and ata).23

22 F. Donner, The Early Islamic Conquests, p. 266.
The *amsar* settlement continued to perform their distinct military function as long as the *fath* process continued. After the region came under the complete control of the Arabs, a second line of settlements appeared within the primary framework established by the *amsar*. The existing pre-Islamic cities and urban centers of the region constituted this second line of settlements, as they were gradually incorporated within the new evolving urban system with the spread of Arab culture and Islam. This expansion was accomplished either by *silh* (capitulation) or *unwa* (subjection by force) of these existing cities. In both cases, the subject towns had to pay the state treasury capitulation taxes, and their non-Muslim populations were required to pay *jazia* (the poll tax or capitulation tax).

The gradual absorption of the former Sasanian and Byzantine towns in parts of the Middle East, and Hephtalite and Sogdian towns in the Central Asian Region into the Arab-controlled system of settlements continued in several ways during the second stage of the model. Some of these cities were chosen for the garrisoning of the Arab troops, and they functioned in similar ways to the *amsar* at their early stage. Some even attained the status of a *misr* for their respective regions. Renovation and expansion of several of these towns occurred in accordance with the general state of rapid economic and urban growth of the Islamic empire.

The third and final stage of the evolution of the settlement pattern appeared after the completion of the process of assimilation of the two earlier settlement patterns and their merging into one macro-framework. As the individual *misr* continued to grow, it became comparatively less militarized, until eventually it was completely de-militarized. The

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appearance of Islamic architecture and religious institutions in pre-Islamic cities and the continued migration of Arab and Islamic elements to them accelerated the assimilation of the *amsar* into a new integrated settlement system.\(^{25}\)

With this background, what appears most intriguing about the Arab invasions on the Central Asian region is the important question as to whether or not the *amsar* were in fact commonly used to house the Arab garrison during the long campaigns. And if they were so used, what kind of evidence survives today, in urban patterns within the existing towns of the region or those known only from their archeological sites. On the other hand, if few evidences of *amsar* are found in the region, or are not proven to have existed with any degree of certainty, it would be equally important to consider why this popular settlement type, extensively employed in parts of the Middle East, was used so sparingly in this part of the Eastern Islamic world? Would the convenient re-use of the great number of pre-Islamic urban centers be a possible direction of inquiry? Or would it be the great duration of the campaigns, which stretched from 625 to 750 AD, before the entire region was under Arab control, suffice to explain the nature of these developments? In any case, while the spatial and formal arrangements associated with the *amsar* may or may not have been replicated in their entirety in the region of Central Asia, it is highly likely that several of their important, characteristic features were used in some of the pre-existing towns. These became partial interventions in the structure of existing cities. Therefore, while it may be tempting to search for the *amsar* in the Central Asian region, it may be more fruitful to look closely at a selection of cities and discern features which were typical of the *amsar*. (Figure 45, 46)

4.1.1 The Physical Structure of the *Amsar*

The history of early Islamic fortifications, especially those used for the creation of the *amsar*, has hardly been investigated, except in Creswell’s classic essay which established a simple framework, but now seriously out of date.\(^{26}\) The Arabic sources use a variety of words and terminologies for castles and fortresses, among which *hisn* is commonly used for a structure which is purely military in character. The word *qala*, later the normal word for a castle, is less common in first few centuries of Islam. *Qasr*, which seems derived from the Latin *castrum*, is used of a high-status dwelling that is usually, but not always, fortified.\(^{27}\) The residential and military castle, so typical of Western Europe from the eleventh century and, to a lesser extent, of the Middle East from the period of the Seljuks and their successors, was virtually unknown in the Islamic world, apart from some survivals from Sasanian times in the region of Fars and elsewhere.\(^{28}\)

Most of the cities the Muslims took over during the great conquests had been surrounded by walls. Northedge has drawn attention to two different traditions of city fortification in the Middle East. One is the classical style in vertical stone, or occasionally fired brick walls, usually strengthened with interval towers, either square or round. The second tradition was a Mesopotamian or Iranian one, and also extended into the greater region of


\(^{27}\) These different terms were used in a slightly confusing manner (and interchangeably), especially in the accounts of Arab historians and geographers. This has been discussed in Chapter 1 of this dissertation.

Central Asia. This consisted of piling huge banks of mud-brick and *pise*, a technique which can be seen in the pre-Islamic city of Merv, and the massive ramparts of old Samarkand (Afrasiyab), the Kanpirak wall at Bukhara, and at Penjikent.

Walls clearly had their uses, but several of the large garrison cities or *amsar* of early Islam seem to have been left without them. The great Iraqi *misrs* of Kufa and Basra had no walls until the early eighth century, when al-Mansur is said to have ordered the building of walls around the two cities at the expense of the inhabitants in 722 AD. Fustat remained un-walled until its virtual destruction in the late twelfth century. The Round City of Baghdad certainly had impressive fortifications but the rest of the sprawling metropolis seems to have been open at the time of the siege of 812 - 13 AD. In the second siege of 865 AD, it had walls with elaborate gates. In Samarra, individual palaces and complexes had walls, but there was no wall surrounding the entire built-up area. In the early ninth century, Aleppo was unfortified, with the result that the citizens could not defend themselves against the attacking Bedouin. The position of the city of Merv is particularly interesting in this respect. As far as can be determined from the archeological excavations and the written records, the old walled city was gradually abandoned in favor of extensive, new, un-walled suburbs along the Majan canal to the west of the city. It was not until the Seljuk times in the late eleventh century that this area was surrounded by a wall.

Figure 52: Aerial view of the urban sprawl of the city of Hamadan in Eastern Iran, showing the relentless growth of the city into the surrounding landscape, beyond the confines of the earliest walled enclosure.
Fig. 53: Aerial view of the urban sprawl of the city of Hamadan in Eastern Iran showing the dominating nature of the original tell that was once the core of the city, now abandoned with only a few dilapidated structures. A modern-day avenue cuts through the urban fabric.
For the *amsar*, beyond being well fortified garrison units positioned in enemy positions, even for the best documented of these settlements, namely al-Basrah, al-Kufah, and al-Fustat, the remaining description is woefully inadequate. Typographers, historians, and others, writing no less than two centuries after the founding of these cities, referred only incidentally to the various early architectural structures located in these contexts. At the same time, they treated somewhat more fully the prevalent principles of administrative and legislative control that appeared to create these environments, though being far from explicit on the spatial interrelations of these features. Akbar’s research highlights critical evaluations of such existing evidence on the early *amsar* morphologies, by analyzing the semantic implications of the several terms employed by Muslim writers in describing the foundations of these settlements.\(^30\) The author thereby has managed to specify certain constraints that seem to have operated at the time the *amsar* were introduced as features of the *futuh* in large parts of the Islamic world. The verb *khatta* (and its various derived forms), signified the claiming, with official authoritative approval, of a plot of land on which to erect a building by formally demarcating it on the ground. Likewise, the noun form of the word - *khittah* - denoted the prospective site thus demarcated. The *masdar takhtit* was the laying out of such a plot; *tanzil*, its actual occupation. For the bestowing of a specific tract of land on a specific individual by a duly constituted authority, another word *aqtaah* was used, with the allotment itself, whether in fee simple or with rights of usufruct, being known as the *iqta*. Through his detailed analysis that encompasses semantics, economics and socio-cultural traditions, Akbar has shown that in these

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settlements, locational decisions were made predominantly by the inhabitants, at most by a local versus a central authority. The town therefore became a series of adjacent properties controlled by its users, suggesting that the morphology of these towns came about as a result of many small decisions made by the settlers themselves. Furthermore, streets were determined primarily by the disposition and boundaries of the quarters, while shared places such as forecourts, streets and open spaces within a *khittah* were collectively owned and controlled.

While at first glance these observations may tempt a conclusion that since Arab tribesmen were able to exercise a large measure of choice in selecting the sites of their holdings, the *amsar* would have obviously been formless aggregations, the facts are quite the contrary. Even in early years, the *amsar* were not simply haphazard collections of tents, reed huts, or brick dwellings spread over two square *farsakh*, as at al-Basrah from about 670. Instead, in al-Baladhuri’s words on the *amsar* at al-Basrah, these *amsar* were created by tribesmen who “staked out their claims and raised their dwellings,” while certain Companions of the Prophet demarcated *khitat* for their tribal peoples, whose dwellings abutted one on another; but - significantly - none of this was undertaken until the Companions had reached agreement among themselves. Finally, this decision-making process and the myriad of activities that it entailed at al-Basrah, one among the first *amsar*, was according to al-Tabari, coordinated by one Asim ibn al-Dulaf Abu al-

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Jarba. At al-Kufah, circumstances were comparable to al-Basrah, though in this case it is explicitly recorded that the overall layout of the site was supervised by a certain Abu al-Hayyaj, including the decision to reserve a space (sahn), allegedly two bow shots square at the center of the cantonment for a mosque and a governor’s palace. Additionally, a council was empanelled to recommend to al-Hayyaj the delineation of the main streets, their required widths and directions, and proscriptions for the use of buildings and urban spaces.

While the structure of the other settlements (amsar), had marked similarities to al-Basrah and al-Kufah, in recent years, one of the more radical revisions of early Islamic history, particularly one dealing with the amsar as a basic mode of Arab expansion in territories eastwards, has been Whitcomb’s suggestion that the misr was the standard unit of Arabo-Muslim settlement during the early Islamic period, both within and external to pre-existing cities. Integral to this interpretation is the further notion that the misr either in whole or in part was, typically, an orthogonally arranged form. In support, Whitcomb points to archeological and literary evidence indicating cantonment-like additions to a range of cities. These include Tabariyah (Tiberias), where recent archeological excavations have suggested a planned community established adjacent to the older

Figure 54: Map of the entire Merv Oasis centered along the Murghab River. The several small and large settlements of the oasis can be seen, in addition to the destroyed network of canals that once sustained the entire region in ancient times.
Figure 55: Aerial view of the Merv Oasis showing the several settlements of the area and the complex network of irrigation canals. All of the urban sprawl comprising the cities of Merv, the irrigation network and the irrigated area was contained by sets of walls, built at different points in the history of the city. Some sectors of the city were summarily abandoned, as new areas were enclosed within fortifications.
Sasanian town in early Umayyad times;\textsuperscript{36} al-Ramlah (Ramleh), where the arrangement of eight city gates is held to imply an original orthogonal scheme with axial main streets intersecting in its center;\textsuperscript{37} and at Hims, were Arab levies were settled in \textit{khitat} throughout the city, literally in every place evacuated by its occupants and in every abandoned courtyard.\textsuperscript{38} Based on this thesis, Whitcomb also categorizes as \textit{amsar} several rectangular walled towns quartered by axial thoroughfares converging on tetra-pylons, his particular examples being Waylah (al-Aqabah) and Anjar in the Biqa. He also proposes the establishment of a \textit{misr} at al-Mawsil (Mosul), which was essentially an Arab encampment adjacent to a Sasanian settlement;\textsuperscript{39} at Istakhr, where an apparently permanent, square settlement was laid out beside the important Sasanian city of Stakhr;\textsuperscript{40} and at Shiraz, founded probably in 684 in proximity to a fortified Sasanian administrative center, allegedly employed as a base for a Muslim army besieging Stakhr.\textsuperscript{41} Supporting Wheatley, it would be reasonable to assume that Whitcomb’s identification of \textit{misr} and \textit{misr}-like settlements could easily continue in other parts of the Islamic world, usually located in close proximity to existing towns. Therefore Isfahan, al-Rayy (Rey), Qazwin, Marv al-Shahijan, al-Sus, Askar Mukram and Wasit would be archetypical examples in the Eastern Caliphate, as were Barqah and Qayrawan (Kairouan) in North Africa. From this range of views, it is evident that beginning from the early Islamic period, the so-

\textsuperscript{38} Baladhuri. \textit{Kitab Futuh al-Buldan}, p. 131.
\textsuperscript{39} Baladhuri. \textit{Kitab Futuh al-Buldan}, p. 332.
\textsuperscript{41} D. Whitcomb. \textit{Before the Roses and the Nightingales: Excavations at Qasr-i Abu Nasr, Old Shiraz} (New York, 1985), especially Chap. 4.
called term *amsar (misr)* was interpreted in a variety of ways, ranging in meaning from judicial and lexicographical usage, to technical and popular definitions. Wheatley observes that from examples appended to these multi-faceted definitions (such as those included in al-Muqaddisi’s *Ahsan*), professional sodalities and popular speech alike appears to have restricted the usage of the term to describe developed urban forms, to settlements that could justly be designated as metropolis. The exact layout patterns of these *amsar (misr)* are still a matter of debate, involving both archeological inference and textual interpretation, as discussed above. While several scholars argue for an orthogonal framework, there are others that see in these entities little more than labyrinths of lanes and alleyways winding through makeshift camps. Wheatley therefore proposes that rather than question whether or not the *amsar (misr)* were laid out orthogonally, relatively more critical would be to examine to what extent some of the *amsar (misr)* incorporated orthogonal elements. Also, it should be noted that in the seventh century, when the term *amsar (misr)* first appeared in use, sizable tribal settlements were by no means unknown in the Middle East. In fact two terms - the *hadir* and the *perembolai* - are employed in the sources to describe such structures, thereby differentiating these from the *amsar (misr)*.

### 4.2 Modifications on the cities after the Arab Invasions

Based on our general discussion of urban developments in the region of Eastern Iran and Central Asia in Chapters 1 & 2, the city in eastern Iran and Central Asia prior to the Arab

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Figure 56: The defensive walls of the city of Merv, still-surviving in certain areas. All of these walls were made of adobe, constantly maintained over the centuries, and were in several instances rose between 10 - 20 meters above the surrounding landscape.
invasions was characterized by a concentric layout of zones. (Figure 63, 64, 65, 66) Beginning with the early part of the Islamic period, and evolving from their characteristic bipartite structure, a number of the larger urban foundations grew in time to become tripartite, and even quadripartite in their structure. These urban environments were characterized by a citadel (*quhandidh*), surrounded by or alongside the inner city (*al-madinah al-dakhilah*) which in turn was surrounded by the new city (*al-madinah, shahristan*), and around this were formed the suburbs (*rabad*). This physical pattern of these cities also reflected the growth of the urban population. Initially there was only the citadel and the inner city surrounded by the wall, but as the urban population swelled, it spilled over into the area immediately adjoining the city wall. This latter settlement eventually formed the new city, which grew to such an extent that it frequently justified the construction of yet another wall around it. By the same process, suburbs grew outside this second wall of the city, creating a suburban area, which was often difficult to distinguish from the rural areas and, indeed, frequently consisted of large areas under cultivation. This was particularly true of the early stages of *rabad* growth in several Central Asian cities. (Figure 66)

At a second level, in a large majority of cases, the city or the urban district that contained the city at its center was intrinsically connected to the landscape or hinterland that lay around the city. In fact, it would be fair to say that there was often a symbiotic relation of sorts between the city and its hinterland, as exemplified in the several oases settlements wherein urban and legislative processes continually determined how rural, urban-hinterland and urban populations were shaped and mediated their immediate urban
environments. Such urban systems typically centered about oases, often expended great energy and resources in creating physical devices and structures peculiar to cities in the semi-arid (oases) settings of Central Asia. Ancient and medieval hydraulic schemes, including canal networks, reservoirs, dams and *qanat* were the first among these constructions. They sustained huge urban populations in cities such as Merv, Balkh, Bukhara and Samarqand, in addition to a plethora of smaller towns comprising each oasis. (Figure 47, 48, 49, 50, 67)

At a third level, there existed the intricate systems of urban defenses or walls that surrounded a number of these cities, often in multiple rings. While protecting the city from armed attacks, these walls also performed the even more important function of

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44 For the urban historian, the city-hinterland relationship is an extremely important one since it provides vital clues to the formative processes of the city. Several scholars have touched on this topic in different contexts of time and space. Based on illustrations, such as those in Matrakci’s views of cities in Iran (done 1537 - 8), it is tempting to speculate on the nature of urban space, within and without the walls of cities, in city-hinterland conditions such as in parts of Eastern Iran and Central Asia, as those discussed in this thesis. See H. Gaube. *Iranian Cities* (New York University: New York, 1978), pp. 9 - 11; S. Blair. “The Mongol Capital of Sultaniyya, ‘the Imperial” in Iran, pp. 136 - 51; and R. McC. Adams. *Land Behind Baghdad - A History of Settlement on the Diyala Plains* (Chicago/London: The University of Chicago Press, 1965), pp. 112 - 16 & illustrations (Maps). For superb aerial views of several ancient and medieval cities in Eastern Iran and Central Asia that illustrate the varying urban-hinterland conditions (including many sites known today only through archeological examinations), see E. Schmidt. *Flights Over Ancient Cities of Iran* (Chicago: The University of Chicago Press, 1940).

45 Several of these hydraulic systems that sustained these cities had been put in place in antiquity, and constantly re-built and improved. For a discussion on the irrigation and *qanat* systems in Central Asia, see R. Pumelly (ed.). *Explorations in Turkestan - Expeditions of 1904* and R. Frye. *Bukhara: The Medieval Achievement*, pp. 31 - 32; for Eastern Iran, see H. Gaube. *Iranian Cities*, pp. 2 - 5 and M. Kheirabadi. *Iranian Cities - Formation and Development* (Austin: University of Texas, 1991), pp. 11 - 20, 91 - 94.

46 Plans of several of the largest urban centers in Eastern Iran and Central Asia, such as Samarqand, Bukhara and Merv, show evidence of several sets of walls. See A. Belenitskii *et al*. *Crednebekobii Gorod Credneii Azii*, pp. 211 - 19 and R. Frye. *Bukhara: The Medieval Achievement*, pp. 9 - 10.
keeping the desert sands away from arable, cultivated lands located within the *rabad* (suburban) areas of these cities.\(^{47}\) In time, several of these cities became so dependant on these constructions for their very survival, that the destructions wrought by the Mongols in the thirteenth century had severe consequences.\(^{48}\) While in some cases, the extensive urban sprawl rapidly shrunk, in others the destruction of the *qanat* led to the abandonment of the city. In still others, the abandoned environments slipped into oblivion, gradually covered by the desert sands no longer checked by the barrier of the urban walls. In these cases, the greater sprawl shrunk to its essential core.\(^{49}\) (Figure 51, 53, 57, 58, 59, 60, 61, 62, 62A)

\(^{47}\) With specific reference to the walls at Bukhara, Frye writes about the great walls around the city, amusingly called *Kanpirak* (literally “the old women”), and continually repaired and enlarged over time. R. Frye. *Bukhara: The Medieval Achievement*, p. 10. Samarqand also appears to have had a similar wall, and Strabo describes the fertile Margiana (Merv), enclosed by a wall measuring 1500 *stadia* by Antiochus Soter (*The Geography of Strabo XI*, 10, pp. 1-2).

\(^{48}\) While a detailed discussion on the ramifications of the Mongol invasions on the cities of Eastern Iran and Central Asia would be beyond the scope of the present discussion, it is significant to conjecture on the relative ease with which several of the important urban centers in these regions were overthrown, notwithstanding the sheer size and strength of the Mongol hordes themselves. It is likely that the largely “symbolic” nature of urban walls that surrounded these cities by the 1200s may have been an instrumental factor in this process. Added to this would be the phenomenal growth of cities in eastern Iran and Central Asia, which would have made walls rather redundant, owing to the spillage of urban fabric beyond the ‘conventional’ confines of the urban district.

\(^{49}\) Scholars believe that it is reasonable to assume that the regions of Eastern Iran and Central Asia, with their overarchingly dependence on the locally devised form of artificial irrigation (the *qanat*), would have suffered devastating consequences with permanent repercussions through even a brief invasion, if sufficiently destructive in its impact. The Mongol invasions were the catalyst in this process. See D. Morgan. *The Mongols* (Cambridge/Oxford: Blackwell, 1995), pp. 80 - 81. Similar findings on the hinterland of Baghdad are discussed in R. McC. Adams. *Land Behind Baghdad - A History of Settlement on the Diyala Plains* & in A. Watson. “A Medieval Green Revolution: New Crops and Farming Techniques in the Early Islamic World” in A. Udovitch (ed.). *The Islamic Middle East, 700 - 1900: Studies in Economic and Social History* (1981), p. 53, n. 29.
Figure 57: A surviving section of the wall at Merv, with typical corrugations forming a *koshk*, little of which survives above ground to the north west of the Gyaur Kala complex.
Figure 58: The so-called Lesser and Greater Kyz Kalas at Merv, viewed from the south. The grand mausoleum of Sultan Sanjar (built 1153), can also be seen in the distance to the right of the structures.
Beginning in the sixth century and spurred by the impacts of the Arab invasions in the early seventh century, Samarqand, Bukhara, Penjikent and Paikend developed into classic examples of cities with greatly exaggerated *rabad* zones, multiple-walled zones and well-articulated urban-hinterland relationships. (Figure 51, 52, 66, 68, 69, 70) These developments were also apparent in areas west and south of Sogdiana, as far away as the cities of Merv, Nishapur and Balkh, and in regions eastwards, illustrated at several sites in present-day Kazakhstan and as distant as the Uighur capital at Karbalghasun (in present-day Mongolia). A brief examination of these sites, often separated from Sogdiana proper by several hundred miles and rarely researched at a comparative level, reveals critical parallels to our reconstruction of the four main cities at the focus of this research.

Bolshakov concludes that after an initial period of decline caused by the Arab conquests, Central Asia saw a rapid increase in the number of cities in the ninth century as the region was integrated within the economic and cultural worlds of Iran and the Mediterranean. As a result, cities became drastically changed in their features. Cities until then had been small in scale and were centered on the residence of the *dihqan*; crafts and commerce existed only to satisfy the needs of the *dihqan*. In the tenth century large cities like Merv and Samarqand had populations on the scale of 50,000 and were thriving centers of crafts and commerce. These cities developed around the surviving cores of old cities (*shahristan*) that had existed since the seventh and eighth centuries. Though the tempo of urban growth slowed in the Central Asian heartland in the late tenth and eleventh centuries, cities in the north-eastern frontier area began to grow owing largely to large-scale settlements by the Turkic nomads. By the end of the eleventh century, most
cities had reached their maximum in terms of both size and population. Since such rapid growth had been conditioned by the existence of a centralized state, the cities inevitably lost all traces of the internal autonomy they had previously enjoyed, becoming no more than individual cells within a centralized state. By the period spanning between the ninth and twelfth centuries, Central Asian cities dominated the surrounding agricultural areas politically and served as administrative and economic centers for the nearby region. As a result, many large land-owners, who had previously resided outside the urban regions (as *dihqan*), now moved into the urban jurisprudence of these cities and began to engage in commercial activities. The development of crafts and commerce not only concentrated immense wealth in the hands of the urban ruling class, but it also created many new classes of artisans and wage laborers who were further divided into smaller, independent groups (*korporatsiya*) by quarter and occupation. These so-called corporations did not, however, have much control over urban politics. Nevertheless, cities of this period in Central Asia did possess urban militias, organized to some extent out of groups like the *ayyar* which were independent of the political power. In their final phase of transformation prior to the devastating Mongol invasions, the conquest of Central Asia by the Seljuks and the Qarakhanids did not fundamentally change the economic structure of urban society. Rather it brought these cities face to face with a group of people different from the type they had been used to dealing with, populous nomadic military groups who had never before enjoyed political autonomy.50

4.3  Demographic Changes in Sogdian Cities after the Arab Invasions

Among the significant cities of the Central Asian region, the developments at Afrasiyab and Bukhara in the Sogdian and early Islamic periods fit the pattern proposed above. Information on Afrasiyab is further substantiated through a topographical description of the city from the early 10th century, provided in Ibn al-Faqih al-Hamadhani’s *Kitab al-Buldun*, with specific measurements for areas of the various parts of the city. The passage in question has been examined by the two scholars Barthold and Tskitishvilli and it is ascertained that the citadel and the inner city at Samarqand occupied a total of 2,500 *jaribs* of area. Agreeing with this figure, and using the conversion index of 1592 square meters per *jarib* as suggested by Hinz, this equals 398 hectares of total area within the walls. Outside the old city, the settlement occupied some 5000 *jaribs*, that is, 796 hectares. Beyond the new city or *shahristan* lay the suburbs, the total extent of which is uncertain in the description. Barthold states that altogether the city (the new city or *shahristan*), and the suburbs occupied 6000 *jaribs*. If the town itself took up 5000 *jaribs*, then 1000 *jaribs* or 159.2 hectares remained for the suburbs. Tskitishvilli’s analysis of the Mashhad document yields a higher figure of 5000 *jaribs* for the same.

Based on these figures, scholars such as Weinberger have attempted to estimate the growth of the city of Samarqand (Afrasiyab) immediately before, and after the Arab

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51 V. Barthold. *Turkestan Down to the Mongol Invasions*. p. 84.
52 O. Tskitishvilli, “Two Questions Connected with the Topography of the Oriental City in the Early Middle Ages” in Journal of the Economic and Social History of the Orient, pp. 311 - 20.
Figure 59: View of the walls of the Merv Oasis and its many *kushk* structures (small forts), all characterized by corrugated walls constructed in mud brick.
Figure 60: Aerial view from north-east of the nearly square Hellenistic city - the Gyaur Kala - with its polygonal citadel, the Erk Kala. The walls of the Seljuk city, the Sultan Kala can be seen in the distance, together with the mausoleum of Sultan Sanjar located at its very center.
Figure 61: Aerial view of the much smaller, post-medieval or Timurid city known as the Abdullah Khan Kala, looking west of the modern town of Bairam Ali at Merv. the ruins of the citadel and its palace are located in the bottom right corner of this enclosure, less than a kilometer square.
conquest until the Mongol invasions in 1221 AD.\textsuperscript{54} For the purposes of clarifying the huge sizes of the cities focused through this research, it is helpful to mention these compelling projections here. At a time just before the Arab invasion Samarqand consisted of the inner city, the citadel and probably a settlement (suburb) around it that later grew into the new city. In all probability, the inner city was thickly populated, and a population density of about 250 persons per hectare has been proposed, based on comparable examples of cities in other parts of the Islamic world.\textsuperscript{55} This would have yielded a population of 99,500 within the old city. In contrast, the population outside the city wall was probably quite sparse, not unlike that in the rabad of later years. If a population index of 60 per hectare is assumed for this area, an additional 47,760 persons results for a total pre-Islamic population of roughly 150,000.\textsuperscript{56}

\textsuperscript{54} Scholars have pointed out that the text from the Mashhad manuscript - reproduced by Tskitishvilli and the same passage in the deGoeje edition (Ibn al-Faqih al-Hamadhani, \textit{Kitab al-Buldun}, ed. M. deGoeje, Bibliotheca Geographorum Arabicorum 5, pp. 325 - 6) - do not appear to agree regarding the dimensions of the rabad. The former source states that it was 5000 jaribs, while the latter has 6000 jaribs. Barthold interprets this figure to mean 6000 jaribs, including the rabad and the city proper, i.e. 1000 jaribs for the rabad. Tskitishvilli skirts the issue by indicating only that the area of the city under crops is 10,000 jaribs and the area of the city is 15,000 jaribs. It is therefore unclear how one should calculate this, since the text is garbled. Probably the inhabited area of the rabad was actually 6000 jaribs. Some scholars suspects that the original statement read 16,000 jaribs of which 10,000 was under cultivation. For the sake of caution, scholars such as Weinberger have therefore used Barthold’s figure of 5000 jaribs for their subsequent calculations. See J. Weinberger, \textit{The Rise of Muslim Cities in Sogdia, 700 - 1220} (Berkeley: University of California, 1984), unpublished doctoral dissertation, p. 197.

\textsuperscript{55} This is a high index, but not unreasonably so, and in fact comparable to figures from other Muslim cities in roughly the same period. The cities of Muslim Spain had estimated population densities ranging from 231 per hectare for Seville to 319 per hectare for Cartagena. See L. Torres Balba’s in \textit{Studia Islamica}, 3 (1955), pp. 55 - 6; and J. Russell, “Late Ancient and Medieval Population” in \textit{Transactions of the American Philosophical Society}, ser. 2 - 48:3 (1958), pp. 92 - 3 where the density of Constantinople is estimated at 300 per hectare. In summary, this ‘high index’ should be viewed as a conservative estimate.

\textsuperscript{56} Weinberger suggests that the choice of an index of 60 persons per hectare is somewhat arbitrary, but useful in the reconstruction of urban population figures. The area outside
In an interesting extension to this picture, al-Tabari states that in the year 751 AD Abu Muslim built a wall around Samarqand.\(^{57}\) While exactly why this wall was constructed is never clear, at least from the accounts, it is highly likely that this ambitious construction was seen as an appropriate defense against frequent nomadic incursions. Abu Muslim was also, in all probability, preparing for the inevitable disorder and political realignments expected in the wake of the Abbasid revolution. Finally, Abu Muslim’s desire to build a new wall suggests strongly that the population outside the wall of the inner city had grown sufficiently large by 751 AD to justify such a construction, which would have undoubtedly been an expensive enterprise.

Therefore, employing Weinberger’s analysis, it could be assumed that about 751 AD the population density in the \emph{rabad} had risen from 60 to 100 persons per hectare, causing the population of the newer settlement to be 79,000 for a total urban population of roughly 180,000 persons. In view of the Abbasid revolution and the constant movement of some of the populations into the relative safety of the city, such an increase should not be viewed as an unreasonable assumption. This growth of population would also have been substantially augmented by the policy of settling the successive waves of Arab tribesmen in selected Central Asian cities, of which Samarqand and Bukhara were significant

\(^{57}\) al-Tabari, 3:80. There were two walls around Samarqand, an early wall and the one built later and further out by Abu Muslim. This is indicated in the account of the revolt of Rafi ibn al-Layth who retired from the outer wall to the inner one when his defenses proved inadequate to the attack of the central government forces (al-Tabari. \emph{Tariikh al-Rusul wa-l-Mulk}, 3:775).
examples. Significantly, this huge figure did not include the sparsely-populated settlements in the rapidly-developing suburbs outside this new, second wall. Further, by the beginning of the 10th century, Samarqand appears to have become even more populous, thereby achieving its final dimensions, in Ibn-Faqih’s words. It is assumed that the city had substantially increased in density for the new settlement to have grown outside the wall of the city, for we are now told of the existence of the rabad. “In effect, if one assumed a heavy population density in the new city, but not as heavy as in the inner city, then the index of population for the new city could be set to 200 persons per hectare, yielding approximately 160,000 souls in the inner city. Also assuming a light population density in the rabad of 60 persons per hectare, there were an additional 9,552 persons for a total population in the inner city, the new city and the rabad of 268,252 persons.”

These assumptions regarding the dramatic population explosion of Samarqand may be corroborated against developments around the period of the Mongol invasions. Chang Chun, the Chinese traveler who visited the city shortly after the Mongol conquest states that there were about 100,000 families in Samarqand prior to Chingiz Khan’s invasions. With 100,000 families at an average of 3.5 members per family (assuming Russell’s average index of 3.5 persons per ancient and medieval family), the population of Samarqand would therefore have been a staggering 350,000 people. This is substantially smaller that Barthold’s conjecture of Samarqand in the Samanid period with an excess of

58 J. Weinberger, The Rise of Muslim Cities in Sogdia, 700 - 1220, p. 121.
500,000 inhabitants, though scholars believe that this figure is overly exaggerated, and would even doubtful for the urban population at its very apex in the immediate pre-Mongol period. Had Samarqand been a city as large as or larger than Baghdad, and containing 500,000 persons, it seems likely that it would have been commented upon by contemporary geographers and historians.61

There are unfortunately no comparable topographical descriptions of Bukhara to those employed for the examination of Samarqand. However, in a clever use of sources, Weinberger examines the accounts of the anti-Abbasid revolt of Sharik ibn Shykh al-Mahri in 750 AD at Bukhara62, reported in Narshakhi’s Tarikh-i Bukhara as a movement that attracted some 30,000 adherents, comprising “most of the people of Bukhara.”63 Similarly, both Barthold and Gibb believe that the uprising was a popular rebellion against the rule of the Sogdian aristocracy.64 While there is some substance to this view, the revolt was motivated more by religious sentiments and regional, urban interests than by class struggle. Certainly, there is no evidence to justify Gibb’s contention that “probably the greater part were the townsmen, or ‘popular party’ of Bukhara.” If anything, it was the Arab garrison of Bukhara that must have comprised the bulk of the rebel forces.

61 While this figure of 350,000 would appear exaggerated to urban historians of the western world, reservations must be expressed with some caution. Weinberger supports the view that while this figure assumes that Samarqand increased in size (area) to accommodate this increased population, even if it was assumed that the size of the city remained the same and only the density of its population rose, the total population would still total to be 330,340. J. Weinberger, The Rise of Muslim Cities in Sogdia, 700 - 1220, p. 122.
64 V. Barthold, Turkestan Down to the Mongol Invasions, p. 195; H. Gibb. The Arab Conquests in Central Asia, p. 95.
This particular aspect does not sound as problematic if one considers that about half of the urban population of Bukhara at this point in time comprised of Arabs. This had been true since Qutaybah’s conquest when he gave one-half of the Bukharans’ house and estates to members of the Arab garrison and the Al-i Kashkatha left in protest and established some 700 villas in the zone immediately around the city. The loss of this particular social group with their families, servants and retainers entailed a sizeable reduction of the native half of the city’s population, thereby shifting the balance still further in favor of the Arabs. The size of the Arab garrison stationed at Bukhara was most probably 20,000 men. The garrison at Samarqand was about 11,000 strong, while at Bukhara it was considerably larger, for the intention was to garrison Samarqand, and to colonize Bukhara.\(^\text{65}\) In addition, twenty thousand was a size commonly employed in Arab military strategy; a force of this size was drawn from Kufa and Basra in response to the Turkish threat of 730 AD, and similarly, Nasr ibn Sayyar was in charge of an army of 20,000 levies from Sogdiana.\(^\text{66}\)

Some indirect evidence of an Arab garrison of 20,000 at Bukhara is also to be found in the response to the Sharik uprising. Abu Muslim sent Ziyad ibn Salih with a force of 10,000 men, which was joined by another 10,000 Sogdians under the Bukhar Khudah Tugshadah to create a joint force of 20,000 men. Assuming that the soldiers of the revolt were of uneven quality, they comprised of members of the Arab garrison and the Bukharan populace. The Arab garrison was a trained and seasoned army with established

\(^{65}\) Shaban, pp. 112 - 16; H. Gibb. The Arab Conquests in Central Asia, p. 95.
Figure 62: Aerial view of Merv with the Razik canal running between the ancient city - the Gyaur Kala on the left, and the Sultan Kala on the right. Cities constructed in such close proximity, evident from the view above, indicate how suburbia could be contained within the walls of a new city, creating a situation where several ‘cities’ so to say co-existed next to each other.

Figure 63: Aerial view of the Merv Oasis showing the northern sector of the Seljuk city of Merv, with its citadel - the Shahryar Ark. The ruins of the palace and the kepter khana can be seen at the center of the ark. The oval walls of the northern suburb, Iskandar Kala are also visible.
Figure 64: Aerial view at Merv showing a great tower located on the eastern wall of the medieval city of Sultan Kala, which still survives to the height of about eight meters above the surrounding terrain in some places.

Figure 65: The Merv Oasis, with one of its few surviving watch towers, keeps or *dings* which once guarded the western frontiers of the Arab possessions in central Asia, this example in an area of derelict land near the great Electricity Station in Bairam Ali.
lines of command. Although trained Sogdian troops did exist, these were loyal to the Bukhar Khudah. In addition, there was also a trained Sogdian Muslim soldiery but it was quite small. On the Day of Thirst, when Arab rule in Transoxania was on the verge of destruction, there is mention of only 1,000 converts among the Muslim army, and those were from Samarqand. None are mentioned from Bukhara. The serious military threat in Sharik’s revolt therefore understandably came from the Arab garrison and not from the irregulars of the Bukharan populace. As a result, Abu Muslim needed only to address that threat with 20,000 troops at Ziyad’s disposal, for the logistic advantages made possible by the government’s control of the countryside more than compensated for the numerical advantage granted the rebels by the participation of the ill-trained Bukharans.

Since it is known that the men of the Arab garrison and their dependants constituted half the population of the city, then, assuming that 20,000 was the correct figure for the size of the garrison, calculating the size of the Bukharan population ought to be a simple matter of multiplying the number of soldiers by the appropriate index for establishing population size and doubling the resulting figure. However, the composition of the rebel forces directly affects the choice of indexes for such an estimate. If those eligible for military service were males between 16 and 65 years of age, then the index for deriving population size is 3.3, whereas if the age ranged only between 16 and 45 years, the number of troops must be multiplied by 4.5.67 Weinberger estimates that if all of the rebel troops, both Arab and Sogdian, were drawn from the 16 - 65 age group, the population of Bukhara would be 99,000. If the age eligibility were assumed to be 16 - 65, this figure would increase to 135,000. Furthermore, if the age eligibilities were different for the

Figure 66: (66.1) The massive mud walls of the Bala Hissar (Fort) at Balkh separating the city from the surrounding plain. First built in the Kushan period, it was extended over the course of the city's history, reaching their maximum size in the Timurid period; (66.2) Close-up view of the Erk Kala citadel at Merv, built in the early Achaemenid period, beginning the long sequence of cities that occupied the site.
Arabs and the Sogdians, then more estimates are possible. Finally, these figures only accounted for the portion of the population, which was in revolt, entirely male. The number of those who did not participate in the revolt, including women, children and the aged must be addressed. Weinberger has suggested a figure between 113,520 and 154,800 through similar calculations such as those above.  

While these figures, and the methodologies applied to produce these calculations, may be critiqued at some length, for the purposes of this dissertation, what is significant in these reconstructions of urban populations of Samarqand and Bukhara is not so much their absolute precision of figures, but their relative magnitudes. These large figures indicate that the cities of Sogdiana at the time of the Arab conquest were substantial concentrations of populations, growing into huge urban agglomerations by the time of the Mongol invasion. This made them among the largest cities in the medieval world, setting the stage for an unprecedented urban morphology.

### 4.4 The Adapted Cities of Central Asia

Beyond the foundation of the first *amsar* settlements, established explicitly for the purposes of conquest and extension of empire, scholars are in agreement that the vast number of cities within the medieval Islamic world were in reality adapted settlements. These settlements, most often partial or integral components of whole *amsar*, and positioned within existing urban fabric, imparted to these environments a unique formal and spatial character, which has unfortunately received lesser attention than it potentially

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deserves in urban historical studies. In most cases, the new cities created through this process of hybridization possessed physical features of two kinds of urban systems, creating a third entity. Among the several regions where Arab expansions adapted the physical layouts of pre-existing cities to their own use in this described manner, only the Levant, al-Muqaddasi’s iqlim of al-Sham, has received most attention. It is therefore useful to briefly discuss these examples, so as to discern a parallel to how similar interventions might have affected the cities of Central Asia.

The starting point for the Levant studies was a series of publications by Jean Sauvaget in the 1930s. Here he argues that the orthogonally, reticulate street pattern characteristic of Roman and Byzantine cities in the Levant tended sooner or later to be obscured by the superimposition of urban quarters, the outward expressions of internally self-governing Islamic communities, each provided with its own set of urban, communal facilities. While he based his analysis of changing street plans primarily in the three cities of Dimashq (Damascus), al-Ladhiqiyyah (Latakia) and Halab (Aleppo), traces of rectangular urban grids similarly overrun by discordant circulation patterns were glimpsed in sites such as Antakiyah (Antiochia), Hims, Tabariyah (Tiberias), and Qaysariah (Caesarea). Sauvaget also emphasized that these new socio-cultural configurations crystallized around already established, functionally homologous sites, a process ensuring a substantial persistence of locational values from age to age for certain critical urban entities. These were the enclosing urban walls, the principal religious sanctuary and craft centers. Markets, by contrast, were frequently re-organized and relocated to other parts of

69 The iqlims proposed by al-Muqaddasi, in his geography of the world, have been discussed in Chapter 1 of this thesis.
the city when such interventions occurred. Whereas neighborhood suqs continued to establish themselves in hierarchical orders throughout the urban areas, new alignments appeared in the form of lines of shops bordering main streets, converting inter-columnar spaces into shops, and even encroaching on the public way.\textsuperscript{70}

These transformations of morphology, and others of a closely similar nature, undeniably occurred in Levantine cities in Islamic times, but, as subsequent scholars have been at pains to point out, Sauvaget may have been too eager to ascribe a causative role to Islam. Wheatley points out that in the first place, it has now become increasingly evident that the degradation of urban grids, such as those seen in the examples above, was already well under way before the advent of Islam, and in some cities as early as the second century AD. Secondly, it is somewhat difficult to connect the wholesale reconstitution of neighborhoods with specifically Islamic (or Arab) positive actions over a relatively short period of time required for their physical transformation. Quarters, and subsequently large parts of these cities, were in all probability the natural outcomes of community differentiation consequent to economic and socio-cultural elaboration.\textsuperscript{71} It is still impractical to generalize about the precise contribution of an evident weakness of regulated rights in Islamic law to the mechanics of this transformative process, but it is


\textsuperscript{71} P. Wheatley. The Places Where Men Pray Together, p. 293. This issue regarding the physical transformation of cities as a result of Islamic (or Arab) interventions has also been discussed in the Appendix portion of this dissertation.
noteworthy that some scholars have been inclined to view the origin of at least some urban quarters in Byzantine parochial divisions.\textsuperscript{72}

Having said this, it must be stressed that certain important changes did occur when the Arabs came in possession of a city. Described in some detail by al-Baladhuri, these actions involved lodging within the confines of the city or outside its walls, or both, depending on whether it had been acquired by force or capitulation, and what the immediate needs of the forces were for water, pasture and defense. Writing a history of Islamic conquests at the end of the ninth century, al-Baladhuri offered the following generalization which is revealing in its sequence of events - “When the Muslims conquered a city [in the Levant], whether it dominated a broad expanse of territory or was situated on the coast, they used to station within it as many Muslims as might be necessary. If the [Christian] inhabitants should revolt, Muslims would crowd into the city as reinforcements. When Uthman ibn Affan became Caliph, he wrote to Muawiyah [Governor of al-Sham] instructing him to fortify and garrison the coastal cities and to assign fiefs to those settled there.” Then, evoking a different isnad, al-Baladhuri added, “He commanded him to furnish the garrison with holdings, apportion among these any houses that had been evacuated, to build new mosques, and enlarge those established in previous caliphates.”\textsuperscript{73} What then was happening in Central Asia, in the cities chosen for this examination? Were physical changes as radical and profound, as some scholars have suggested above, or were transformation process relatively gradual, almost evolutionary in how these interacted with the mechanisms of social and economic change.

\textsuperscript{72} N. Elisseeff. “Damas a la lumiere de theories de Jean Sauvaget” in The Islamic City, pp. 157 - 77.

\textsuperscript{73} al-Baladhuri. Futuh al-Buldan, p. 128; and citing al-Wadin.
Figure 67: An aerial view of the city of Bam in Eastern Iran, showing the citadel, the maidan area adjoining the citadel, and its dense, compact shahristan contained within the walls.
Figure 68: The urban plan of Bam in Eastern Iran showing the nature of the city in the early tenth century, with its compact shahristan contained within the walls, and an open, urban space equivalent to the Registan in the Central Asian city (this space exists just outside the citadel or ark, just as in the Central Asian examples). However, in this case, the citadel sits inside the walls of the town. Also, the urban space 'begins' at the citadel gates, and connects to another square located deeper within the shahristan.
4.5 Urban Change in Central Asia after the Arab Invasions

BUKHARA

The great city of Bukhara in the 9th and 10th century was one of the prominent cities of the medieval Islamic world, most significant as the capital of the Samanid dynasty (874 - 999 AD). It was unique among the innumerable small and large settlements within the Bukharan oasis. Located on raised land in contrast to its surrounding terrain, the initial foundation was positioned approximately at the center of the site of the future city. While the oasis itself was continuously inhabited from very early times and numerous towns had existed there, scholars are skeptical about the association of the city of Bukhara with Alexander the Great’s legendary Sogdian foundations (in addition to Marakanda or Samarqand). In the absence of references, and with partial archeological excavations this remains largely a theory, though an extremely probable one, in view of the fact that Bukhara, Samarqand and Penjikent were the region’s three most important oases. In any case, the legacy of Hellenistic grid-iron planning must have certainly affected the region and the nature of its urban settlements. Between the 2nd and 4th century AD, Bukhara appears to have became a significant settlement in the phase of urban expansion under the

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powerful Kushans. With their impressive capitals at Peshawar, Taxila, and Mathura, they incorporated a mixture of Greco-Roman planning tenets with local traditions for the layout of their cities. Little is known of Bukhara between the 4th and the 8th centuries, though Chinese written sources in the 7th century AD mention the name of the city for the very first time. From the 7th century onwards, chroniclers and Arab sources frequently discuss events related to the city; it evidently performed a pivotal role in the Arab invasions on Central Asia - attesting to the significance of the metropolis in the early medieval period. When Qutaybah ibn Muslim, finally took Bukhara in 709 AD, he permitted the local dynasty of the Bukhara Khudahs to coexist side by side with an Arab governor.

Accurate records on the physical structure of the city come from works in the Samanid period. While it is described in some detail by a number of Arab geographers in their encyclopedic works, al-Narshakhi in particular devotes an entire book to describing the city. A comparison of these accounts with descriptions of the modern town clearly shows that in Bukhara only the expansion of the area of the town occurred, and not its shifting from one location to another. Barthold claims that Bukhara, unlike the city of Samarqand or Merv, was always rebuilt on the same site as in the 9th century - unique for

any large, major metropolis in the Central Asian region.\textsuperscript{81} However, what makes Bukhara’s case even more special is that the plan of the town itself, in spite of the frequent and devastating nomadic invasions it was subjected to, scarcely changed over the thousand years of its expansion and evolution. These two qualities of the city have also made archeological excavations extremely complicated, if not impossible, considering the presence of new urban tissue over pre-existing street and block patterns. However, certain larger monuments, such as the Ark and the Magoki Attar Mosque have been extensively researched and shall be included in the ongoing discussion.

On cursory examination, early medieval Bukhara seems similar to most other Iranian towns. The Arab geographers distinguished three main divisions of the city. These were the citadel (\textit{quhandiz}, also known as the \textit{arg} from the 13th century onwards), the town proper (Arabic \textit{medina}, Persian \textit{shahristan}), and the suburbs (Arabic \textit{rabad}), lying between the original town and the surrounding wall built in Muslim times. However, this is where the similarity ended, and unlike most other towns, the citadel of Bukhara was not located within its \textit{shahristan}, but rather outside it, at a distance. As if pre-empting the question whether or not this was its original location, Barthold states that this citadel - about a mile in circumference, and containing an area of about 23 acres - had from earliest times occupied the same site as present day\textsuperscript{82}, and was located east of an urban square still known as the \textquote{Rigistan}. To the east of the citadel, there was yet another

\textsuperscript{81} V. Barthold. \textit{Turkestan Down to the Mongol Invasion}, p. 100.
\textsuperscript{82} An archeological report on the Bukharan Ark, including a cross-section showing the re-use of the same site since the fourth century BC is found in E. Nekrasova. “Lower Layers of Bukhara: Characteristics of the Earliest Settlements” in A. Petruccioli (ed.), \textit{Bukhara: The Myth and the Architecture}, Seminar Proceedings (Series 1, Vol. 3), Aga Khan Program for Islamic Architecture at Harvard University and MIT, Cambridge, pp. 61 - 70.
open space where the later Friday Mosque of the city stood till the 12th century. The
citadel and shahristan were both situated on elevated ground which could not be easily
supplied with running water. While the citadel still survives, the location of the original
shahristan may be estimated from the high central part of the present town - which was
its probable location - an area conspicuous even today.\footnote{V. Barthold. \textit{Turkestan Down to the Mongol Invasion}. p. 101.} According to Khanikov, the
high-lying portion of the town (the original \textit{shahristan}) was about twice as large as the
citadel, and had a wall around it with seven gates, the names of which are provided by
Narshakhi and the Arab geographers.\footnote{V. Barthold [R. N. Frye]. \textit{“Bukhara” in The Encyclopedia of Islam}, pp 1293 - 96.} (Figure 66, 68)

Based on this preliminary picture of the city, several important observations can be made.
Foremost would be why Bukhara no longer conformed to the “usual” urban model which
was popular in large parts of eastern Iran and Central Asia at the time of the Arab
invasions? Why did the layout of the city depart from the typical schema of the three
concentric zones - the innermost, walled \textit{hissn} rising high above the circumvallated inner
city or \textit{shahristan}, this in turn positioned within the \textit{balad} or the outer circumvallated
city.\footnote{Heinz Gaube. \textit{Iranian Cities}, pp. 104 - 6, 112. Accounts of travelers
to the Timurid domains between the late 14th and mid 16th centuries also confirm this
notion of the three-layered city described by Gaube. See G. Le Strange. \textit{The Lands of the
Russia and Persia}, (London, 1886). p. 83.} What factors prompted the building of the citadel outside the confines of the
\textit{shahristan}? To what extent were the city’s open spaces, such as the \textit{Rigistan} and the open
space sandwiched between the citadel and the \textit{shahristan}, unprecedented developments
for cities in the Islamic world? Could these spaces be dismissed as purely circumstantial,
created by vestiges of spaces between buildings, or were they consequences of radical changes affecting the formative processes which created the city?

While the Arab sources mentioned earlier in this dissertation, such as the accounts of the geographers and the writer of the Hudud, provide contemporary descriptions of Bukhara in this period, they do little to answer any of these engaging questions. On yet another level, they actually support some of the assumptions about Bukhara as being possibly a new “type” of city in the Central Asian region, setting the stage, as it were, for unprecedented developments in the urban environment. A careful review of the several Arab geographers who write about the city of Bukhara among other Central Asian towns - al-Faqih, al-Istakhri, Ibn Hawqal, al-Muqaddasi, Samani, Yaqut and al-Narshakhi, and others - shows that many of them were not very systematic in their descriptions of the city. They appear to constantly jump between the areas of the citadel, shahrستان and the suburbs, while writing about streets, quarters and buildings. This may be so due to the fact that some among them - such as al-Istakhri and Ibn Hawqal - may have never visited Bukhara. They may have instead relied on verbal accounts or compilations of material before them. On the other hand, far more plausible, may have been their unfamiliarity with this very different and complex kind of city that was evolving in Sogdiana, with little or almost nothing in common with cities west of Transoxania, except the three formal divisions which they accurately enumerated in their accounts.

The non-concentric divisions of the city, the location of the citadel, and the distribution of large urban spaces, were merely some of the preliminary formal aspects which made
Bukhara different. Variations can also be observed as to how specific parts of the city functioned. The citadel in the pre-Arab city had been used almost exclusively for defensive purposes, and to accommodate the palaces of the ruler or governor. But its changed location and context in the case of Bukhara appears to have affected these functions as well. In the early-medieval or Samanid city, we have first evidence of the citadel, in relation to the newly-created space of the *Rigistan*, beginning to perform a predominantly administrative role. It began to operate as the physical instrument of power and authority in the city, while the palace itself (or at least the substantial part of it) moved out into the *Rigistan*. In the earliest stage, therefore, the Bukharan citadel was a protected structure with an internal keep, a structure defined as the ‘castle’ by Barthold and the ‘*kakh*’ by Narshakhi.\(^{86}\) Istakhri, writing in 930 - 3, describes the palace of the Bukhar-Khudat Bidun within this citadel (presumably located in the *kakh*), and its use by the early Samanids. Muqaddasi, however, writing between 985 and 997, claims that the later Samanids only had their treasuries and prison located within the citadel. Obviously the nature of use for the citadel had changed dramatically between 900 and 980 AD. This may have been partly due to the increased sense of security against Turkish nomads in the early decades of the Samanid era.\(^{87}\) Narshakhi specifically writes that the Samanid Nasr II (914 - 43) built a palace in the *Rigistan* with accommodations for his ten different state *diwan* (offices) - a process undoubtedly aimed at formalizing the nature of the space. To this ensemble was added a magnificent mosque, built by the *wazir* Abu Ja’far Utbi in 959 under the reign of Abd-al-Malik (954 - 61). During the reign of Mansur b. Nuh (961 - 76), this palace is said to have been destroyed by fire, but Muqaddasi, writing

\(^{86}\) V. Barthold. *Turkestan Down to the Mongol Invasion*, p. 100.  
\(^{87}\) The strong walls of the city, which were constantly kept in good repair, also fell into ruin in this period. R. Frye. *The Golden Age of Persia*, pp. 205 - 6.
a few years later, says that the *Dar al-Mulk* was still standing on the *Rigistan* and praises it highly.\(^88\) But positioning large, public buildings with multiple courtyards appears to have been only one way in which the *Rigistan* space was formalized. There is additional evidence to support that the Samanids were also conscious about defining its perimeter. In this respect, Narshakhi points out to the construction of another royal palace on the Ju-i-Muliyan Canal, located to the north of the citadel, once again in the vicinity of the *Rigistan*, probably on its north-western corner.\(^89\)

Discussion on urban spaces in the city, particularly those with important political connotations linked to them, immediately brings forth the issue of visual character. In the case of the *Rigistan* at Bukhara, would its supposedly formal, designed character allow us to make some suppositions regarding its appearance? A careful review of additional evidence in fact suggests that it may be remarkably different than what we may imagine. In other words, at Bukhara, despite the additions and alterations to the formality of the *Rigistan*, there is also evidence of a somewhat contradictory nature. This particularly deals with the visual character of the space, and the various design elements which brought it together. Narshakhi’s text on Bukhara constantly mentions the building, rebuilding and destruction of palaces and administrative buildings in and around the *Rigistan* space. At times, even the citadel and its inner structures lie ruined for substantial periods of time, until they are repaired or finally rebuilt. A close reading of Narshakhi makes it evident that many of the new structures in and around the *Registan*, may have actually been built amidst large areas of ruined buildings. The ruins of the older buildings

\(^{88}\) V. Barthold. *Turkestan Down to the Mongol Invasion*, p. 110.
may have been used as quarries for new structures, and we have evidence on material from the citadel being used to construct the walls of the Bukhara rabad in 1165. If this is true, it would have large ramifications on the physical appearance of the Rigistan space - it would be an uneven expanse of scattered ruins, in the midst of which sat larger structures such as the citadel, new palaces, royal diwan and mosques. Would then the Samanid Rigistan have looked remarkably different from how it has been frequently visualized by modern scholars and urban historians - a formal, though distant cousin of the medieval piazza in the European context. Part of the misunderstanding, possibly stems from the meaning of the word ‘Rigistan’ derived largely from its usage in the Persian-speaking world, i.e. commonly denoting a public space in the city. The so-called “Rigistan” at Bukhara was on the other hand, only a “label” provided to a space in the city, when Narshakhi’s text was translated from Arabic to Persian in the 12th century. The real meaning of the word may have been very different, possibly more on the lines conjectured above.

The original shahristan of Bukhara (the innermost walled enclosure), in contrast to those at Samarqand, Balkh and Merv, had seven gates - a claim Barthold supports by citing religious considerations.90 These religious beliefs, including a preference of the number

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90 The traditional history of Bukhara and its citadel structure, the Ark, are closely associated with the divinity or spiritual authority of rulers of the city, both in ancient legendary sources and actual relationship of ruler to subjects. As the historical residence of the rulers of Bukhara the Ark embodies both temporal political authority and the spiritual power associated with, and reinforced by, mythology. Legendary accounts of the construction of the fortress illustrate this culturally-significant model. The Sogdian ruler Bidun Bukhar Khudah attempted one of the numerous re-building projects of the citadel and its palace. On each attempt, the structures collapsed. Finally, after consulting spiritual advisors, Bidun Bukhar Khudah had the buildings constructed according to the figure of Ursus Major, planned around seven stone pillars placed to form the shape of
seven as corresponding to good fortune, supposedly also operated in the eventual reconstruction of the royal palace at Bukhara after its repeated destruction. The shahristan gates are also enumerated in Istakhri and Narshakhi, by the latter in the following order: (1) Bazaar Gate (in Istakhri Iron Gate), subsequently called the Gate of the Spice Sellers (Attaran); (2) Shahristan Gate (in Istakhri Bab-al-Madina); (3) Banu-Sad Gate; (4) Banu Asad Gate, called in pre-Muslim times as Muhra Gate; (5) Citadel Gate - considered the strongest of the shahristan gates; (6) Haqq-rah Gate; (7) New Gate, built later than the others. Of the position of these gates, except of course of the Citadel gate, which was situated opposite the citadel, Narshakhi’s text provides little precise idea. It is however, clear that the Bazaar Gate, the Banu-Sad Gate, and the Banu-Asad Gate were all close to one another, and near them was a fortification built by a certain Turkish ruler Subashtagin (i.e. prince army-chief). Here especially, were the houses of the Arab residents of the city, and by the 10th century this quarter, which was called Faghsadra, was already in ruins. The Haqq-rah Gate (literally “Way to the Truth”) owed its name to the fact that here lived the famous sage Abu Hafs (d. 832), to whom it was a custom to refer doubtful questions for solutions. The tumulus where the sage was buried was situated near the New gate. Elsewhere, Narshakhi places close to the tumulus of Abu Hafs another large tumulus, which was considered to be the tomb of the mythological Afrasiyab. This was near the Mabid Gate, or the gate of the Palace of Mabid; from the western gate of the citadel to the Mabid Gate extended the Rigistan.

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this constellation, and afterwards all of the reconstructed buildings remained intact. Allegedly no political ruler of Bukhara has ever died or been defeated while residing in the Ark compound. See al-Narshakhi. The History of Bukhara, pp. 23-24.
The Arab invasions appear to have affected the city of Bukhara in significant ways. According to Narshakhi, its inhabitants had earned a reputation as idolaters who embraced Islam when the Arab armies arrived in the summer but apostatized when they withdrew in the winter. To combat this deviousness, in 712 - 13 AD Qutaybah built a congregational mosque on the site of an older pagan temple inside the citadel, which was in later centuries used as a revenue office (*divan al-kharadj*). The older buildings within the citadel also changed in terms of their intended use. In addition, the older citadel had two gates, the *Rigistan* gate situated on the west, and the Friday Mosque gate situated on the east. While these two gates were connected by a street, there was still another, third gate inside the fortress. According to al-Istakhri, this served as the entrance to the royal enclave within the citadel residence of the Samanid rulers. While the Rigistan Gate survived, and still does, the Friday Mosque Gate and the Gate within the citadel changed over the years. Within the Bukharan *shahristan*, Qutaybah appropriated one-half of the total number of houses as residences for members of the various Arab tribes, so that, as Narshakhi puts it, “... the Arabs might be with them and [be] informed of their sentiments.” Furthermore, the inhabitants were required to make over to the Arabs one-half of their cultivated land, together with firewood and fodder for their horses, all over and above whatever was levied as taxes. Finally, before the Arab conquest the whole town consisted of the *shahristan* alone, in addition to scattered settlements outside its walls. It was not until 849 - 50, according to al-Narshakhi, that the *shahristan* was linked with the suburbs to form one larger town and then surrounded by another wall. In the 10th century, yet another wall was built that enclosed an even greater area. This wall
around the Bukharan *rabad*, and containing all the important farm lands and irrigation systems and had eleven gates.

Barthold also provides us with some information on the pre-Islamic heritage of Bukhara. The first among these were the great tombs of Afrasiyab and his victim Siyawush, which were regarded as pre-Islamic even in the Samanid period. Narshakhi also mentions pre-Islamic palaces located within the *ark* and in the *Rigistan*. Besides this, great importance was attached to the locality in the south-eastern quarter of the town, renamed later as the “Gate of the Mosque of Makh.” At the *Makh-ruz bazaar* situated here, twice each year fairs were held at which idols (possibly Buddhist figures) were sold - a custom that continued even under the Samanids. Finally, in the 8th century, great importance was attached to yet another part of the city. This was a part of town where the *Kash-Kushan*, rich-merchants of foreign extraction, had retired after Qutaybah’s conquest of the town. Tomaschek supposes them to have been descendants of the Kushans or Hepthalites. They gave up their houses in the *shahristan* to the Arabs and built for themselves elsewhere 700 castles amidst gardens, and settled their servants and clients here, so that the population of the new town rapidly exceeded that of the old.91 The locality received the name of the “Castle of the Magians” (*Kushk-i Mughan*), and here for the most part were to be found the temples of the fire-worshippers. Social unrest in the Samanid period, associated with the escalation of land prices in the part of the city occupied by the *Kash-Kushan*, appears to have led to the destruction of most of these palaces. In Barthold’s view, building material, especially idols from the castle gates, were reused in the construction of the Friday Mosque in the city. Based on Narshakhi’s descriptions,

Barthold sites the *Kushk-i Mughan* near the Gate of the Street of the Magians, locating it in the north-western part of the town.\(^92\)

Of the Muslim buildings in the city, in addition to the Friday Mosque built by Qutaybah in 713 AD in the citadel, there were other significant structures as well. Their complex history maps the shifting dynamics of space between the citadel and the *Rigistan*. This must be seen in light of the citadel, *shahristan* and *rabad* developing into separate, specialized zones in the Samanid era, yet organically connected to create a larger urban environment - a concept appropriately reflected by the descriptions of the *Hudud*. Also important to remember is that most religious structures in Bukhara were constantly rebuilt after damages from war or natural calamity. The Samanid Friday mosque itself was burnt in 1068 AD, during the struggle for the throne between the sons of Tamghach Khan Ibrahim. The wooden upper part of the minaret was set on fire by combustible material thrown from the citadel, and the mosque was destroyed. It was restored in the following year, the upper part of the structure rebuilt in burnt brick. In the space between the citadel and the *shahristan*, a new Friday mosque was built by the governor al-Fadl b. Yahya al-Barmaki in 794-5. It was rebuilt and considerably enlarged by the Samanid Ismail in 902, who also brought up the neighboring houses for this purpose. The mosque was reportedly damaged twice at the beginning of the reign of Nasr (914 - 43). One of these was on the occasion of the Friday service, resulting in the death of several people in the mosque. The building was thereafter restored and a minaret added in 918 - 19 at the expense of the *wazir* Abu Abdallah Jayhani. It was this edifice which the Arab geographers had in mind in accounts such as Muqaddasi’s, where the mosque is rebuilt after damages from war or natural calamity. The Samanid Friday mosque itself was burnt in 1068 AD, during the struggle for the throne between the sons of Tamghach Khan Ibrahim. The wooden upper part of the minaret was set on fire by combustible material thrown from the citadel, and the mosque was destroyed. It was restored in the following year, the upper part of the structure rebuilt in burnt brick. In the space between the citadel and the *shahristan*, a new Friday mosque was built by the governor al-Fadl b. Yahya al-Barmaki in 794-5. It was rebuilt and considerably enlarged by the Samanid Ismail in 902, who also brought up the neighboring houses for this purpose. The mosque was reportedly damaged twice at the beginning of the reign of Nasr (914 - 43). One of these was on the occasion of the Friday service, resulting in the death of several people in the mosque. The building was thereafter restored and a minaret added in 918 - 19 at the expense of the *wazir* Abu Abdallah Jayhani. It was this edifice which the Arab geographers had in mind in accounts such as Muqaddasi’s, where the mosque is

\(^92\) V. Barthold. *Turkestan Down to the Mongol Invasion*, p. 108.
described as a building with several courtyards, distinguished for their cleanliness. Confirmation of the existence of the structure is provided by al-Narshakhi, who writes about the famous *tiraz* workshops in the vicinity of the structure.\(^93\)

The tradition of building mosques within the *shahristan* began with the mosque by Amir Nuh b. Nasr in 951-2. It was located near the palace of the Amir of Khorasan, probably in the south-western part of the *shahristan*, and was still in existence in the 12th century.

The next major mosque in the *shahristan* - a new Friday mosque ordered by Arslan-Khan Muhammad in 1121, appears to have been located extremely close to the mosque above, possibly as it extension or enlargement. Constructed with great magnificence, it was apparently the grand Friday Mosque of the city of Bukhara. Its minaret was completed in 1127, and survived the Mongol invasions and the Timurid/Shaybanid re-constructions. A final index of the increasing size of the city is provided by the shifting locations of its *musalla* spaces. In the early 10th century, festival prayers of the urban community were conducted at a place in the northern part of the *Registan* near the Mabid Gate. By 971 the Amir Mansur ordered a new place to be set apart at a distance of half a *farsakh* from the citadel gate, on the road to the village of Samtin. Finally, in 1119, Arslan Khan constructed a new place for festival services near the Gate of Ibrahim, i.e. the same place where the *namazgah* is found today.\(^94\)

The streets of Bukhara were remarkable for their width, and were paved with stone, which was brought from the hill of Warka. Notwithstanding the broad streets in the city,

Figure 69: Two views of the city of Bam, showing (top) - the citadel towering above the fabric of the city, located within the gamut of city walls [much of this citadel was destroyed in a recent earthquake]; (bottom) - showing the walls of the city with remains of structures inside the dense shahristan.
even at that time, the crowding was noticeable due to the high density of population. Barthold says that this particular want of space was more evident in Bukhara than in all other towns of the Samanid kingdom. For this reason, there were frequent outbreaks of fire; in Narshakhi’s book a description of two such conflagrations in the reign of Nasr - in the years 929 and 937 is provided. The second outbreak was particularly devastating, and although the fire enveloped a considerable part of the town and destroyed several bazaars, the damage was estimated at a little over 100,000 dirham in all. The density of the buildings explained other disagreeable features of the town (smells and bad water) to which a number of geographers allude to in most vigorous terms.

Meanwhile, the sprawl of Bukhara’s urban district was immense, and although the shahristan was still a force to be reckoned with (a’mar, literally ‘very-flourishing’, was al-Muqaddasi’s term for it), the rabad was really the engine of economic growth. Just how large and elaborate this rabad really was may be discerned from Ibn Hawqal’s comments that it was “long and wide.”

Muqaddasi, after listing the ten principal roads in this outer city, added that “… development has proceeded apace so that there are ten other roads, now abandoned and often under different names, that mark previous phases of urban growth.”

Yet another inescapable sign of economic growth generating a dramatic population increase, and exaggerated by migrations into the city, was the inability of the congregational mosque located in the Rigistan to adequately serve the huge number of new believers. In 971 AD, this led to the building of a new house for

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prayer (musallah) to absorb some of the overflow a half-farsakh along the road to the village of Samitan.\textsuperscript{97}

The environs of the city are divided by al-Istakhri into twenty-two districts, of which fifteen lay between the long walls which, as at Samarqand and Balkh, gave protection to the nearest suburbs. These walls, ascribed to the governor Abu’l-Abbas Fadl b. Sulayman at-Tusi (783 - 7), were built to protect the town and its neighborhood from the incursions of the Turkish nomads. The adoption of this measure was proposed by Yazid b. Ghurak, prince of Samarqand, who pointed to the example of Sughd, where immunity had been achieved due to the protective walls. At Bukhara, gates and towers were built at a distance of half a mile between each. The whole construction work was completed only in 830 AD. According to Istakhri, the area protected by the wall of Bukhara measured 12 farsakh in length by about as much in breadth, including most of the urban area and several villages. The annual upkeep of the wall required a great deal of money and laid a heavy burden on the inhabitants, and it was only in the time of Ismail the Samanid that immunity from external danger was secured to an extent to render it possible to release them from the imposition. After this the wall fell into ruins, and in the 12th century it was called Kempirak (‘old woman’).\textsuperscript{98}

Based on this pattern of information, a fairly detailed account of the topographical details of this shahristan can now be reconstructed. The urban layout was an extremely clearly defined, with an inner city or medina enclosed within walls built in the Islamic period, a

citadel situated to the west of the *medina* and outside it, and an outer city, containing these two, which was surrounded by another wall. Curiously, in the case of Bukhara, another third wall is said to have contained these first two walls, the citadel and the several suburbs which extended beyond the boundaries of the city. Significantly, Narshakhi also gives us dimensions for some of the urban elements, providing a unique opportunity for working out a dimensional model. While the 'third wall' - just mentioned, measured an enormous 12 *farsakh* x 12 *farsakh* (72 km. x 72 km); the second wall, which would normally have been identified as that of the outer city, measured 1 *farsakh* x 1 *farsakh* (6 km x 6 km). What immediately becomes apparent is the enormous distance between the inner and outer most walls - recalling Clavijo's description of ‘ring of suburbs’ around the central city of Shahr-i Sabz - all contained within the *mauza* of the main city - in other words a ‘mega-administrative’ entity.99

What al-Narshakhi, however, does not provide, is any clue to the geometry of the city. For this we need to refer to a conjectural plan showing the plan of Bukhara in the 9th and 10th centuries.100 The innermost core, or the inner city, rectilinear and highly geometrical, appears to have been largely based on a Hellenistic urban plan - possibly a strong reminder of the Kushan and Hephthalite rule over the city till the mid-7th century. This walled enclosure has 7 gates - a fact corroborated by Narshakhi’s textual account of the city. The cross-axial cross-roads within the city are emphasized by the northern and southern, eastern and western gates, through which trade routes apparently entered the city. The cross-axial cross-roads within the city are emphasized by the northern and southern, eastern and western gates, through which trade routes apparently entered the city.

city. If this inner *medina* is taken to be the very center of the city, then the *ark* is located to its west - a development which is also repeated at Samarqand, though in its case the center was no longer as well defined as Bukhara's. Bukhara's inner city, or whatever survived of it after the Mongol invasions, apparently changed character over the next three centuries - gradually modifying from a checker-board, rectilinear system to an organic-accretive system. Furthermore, the inner city, which in its early phase had functioned as the location of important governmental and institutional structures, in an otherwise relatively sparse surrounding; was now extensively built-up with a mixture of residential and commercial structures - in fact an extension of the outer city.

AFRASIYAB - SAMARQAND

While the Samanid capital at Bukhara appears to have been the metropolis *par excellence* in the early medieval period, Barthold is of the view that in its extent and population, Samarqand was always the foremost city in the Transoxiana region.\textsuperscript{101} Known as Afrasiyab in this early period, its importance is explained chiefly by its crucial geographical position at the junction of main trade routes from India (via Balkh), from Persia (via Merv), and from the Turkish domains. In addition, the extraordinary fertility of the agricultural hinterland of the town made it possible for an enormous number of people to conglomerate at a single place. No other period in antiquity, however, made it as distinguished a place as it became under the Samanids, especially in terms of the size of the city. (Figure 45, 69)

\textsuperscript{101} V. Barthold. *Turkestan Down to the Mongol Invasion*, p. 83.
According to Quintus Curtius, the Roman historian, the outer wall of the town of Afrasiyab was seventy stadia in circumference (about ten miles), and according to Huen-Tsiang, the Chinese traveler, only twenty li (between four to five miles). Most useful for our purposes, however, is Ibn al-Faqih (903 AD), who provides the oldest description of Afrasiyab after the Arab occupation. By his account, Afrasiyab together with its environs was, like the cities of Balkh and Bukhara, surrounded by a wall twelve farsakh (72 km) long, with twelve double gates (apparently two lines of fortifications). In addition, the suburbs (probably the city and its suburbs) occupied a total area of 6000 jaribs, the town itself 5000 jarib, and the inner town (shahristan) 2500 jarib (approximately 5.4 square km using Barthold’s figures).\footnote{Barthold provides various measurements of the jarib, and concludes that the “...jarib must be somewhat more than 900 square meters. See V. Barthold. Turkestan Down to the Mongol Invasion, p. 84.} Though the units of measurements are different in all three cases, and therefore comparisons of size would at best be approximations, one particular aspect may be mentioned with certainty; Afrasiyab grew tremendously in size over the centuries. By al-Faqih’s time, it was a complex spread-out, three-zoned structure similar to Bukhara. However, in this particular case, the congregational mosque, citadel, and governor’s palace were all located inside its shahristan - conforming to a concentric scheme. The city of Afrasiyab, therefore, differed markedly from Bukhara.

Beyond this information on size, the medieval historians provide little information about other details of Afrasiyab’s topography, though they all agree that it was surrounded by walls, most probably two, corresponding to the double gates described by al-Faqih. Among these, the inner wall surrounded the shahristan (which contained the citadel), while the outer wall surrounded the greatly enlarged rabad that had encompassed a huge
area by the Samanid period in the city’s history. Barthold claims that the inner wall was constructed in the pre-Arab period, while Tabari ascribes the construction of the outer wall of the town to Abu Muslim. Nasafi is somewhat more precise, and writes that in the year 752 - 3, Abu Muslim, constructed the gates, battlements, and watch towers of the city’s walls. They were a total length of seven and a half farsakh, and divided it into 360 sections. A tower was constructed at every 200 gaz, and as Nasafi reckons 12000 gaz to ten farsakh, and the total number of towers by this calculation was 450. The height of this wall was four gaz. Istakhri and Muqaddasi state that this outer wall had eight gates. These were Gadawad, Isbisk, Sukhashin, Afshina, Warsnin, Kuhak, Riwdad, and Farrukhshidh - all named after neighboring villages near them, which too were contained within their immense spread.

In the light of these vastly differing accounts, then actually how large were these walls, and what area did they encompass? Some idea on this can be gained from the ruins of the western wall, which as mentioned by Khanykov, are located at a distance of four versts to the west of the present town. In Jannabi, the ruins of the walls of the old town are mentioned as being situated still further west, at a distance of half a day’s journey from Samarkand. It was here that Timur built here the town (suburb) of Dimashq at the end of the 14th century. The wall was called the Diwar-i Qiyamat or Kundalang, and is nearly thirty-seven miles in length, enclosing an area of nearly forty-four square miles. This outer wall of the city and its setting is also described by Istakhri in the following terms - “The Sughd river flows between the rabad and the town (shahristan). The wall stretches behind the river, from the locality known as Afshina past the Kuhak Gate, subsequently encircling Warsnin, Fanak Gate, Riwdad Gate, Farrukhshidh Gate, and Gadawad Gate.
Then it extends to the river, which serves as a sort of *fosse* for the *rabad* on the northern side.\(^\text{103}\) The length of the diameter of the walls surrounding the *rabad* of Samarqand is two *farsakh*. In the 10th century all the gates of the *rabad* were destroyed by the order of the Samanid government, as a consequence of an uprising by the inhabitants of the city.

In contrast to the complex nature of this outer wall, the *shahristan* of Afrasiyab itself, as in other towns, had four gates, oriented to four cardinal points. On the east was the China Gate (*Bab Chin*), on a height from which the descent was made to the Zarafshan by many steps.\(^\text{104}\) On the west was the Nawbahar or Iron Gate, on the north lay the Bukhara or Usrushana Gate, and on the south lay the Kesh or the Large Gate.\(^\text{105}\) While it is difficult to form a concrete idea on the city’s medieval *shahristan* on the basis of these descriptions, but it is now fully established that the *shahristan* corresponded to the ruined site of Afrasiyab, located to the north-east of present-day city of Samarqand. Outside the *shahristan* lay the eminence called Kuhak (“little mountain,” now the Chopan-Ata), which, according to Istakhri, was half a mile in length and in close proximity to the city walls. It is at this site that stone for the city walls and clay for the manufacture of vessels and others was quarried. The citadel was, as is seen from the ruins, in the northern part of Afrasiyab. In Barthold’s opinion, the “citadel” which Hafiz Abru speaks as having been destroyed by Chingiz Khan means not only this 10th-century citadel, but in fact the whole site of the city of Afrasiyab. Finally, the most populous quarter of the city, called

\(^{103}\) V. Barthold. *Turkestan Down to the Mongol Invasion*, p. 88.  
\(^{104}\) Archeological excavations have confirmed a discrepancy in this description. It has been found that in fact, it was the Bukhara Gate that had steps leading to the valley rather than the *Bab-i Chin*. This contradicts the observations of Ibn Hawqal. See G. Shishkina, “Severnye vorota drevnego Samarkanda” in *Istoriia i kultura narodov Srednei Azii*, edited by V. Gafurova and B. Litvinskii (Moscow, 1976), p. 102.  
\(^{105}\) Ibn Hawqal, ed. de Goeje, p. 492; Istakhri, ed. I. Afshar, pp. 246 - 47.
the Ras at-Taq by 10th century geographers or the Darwaza-i-Kish by Samani, was already situated in the modern town, in the northern part of it.

On the basis of the evidence and accounts just cited, and archeological remains studied by urban historians over the past few decades, a conjectural reconstruction of Samanid Afrasiyab can now be presented. Pre-Samanid Afrasiyab was evidently contained within an irregular perimeter of walls constructed to fortify a raised ridge. The walled area was divided into three sub-parts - the distinct citadel, positioned on an eminence within the shahristan, the outer fortified city or rabad, and a curious “in-between” zone, which contained in all probability the major commercial spine of the city. Belenitskii’s two reconstructions of Afrasiyab-Samarqand help us at this stage - the first specifically showing the early extensions of Afrasiyab in the south-western direction (9th to 12th centuries), and culminating at a structure called the chahar-su. Belenitskii in fact calls this location as the Rigistan, indicating that beginning with the Samanid occupation of the city, there was an obvious extension of the urban structure beyond the older walls and the creation of urban spaces like those at Bukhara. Belenitskii’s second phase shows a more “matured” Rigistan within the dotted perimeter of a future, post-Mongol Samarqand. Most significantly, this drawing also shows an outermost wall, around the entire oasis - labeled as the Diwar Kiyamat (the Kiyamat wall) - a feature exaggerating as it were, the great distance between the medieval city of Afrasiyab-Samarqand and the wall.\footnote{A. Belenitskii et al. Crednebekobii Gorod Credneii Azii. pp. 219 - 32.}

In effect, similar to the phenomenal development of the Bukharan rabad as shown earlier, Afrasiyab too witnessed the shift of its economic life to the area of the rabad by
the early tenth century.\textsuperscript{107} All of the principal markets of the city were situated here, together with elite palaces, khans, baths, and a huge extent of residential buildings. Eight avenues (durub), all paved in stone, traversed the rabad, indicating that it was more than the mere spillage of urban sprawl beyond the walls. Also, little is known of the relationship of these avenues to the institutional foci of that sector of the city, except for the fact that they converged on the central square or Ras al-Taq.\textsuperscript{108} Afrasiyab-Samarqand, therefore exhibited the main features of a mature Mashriqi city, in particular the tri-partite division and the economic and socio-cultural development of the rabad. Markets had all but abandoned the madinah, and the dar al-imarah, which al-Istakhri had found in the quhandiz, was reported by Ibn Hawqal as in ruinous state. However, a new complex of diwans had been constructed in the madinah at the instigation of the Samanids. According to Yaqut, in the thirteenth century the madinah occupied twenty-five hundred jarib, and the outer town (rabad), ten thousand jarib.\textsuperscript{109}

No statistical data regarding the exact number of inhabitants in the city of Samarqand exists, though some estimates appear in the accounts of travelers who passed through the city at various times in the course of its history. For the time period we are particularly concerned with, according to Chang-Chun, there were about 100,000 families in the city prior to the Mongol invasions. If we now bear in mind that several years prior to the Mongol invasions the city had also suffered the devastating raids by the Khwarazm-Shahs, and the Qarakhanid epoch was on the whole one of decay in cultural and civic life,

\textsuperscript{107} Ibn Hawqal, al-Masalik wa-l-Mamalik, p. 493.
\textsuperscript{108} al-Muqaddasi, Ahsan al-Taqasim, pp. 278 - 79.
\textsuperscript{109} Yaqut, Mujam, 3: 134. While the jarib varied in exact value with time and place, 2500 jaribs can be roughly calculated to be equal to 750 acres (G. Le Strange, Lands of the Eastern Caliphate, p. 464).
then we may, without too much exaggeration, conjecture that the Afrasiyab of the Samanids easily had more than 500,000 inhabitants. To this figure could be added more if one counted other smaller villages in the Samarqand oasis, which depended on the city walls for their protection. The size of the urban population of Afrasiyab, as described in the accounts, though large, does not correspond to a town of the size described above. Barthold explains this by arguing that a considerable portion of the area in question was occupied by gardens, in fact almost every house possessing one. In viewing the town from the summit of the citadel, no buildings could be seen because of the trees in these gardens.\footnote{V. Barthold. Turkestan Down to the Mongol Invasion, p. 88.}

Supporting such a large population obviously required an extremely systematic irrigation process in the oasis. The wide development of horticulture of which Istakhri speaks required a considerable extension of artificial irrigation, based on a network of \textit{ariq} derived from the river and secondary channels. The main \textit{ariq} (suspended waterwheel or bridge) entered the \textit{shahristan} of Afrasiyab at the Kesh Gate, over the ditch (moat) of the wall, at the Arch Head (\textit{Ras at-Taq}) where the chief \textit{bazaars} of the city were situated, and population of the town chiefly concentrated.\footnote{Ibn Hawqal, ed. de Goeje, p. 492; Istakhri, ed. I. Afshar, pp. 247} It was an elaborate affair, evidently expanded in the Arab period, though dug in the pre-Muslim period. The revenue from the sections of ground lying on the banks of the \textit{ariq} was devoted to its upkeep; the labor on the repair of the dam formed an obligation in kind on the fire-worshippers of Samarqand,
Figure 70: The schematic plan of the East Iranian city with concentric zones, based on Gaube's research on the historical evolution of the city of Bam in Iran. Central Asian cities, while seeming to work on the same schema, were vastly different owing to the non-concentric delineation of their parts, especially the shift of the citadel to a frequently north-western direction vis a vis the shahrastan. Also while the rabad, while being outside the city walls, was just as dense (compact) as the shahrastan itself.

Figure 71: Aerial photo of the Takht-i Sulaiman in Iran, showing the survival of the fortified citadel of the city with its several internal structures. Excavations have yet not revealed the nature of the urban tissue that surrounded or contained this citadel structure, though land sub-divisions are clearly indicated on aerial photographs such as these, which may be indicative of property subdivisions within the ancient urban area. The fortifications around this citadel are largely self sufficient - indicating that it may have been located at a distance from the main shahrastan (such as the case in Bukhara), rather than attached to its walls.
Figure 72: The city of Bukhara in the 10th century, with its three distinct rabad zones extending beyond the limits of its orthogonal shahristan. At Bukhara, each rabad district was in turn surrounded by a protective wall, which was later largely incorporated into the growth of the city - in effect several walls criss-crossed the huge urban district of the city.
who were on this account exempted from the poll tax. Even in the 12th century, this locality near the Kish Gate was one of the best quarters of Samarqand.\textsuperscript{112}

With reference to the watering of the \textit{rabad}, Nasafi says that the river entered the town through the western gate and split up into four channels, and thereafter each channel into two branches, so that there were eight \textit{ariqs} in all. The four main channels were named as Jakardiza, Muzakhin (or Mazdakhin), Iskandargham and Asangin-Sangrasan. The area irrigated by these channels is defined in \textit{habl}, each \textit{habl} containing 60 \textit{dhira}. Samarqand together with its environs was reckoned at 14,600 \textit{habls} (according to another manuscript only 4600), and 670 sluices. All these canals watered only the town itself, and its immediate environs to the west and south. The areas lying to the east and north of the main city seem to have been irrigated by channels derived from springs, such as the Siyab, or the Ab-i Rahmat mentioned by Babur.

The sources also provide us with the names of some of the quarters in Samarqand. Many of these are located in the \textit{shahristan} as well as the \textit{rabad} - a clear indication that between the 9th and 11th century, the \textit{rabad} in Afrasiyab had become as important and populated as the \textit{shahristan}. In fact, an area of heavy population existed near and outside the southern Kish gate, and the geographers describe several quarters (\textit{mohallas}) in the \textit{rabad} that exclusively housed the wealthy populace of the city. Among the named quarters are Jakardiza (named after the Jakardiza \textit{ariq}) - a cemetery for the Ulema and notables; Asfizar in the \textit{shahristan}, which had a palace of the Samanids; the Bab-Dastan; the large Panjkhin and Zaghrimash quarters; Sangdiza; Farzamithan in the \textit{rabad};

\textsuperscript{112} V. Barthold. \textit{Turkestan Down to the Mongol Invasion}, pp. 88 - 90.
Faghidiza; Kanwan; Maturid in the *rabad* - a country residence for wealthy citizens; Gurjmin with the palace of Tamghach-Khan Ibrahim b. al-Husayn; and Qibab.

Several important city edifices are also mentioned in the sources. The first among these is the Old Palace of the Arab amirs in the citadel. In Istakhri’s time the palace was still intact, but Ibn Hawqal found it already in a ruinous state. The prison within the citadel is the second structure, mentioned by Istakhri, but claimed by Hawqal to have been built only in his own day. The third significant structure is the Friday Mosque in the *shahristan*. It is supposed to have been located near the citadel, in such a way that a wide road passed between it and the citadel. Evidence on the structure, located to the west of the citadel, was archaeologically investigated by Barthold and Vyatkin in 1904 - 5. The last mentioned structure by Samani is the Castle of Rafi b. Layth, though no clues are provided on where it was located in the city. We also find some comments on the physical structure of the city from these sources. The streets of the city, with a few exceptions, were paved with stone; and the buildings, were for the most part, constructed of clay and wood. The *bazaars* were mostly located in the area of the *rabad*, chiefly near the Kesh Gate located to the south of the city. In the town and in the *rabad* there were as many as 2000 places where it was possible to obtain free iced water, arranged through wealthy benefactors or religious endowments (*waqf*).\(^{113}\) Also remarkable is Ibn Hawqal’s description of animal figures decorating the public squares of the city of Samarqand, “astonishing figures cut out of cypresses, of horses, oxen, camels and wild beasts. They

\(^{113}\) V. Barthold. *Turkestan Down to the Mongol Invasion*, p. 91.
stand one opposite the other, as if surveying each other and on the eve of engaging in a struggle or combat.”

PENJIKENT

Penjikent - a medium-sized town excavated near present-day Samarqand - is the third most important city for the purposes of this research. It’s significance is due to the fact that it is the only city of the region to have survived the decades immediately following the Arab invasions in the eighth century in a more or less intact manner. This was largely due to its abandonment following the invasions and virtually no rebuilding activity on the site till present day. Its excavated site, therefore, represents to archaeologists and urban historians, the only complete example of a city from the pre-Samanid period, possibly providing an urban model which did not quite suffer the same modifications as Afrasiyab and Bukhara underwent in the late medieval period. On lines similar to our earlier inquiries, here too our central question would be whether or not Penjikent represents a typical case or merely a surviving one. Some evidence that the former may be true is supported by Barthold’s view that Penjikent (also called Bunjikath and Penikath) was the chief town in the province of Ushrusana (stretching between the towns of Samarqand and Khojend in Ferghana). There is reason to believe, therefore, that it’s urban form and structure may have been the norm, rather than the exception. Several other scholars, such

115 E. Knobloch. Beyond the OXus. p. 139.
as Frumkin, believe that Penjikent was not only a great artistic center, but also provides a key to much of the history and civilization of pre-Islamic Sogdiana. (Figure 70, 71, 72)

On cursory examination, Penjikent appears to have had several of the typical characteristics of cities in this period. The urban region consisted of a citadel, *shahristan* - through which ran a river, and extensive suburbs located in the area of the *rabad*.\(^{117}\) The city’s *shahristan* stretched over an area of 19 ha and had an overall perimeter of 1,750 m. This area was contained within a strong system of fortifications, which joined it to the citadel situated to its west. The suburbs were all located to the east and south-east of the *shahristan* except for one suburb which lay to the south. Evidently, while Penjikent was similar to Bukhara and Samarqand in its physical subdivisions, it was similar to Bukhara in being the second major city of the period with a markedly non-concentric layout, exaggerated by the location of its citadel structure to the north-west of the main *shahristan*.\(^{118}\) Furthermore, its *shahristan* only had two gates - the Upper and the Town Gates; while the *rabad* had four - the Zamin Gate, Marsmanda Gate, Nujkath Gate and the Kahlabad Gate. While it is tempting to find similarities between Bukhara and Penjikent due to the two gates found in the citadel of the former, and the same number in the *shahristan* of the latter, and therefore conjecturing a possible transformation of the citadel to a *shahristan* at Penjikent, evidence on this is presently inconclusive. If and when this were to be proven, would Penjikent’s layout then provide some evidence of how the Central Asian city existed prior to the Arab invasions? Some idea of the size of


\(^{118}\) Whether this was dictated by prior design or conditions of the landscape is not known. An examination of the topographical conditions on site, provide ample evidence that in view of a deep ravine between the *shahristan* and the citadel, this was a logical decision.
the *rabad* at Penjikent may be gained from Hawqal’s statement that the diameter (circumference?) of the walls of the *rabad* was approximately one *farsakh*. As with any other oasis city in the region, the town too was supplied with water by six watercourses, derived from a common source at a distance of half a *farsakh* from the town. The names of these watercourses, which flowed through the *shahristan*, were Burjan, Majan, Sankjan, Ruyjan, and Sanbukjan.\(^\text{119}\)

On closer observation, an even more significant aspect of urban structure becomes apparent in Penjikent. The *shahristan* here was interlaced by a network of streets which sometimes ran parallel to each other and sometimes merged. The width of the main streets was 3 - 5 meters. Along the main streets were housing areas, outbuildings, shops and workshops. While the overall layout appears largely rectilinear\(^\text{120}\), at least in the way its parts are organized, there are as yet no definite clues whether or not this urban core was essentially a checker-board structure.\(^\text{121}\) Could the rectilinear arrangement of the urban fabric in various parts of the *shahristan* (particularly the Merchant’s Street running north-south in the eastern half of the city) be evidence of a larger, now-disappeared structure? This semblance or vestige of a possible grid structure layout in the city of Penjikent may perhaps be the only evidence we have of the use of the checker-board for

\(^\text{119}\) V. Barthold. *Turkestan Down to the Mongol Invasion*, p. 167.

\(^\text{120}\) The only published plan of Penjikent does not show the citadel and is part of a research done in 1971 by B. Marshak. See B. Litvinskii and Z. Guang-da. “Central Asia: The Crossroads of Civilizations” in *History of Civilizations of Central Asia* - Vol. II, pp. 235 - 42.

\(^\text{121}\) While the most recent research by M. Masson on Penjikent has not yet been published, the author has had the opportunity to see it in unpublished form on a recent trip to Central Asia. The most recent archaeological expedition to the site by the Oriental Institute in St. Petersburg (Russian Federation) was organized in Summer 2002. Official publications are still awaited.
Figure 73: Afrasiyab (the site of the later city of Samarqand), began to grow at a phenomenal rate beginning in the early 9th century. Its _rabad_ had already extended beyond the confines of the walled citadel, and encompassed the Rus-i Taq and the future site of the _Registan_ square. Also the Namazgah (musalla space for ceremonial prayer, indicated by 'N'), had moved outside the city, into the _rabad_, an indication of the large and diverse populations within the city.
Figure 74: Excavation plan of Penjikent (present-day Tajikistan), showing layout of the *shahristan* versus the citadel on its west. An outer wall encompassed the development, allowing the landscape to meet the citadel walls on the west. While Penjikent resembles Bukhara in the shift of its citadel away from the *shahristan*, no Registan-like space existed between the citadel and the *shahristan* walls—instead a steep gully separating the two structures, also visible today. Penjikent, excavations have revealed an articulated gate structure (especially along city gates on southern wall), which formed the setting for an urban space comparable in size and scale to the Registan.

Figure 75: Excavation plan of Penjikent, showing structures within the *shahristan*, especially the densely built up merchant's street with large dwellings on either side. Also in view is the clearly articulated fortification structure, seen in dashed lines at the bottom of the picture. The location marked 'G' was a gate structure that preceded an urban space inside the walls. Finally, the center of the image shows large structures with built-up spaces around courtyards - identified by scholars as temples.
Figure 76: Two views of the excavations at Penjikent, which show the complex nature of the urban fabric that comprised the city. Large parts of the city are based on an orthogonal grid or rectilinear system of some sort, and these are indications of urban legislative mechanisms within the city. So was Penjikent an exception, or was it an indication of how all cities in this part of the world began with a core of organized parts, and later became progressively haphazard? Penjikent has only been partially excavated and more work will bring some answers.
the layout and organization of cities in the pre-Samanid and Samanid period. Various scholars have alluded to its use in their discussions; some such as Belenitskii have even produced conjectural plans of cities such as Bukhara, developing the notion of the changing grid over time.122

And the grid may not be the only piece of evidence which proves that the shahristan was a highly-populated place, supposedly with about 10,000 male inhabitants in the 10th century, if the Arab geographers are to be believed.123 The high urban density within the shahristan, for which few records exist, may also be indirectly gauged from predominance of double-storied dwelling units in the residential quarters of the shahristan, a number of which have appeared in the excavations. This was particularly true by the 8th century, when some three-storied dwellings also began to appear.124 In addition, the organization of these sectors, although positioned on somewhat undulating terrain, is dense and grid-like, partly resembling clustering patterns at Taxila - which is not entirely surprising, since both cities were essentially Kushan foundations. It is therefore a topic of speculation as to where the Samanids actually obtained their grid-plan from - was it a pre-Arab creation adopted in entirety, was it based on the Arab amsars or fiat cities of the warring armies, or was it the modification of an urban organizational device used by the Samanids.125

122 A. Belenitskii et al. Crednebekobii Gorod Credneii Azii, pp. 211 - 47.
123 V. Barthold. Turkestan Down to the Mongol Invasion, p. 166.
125 While 10,000 male inhabitants was the supposed population of the city in the tenth century, Knobloch believes that the two hundred years previously, the city was far more important. Would this allow us to conjecture on a substantially larger urban population - much like Bukhara or Samarqand? See E. Knobloch. Beyond the Oxus, p. 138.
The Arab geographers provide us some additional information on the physical character of the city of Penjikent, which brings up more points of comparison with Bukhara and Samarkand. Contrary to the concentration of monuments around specific spaces in the city - as was the trend at Afrasiyab and Bukhara, monuments at Penjikent appear to be spread out across various areas of the city. Therefore, the prison was located within the citadel, the Friday mosque in the *shahristan*, the *bazaars* partly in the *shahristan* and partly in the *rabad*, and the main palace in the *rabad* or crown property.\(^{126}\) Several inferences may be drawn from this information. The first is regarding urban spaces in pre-Samanid and Samanid Penjikent. While urban spaces of the scale of Afrasiyab-Samarqand and Bukhara have as yet not been excavated at Penjikent, there is new evidence of a market square located to the south of city, possibly an area immediately inside one of the city gates. In addition, there is the excavated proof of the Merchant’s Street running north-south, which too is a designed space on the urban scale. In addition to these two examples, in the northern half of the *shahristan* site, remains of two temple complexes surrounded by a ring of walls can be seen. Each complex consisted of the temple itself, raised on a stylobate with richly decorated with paintings, while around the perimeter of the group were auxiliary rooms for other functions.\(^{127}\) These ensembles are positioned within a spacious square, which appears to be yet another major space in the city, though no apparent ceremonial promenade or axis is seen leading up to it. Therefore, while separate, discrete public spaces did certainly exist in, the stark contrast with Bukhara and Afrasiyab would center on the relative absence of urban space clusters.

\(^{126}\) V. Barthold. *Turkestan Down to the Mongol Invasion*, p. 167.

A second inference on the nature of the growing city may be derived from the location of the *bazaars* of the city, and its main palace complex. It is apparent that in the Samanid period, the citadel at Penjikent had lost its original importance as a location for the palace and important administrative structures. Simultaneously, the suburbs had become a safer place to reside, possibly as a result of a heightened sense of security afforded by the Samanid policies. This appears to have relocated the bazaars to a location which could effectively serve the *shahristan* as well as the *rabad*. The building of the main palace *extra-muros* would have been the final outcome of this process.\textsuperscript{128}

**PAIKEND**

“Baikand (Arabic for Paikend) is considered a city and the people of Baikand do not like anyone to call Baikand a village. If a citizen of Baikand goes to Baghdad and is asked from whence he comes, he replies that he is from Baikand and not from Bukhara. It has a large grand mosque and prominent buildings. There were many *ribat* around the gate of Baikand till the year 854-5 ... The reason for this is that Baikand is an exceedingly fine place. The people of every village built a *ribat* there and settled a group. They sent them their living expenses from the village. In the winter, when the attacks of the infidels occurred, many people from every village gathered there to attack [the infidels]. Every group went to its own ribat.”\textsuperscript{129}

\textsuperscript{128} V. Barthold. *Turkestan Down to the Mongol Invasion*, pp. 166 - 67.

So wrote Al-Narshakhi in the year 943-4 AD, in the golden period of the Samanid reign. Seen in the light of Bukhara’s prominent position as the Samanid capital of the age, with Afrasiyab and Penjikent as important cities of the empire, these statements reveal the importance of still-smaller urban centers. Being in the larger region of Bactria, Paikend may have possibly been one among the many Hellenistic cities established within the area. With easy access to Samarqand, and to the deltas of the Zarafshan and Kashka rivers, Paikend’s first settlers were the Greco-Bactrians - whose Hellenizing influence on urban foundations within the region is obvious. What however is not certain is the extent to which Paikend itself was affected. Located 60 km. southwest of Bukhara, Paikend was the first Sogdian city after crossing the Oxus on the route from Amul to Bukhara and Samarqand. It is also mentioned in connection with the tyrannical ruler, Abrui, identified with the son of Tumen, the founder of Turkish power in Mongolia in the 6th century AD; and as the scene of a battle between Bahram Chubin and the Turks.\textsuperscript{130} The city played a prominent part in the Arab conquest of Central Asia in the early 8th century and though razed by Qutaybah bin Muslim was rapidly rebuilt. Under the Samanids it became the rulers’ appanage and its taxes were erased from the central registry. On the fall of the Samanids it lay in ruins, but Arslan Khan Muhammad b. Sulayman (1102-30 AD.) ordered it to be rebuilt.\textsuperscript{131}

Medieval Paikend was mainly a trading center and local merchants carried goods to China and many other distant maritime regions (possibly trans-Caspian provinces). Its economic prosperity naturally attracted frequent Turkish nomadic assaults, despite its

\textsuperscript{130} al-Narshakhi. \textit{The History of Bukhara}, pp. 105 - 6.
proximity to the capital at Bukhara. The *ribat* mentioned in Narshakhi’s account were therefore built by each village in the province to house detachments to counter such attacks. The beginning of the decay of these *ribat* is put by Narshakhi at the beginning of the Samanid period (about 854 - 5), and al-Muqaddasi writing a few years later, says that while a number of *ribat* were in ruins, the town itself was in flourishing condition. Evidently, now the strong walls which surrounded the town, obviously made the *ribat* unnecessary.

The citadel at Paikend was situated to the northwest of the *shahristan*, which was divided into two halves by means of an inner wall, thereby creating *shahristans* 1 & 2. The overall area of the site was about 18 hectares and the fortified *ribat* (mentioned in Al-Narshakhi’s account above) were located outside the town wall. The earliest foundations of the citadel, datable from the 3rd to the 2nd century BC. through ceramic remains found at lower levels, makes it evident that the first settlement on site was actually confined to the area of the citadel. This observation is further substantiated by the thick defensive wall which surrounds the area now. With the expansion of the city in the 3rd and 4th centuries AD. the structure of the citadel underwent some further specialization. It was now about 60 meters in overall length, with an inner corridor with square towers about 12 meters apart in the northwest corner. Furthermore, as if to account for the more specialized defenses required by prominent and growing cities in the region, the citadel wall was modified to include arrow-shaped loops for the defending garrison.132

While all these changes occurred within the initial enclosure, a bigger change was to occur in the 5th century AD, when Paikend also expanded westwards. The original settlement now became the citadel of the new city, which also included two other shahristan separated by a wall. Among these, the western shahristan (shahristan 1) was built slightly later than the eastern one (shahristan 2), and has well-preserved towers 60 meters apart, two-storied with wooden roofing, functional and decorative loopholes. The latest major building work on the city walls dates to the 8th century AD., and comprised of a massive defensive structure built against the earlier fortifications, and which may well have been inspired by the threat of the Arab conquest. 133 According to Al-Narshakhi, the Arabs were unable to capture the city even after a fifty-day siege and had to finally resort to subterfuge to capture it. Shahristan 2 on the other hand, had three gates, a principal gate mid-way along the western city wall and two gates in the northeast and southwest. The main streets of the city ran from the gates, crossing at the center of the shahristan. From each of these main streets, side streets branched off, dividing the city into rectangular blocks. Traces of this plan can be followed up to the 10th century. At the center of Shahristan 2, at the crossing of the two principal thoroughfares, was a building probably roofed with a dome, which in V. Kasayev's view could have been a fire temple. 134

Following the Arab conquest and the coming of Islam, there developed residential quarters outside the urban walls. One of the blocks to the east of the citadel had a concentration of potters' kilns. In addition, along the medieval route from Paikend to

133 al-Narshakhi. The History of Bukhara, pp. 43 - 4.
Bukhara were located numerous caravanserais or ribat, as confirmed above. One such structure excavated was a rectangular building about 75 meters wide with twin entrances, small corner towers, and a central courtyard leading to a range of rooms, either single or in ‘apartments’ of three. In addition there were storage rooms or depots and stables for animals.\textsuperscript{135}

In conclusion we could say that the small settlement of Paikend, developed into a sizable city by the 5th and 6th centuries AD. In the Samanid period (9th and 10th centuries), it was a flourishing city, but in the 11th century it declined and was eventually abandoned, as was the case with a number of other oasis in the Amu Darya region. Paikend is an example of a particular type of medieval urban development, and excavations at Penjikent, Bukhara and Afrasiyab show that it was characteristic of the region of Sogdiana. All of the four sites, developed from early settlements that, most probably in the 5th century AD., became the citadels of the new cities. Adjacent to these citadels there developed shahristan in the 5th and 6th centuries AD. The original city walls then separated the citadels and the shahristan. At Paikend, this wall was razed in the 7th century, at Penjikent in the early 8th century, and at Bukhara between the 7th and 8th centuries.\textsuperscript{136} In addition, the sites of these early cities were rather small - Paikend covering about 18 hectares, Penjikent about 13.5 hectares (excluding the citadel), and Bukhara about 21 hectares - Semenov estimates their population as around 5000, mainly traders and artisans, and the land-owning class, the dihqans.

MERV

Merv’s appearance as a tiny dot on a contemporary map, located near the small oasis township of Mary on the river Murghab, speaks little of the city’s stature in history. Known as “The Pearl of the East” in antiquity, it was among the four most important cities in Khurasan, and functioned for many centuries as the seat of the Caliph’s governor general. The present-day ruins of Merv cover an area of about 50 square miles, and are essentially the remains of five walled cities dating from five different periods. (Figure 51, 52) The earliest foundation is ascribed to Antiochus, the son of Alexander's general Seleucus and the Bactrian princess, Apama. In his effort to consolidate and develop the Central Asian satrapies, the oasis of Merv or Margiana (previously the Achaemenid settlement at Erk-kala, which had been transformed by Alexander into Alexandria in Margiana) was incorporated by a new city. Now called the Gyaur-kala site, its massive unbaked-brick ramparts enclosed a vast square 1,500 meters across, fortified at each corner by a bastion. Inside the ramparts, whose irregular contours reflected those of the site, two main streets linking the four gates crossed at the center of the city. According to Strabo, the king was so impressed by the fertility of the oasis and anxious to protect it from nomadic incursions like the one that had recently devastated it, that he ordered the city to be surrounded by a rampart 1,500 stadia (250 km) long. Lengthy sections of this defense work, consisting of a light rammed-earth wall punctuated with towers, have been discovered on the northern boundaries of the oasis.137 A huge fortress, known as the Erk-Kala stood at the center of Gyaur-kala,, dating roughly to the second century BC, and

reconstructed later, possibly by Roman soldiers exiled to Margiana after the battle of Carrhae.\textsuperscript{138}

Great Merv in the Middle Ages was called \textit{Marv-ash-Shahijan}, to distinguish it from \textit{Marv-ar-Rud} or Little Merv, which lay to its south. \textit{Shahijan} is probably merely the Arab form of the old Persian Shahgan, meaning ‘kingly’, or ‘belonging to the king’, although Yakut and others explain the term as \textit{Shah-i-Jan} to mean of the ‘soul of the king’. The greatly-expanded city of Merv at this point in time is described by al-Istakhri, Ibn Hawqal and al-Muqaddasi (beginning 950 AD). It consisted of an inner citadel (\textit{kuhandiz}) - ‘high-built and itself of the size of a town’ - surrounded by the inner city with its four gates, beyond which again were extensive suburbs stretching along the banks of great canals. Scholars have identified the \textit{Gyaur-Kala} site with this \textit{shahristan} or the inner city. The four gates of the town were the \textit{Bab-al-Madinah}, 'the City-Gate' (SW), where the road from Sarakhs came in; the \textit{Bab Sanjan} (SE) opening on the \textit{Bani Mahan} suburb and the \textit{As'adi} canal; the \textit{Bab Dar Mashkan} (NE) on the road to the Oxus; and lastly the \textit{Bab Balin} (NW). Attesting to the size of the urban population, in the tenth century there were no less than three Jami Mosques in Merv. The first among these was the citadel mosque, called the Jami of the \textit{Bani Mahan}; the second the Masjid-al-Atik or ‘the Old Mosque’ which stood at the gate opening on the Sarakhs road, the \textit{Bab-al-Madinah}; and lastly the New Mosque of the \textit{Majan} suburb, outside this gate, where the great markets of the city of Merv were found.\textsuperscript{139}

\textsuperscript{139} G. Le Strange. \textit{The Lands of the Eastern Caliphate}, pp. 398 - 99.
The extensive canal system of the oasis also interacted with the structure of the city. The important Razik canal flowed into the town, coming to the gate called the Bab-al-Madinah and the Old Mosque, after which its waters were received and stored in various tanks for the use of the inhabitants of the quarter. The Majan canal, flowing to the west of it, watered the great Majan suburb, which lay round the Maydan, or public square, on which stood the New Mosque, the government House and the prison; all of these having been built by Abu Muslim, the great partisan of the Abbasids. West of the Nahr Majan, was the canal of Hurmuzfarrah, on the limit of the suburbs of Merv, and along its banks were the houses and quarters built by Husayn the Tahirid, who had transferred many of the markets of the city to this quarter. Yakut, speaking at a later date of the great western suburb of Majan, mentions two of its chief streets, namely the Bararjan and the Tukharan-bih. The Hurmuzfarrah canal ultimately reached the township of that name, near the swamps of the Murghab, and with its own Friday mosque. One league distant from Hurmuzfarrah was Bashan, also a town with its Friday mosque, while the two hamlets of Kharak (or Kharah) and As-Susankan, standing a league distant from the other, lay also on this side of Marv and were likewise of sufficient size for each to have its own Friday Mosque.\footnote{G. Le Strange. The Lands of the Eastern Caliphate, p. 399.} One march to the westward of Marv was the town called Sinj (in Mukaddasi spelt as Sink), with a fine Friday Mosque, standing on a canal with many gardens, and beyond it, two marches to the south-west of Merv on the road to Sarakhs, lay the important town of Ad-Dandankan. This was small but well-fortified, having a single gate, with hot baths or hammams outside the wall. Its ruins were seen by Yakut in the thirteenth century, for it had been substantially pillaged by the Ghuzz in 1158. This was the limit of the cultivation of the Merv oasis to the south-west, while the
Kushmayhan, one march from Marv on the Bukhara road, was the limit of cultivation on the north-eastern side. The town, known for its fine fruit and produce grown in the surrounding gardens, possessed a fine Friday mosque and good markets, was watered by a great canal, and had many hostels and baths. Immediately outside the *Dar Mashkan* gate of Marv, which led to the town of Kushmayhan, had stood the great palace of Mamun, where he had lived when he held his court at Marv, previous to setting out for Baghdad to wrest the Caliphate from his brother Amin. The south-eastern gate of Marv, the *Bab Sanjan*, opened on the *As'adi* canal, along which lay the *Bani Mahan* (or *Mir Mahan*) quarter, with the palace of the Marzuban of Merv. (Figure 53, 54, 55, 56)

Between the second century AD and the arrival of the Arabs, little is known of how the city of Merv developed. The Arab re-population of the city, which began in the ninth century, caused it to become the biggest city of Islam after Baghdad. Described in considerable detail by Istakhri and with the help of Zhukkovskii’s reconstruction in *Razvaliny Starogo Merva* it is possible to locate some of the buildings, the urban districts, irrigation canals, the city walls and gates.¹⁴¹ By the middle of the twelfth century, this particular city, possibly the third urban foundation of Merv, was replaced by still a fourth one on its western side - the *Sultan-Kala* - the city of the Saljuks. Here the famous Saljuk sultan Sanjar built a huge dam on the river Murghab and thus secured the fertility of the area. Destroyed by the Mongols in 1221 AD, the city once again rose from its ruins, next to its former site, though never regaining its former and splendor. Eventually, the final fifth urban settlement, created by Shahrukh at a site located southwest to the older city,

partially revived the economy of the region, and used the older dam as a still vital mechanism for its existence. On its destruction in 1795 by the Emir of Bukhara, the city was reduced to a sandy mound in the Kara Kum desert.\textsuperscript{142} (Figure 57, 58, 59, 60, 61)

Zhukovskii also gathered information about the villages of the Merv oasis, which indicates that in the Middle Ages, just as now, the oasis occupied a very modest area in all directions from the city. Villages and suburbs extended out to about 5 farsakh (20 miles) in all directions, almost delineating the very limits to which irrigation canals could possibly extend. The desert then began abruptly again, punctuated at distant intervals by fortified trading posts and halting locations for possible caravans, especially along the important east-west trade route which passed through the city since antiquity. The isolated position of Merv and the proximity of the desert therefore subjected its trade to constant danger, and only in rare periods of strong government was it possible to shield the oasis from the raids of the nomads and elements. (Figure 62)

The development of this elaborate urban ensemble at Merv was disrupted with the attacks of the Ghuzz Turk on the city in 1150 AD. A new site for the city was established, located slightly west of the previous foundation, as if to account for the elaborate canal system and suburbs which had existed to the west of the city. This was the Sultan Kala of the Saljuks; in the very center of which was positioned the mausoleum of Sultan Sanjar, at the intersection of two cross-axial streets. The streets ran to the city gates and roughly divided the city into four unequal quadrants. Significantly, the mausoleum of Sultan Sanjar, who died in 1157, was built by the monarch in his own lifetime, and even at the

\textsuperscript{142} E. Knobloch. \textit{Beyond the Oxus}, pp. 173 - 77.
end of the thirteenth century, according to Rashid al-Din, was considered to be the tallest building in the Islamic world. This was therefore a conscious decision to position a large monument at the urban crossroads, setting a precedent of sorts for other dynasties to come. Sanjar also began a wall around the city which was completed by Sultan Malikshah. Finally, at the north-eastern corner of the Sultan Kala is a building called the Shahriar Ark, separated from the city by a wall, which may have been the Saljuk citadel, though we have no definite evidence. Merv’s new found prosperity in the Saljuk capital, however, did not last long. It was almost completely destroyed by the Mongols in 1221, and its entire population of 100,000 inhabitants killed. (Figure 57)

Yakut (about 1200 AD), our only reference on Merv in the period just before the Mongol invasions, describes Merv as in his day possessing two chief Friday Mosques, enclosed by a single wall, one for Hanafites, and the other belonging to the Shafi'ites. He himself lived in Merv for three years, collecting the material for his great geographical dictionary, for before the Mongol invasions the libraries of Merv were celebrated throughout the medieval world. “But for the Mongols I would have stayed and lived and died there,” he writes, “...and hardly could I tear myself away.” At the approach of the Mongol hordes in 1220 Yakut sought safety in Mosul in Mesopotamia, and all the glories of the Merv libraries fell a prey to the flames. The tomb of Sultan Sanjar, Ibn-al-Athir states, was set on fire, together with most of the mosques and the public buildings. In addition, the dams and dykes, so characteristic of the early periods, were broken and destroyed. This caused the fragile environment of Merv to lapse into a desert swamp, and when Ibn Battuta passed through Merv in the fourteenth century, it was still one great ruin.
In this regard, Zhukovskii proposes that the Mongol camp or settlement, which came up subsequently, was placed on the present site of *Shaim Kala* (to the southeast of *Gyaur Kala*). While little is known or proposed by scholars regarding the shape or structure of Shaim Kala, two important questions appear at this stage. Firstly, that how large was Saljuk Merv to have accommodated as huge a population of 100,000 inhabitants. Even a somewhat smaller number would raise similar questions, since archeological remains of the city provide a relatively unimpressive size. Secondly, if at all we were to suppose that Saljuk Merv could not have accommodated this population, where else did they reside. While extensive suburbs did exist outside Merv, how were they organized? Merv was finally rebuilt in 1409 AD by Shahrukh, Timur's son, in a new location, and the remains of this town appear to be two sites connected to each other, *Bayram Ali* and *Abdullah Khani*, but considerably smaller than the former sites. Even in the fifteenth century, the author Hafiz-i Abru relates, there would sometimes appear, when strong winds scattered the desert sands, traces of walls and other structures to the north and northwest of the Timurid city.

For most scholars writing on the Merv oasis, a detailed description and examination of the numerous *kurgans* dotting the area around the *Ghiaur Kala* appears to have been an important base for clues to the physical form of the three cities of the Merv oasis. For a space of fifty miles from north to south and forty miles from east to west, they form one of the most significant features of an otherwise unmarked landscape. A brief reconnaissance among them indicates that the old cities of Merv were in fact surrounded
by a dense suburban and presumably agricultural population which clustered around these *kurgans*. Teeming villages appear to have been supported by the Murghab river, not only in the districts presently under cultivation, but also in regions at present waterless. These very suburbs would have in all probability accommodated the large populations boasted by the city.

Within these *kurgans*, the relics of the former inhabitants are of two distinct types, characteristic of two quite different periods in history. The more recent ruins, which are fairly well-preserved, are built almost entirely of sun-dried mud bricks, and consist of old houses and palaces, rectangular forts with very thick walls, round towers to protect the fields and villages, and old canals guarded by miles of walls flanked with square towers. These constructions are to a large extent ascribed to the era of Arab rule in Central Asia and beyond.

The older ruins, on the other hand, are of a distinctly different type. Chief among them are the numerous flat-topped *kurgan*, or *tepe* as the Turkomans call them, which are numerous and fairly common in the region. The distribution of most of them has been already investigated and shown in a Russian 5-verst map, where it is seen that they are most abundant in the region directly north of *Bairam Ali* and the numerous ruined cities of ancient Merv. In addition to the *kurgan*, there are also a large number of rectangular forts, the thick and lofty mud walls of which have been reduced either to mere rows of hillocks, as at *Kirk Tepe*, or to mounted ridges, as at *Yasi Tepe*. Within this setting of larger structures, smaller structures also must have existed, such as ordinary rural houses,
and their sites are marked only by low mounds, or by the accumulations of pottery. Canals, too, must have abounded, but their traces are hard to follow, and it is extremely difficult to determine their age.

In spite of the great diversity indicated in the physical characteristics of the *kurgans*, as a whole they appear to be modeled upon a single plan. All have flat tops, are symmetrical in the vertical section, and the majority are rectangular in plan. They vary in size, however, the heights ranging from 15 to 80 feet, and diameter from 65 to 480 feet. In age, too, and in the amount of weathering to which they have been subjected, there are equally important differences. The older *kurgan*, which generally are also the smaller, are so far reduced in size and height that their sides have a slope of only 15 - 20 degrees, and can be climbed on horseback almost anywhere. The newer ones; on the other hand, have sides that rarely slope less than 30 degrees, and sometimes, where bits of old walls still remain, are almost perpendicular. On horseback they can be ascended only at places where the ancient gateways appear to have been located, one gate in each mound. Most of the mounds do not seem to be old village sites, like those of Anau, which was built- up gradually in an accretive fashion. On the contrary, many appear to have been constructed in exactly the opposite manner, i.e. by the rapid building of thick adobe walls of sun-dried bricks, and the infill of these structures with mud and refuse until a broad elevated platform was produced. This elevated plinth was used for habitation, and today archeological materials including pottery, bricks, glazed wire, glass, and stone, which formed the necessities and luxuries of their daily lives, are found here.
Pumpelly, one of the first scholars to systematically excavate the Merv oasis site and its surrounding areas, classified the kurgans into three types based on their modes of development and physical characteristics. The oldest kurgan, those of the primitive type, are usually rather small and low, with rounded outlines and gently sloping sides. They have a distinctly old appearance, though this statement may be qualified by the fact that in spite of considerable erosion they still retain the outlines of their original form. The Merv kurgans of this primitive type vary in shape from heptagonal in the case of Munon Tepe, to square, although the latter is the prevailing shape, and the variation may be due to erosion. Furthermore, most kurgans of this category have been built without special reference to the points of the compass. As a last essential characteristic, each structure appears to have been surrounded by a moat, though in most cases this is largely filled-up.

The second category of kurgan are relatively larger and more steep-sided than their first counterparts. They too were originally rectangular, and several had their sides or axes oriented north and south. More generally than in Class I the remains of defensive moats surround these structures. Outer walls, too, are an occasional feature, either hemming in the whole of the summit of the hill, as at Ersar Tepe (No. 13), or surrounding an enclosure in the center of which rises a higher square, as at Guibekli Tepe (Navel Hill, No. 17/table, and Nos. 6 & 7 on plate), and at Kuzi Tepe (No. 8), a kurgan of the primitive class. In terms of archeological remains, Pumpelly identified this second category of kurgan as the "transition type", based on the incised ornamentation which characterized pottery remains found in these kurgan. In addition, ornamentation was more abundant and developed, employing a greater number of motifs. As final evidence
to their more advanced culture, the people of the transition period appear to have learnt how to produce burnt-brick using straw. The initial coarse and rough bricks, usually 3 inches thick, led to a standardized size used for the construction of most of the kurgan of the second category - 2.5 inches thick by about 11 inches square.

The third category of kurgan were extremely developed constructions. Not only were the hills hence produced higher and larger, but in addition orientation appears to have been an important aspect of their construction. While some kurgan were built with the sides running directly north and south, others carried the idea of orientation still further, by arranging the effective axes of the compositions along the cardinal points - and sometimes actually creating diamond-shaped parallelograms instead of the usual squares. These kurgan are also characterized by the remains of tower-like constructions at the corners of the construction or along their sides, a form which sometimes specializes into a watch-tower, keep or citadel. Within this third category, the old ruins of Kirk Tepe, located 15 miles northwest of the Ghiaur Kala, are of particular interest and allow us to suggest a possible date for these constructions. To a large extent an imitation of the ancient capital of Ghiaur Kala, the Kirk Tepe is also a square enclosure, 1,000 feet on each side, surrounded by thick mud walls about 20 feet high. As if to complete the picture, the northwestern wall is interrupted by an inner circular enclosure with higher walls - an enclosure which Pumpelly points appears to have been built before the main walls were erected, as may been in the way in which the line of the large square is interrupted.143

BALKH

The city of Balkh, called *Balkh-al-Bahiyyah*, or “Beautiful Balkh” by medieval historians and geographers - gave its name to the fourth quarter of the province of Khorasan. The present-day village of Balkh, with its few thousand inhabitants, was in fact one of the most important trading and cultural centers between the Oxus River (now the Amu Darya) and the Hindu Kush mountains. Believed to be the site of Baktra or Bactra, the capital of ancient Bactria, it was a prosperous city even under the Achaemenid dynasty (538 - 331 BC.). It gained importance under the Bactrian monarchies (323 - 87 BC.) following the conquests of Alexander the Great, and then, under the Kushans and Hephthalites, gradually evolved into an important Buddhist center of the region.

Concerning the cultural legacy which characterized the city of Balkh through the course of its history, Erastosthenes mentions the name *Zariaspa*, a name for Balkh perhaps derived from *Azar-i-Asp*, referring to the great fire temple which is believed to have once been located in the city. As a traditional cradle of Zoroastrianism, Bactria or Balkh was therefore, undoubtedly a large city, having in the time of Euthydemos, the Indo-Greek ruler, a somewhat Hellenized though composite appearance due to the presence of a temple of Anahita, an Iranian divinity who was especially connected with the city.

Thus the city in which the teachings of Zoroaster had first been accepted also became one

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of the principal centers of Buddhism in the course of its history. This fact can be explained through historical events, which after the destruction of the Achaemenid kingdom by Alexander the Great, separated Bactria from the rest of Iran and established close links with India. The city’s prominence continued in the Islamic epoch as a major province of Khurasan, plundered by caliphs and then the seat of local, powerful potentates. The Mongol invasions directed by Chingiz Khan destroyed it to a large extent in 1221 AD., but the large ruined site still attracted travelers, and Marco Polo, who passed through the city in the early fourteenth century, mentioned it by the name of Balac. As a final testimony to its ever-present charisma, it was rebuilt in the time of Tamerlane and developed into one of the largest cities in Khurasan.148 (Figure 62A)

The choice of Balkh’s location was determined by a number of reasons, foremost being the unusual fertility of the oasis created by the river Baktros (now called Balkh Ab) at its exit from the mountains.149 When it became the principal town of this area, Baktra, exactly like Balkh later, became the center of trade with India. The significance of Baktra’s location in a plain situated at the foothills of the Hindu Kush, and as an important trading post since antiquity may be inferred from the precise information on it provided by Arab geographers. According to them the distance between Balkh and the bank of the Amu Darya could be covered in two days time - a distance defined as two farsakh or eight miles, and largely over flat or hilly terrain. If however, the classical authors are to be believed regarding the flow of local rivers, at one time in the region’s history, there also may have a probable water route connecting the city with the Amu

149 V. Barthold. An Historical Geography of Iran, p. 11.
Darya, facilitated by the Baktros (or Balkh Ab), though this has never been substantiated.  

Within the town itself, according to Yaqubi, there were about two score Friday Mosques. This may of course be an exaggeration, but even a reduced number would surely indicate a large urban population and the existence of many residential neighborhoods or quarters, each with its own Friday Mosque. According to Yaqubi, the chief Friday Mosque stood in the central part of the city. Among the other significant buildings of the town, there is repeated reference to a construction from the pre-Islamic times - the Nawbahar temple. The Persian geographers say that it was built by the ancient Persian kings, but the Arab historians are more accurate in their statements that the Nawbahar had actually been a temple for “people of the same faith as the Chinese emperors, and the Shah of Kabul.” Would this then imply that the Nawbahar or the nava-vihara was a temple for the Buddhists? Ibn al-Faqih provides a somewhat fantastic description of the temple, according to which the main structure consisted of a domed enclosure, whose radius was one hundred ells in length. This was encircled by a round portico, and surrounded by three hundred cells for temple servants, each of whom performed religious duties only once a year. On lines similar to the religious endowments or waqfs of the Islamic times, which ensured resources for the upkeep and maintenance of public buildings and properties, all of the lands around the Nawbahar complex, for seven leagues square, were

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Barthold quotes Ammianus Marcellinus (XXIII, 6, 69) here, though debates if conditions could have changed so radically in the 1000 years that separated Greek geographers from the Arab ones. V. Barthold. An Historical Geography of Iran, pp. 11 - 12.  
the property of the sanctuary, and brought in substantial revenue for its upkeep.\textsuperscript{152} That this temple, or an equivalent structure did actually exist in the seventh century, is confirmed from the descriptions of Hsuan-tsang - the Buddhist pilgrim and traveler - who mentions that it was situated southeast of the town itself, though his biography reverses this very location to the southwest. Arab historians (the first of whom possibly saw the \textit{Nawbahar}, or its reconstruction in the early ninth century), on the other hand, say that the temple was located in the \textit{rabad}, and the river of Balkh Ab had its course past the gate of \textit{Nawbahar}, most probably then entering the city of Balkh. This supposition is supported by the seventeenth-century Bukharan historian Mahmud b. Wali, who states that the gate of the \textit{Nawbahar} was situated on the southern side of the town, and was in his time called the gates of Khwaja Sultan Ahmed. From the Chinese descriptions, one observes that in the temple there were several Buddhist sanctuaries; to the north of it was a \textit{stupa} about two hundred feet high; and to the southwest was yet another extremely ancient temple, an observation which in fact appears to correspond to a schematic plan of the remains of the city. All in all, in Hsuan-tsang’s time there were in Balkh up to one hundred Buddhist monasteries, including the \textit{Nawbahar}, and a population of about three thousand monks.\textsuperscript{153}

If the earlier descriptions of the \textit{Nawbahar} sanctuary and immense suburb by the same name are put together, then the place described was located to the south-west of the central urban core (the \textit{shahristan}). A brief examination of the schematic plan of Balkh showing its various extents of growth makes it evident that while using its central core,

\textsuperscript{152} G. Le Strange. \textit{The Lands of the Eastern Caliphate}, p. 422.  
\textsuperscript{153} V. Barthold. \textit{An Historical Geography of Iran}, pp. 15 - 16.
the city literally grew in the west south-westerly direction.\textsuperscript{154} This appears logical since Juzjan (Al-Juzajan or Juzjanan) was the western district of the Balkh quarter, through which the road passed from Marv-ar-Rud to Balkh city. During the Middle Ages this was a most populous district, possessing many cities, of which only few existed under their original names when Barthold researched the region in the early part of this century. Though the names of many others were changed, ruins still marked these sites. An additional clue to the location of the \textit{Nawbahar} may be gained from Ibn Hawqal’s account of the stream that watered Balkh - the Dahas, which turned as it ran past the \textit{Nawbahar} gate, flowing on to irrigate the lands and farms of Siyahjird on the Termez road to the north. Since the Shahr-i Hinduwan lay to the east of Balkh and connected to it by the Bab-i Hinduwan, the only other possible position for the \textit{Nawbahar} gate was therefore the west south-west wall of the city. Within the famous suburb of \textit{Nawbahar}, the houses extended over an area measuring more than three square miles, demonstrating the great prosperity of the \textit{rabad}. Around it lay abundant gardens producing oranges, the Nilufar lily, sugar-cane, and grapes.\textsuperscript{155}

The entire Balkh oasis was at one time surrounded by long walls for protection against nomadic invasions. As if attesting to the immense size of the oasis, and its sheer density of settlement, the total length of these walls around Balkh is indicated as twelve \textit{farsakh} (48 miles) in total circumference.\textsuperscript{156} It appears that by the time of the Arab domination, however, these walls did not exist any more, and the city appears to have shrunk, rather

\textsuperscript{154} M. Bussagl. “Afghanistan” in Encyclopedia of World Art, pp. 31 - 47.  
\textsuperscript{155} G. Le Strange. The Lands of the Eastern Caliphate, p. 421.  
\textsuperscript{156} Yaqubi. Kitab al-Buldan, p. 288.
differentiated into specific areas which were concentric in their organization.\(^\text{157}\) The settled area was divided, like the other towns mentioned, into the town itself (the madina or Persian shahrīstan), and the suburb (rabād). Significantly, however, no citadel (quhandiz) is mentioned in this period, indicating that either one did not exist at all, or else the older structure, which still existed in some form, was probably being used for the same purpose, and did not attract special comment.\(^\text{158}\) Arab historians give us a less detailed and precise account about the city of Balkh than about Bukhara and Samarqand. The dimensions of the city are variously reported, and the number of gates varies as well. According to Yaqubi, writing in the ninth century (891 AD), the city had three concentric walls and thirteen gates, which included four gates of the rabād. According to tenth-century geographers, however, there were a total of seven gates, which were named as the Bab Naw Bahar, Bab Rahbah (Gate of the Square), Bab-al-Hadid (the Iron Gate), Bab Hinduwan (the Gate of the Hindus), Bab-al-Yahud (the Jews’ Gate), Bab Shast-band (the Gate of the Sixty Dykes), and the Bab Yahya. An analogy with the other towns of the region makes one assume that despite Yaqubi’s contention, the former number, four, should be applied not to gates of the rabād but to those of the shahrīstan. Among the names of the gates which are mentioned, the “Gates of the Indians” (Bab-i-Hinduwan) and the “Gate of the Jews” (Bab-i-Yahudan); clearly point to specific quarters inhabited by Indian and Jewish merchants.\(^\text{159}\) Confirming this, Yate’s descriptions of Balkh in the late 1800s, when there was still a considerable Jewish colony in the town, located in a

\(^\text{157}\) This is also gauged from the descriptions of al-Yaqubi, who served the Tahirid dynasty in Khorasan. Yaqubi testified that the layout of the city conformed to the archetypical morphology of Mashiqi cities, encompassing both an inner shahrīstan and an outer rabād, which he described as one with “parallel perimeters.” See Yaqubi. al-Buldan, p. 287.

\(^\text{158}\) V. Barthold. Turkestan Down to the Mongol Invasions, p. 78.

\(^\text{159}\) V. Barthold. An Historical Geography of Iran, p. 13.
special quarter, and also some Indian shopkeepers, despite the almost total decline of the commercial importance of the city of Balkh.\(^{160}\)

In the absence of archeological excavations on the site of the Balkh oasis, Barthold made some conjectures regarding the urban subdivisions of the city. Using the model provided by the other, larger towns in the region, he was of the view that at Balkh too, the innermost part of the city - the *shahristan* - was surrounded by its own special wall. In addition, he used the word *rabad* to describe the area between this inner wall and the outer wall of the town, though the term itself originally seemed to denote this outer wall. Extending this conjecture further based on al-Narshakhi’s account of the urban topography of Bukhara in the tenth century, it becomes apparent that this *shahristan* was in fact, the earliest part of the town of Balkh, serving as the virtual anchor for the foundations of cities around it in the course of its history. It appears to have originated at the time of the exclusive domination of the landed aristocracy, while the representatives of the merchant and artisan classes lived in the *rabad*, where the markets were also concentrated. As the landed aristocracy declined, and the merchant-artisan class rose, life shifted more and more from the *shahristan* to the *rabad*.\(^{161}\)

By the closing decades of the tenth century, Balkh had again come to rank as a commercial emporium and cultural center, though the old triadic layout of the city was still in place. A *quhandiz*, which had not been mentioned in the earlier Islamic centuries, is now implied. It is noticeable, though, that the *rabad*, which had grown enormously by


\(^{161}\) V. Barthold, *An Historical Geography of Iran*, pp. 12 - 14.
this point in time, enclosed the shahristan only on the east, west and southern sides, thereby allowing quasi-rural terrain to reach right up to the city on its northern edge.\footnote{162 Ibn Hawqal. al-Masalik wa-l-Mamalik, 448.} Also, the walls encircling the outermost fringe of the oasis appear to have fallen into disrepair. However, the presence of the congregational mosque amidst the principal suqs of the rabad\footnote{163 al-Muqaddasi. Ahsan, p. 302.} - emulating the trend in the other cities - was sufficient testimony to the process of settlement eversion that was evident across the whole of the Mashriq as government and its derivative economic and social functions drew migrants moth-like into the expanding orbit of Islam.\footnote{164 P. Wheatley. The Places Where Men Pray Together, p. 308.}

When the conquest of Balkh by the Arabs took place, the town appears to have put up a fierce resistance, so that it was largely destroyed and for some time actually ceased to exist. The new Arab town, named Baruqan, was built at a distance of two farsakh (eight miles) from the older foundation. The temple of Nawbahar was also destroyed as a result of this calamity which befell the city of Balkh, although the place still remained sacred for the natives. In the eighth century, at the time of Qutayba b. Muslim, the Tokharian princes who rose against Qutayba performed their prayers there. In 727 AD. the governor Asad rebuilt old Balkh and resettled the Arabs of Baruqan here.\footnote{165 al-Tabari. Tarikh, 2, p. 1490.} The reconstruction of the city was assigned to the famous family of the Barmakids, who had at one time administered Nawbahar; and who had, under the Abbasids, become the organizers of the caliphal empire. At the time of the Abbasids and of the first Persian dynasties - the Tahirids, Saffarids, and the Samanids - Balkh, together with Turkharistan, was governed
by a local dynasty, which, because of its insignificance, is barely mentioned in the sources, but which struck coins. Numismatics call this dynasty the Abu Dawudids, after the name of Abu Dawud Muhammad b. Ahmed, who ruled at the end of the ninth century. Balkh remained at this time the center of trade with India.

The city of Balkh acquired a special importance in the eleventh century at the time of the Ghaznavids, when it became one of the capitals of the famous sultan Mahmud, even though it was subjected to a destructive incursion by the Qarakhanids in 1006 AD. Before this, the Amu Darya, was declared as the boundary between the kingdoms of Turkestan and eastern Iran, and after his decisive victory over the Qarakhanids, Mahmud annexed the regions pertaining to Balkh that were on the right bank of the river. In the middle of the eleventh century, Balkh was incorporated into the possession of the Saljuks, who also subjugated its dependent regions, and the Hindu Kush became the official boundary between the Saljuk and the Ghaznavid possessions. When in the twelfth century, the mountain kingdom of the Ghurids rose in prominence, Balkh became one of its possessions. It is in this state of prosperity that Balkh flourished till the middle of the twelfth century, when it was laid in ruins for the first time by the invasion of the Ghuzz Turks in 1155 AD. After their departure the population which had previously fled the city returned, and rebuilt the city in another but closely adjacent place. In part, Balkh recovered its former splendor before long, and is described by Yakut in the early part of the thirteenth century, immediately before its second devastation at the hands of the Mongols.
The Mongols in 1220 AD. devastated the city of Balkh, and according to Ibn Battuta, Chingiz Khan even destroyed a substantial portion of its great mosque in his fruitless search for hidden treasure. Just as in the eleventh century, now too the Amu Darya was declared to be the boundary - this time between the possessions of Chaghatay and those of Hulegu. And this time too, the boundary was violated: the Chaghatay firmly established themselves in Balkh and in the neighboring regions in the thirteenth century. Though the restoration of Balkh is attributed by Muslim historians to the Chaghatay Khan Kebek, who died in 1326, Ibn Battuta still found the place in ruins, when he passed through in 1333 AD. In 1368, the amir Husayn, Timur's predecessor, decided to rebuild the fortress of Hinduwan, the former citadel of the city of Balkh (which lay to the west of the original foundation), so the inhabitants of the city were forcibly moved to the fortress, so that the former was ruined again. After the overthrow of Husayn by Timur in 1370, the fortress was destroyed and the inhabitants were ordered to return to the old city.

Timur also received the oath of the Chaghatay nobles and commanders in the vicinity of Balkh. In the fifteenth century, the city formed part of the Timurid domains, and subsequently it was the bone of contention between the Uzbek Khans, the Shahs of Persia, and the Great Mughals in India, whose place was taken by the newly-formed Afghan state in the eighteenth century. The Uzbeks became the ethnically dominant element in Balkh and in the regions to the east and west of it. The country from the Murghab river to the border of Badakshan received the name of Turkestan, and has kept it to this day; even after incorporation into Afghanistan, before which it was alternatively under the rule of independent Uzbek rulers and the Khans of Bukhara. The latter, for
understandable reasons, especially valued Balkh, which still belonged to them in the nineteenth century. In the heyday of the Bukharan khanate, Balkh was an important city and was called, as before, *umm al-bilad* ("mother of cities") and *qubbat al-Islam* (the "dome of Islam"). In this reference, a detailed description of the city in the seventeenth century exists in a work called the Bahr al-asrar manaqib al-akhyar by Mahmud b. Wali. Balkh was joined to Afghanistan in 1850, and the final subjugation of entire Afghan Turkestan took place only in the 1880s.

From among more recent travelers to the city of Balkh, Burnes visited Balkh in 1832, Ferrier in 1845, and Yate in 1886. The last-named traveler described the ruins of the city in great detail and also included a plan of the city. According to his narrative, the old wall encompassed an area of about six and a half English miles in circumference and has four gates (in Mahmud b. Wali’s time it had six gates). Contiguous with the city, on the northeastern side, were the ruins of a fortress, situated at a considerably higher level. The citadel within this fortress was fifty feet higher still, and located at the south-western (according to the plan, southeastern) corner of the fortress. The citadel and the fortress were totally uninhabited, and Yate observed that there was absolutely no water in the former, and it was hard to see a possible source from where it could have been brought in the past.\(^{166}\)

Only the southern side of this earliest urban foundation was inhabited at the time of Yate’s visit. Visible at the western gate of the ensemble were three tall arches - remnants, according to the inhabitants, of a Friday mosque, and at a certain distance east of these

\(^{166}\) V. Barthold. *An Historical Geography of Iran*, pp. 25 - 29.
ruins were remnants of the *chahar-su*, the central domed structure of the main bazaar. Arab geographers in the ninth and tenth centuries confirm that the main bazaars of the city ran at the center of the city. Therefore, as in the case of other large cities of Central Asia, Balkh too was traversed by two main streets, from north to south, and from east to west, alongside which were covered bazaars, and at the intersection of these two main streets was the dome-like structure which Yate described in his account. Located somewhat further east of the *chahar-su*, were the remnants of a high gate, and the ruins of the old wall around the *shahristan*, which were visible from the southwestern corner of the city, running all the way to the southwestern corner of the fortress. Here, in his opinion, ended the old town, whereas the western part was joined on to it later. In the course of his narrative, Yate describes two more buildings, without mentioning their exact locations. These are the “green mosque” (*masjid-i sabz*) with the tomb of a saint, and the ruins of a madrasa built by Subhan Quli Khan, who had ruled the region in the second half of the seventeenth century. In Barthold's opinion, on the basis of a close physical similarity with other Central Asian cities of the same period, it is probable the whole city depicted in Yate's account and plan actually belonged to the Uzbek period.\(^{167}\)

The Afghans themselves place the ruins of the earlier town on this site to the east of the one which Yate described, calling them the *Shahr-i Hinduwan*, and maintain that it was this Balkh had been destroyed by Chingiz Khan, after which the new town came into being. It is however not clear if this town was contiguous with the citadel which Yate described. It is quite possible that the fortress together with the citadel is identical with

\(^{167}\) C. Yate. *Northern Afghanistan or Letters from the Afghan Boundary Commission* (London, 1888).
the citadel of the old town destroyed by Chingiz Khan and rebuilt by the amir Husayn, and that the *shahristan* of the pre-Mongol period had been on the site of the ruins of *Shahr-i Hinduwan*. According to the observations of Burnes, all the ruins visible today above the ground belong to the Islamic period, which is indeed most probably the case. Other travelers, however, such as J. P. Ferrier, though they saw in Balkh fragments of bricks with a cuneiform script, though this has as yet not been substantiated. Yate also described two large *kurgans* or mounds of the city to the Buddhist period - the *Takht-i Rustam* and *Tepe-yi Rustam* - and judging by their location, it is possible that here were the two edifices of *Nawbahar* about which Hsuan-tsang wrote in the seventh century.
CHAPTER 5

CONCLUSIONS - CULTURAL ASSIMILATION AND URBAN MORPHOGENESIS IN THE CENTRAL ASIAN CITY

Figure 77: Motifs and design elements on Chinese textiles showing the synthesis of cultural traditions from China and Sogdiana – a byproduct of the extensive trade and commerce between the two geographical regions.

“If it is said that a paradise is to be seen in this world, then the paradise of this world is Samarqand.
O thou who comparest the land of Balkh therewith, are colocynth and candy equal to one another?”


“The Arabs placed against the walls [of Samarqand] three hundred catapults; in three places they dug big saps; they wanted to destroy our town and our kingdom. I humbly ask as an Imperial Bounty for the sending of a certain quantity of soldiers to assist me with
my hardships. As for those Arabs, they are doomed to be powerful during a bare total of one hundred years; this year this total is exhausted.”

(Plead for help to the Chinese Emperor from Ghurak - the King of Samarqand in 712 AD; preserved in the Chinese chronicles)

5.1 The City as a Palimpsest

This thesis has shown how, by the first quarter of the eighth century, after several military actions, the Arabs had conquered the region of Sogdiana, which in time became one of the richest areas of the Caliphate. This economic prosperity came hand in hand with a great deal of cultural assimilation, wherein strong urban traditions that had prevailed in the ancient land of Sogdiana combined with notions of sedentary lifestyle and settlement patterns introduced by the migrating Arab armies. At a socio-cultural level, among the more radical elements of change was the adoption of Islam - the religion of the conquerors - by a substantial portion of the population, especially those who lived in its cities, in the second half of the eighth and the ninth centuries. Simultaneously, the Persian (Tajik) language, the *lingu franca* of Eastern Iran, now replaced the native Sogdian, although for a long time inhabitants of rural areas still continued to speak their native Sogdian. Other fields of cultural exchange reacted somewhat differently, and this is revealed by the ongoing archeological findings of the Uzbek-French collaborative expedition at two palaces of the Arab vicegerents in the city of Afrasiyab (later Samarqand), both dated between the 740s and 750s. Through the comparison of these structures with pre-Arab or Sogdian buildings in the same region, Marshak believes that
their architecture was not specifically Sogdian - an exciting conclusion indicating that beneath this seeming process of assimilation a far greater change was coming to the fore.¹

At a political level, the thesis has demonstrated how, under the Arabs and their legislative arrangements within Sogdiana, especially in its numerous urban settlements, local principalities gradually lost their autonomy. As consequence, noblemen and wealthy merchants abandoned smaller towns such as Penjikent, and flocked to the larger urban centers such as Samarqand and Bukhara, which meanwhile enlarged and became primary administrative centers. By the ninth century, Sogdiana lost its ethnic and cultural distinctiveness, although many elements of Sogdian material culture were still found in materials dating from the ninth to the eleventh centuries. This is why, starting with the ninth century, it is impossible to speak of a Sogdian culture on the territory of Sogdiana itself, although its survival continued until the eleventh century among Sogdian immigrants who resettled in other parts of eastern Central Asia and China.²

But the changes initiated by the Arabs should be viewed as just one phase in the process that had started in antiquity. The city of Samarqand (Afrasiyab in pre-Mongol times) serves as a case in point. From its sporadic occupation in the Bronze and Early Iron Ages, the plateau around the future city underwent fortification in the first step of the process of urbanization.³ Scholars have confirmed a pre-Achaemenid date between ca. 650 and 550

¹ B. Marshak. “The Archaeology of Sogdiana” on The Silk Road Web Site.
B.C. to establish the foundation of this city of Afrasiyab. Its specific territorial character was characterized by a wall that followed the whole circuit of the plateau, enclosing an area of 540 acres. This fortification also appears to have been complemented by a second defensive construction which separated the town proper from its acropolis, which was situated to its north and included an ark or citadel raised on an artificial tell. These topographical-functional features and its layout were to last as long as the town was centered on this site, and prior to its moving to its medieval location. The large urban population inside Afrasiyab was sustained by an artificial water supply through the Dargom channel (extending 40 km from the nearby Zarafshan River), a branch of which entered through the southern gate of the city. This is archeologically confirmed for the Achaemenid period; though it seems probable that it may have also existed long before the foundation of the city. The massive defensive walls of the ancient city are more than 20 feet thick in places, in contrast to the parts added in the Achaemenid and Greek periods. These defenses were constructed out of coarse mud bricks of a plano-convex shape, all bearing marks of labor guilds or groups organized at the initiative of the local political power. Similar building techniques have also been noticed at other Sogdian and pre-Sogdian sites during that pre-Achaemenid period, such as at Kok Tepe (30 km north

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5 Reconstructions proposed by Belenitskii, Bentovich and Bolshakov argue that this shift from Afrasiyab to later Samarqand was not sudden, but a gradual process that began as the accretion of the urban populace in the southern portion of Afrasiyab. Thereafter, for a period of time, a continuous urban zone was established between the two cities, extending as far as the ‘urban crossroads’ (later developing into the Registan Square). A. Belenitskii et al. Srednevekovyi gorod Srednei Azii.
of Samarqand, with similar brick marks, suggesting a contemporary foundation), Padaiaatak Tepe and Sangyr Tepe near Sahr-e Sabz, Eilatan and Dalverzin Tepe in the region of Ferghana.

The Greek occupation of the Afrasiyab site appears to be divided into two phases, the first lasting from the expeditions of Alexander to some date in the second half of the 3rd century B.C. and the second, a relatively shorter period of re-conquest under the Greco-Bactrian king Eucratides (171-145 B.C). The pottery finds differ markedly between these two phases, which were separated by a period of nomadic invasions, at a time when the Greek line of defense was temporarily shifted to the south (as witnessed also by the earliest wall of the city brought to light by excavations at the strategic pass at Derbent). More significantly, the Uzbek-French teams have very recently uncovered palaces walls within the Greek citadel from the Alexandrine period, corroborating accounts of ancient historians Arrian (86 - 160 AD) and Curtius Rufus (1st century AD) describing Alexander’s occupation of the Samarqand citadel in 329 BC. In addition to the fortifications, the Greek garrison in the first phase also left a large granary, built in the center of the acropolis, at a place now buried deep below a mosque from a later period.

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Figure 78: Excavation plan of the Afrasiyab Hill, located north-east of the city of Samarqand, showing the results of excavations completed between 1990 and present day. A citadel from the 5th century BC was the first structure on the site. The first phase of extensive building (marked in purple) is the Hellenistic Period, yielding citadel walls, remains of a palace and a granary. The second phase (marked in red) is the Umayyad & early Abbasid Period, showing two large palaces. The third phase (marked in black) is the late Abbasid phase, showing the remains of a large mosque.
Figure 79: (79.1 to 79.4, counter-clockwise from top-left)
(79.1) Plan of the Afrasiyab Hill; (79.2) Archeologists unearth ceramic tile fragments from the 10th century; (79.3) View of the excavation showing part of the shahristan; (79.4) The Afrasiyab Hill - once the site of the citadel.
Figure 80: (80.1) Excavation plan of Umayyad palace from the 7th century in the Afrasiyab citadel; (80.2) Detail of Umayyad Palace plan showing its layout of spaces, and remains of older structures unearthed below.
Figure 81: A 1870s view of the city of Samarqand, looking from the Registan Square towards the Afrasiyab Hill in the far distance (marked as A in the photograph). Undoubtedly, this view was an essential part of the landscape of the city, especially in the explosive growth of the *rabad* in the 9th century.
Figure 82: The remains of the Sogdian ruler Varxuman's palace at Samarqand, with fine examples of paintings on its walls.
The peak of the pre-Islamic Sogdian civilization is mostly documented from the excavations at the city of Penjikent, located 60 miles east of Samarqand.\(^{10}\) Toward the end of the 720s and 730s, during a period of persistent anti-Arab insurrections and punitive expeditions by the Arabs, Penjikent was almost entirely abandoned. Its reconstruction is dated, primarily, from coinage introduced by the Sogdian king Turgar, who acceded to the throne about 738 AD.\(^{11}\) By this time Penjikent had no native rulers, and the royal palace from the earlier dynasties had been turned into barracks, apparently by the Arabs. Also, while the temples were no longer restored, many homes were outfitted with magnificent new murals, some on religious themes. The return of the local inhabitants to re-populate the city most probably followed in the wake of the 741 treaty between Nasár b. Sayyar, the Umayyad viceroy in Merv, and those Sogdians who had left the country to fight against the Arabs with the army of the *kaqan* of the Türkæ. In accordance with this treaty, arrears of taxes were remitted, and apostasy from Islam pardoned. As a result, the Arabs recovered their taxes, and the Sogdians attempted to resume their former way of life. However, soon after the victory of Abu Muslim over the Umayyads in 749 AD, another cardinal change altered this *status quo*. The fire-altars of the native populace were destroyed or turned into kitchen fireplaces, and the murals were vandalized, apparently for religious motives, the most damage done to the faces and the eyes of these images. The ceremonial halls also fell into disrepair, and in many houses the inhabitants continued to use only part of the rooms; other large residential buildings

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\(^{10}\) In addition to the literature on the city of Penjikent examined in the earlier chapters of this thesis, latest archeological reports summarizing the results of the last few years are available in separate volumes titled *Otrchet o raskopkah v Pendzhikente*, as part of the series *Materialy Pendzhikentskoj arkheologicheskoi expeditsii* 1 (1998), 1 (1999), 2 (2000), 4 (2001), and 5 (2002). Important portions of these reports were examined for these conclusions.

\(^{11}\) O. Smirnova. *Katalog monet s gorodishcha Pendzhikent* (Moscow, 1963).
were subdivided into two or more dwellings for the regular citizenry.\textsuperscript{12} Nevertheless, the city continued to exist till the 770s, ascertained by Arab \textit{fels} found on the site of the city proper dating from 770 AD, and those in its southern suburb from 776-7 AD, indicating that trade and commerce continued to be sustained at this point in time.\textsuperscript{13}

Therefore, the abandonment of the urban site did not mean the end of Penjikent as a settlement. The inhabitants only moved from the sparsely irrigated terrace, whose main advantage was its easy defense, and took up residence in the fertile valley below, watered by its several springs. In this regard, the scholar Savvonidi has suggested that the former city dwellers now turned into farmers.\textsuperscript{14} Penjikent continued to exist as a small town in the 9th-10th centuries. Excavations to the northwest of the citadel have uncovered a large winery from the first half of the 9th century, while diggings in the gardens to the northeast of the ancient ruins have unearthed superb ceramics from the 9th-11th centuries. According to Arab geographers, 10th-century Penjikent boasted a Friday mosque - a formal feature that distinguished a town from a village - obviously indicating a reasonably substantial population.\textsuperscript{15} The consolidation of Abbasid authority led to the disintegration and agrarianization of small but stable and structurally complex, urban communities like those of sixth to eighth century Penjikent, and facilitated the growth of

\begin{itemize}
\item \textsuperscript{12} V. Raspopova. \textit{Zhilishcha Pendzhikents: Opvt istoriko-sotsialnoi interpetatsii} (Leningrad, 1990).
\item \textsuperscript{13} B. Ya. Staviskii. “Raskopki kvartala zhilishch znati v yugo-vostochnoi chasti Pendzhikentskogo gorodishcha (obekt VI) v 1951 - 59 gg” in Materialy i issledovaniya po arkheologii SSSR 124, 1964, pp. 121 - 81.
\item \textsuperscript{14} N. Savvonidi. “K voprosu o loklizatsii gorodishcha Pendzhikent IX - X vv” in Kultura drevnego i srednevekovogo Samarkanda i istoricheskie sviazi Sogda. Tezisy dokladov sovetsko-frantsuzskogo kollokviuma (Tashkent, 1990), pp. 86 - 87.
\end{itemize}
large cities like Samarqand, which now became the new power-centers of the empire. To these urban magnets flowed revenues from vast tracts of land, and from there they were further distributed.

At Samarqand, the major source of evidence for the pre-Islamic period is the aristocratic residence which stood just inside the so-called Wall III, which constituted the southern limit of the fortified town between the 6th and 8th centuries AD. Here a splendid cycle of wall paintings were commissioned for a reception hall around 660 AD, within the private residence of the Sogdian king Varxuman, who celebrated here his power and the importance of the Chinese alliance he had recently concluded. The whole composition is no longer believed to be all related to the arrival of embassies at Samarqand (which forms the specific theme of the western wall), but to more varied themes of geopolitics and royal propaganda, including the dynastic cult (southern wall), the greatness of the Chinese ally (northern wall), and Indian legends (eastern wall).  

A substantial amount of information (sometimes complementary and sometimes conflicting with the picture hitherto drawn from textual sources) has come to light

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concerning the developments of the 8th century AD. Excavations carried out beneath the mosque located above the Greek granary have revealed evidence for a rapid succession of monumental buildings. A massive enclosure, perhaps the temenos of the pre-Islamic temple (possibly Zoroastrian) mentioned in the sources, was razed some time after the Arab conquest of Afrasiyab in 712 AD. Instead of a first mosque, as was hitherto assumed, the site was occupied by a large palace (measuring 115 x 84 m), built in the 740s (according to numismatic evidence), and it is therefore attributable to the last Umayyad governor, Nasr b. Sayyar. Architecturally, it appears as a transitional building, combining features inherited from earlier Sogdian palaces (with a rectangular ‘throne hall’ and enclosing corridors), and others that are more innovative (such as beyts or rooms grouped in a rectangle around a central courtyard or hall). Baked bricks had been extensively used for pavements; most carried Kufic inscriptions, often consisting of the Sogdian royal title. It is conjectured that the representative of the local dynasty, who resided outside Samarqand and coordinated tax collections, had agreed to contribute to the building of the governor’s palace. Some time between 765 and 780, sections of this palace were leveled to make room for the construction of the Friday mosque, which was first built on a square plan, and then (probably at the beginning of the Samanid period, about 820-30 AD) enlarged westwards, which led to the leveling of the remaining parts of the palace structure to make way for the new construction. Eventually, this mosque too


was leveled, and many of the objects it contained were buried in rubbish pits, some of which were excavated in 2000. Significant finds included shreds inscribed with writing exercises in Arabic, which testify to the existence of a maktab within the palace. Other objects of note were numerous objects of pleasure, in spite of the proximity of the site to the mosque - drinking carafes and goblets, a bronze mirror and cosmetics grinder, a flute and the earliest set of chess pieces ever discovered in an archeological context. Important fragments of the stucco decoration of the qibla wall of the first mosque were also found, evidently buried after the enlargement of the building, and belonging to the pre-Samarran Abbasid style, hitherto known only from examples in Syria, Iraq, and Fars. 19 (Figure 73, 74, 75)

Excavations have also revealed that prior to these developments, in the early 750s, a second Arab palace had been erected to the east of the citadel, evidently by the Abbasid commander Abu Muslim (although written sources credit him only with the construction of the wall around the oasis). The regularity and reduced dimensions of its plan stand in marked contrast to the generous layout of the previous palace and indicate the work of an architect from Iran or the Near East. The same applies to the use of porticoes of octagonal columns, built in mud brick in both the inner and the outer courtyards. An iwan opened to the latter (instead of into a closed throne hall). However, this palace never received any decoration, which is not consistent with the high representative functions it was obviously destined to fulfill. After an interruption, no doubt caused by Abu Muslim's execution in 755, it was eventually completed with radical alterations to its original plan,

the porticoes now replaced by corridors. Connected to the construction of this second palace is the first datable fortification of the oasis, known as the *Divar-e Qiamat*, initiated by Abu Muslim and completed under Harun al-Rashid, along a circuit of about 35 km. Its gates were dismantled under the Samanids, and only a few sections survive today. A transverse wall, the *Divar-e Kundalyang*, now entirely destroyed, cannot be dated. Its attribution to the Achaemenid period rests only upon the “LXX stades” given by Curtius Rufus for the city wall of Maracanda. Marshak believes that this figure is evidently a corrupted form of “XXX stades” i.e., 5.5 km, which is exactly the perimeter of Afrasiyab. The transfer of city life to the southern part of Afrasiyab, which was fully completed after the Mongol invasion, was already well under way in the 11th-12th centuries. For this period temporary disruptions of the water supply due to the continuous rise of the occupation level could be observed in the northern part of the plateau. Ceramists’ quarters gradually moved upstream along the channel branches. According to the descriptions by Arab geographers, the main commercial center was around the *Ras al-Taq*, the embankment which led the water channel through the southern gate. Archeology is of little help here, because the modern town covers a large part of the historic strata. It has been supposed that the wall that was built later on by Timur in order to encircle his town had taken the place of a suburb wall already existing before the Mongols. However, there is no archeological proof for this. The main sources of information for the southern suburb in that period are two *waqf* documents from 1066. One concerns the endowment for a *madrasa*, situated in the southern part of Afrasiyab (although this has been disputed), but perhaps the *madrasa* does not in fact correspond to the remains excavated.

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in front of the shrine-mausoleum of Qutham b. Abbas. The second document creates a hospital for the poor, which is situated somewhere to the south of the main bazaar. Both give precise locations and descriptions for the various estates listed in the endowments, mostly *khans* (caravanserais), all of which appear to be in the *bazaar* zone or in its vicinity. Some of the original toponyms have also survived until modern times, such as the Ûahar Suq and the ‘Sand (place) of the merchants’ probably predecessors of the later Registan square, located at the crossroads of the oasis. (Figure 76)

By the beginning of the eleventh century the physical structure of the Central Asian city had changed in radical ways. The Turkish dynasty known as the Karakhanids had come to power in Samarqand, making the city a part of their vast empire that stretched across Central Asia, even into parts of western China. The Karakhanids ruled with an iron hand, and their monuments here and elsewhere had a severe, awe-inspiring, character, for instance the 150-foot Kalyan Minaret, towering over the Friday mosque of Bukhara, built within the *shahristan* of the greatly expanded city. Little survives from the Qarakhanid period in Samarqand, except newly-excavated pavilions from the 11th-12th centuries, built above the leveled ruins of Abu Moslem’s palace in the northern section of the city that overlooked the Siab river. The 2000 excavation of one of these pavilions brought revealed remains of a cheaply-built structure, with slender, half-timbered walls. In

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contrast, on the inside walls were remains of remarkable painted decoration, almost the only evidence for mural painting so far reported in Transoxania for this period. It comprised birds in a floral and calligraphic setting (apparently based on Persian poetry), dancers, a frieze of hunting dogs, and fragments of a large composition with Turkish guards presenting the ruler with symbols of power. Scholars are at a loss to explain this discrepancy between the Karakhanids’ flimsy, clumsy structures in view of their other monuments, and their relatively intricate paintings on the inside of these structures. Grenet has proposed that perhaps the Karakhanid aristocrats were content with ephemera, continuing the ancestral heritage of tent-dwellers. Or maybe they lived in accordance with the spirit of their contemporary, the Persian poet Omar Khayyam (1150 - 1123 AD), who spoke of the ultimate fragility of human works in the following words:

“Think, in this batter’d Caravanserai
Whose Portals are alternate Night and Day,
How Sultan after Sultan with his Pomp
Abode his destined Hour, and went his way.”

Indeed, as the twelfth century approached, the rhythm of change grew more frenzied at Samarqand, Bukhara and several other urban centers in Sogdiana, almost as if in anticipation of the momentous events that lay in store. In March 1220, Mohammad ibn Tekesh, the ruler of the new Iranian Khwarazmshah dynasty, briefly made Samarqand the

capital of his inflated empire. The accounts of the Chinese traveler Chang-chun dating to the year 1221, describe the complete rebuilding of the Friday mosque, commissioned following Tekesh’s bloody capture of the town in 1212. Excavations have shown that this project was suddenly abandoned even before the monumental pillars of the mosque had been built above floor level, and were replaced by wooden columns, probably requisitioned ones. The reason for this change was most probably the imminent threat of the Mongol invasions, which led to the evident, massive reinforcement of the fortifications at the citadel and at the gates of the city. Tekesh himself fled as soon as the Mongols approached, in fact the numerically superior Khwarazmian troops were never committed to a pitched battle.

The capture of Samarqand by the Mongols dramatically reduced its density, leaving it with one-quarter or even less of its former population (evaluated by Chang-chun as “more than 100,000 households” in the oasis before the conquest). Moreover, this remaining population did not include the craftsmen who were transported to Mongolia and subsequently, in a second wave under Ögodei Khan, to Simah (Siun-ma-lin), north of Peking, where they introduced vine growing and a particular kind of brocade. Scholars

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23 Khwarazm-shah Sultan Mohammad ibn Tekesh’s empire stretched from the Aral Sea in the North to the Persian Gulf in the South, from the Pamir Range in the East to the Zagros Mountains in the West, encompassing the greatest part of Inner Asia, Afghanistan and all of Iran. Ratchnevsky argues that it had only recently become a political unit and was largely heterogeneous, the nomadic Turks and the sedentary Iranians hostile to each other. P. Ratchnevsky. Genghis Khan: His Life and Legacy (Cambridge/MA: Blackwell, 1992), pp. 119 - 34.


believe that the huge losses in working population were certainly the decisive factor for
the abandonment of Afrasiyab, whose water supply required more skills and labor than
the southern suburb could provide with its greatly reduced manpower. Further evidence
describing the deserted city comes from the accounts of the Moroccan traveler Ibn
Battutá, who stayed in Samarqand around 1333 (or 1335). At this point in time the city
does not have functioning walls or gates anymore, and many large monuments were in
ruins. However, the bazaars were again prosperous, and the complex around the grave of
Qutham (the only part of Afrasiyab still occupied) was splendidly built.26

In 1371, Timur chose Samarqand as his capital and immediately had the new site fortified
by a new wall and a citadel in its western part, containing the Kok Saray, a palace used
primarily for ceremonial purposes. The court and the army pre-dominantly resided in the
garden complexes built around the town, several of which formed the setting for large
monuments. This rebuilding of the city on its new site was resumed on an even grander
scale after Timur's return from his western campaigns in 1396, in particular with the
construction of the Friday mosque (Bibi Khanum) next to the northern gates of the city
and the opening of the bazaar main street between the mosque and the Registan area.
Craftsmen deported from all the conquered countries contributed to the architecture and
construction of these new buildings, and villages in the vicinity were named after their
places of origin.27 From that period onwards, archeological information comes more from

26 Ibn Battuta, Travels in Central Asia, pp. 34 - 51.
the recording of monuments still standing than from excavations, with the exceptions of the citadel (destroyed in the Tsarist and Soviet periods) and the observatory built by Ulugh-Beg in 1421 to the northeast of Afrasiyab and re-discovered in 1908. After the final conquest of Timurid Samarqand by Mohammad Saybani (in 1500), the Transoxanian capital was transferred to Bukhara. The Saybanids and their successors, the Astrakhanids, still continued to embellish Samarqand - whereby the Registan square received its final form and its madrasas in 1660. A sharp decline in this urban building tradition occurred in the 18th century, with Kazakh inroads, dynastic strife, and eventually the occupation by Nader Shah's army in 1740-47. Already in the 1720s, the city was almost deserted and the madrasas on the Registan were turned into winter stables by the nomads. Recovery thereafter was slow and incomplete. By the time of the Russian conquest in 1868, the city numbered only 55,128 inhabitants, in contrast to figures known for the 13th century and today (about 500,000).

5.2 Conclusions

In conclusion, three important observations regarding the evolving form of the Central Asian city after the Arab invasions become apparent from our examination of Bukhara, Afrasiyab-Samarqand, Penjikent and Paikend -

1. At a first level, this dissertation allows the examination of how the incoming Arab armies positioned their interventions within the urban environments of Central Asia. This

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issue is crucial since the scale of each intervention and its political implications were profoundly different, based on where it was located within the structure of the city. Al-Muqaddasi’s *iqlim* of al-Mashriq, aligned with the Arab invasions and the Samanid kingdom, extended for a longitudinal distance of more than seven hundred miles, comprising of the two main regions of Khorasan and Transoxania, governed from Nishapur (Iranshahr) and Samarqand respectively. Significantly, for the conquering Arab armies, the concept of ‘conquest’ seems to have had varied interpretations from Khorasan to Transoxania, imparting a distinct character to how the interventions were introduced within the urban fabric.

In Khorasan, with the collapse of the central Sasanian government, the *marzbans* (district administrators with civil and military authority) became effectively independent, so that the Arab conquest amounted to little more than concluding peace treaties with individual rulers. Moreover, the Arabs received the cooperation of the majority of the Iranian nobility, creating relatively peaceful conditions for a military take-over of the vestiges of the Sasanian Empire. It should also be borne in mind that the easternmost border of the Sasanian Empire lay along the Murghab river, beyond which the Arabs were to encounter a congeries of principalities, which were militarily better organized than the Sasanians. The selection of Merv as a base for the Arab armies, and subsequently as the seat of the Arab governors of Khorasan, signified the recognition of this fact. It is likely that caliphal government at first intended to follow Sasanian practice and maintain its frontier on the Murghab river; but the necessity of pacifying the volatile border, as well as the proclivities of the local Arab communities for raiding, drew the Arab armies inexorably
eastward and northward, first to the Amu Darya, and ultimately to the Zarafshan and Syr Darya. Here too the Arabs encountered a loose confederacy of small principalities that some scholars have found were strikingly reminiscent of the Hellenic city-states.29

In both Khorasan and Mawarranahr the Arabs inherited urban systems of considerable antiquity. In Khorasan, while evidence for the precise structure of the system in the late Sasanian and early Islamic era is exiguous, it appears that at the lowest level there was a stratum of fortified rural centers in a mix of agricultural villages and small towns. While the exact proportions of these components are no longer recoverable, it would suffice to say that in architecturally productive localities there were numerous settlements, aptly documented in the phrase “with many dependent villages” a common accompaniment to urban descriptions in the writings of topographers.30 Sometimes actual numbers are provided in the accounts, as in the case of Jajarm with 70 attached villages,31 Badhghis in the rub of Herat with 300,32 and Buzjan - chief city of the Zam district in Quhistan - with 180.33 In any case, the Arabs do not appear to have drastically altered the structure of Sasanian settlement patterns, although they did adapt it to their own political and administrative imperatives and, in especially favored regions, intensified it. Military garrisons established in, or in the vicinity of cities such as Nisa, Abivard, Herat. Merv al-Rud, Tirmidh, Zamm, Bushanj, Taliqan, Tus, Balkh, Nishapur and Merv al-Shahijan were reinforced at intervals by influxes of new troops, which were followed in due course

29 H. Gibb. The Arab Conquests in Central Asia, 14 n. 6.
30 See al-Muqaddasi writing on the town of Khulm in Tukharistan (Ahsan, p. 296): “...a small town surrounded by many large villages.”
by the clients of Arab governors and other administrators - all of which prepared the way for the eventual immigration of independent Arab settlers.\(^{34}\)

Beyond these elements of territorial control, Arab presence was also felt in the several cities of the region. Several were embellished with large mosques (jami) or other civic institutions, usually accorded a broadly central location (within or at the edge of a suq), thereby creating the focus of prevailing or future street patterns. In many cases, urban sites already sacred to Christian, Zoroastrian, Nestorian or pagan beliefs were re-used to build these structures, often with spoils of older buildings. At Nishapur, the first mosque was built in 651 - 52 by Arab tribesmen settled in the surrounding countryside, followed shortly by at least two similar structures - one of which may have been within the quhandiz itself - erected by Abd Allah ibn Amir, Umayyad governor of al-Basrah and architect of the Arab conquest of Khurasan. Then in 697, Azd clans settled in and around the city when their commander al-Muhallab ibn Abi Sufrah was appointed al-Hajjaj’s deputy in Khorasan; and early in the eighth century they are reported to have built a new minaret, though whether for a new mosque of their own or for one appropriated is still unclear. This was followed by the layout of a new suburb in 738 by Abd Allah al-Qari, and the construction of a large jami in 754/55, by no less a personage than Abu Muslim, leader of the revolutionary Abbasid movement. Subsequently, both Asad ibn Abd Allah and Abd Allah ibn Tahir, governors of Khorasan, built palace enclaves, the latter’s construction being known as al-Shadiyakh. Mansur ibn Tahir (r. 822 - 29) raised yet

another minaret, presumably signifying the establishment of a new suburb or the Islamization of an existing one. This pattern of events whereby new suburbs and adjacent villages coalesced into an integrated city appears to have also held for Balkh. An Arab garrison of predominantly Azd, Bakr and Tamim tribesmen initially quartered in surrounding villages around this city. In 725, Asad ibn Abd Allah rebuilt the city proper after it was razed by Qutaybah ibn Muslim in reprisal for the revolt of Nezak Tarkhan, and brought troops from neighboring Baruqan into the shahristan itself. A new mosque was required in 742, and another, built by al-Fadl ibn Barmak, soon after the Abbasids came to power.

However, not all Khorasanian cities developed through this strategic positioning of monuments in the urban setting. Merv al-Shahijan, which lay strategically within a large oasis, was affected by mass migrations, when the earliest Arab garrison was quartered within the city. This also resulted in the first mosque to be built within Merv’s shahristan. In 672/73, this exclusively centralizing tendency was halted when as many as fifty-thousand troops from al-Kufah and al-Basrah, together with their dependents, were settled in villages throughout the Merv oasis as a counter-threat to the Hephthalite incursions. Subsequently, as the Arabs envisaged more expeditions, additional troops were quartered in the oasis; about six thousand during the caliphate of Muawiyah (r. 680 - 83); an additional twenty thousand from al-Iraq during the reign of Hisham (r. 723 - 43). At least some of these large numbers would have ended up in the vicinity of Merv, the most important city within the oasis. Although Abu Muslim laid out a new maidan

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35 This would total two hundred thousand persons if the frequently employed conversion rate of three dependents was used for each warrior. Similar figures have been discussed in chapter 4 of this dissertation.
(maydan) that became the focus of the extensive Majan suburb which lay to the west of Merv, and Husayn ibn Tahir added a whole new quarter to the city, the very scale of the Arab immigrations prevented the quartering of more than a small proportion of these troops within the confines of the city or its immediate environment. Consequently, the city remained essentially an urban nucleus surrounded by several satellite settlements.

In Transoxania, Arab settlement proceeded on similar lines, but began when Khorasan was largely consolidated under Arab rule. As already observed in the first section of this chapter, here the process of urban additions appears relatively seldom to have culminated in a completely integrated city - and certainly not in the great urban centers of Samarqand and Bukhara. The former city was not occupied by the Arabs until 711/12 and the latter not until 712/13, when an Umayyad garrison was stationed in the Faghsadrah quarter adjacent to the citadel. The first mosque in Bukhara, it should be noted, had been built by Qutaybah ibn Muslim in 713 within the citadel precincts. However, a substantial increase in the Muslim population is implied by the construction of a new mosque in the quhandiz in 770/71, a new cathedral mosque in 794/95, and another mosque by Abu Jafar al-Barmaki at the end of the century when he served as the governor of Khorasan.

Furthermore, in Transoxania, it seems, there was no compelling incentive to concentrate Arab populations within the confines of the cities proper, since both Samarqand and Bukhara were protected by walls that encompassed not only their built forms but also

36 Narshakhi. 48 Qutaybah ibn-Muslim expropriated half the houses in the Bukaran shahristan as quarters for his troops; while al-Tabari (Tarikh, 2: 1250) reports that all the inhabitants of Samarqand were removed from their residences to make room for the Arab garrison. Note though, that other sources ascribe this evacuation to 713, after the second conquest of Sogdiana.
substantial proportions of their oases. At Samarqand, a series of pre-existing walls were restored by Abu Muslim at the beginning of the Abbasid period; at Bukhara similar walls were integrated into a powerful defensive system between 782 and 830, and elaborated in 850. Significantly, Transoxania, in contrast to Khorasan, was conquered through armed confrontation. Therefore, no amsar were set up on the outskirts of cities, as had been the case in the Khorasanian examples (such as Merv). Instead, isolated portions of conquered cities were modified through the introduction of institutions such as mosques, or parts of the oasis used to extend on the existing suburbs and, in rare cases, even existing neighborhoods vacated to provide residences to the incoming Arabs.

In summary, there seemed to be two distinct kinds of urban interventions employed by the Arabs in their continuing control over Central Asia cities. The first were large-scale, and ‘global’ in their implications, working at the territorial level, both within and without the urban boundaries. These included the foundations of new amsar, the influx and migration of large populations into an urban region, and the establishment of suburbs and quarters within the city. The second interventions were relatively small-scale, and ‘local’ in their implications, working at the level of an urban street, square (space) and neighborhood. Several ‘small’ interventions could have a ‘global’ impact, as seen in the creation of streets within the urban fabric (such as the Shah i-Zinde at Samarqand and the kosh ensembles at Samarqand and Bukhara). The first kind of intervention was about co-existence, of the Arab forces inhabiting the cities and urban districts alongside their Sogdian counterparts. The second set of interventions was intrusive, literally ‘forced’ assaults on the spatial and formal conditions of the existing city. This matched the two
modes of expansion - *silh* (capitulation) or *unwa* (subjection by force) - particular to the Arab armies in their steady march eastwards.

2. At a second level, this dissertation elaborates on how the structure and socio-cultural composition of the Central Asian city changed radically following the Arab invasions. Stemming from the interventions that were introduced in the two-hundred years of the Arab occupation (680 - 880 AD), the ‘new’ kind of urban environment, observed in the heyday of the Samanid reign had several distinguishing characteristics, while bearing some interesting links to the past.

2a. The first among these characteristics was the survival of vestiges of an orthogonal grid organization that had once pervaded the urban layouts of Central Asian cities. This appears to have resulted in the predominance of the inner city as a fortified enclosure, highly rectilinear in its form, based on a grid-iron plan with cross-axial roads. At Bukhara, substantial evidence has survived to support this claim; the grid-iron from the Kushan period still dominates the layout and street pattern in some parts of the city. In place of the original “crossing” of the streets, the *chahar-su* structure still exists, now in the form of a domed pavilion that accentuates the intersection. (Figure 78, 79, 80, 81) So does the Magoki Attari mosque, believed to have been built on the ruins of an older fire-temple, and the space outside it, which forms a market-place.\(^{37}\) As discussed above, the Arabs had consciously rebuilt on the same site as the pre-existing fire temple, for its obvious connotations to authority and urban legislation. (Figure 82 - B, C, D) Among the ruins of Afrasiyab, located north-east of the present-day city of Samarqand, evidence is

somewhat less distinct. While it had a significant north-south axis, and the semblance of an east-west crossroads, it has not been proven to have had a checker-board or grid plan (evidence may be lacking due to the absence of extensive excavations). However, recent excavations have brought to light the locations of monumental buildings, city walls and gates, all of which begin to reconstruct the organized layout inside Afrasiyab’s quhandiz. At Penjikent, evidence for a rectilinearly-organized city is clearly demonstrated by the several areas which have already been excavated. Work on other intermediate areas, presently in process, is expected to clarify this picture further. Significantly, at Penjikent, despite a clearly-defined north-south bazaar street, no cross-axial streets are seen. Was the main “crossing” we are looking for then be located within the area of the rabad, or did the major cross-axial streets culminate in a monumental space inside the urban walls? Since no real ‘urban-space clusters’ existed in Penjikent (as at Bukhara), a space of this kind would have been defined by important public buildings along its perimeters or edges. Except a few of the larger structures, almost all buildings at Penjikent have yet to be excavated, let alone critically researched or examined. Finally, at Paikend, not only is the grid-iron clearly seen in both shahristsans, so too is an excavated main avenue connecting several of its major institutions. While no cross-axial streets are seen within the walled shahristsans, the location of fortified ribats outside the walls, as narrated by Narshakhi, is convincing evidence that the main bazaars of the city would have been located in the rabad.38 (Figure 85, 86, 87, 88, 89)

The overall lay-out of pre-Islamic Sogdian cities remains a subject of discussion. For Penjikent, the most investigated city, Gurevitch offered a reconstruction of the urban plan

with a network of quarters based on a module of 53.8 m. In the author’s opinion, the initial severity and regularity of the layout were altered by continual reorganization and alteration - only temples appear to have maintained their sites. However, the excavations at Penjikent have also questioned Gurevitch’s main thesis, since some streets, particularly the ones located in the southern part of the city, appear to be no earlier than the 7th century. Therefore, the simultaneous construction of city walls, the allocation of temple sites and the layout of some streets by the 5th century is no longer in doubt. Based on the theory of the continuity of a street network development, Bolshakov has also offered his reconstruction of the plan of Bukhara as consisting of identical rectangular quarters, 130-140 x 45-50 m. in size, explained earlier as based on developments in the Kushan period. Bolshakov saw the confirmation of his theory in the plan of Penjikent. Finally, the excavations at Paikend in the Bukhara oasis have shown that the street network is more complex than it would be if there were identical rectangular quarters. The absence of crossroads was a feature of the street network at Paikend, and all known street crossings were T-shaped in the plan. If we assume that they marked the border of individual quarters, it is possible to allocate some quarters of varied sizes within the walls - 84 x 84 meters, 84 x 108 meters, 53 x more than 120 meters. While the borders of quarters would then have remained constant throughout the history of the city, within the quarters were additional streets. The houses on both sides of the streets belonged, probably, to the same quarter. Thus, in the city there are both small quarters, consisting of houses on both sides of a street, and larger quarters, uniting some streets.39 (Figure 88)

Figure 83: (83.1) The Bukharan oasis with its many smaller settlements, especially to the west; (83.2) The Bukharan Ark and its dense, internal layout of spaces. The Ark at Bukhara is a classic example of a separate, non-concentric citadel positioned next to the *shahristan*, far removed from examples where the citadel walls actually 'engage' with the fortifications of the city.
Figure 84: Two views of the Bukharan Ark, always rebuilt on the same site since ancient times. The *Registan* space in front of the Ark was the location for the state *diwans* beginning with the Samanid times.
Figure 85: The walls and gates of Bukhara – several in close proximity to the shahristan and inner rabad were maintained and kept in a state of good repair. Those along the outermost reaches of the oasis fell into disrepair in difficult times, and only the gates now remain.
Figure 86: (86.1) Fortifications and gates of Bukhara from the 8th to 19th century according to Rempel. The Registan is marked to the west of the Ark. (86.2) The Samanid Tomb at Bukhara, located within the once-fertile land to the west of the Registan.
Figure 87: The Lyabi Hauz at Bukhara - an ensemble of buildings around public space; The front facade and side facades of the Magoki Attar Mosque, located on an older Fire Temple from Sogdian times; plan of Magoki Attar Mosque showing excavated plan of temple below the structure.
Figure 88: (88.1) Location plan of Varaksha - an important settlement in the Bukharan oasis, located west of the city of Bukhara; (88.2) Plan of Varaksha Palace by Semenov showing monumental structures clustered around courtyards; (88.3 & 88.4) Conjectural views of the Varaksha Palace, showing entrance iwan (middle), and ziggurat-like building elements.
Figure 89: Views of the Ribat-i Malik, located on the road connecting Samarqand and Bukhara. A large, fortified structure, built about 1050 AD, protecting the important trade routes that passed through the Sogdian region. Seen are the crenelated walls of the structure (typical of 9th - 11th century architecture in the oasis); the front facade with a central portal and two framing towers; and a view of the central pishtaq screen; and brick decorations.
Figure 90: Two aerial views of the city of Penjikent, situated 70 miles south-east of the city of Samarqand. Excavations have revealed the dense nature of the urban fabric within the walled precincts of the city. When the city was abandoned following the Arab invasions, most of the urban population moved to the valley below.
Orthogonality also seems to have influenced the actual plan forms and architecture of buildings within the urban fabric, and the nature of public spaces created between these buildings. While it is presently difficult to describe a subsequent Samanid or pre-Samanid structure that was created as a result of this process with certainty, we have the example of the Madrasa Bughara Khan, built by the first Karakhanid ruler of Samarqand around 1050 AD. The madrasa, which served as the precursor for the development of the Shah-i-Zinda Complex at Samarqand, was important in two respects. Firstly, its grand entrance iwan, and symmetrical blind arches fronted the street, possibly imitating older structures. Secondly, its location at the head of a major north-south avenue caused the creation of important cross-roads. Some scholars are of the view that in its architecture, organization and form, the Shah-i Zinda Complex with its several shrines, including the Bughara Khan madrasa - which was demolished in the 1370s, is reminiscent of one of the typical, narrow streets of medieval Afrasiyab.40

The ribat or trade-stronghold is the second building type that reflects this aspect of rectilinear or orthogonal planning. Within the Samanid empire, several of these structures once dotted the outskirts of important cities which served as hubs on trade routes. Among these, the surviving Rabat-i-Malik, situated near Kermine on the ancient road connecting the cities of Samarqand and Bukhara, was built in the tenth and eleventh centuries. On similar lines to the Madrasa Bughara Khan at Samarqand, a massive arched portal and buttressed walls fronted the road, while round turrets framed the ends of the monumental

facade. The interior was characterized by a cellular structure of open and closed spaces, forming three separate courtyards. The overall external dimensions of the structure, which have become apparent from excavations, were a huge 91 x 89 meters. This gives us some idea of what the outskirts of these cities may have looked like, with several ribat lining the major roads on either side.41 (Figure 84)

2b. The second feature of cities in the Arab period is the presence of a strong ark (arg) or citadel, usually located to the west of the central city area, on a raised mound or ridge. At Bukhara the ark is due west of the grid core, and remained in the same position despite the growth of the city. At Afrasiyab, the ark was north-west with respect to the north-south axis of the walled area. It was enclosed within a wall called the perbaya stena (first wall or fortification). (Figure 81A) At Penjikent, the citadel was not only located west of the main city, it was also built on an entirely different hill. This citadel or ark hill was separated from the raised eminence of the shahristan by a deep gully, an inaccessible barrier even today. This particular aspect was repeated at Paikend, where the citadel was located to the north-west of the two shahristans. (Figure 85, 86) While only a detailed comparison with other examples of cities and urban settlements in the Central Asian region will tell us whether or not the western or north-western direction of the citadel or ark with respect to the city was a constant phenomena, it does at least remain true for the four cities in question, all of which were among the largest in the region. This development is also connected to another important issue regarding the ark. In two of the four cases discussed, at Bukhara and Penjikent, there is the apparent evolution of the city

organization from a concentric scheme to a non-concentric scheme - a process that evidently caused a westward expansion or movement of the fast-growing urban sprawl. The citadel and the city therefore formed two independent systems of fortification, each surrounded by its own set of defensive walls. Could this process then be related to the phenomenon of the westward, or north-westward siting of the citadel as well? (Figure 90, 92, 93, 94)

2c. The appearance of a triple-walled city model is the third important feature of the cities examined in this dissertation. All comprise of an innermost wall (around the medina or area of the inner city), an intermediate wall (around the shahristan or the area of the outer city); and an outermost wall (around the entire development and the external suburbs). This urban schema differs radically from the double-walled model of the west Persian or Iranian city, which has been used to analyze the Central Asian city in the past. While this is not unlike the triple-walled schema conforms to the model outlined by Barthold, wherein the typical medieval Islamic city of Central Asia was composed of three main parts: a defensive center (the ark or quhandiz), a municipal center (the shahristan), and the ‘suburb’, it is also important to point out some differences. According to his studies and those by some other scholars, this system arose in the 6th and 7th centuries, beginning with the castle of the feudal lord or dihqan, which constituted the ark, around which were added concentrically the shahristan, containing the artisan and commercial quarters and the administrative offices.
Figure 91: (91.1) View of the citadel of Penjikent, separated from the main city by a deep gully; (91.2 & 91.3) Excavation plan of the Penjikent citadel, showing building masses enclosing containing substantial courtyards - a tradition that prevailed in the urban fabric of the region's many cities.
Figure 92: Drawings and views of the fortifications of Penjikent and related excavations, showing elevation of fortification wall showing arrow holes; axonometric reconstruction of buildings along fortification; and two excavated areas along the walls of Penjikent, with marks in masonry where timber beams once spanned to support the intermediate floors.
Figure 93: (93.1) Axonometric reconstruction of a residential quarter in Sogdian Penjikent, examining spaces within an aristocratic dwellings – such as those that lined the Merchants Street running north-south across the city; (93.2) Sasanian silver plate showing a char-taq temple structure, a possible source of emulation for the Samanid Tomb at Bukhara.
Figure 94: View of the Zarafshan Valley from the ramparts of Penjikent - regarding the spread-out nature of the *rabad* districts in both cities, the short distance between the two urban centers would have seemed as one continuous urban region to the traveler, rather than as two separate cities.
Figure 95: The city of Merv and its location within a vast oasis, showing plan of successive cities in the Merv Oasis, also shifting westwards, and a larger wall around the entire oasis surrounding all of the developments; map of the Durnali-Changly region, showing irrigation through the Murghab River.
Figure 96: While little physical evidence of the city of Nishapur survives today, owing to a series of devastating earthquakes, the region was once known for its superb ceramics. Seen here are examples of Inanimate Buff Ware – from the Ashmolean Collection (top); and Animate Buff Ware.
Figure 97: Foundation of the city of Herat, showing a partial quadrangle with early elements of the grid-iron, connected to an ancient mound or tell (the *kuhandiz*). This was the basis for the more developed plan of Herat, as recorded by the India Office Library plan in 1842; (top right) Bactria or later Balkh (P. Bernard identifies it as "Bactria II"), is supposed to have evolved from Kushano-Sasanian foundations, employing a similar combination of elements.
In the 9th and the 10th centuries (the pre-Samanid and Samanid eras), the Central Asian triple-walled city model was radically modified by the addition of the suburb or *rabad* - an area where the most important activities of the city were transferred. While Barthold and a number of other scholars believed this suburb or *rabad* to be a mere extension of the city, or suburbia growing beyond its walls, Scerrato, writing several years later, believed that it presence indicated yet another historical dimension which archeological research had identified. He proposed that the *rabad* - which virtually became a city after the first waves of sub-urbanization - attracted administrative, and governmental offices as well. This could have been possible only if it became the nerve-center of control in the pre-Samanid and Samanid city, attracting activity from the traditional core of the city.\(^42\)

Bolshakov also goes to the extent of describing the dynamic spread of this *rabad*, beyond the walls of the traditional city, as heralding an era when “...not the walls, but the power of the state now guaranteed the safety of the suburb.”\(^43\)

But besides the natural *extra-muros* growth outside the city walls, these cities had also grown within their physical constraints, a trend that had started in Sogdian, pre-Islamic cities. The great increase in urban population after the invasions caused a marked densification of the urban fabric, changing the character of these cities to a substantial extent. One-storied houses of the fifth century were replaced by two or three-storey buildings in the sixth and the seventh. In the course of the seventh century, the open


\(^43\) Describing the developments in Islamic Mawarannahr, Bolshakov writes, “Following a short period of restoration, necessary after the destructions of the eighth century, the cities of Central Asia, previously densely built-up and constricted by the ring of walls, in the ninth century spilled over this ring and freely spread over the adjacent lands. Not the walls, but the power of the state now guaranteed the safety of the suburb.” A. Belenitskii *et al.* *Srednevekovyi gorod Srednei Azii*, p. 133
spaces between buildings and yards were largely eliminated, while by the eighth century, the upper stories of the Penjikent houses were extended on cantilevers over the streets, creating the phenomenon of fully-covered lanes.\textsuperscript{44}

Suburban housing, in contrast, did not form a continuous fabric like the inner city. Excavations by the Moscow Museum of Oriental Art showed that at the well-preserved environs of Durman-tepe, a large pre-Islamic city in present-day Uzbekistan, there were about a dozen castles and strongly built manor houses. Similar conditions are also observed to have existed outside the walls of Penjikent and Paikend, and were in fact attested by the accounts of Narshakhi.\textsuperscript{45} Rural settlements formed by this process were sometimes enclosed by their own walls, even when they were situated next to a larger town. This was the case in Sogdian and Arab Samarqand, where 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. In addition to compact villages, there were also numerous free-standing castles and manors built to be capable of self-defense. These castles were comparable in their 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.\textsuperscript{46}

\textsuperscript{44} V. Raspopova. Zhilishcha Pendzhikenta - Opyt istoriko-sotsialnoi interpretatsii (Leningrad: Nauka, 1990), pp. 164 - 69.
\textsuperscript{46} A. Belenitskii, B. Marshak, & V. Raspopova. “Sogdiiskii gorod v nachale srednikh vekov” in Sovetskaia Arkheologiia, pp. 101 - 5.
Figure 98: Comparative plans of Penjikent, Paikend, Bukhara, Afrasiyab and Kurgan-tepe at the same scale - showing the relative position of the *shahristan* with respect to the citadel structure.
Figure 99: The city of Kuva (Kubo), by 900 AD was an important urban center in the region of Ferghana – of large size, and with a dense *shahristan* and highly developed *rabat* district. Excavation plans show the *rabat* extending on three sides of the *shahristan*, though scholars have differing interpretations regarding the citadel. Excavations in the *shahristan* (below) show a dense urban fabric.
Figure 100: (100.1) Pumpelly's reconstruction of the ancient course of the Oxus (Amu darya), and the Aralo-Caspian Sea in antiquity; (100.2) the state of drainage in the rivers of Eurasia, Near and Middle East and Russia.
Pumpelly’s study of the numerous castles or kurgans dotting the area around the Merv oasis is illustrative. Although these constructions are to a large extent ascribed to the era of Arab rule in Central Asia and beyond, they represent a continuity of pre-Islamic traditions, forming one of the most significant features of an otherwise unmarked landscape. The dense suburban and presumably agricultural population that supported the old cities of Merv clustered around these kurgans. The kurgans and villages were in turn watered by the Murghab river, creating districts still presently under cultivation, but also regions at present waterless. While these greatly kurgans varied in their shape, size and complexity, the most important ones incorporated the additional element of orientation within their construction. They were built with their sides running directly north and south. A few carried the idea of orientation still further, by arranging the effective axes of the compositions along the cardinal points - and sometimes actually creating diamond-shaped parallelograms instead of the usual squares. These kurgans were also characterized by the remains of tower-like constructions at the corners of the constructions or along their sides, forms which were sometimes specialized into watch-towers, keeps or citadels. Most constructions were built entirely of sun-dried mud bricks, and consisted of old houses and palaces, rectangular forts with very thick walls, round towers protecting the fields and villages, and old canals guarded by miles of walls flanked with square towers.47

2d. Fourthly, the cities of the Arab period were distinguished either by the unusual absence of urban fortifications, or of a substantial defensive system of ramparts relative to the spread of the urban district. Based on early Islamic sources, Barthold has shown

that city citadels in the period had lost their significance and were sometimes even abandoned. Beginning with the Samanid period, while no new fortifications were built around shahristsans, the older ones were neglected and allowed to fall into disrepair. In Paikend, where city walls had been constantly strengthened and restored during the last three centuries of the pre-Islamic period, repairs to the fortification were done only once and in one place through the Samanid period. On the basis of the brickwork technique and a single piece of pottery from the mortar between the bricks, this repair can be dated to the ninth century or later. These restorations was also very insignificant, since no extensive traces of the process were found in the area around. Furthermore, no Samanid fortification has been found in other Soghdian cities up to that date, with the exception of one area of repair to brickwork on the citadel wall at Afrasiyab. This picture is striking in contrast to the situation in the earlier periods, when constant repairs and enlargements led to the appearance of walls which were ten or more meters thick in practically each city. Naymark cites one final piece of evidence that urban fortifications were actually neglected. It comes from a well (possibly for drainage), containing material from the tenth and early eleventh century, dug into the body of the wall several meters from the point where the early Islamic brickwork was found in Paikend. Excavations from 1939 had uncovered a pottery kiln from the middle of the tenth century which had been cut into its ruined southern wall. This is ample evidence that these fortifications no longer functioned as effective defensive devices, and had lost their significance for city dwellers (especially those residing in the area of the rabad).48

All of these above-mentioned features occurred not only in cities that were continuously occupied in the course of their histories, but also in others where urban life had been substantially disrupted after the Arab invasions in the 7th century. Such cities, many of which were largely abandoned by their urban populations, were frequently rebuilt to a considerable extent over a next few centuries. Many occupied a different site from that of the former city, usually in vicinity of the original foundation. City walls, built or rebuilt over several periods, sometimes created criss-crossing patterns. Characteristically, in these new centers of habitation, the ribat or fortress of the ‘defenders of the faith’ built by the Arabs, usually occupied an important location within the structure of the rebuilt or reconstructed city, as a fortified enclosure resembling a fortress, a palace complex, or a set of administrative buildings. The writer of accounts of the city in the Hudud was, therefore, justifiably confused in his descriptions. What else would he have called the rabad, if not a rabad; after all, no other technical terminology existed for such an elaborate place!

3. At a third level, in its concentration on the so-called ‘suburban district’ or rabad in early medieval cities of Central Asia, this dissertation allows a broader and more open-ended look at the history of suburbia within the urban context. For all practical purposes, within the field of urban studies, suburbia is still a modern word, with connotations to the disorganized sprawl or growth outside the confines of the industrialized, modern city. Despite its great proliferation in several cases, it has always been observed as being subservient to the urban core, in a scenario where activity and resources continually return to the city from the suburbs, at least in principle.
Through its analysis of several urban environments in pre-medieval Central Asia, the dissertation concludes that the concept of suburbia, or suburban, may need to be pushed back several centuries. At Bukhara, Afrasiyab-Samarqand, Penjikent and Paikend, dense suburbs developed on the outskirts of these cities, catalyzed by the political stability of the oases, which in turn prompted mass migrations from the urban core to the urban peripheries. As a distinct point of contrast to the modern day suburb, the early-medieval suburb (rabad) was characterized by its dense, holistic nature. It contained several institutions and urban organs creating a self-sufficient environment that compared with the urban core in terms of its activity and vitality. Most significantly, this kind of suburbia thrived at the cost of the core, often relegating the so-called core to unimportant activities, subsequent disrepair and eventually abandonment. In time, as this dissertation has shown, the enormous suburbia (rabad) of several Central Asian cities became cities in themselves.

In summary, the Central Asian city followed a complex process of change that had its beginnings with the Arab invasions. In Notkin's view, the integrity and deductiveness of the idea of an inner core organization governing urban space were characteristic of the 7th and the 8th centuries. In the 9th century, in order to accommodate larger monuments, the city underwent organic changes that resulted in the formation, first in the city center, then on its periphery, of one or several independent nodes that created a ring-like situation around the city’s nucleus. These were perhaps the most radical changes to occur in the Central Asian city. The 10th to the 12th century was a period of suburban
development, the creation of the area of the *rabad*, when the greatly enlarged city began to depend less and less on its earlier nucleus - both as a result of increasing size (and consequently distance from the center); and as a result of new urban nuclei being formed owing to the increased accumulation of monuments within the suburb - creating in effect a ‘poly-centric’ city. Between the 14th and 19th centuries, this rampant sub-urbanization was somewhat halted by the stabilizing influence of the nucleus at the center and the distinct hierarchy of zones and lines of communication, and through the strengthening of links with the city's environs generating a branching centrifugal-centripetal system of spatial ties, which nonetheless still maintained the orientation towards the main gates of the city. The process of understanding this environment comes with the awareness that it’s complicated structure proceeded by stages along arteries and nodes towards focal points. The latter were both centers of attraction and points of orientation.⁴⁹ (Figures 92, 93)

APPENDIX 1

THE UNIQUE CHARACTER OF THE CENTRAL ASIAN CITY: ITS RELATION TO THE WESTERN ISLAMIC CITY

“There is agreement, of course, that all cities bear certain resemblances to each other in both landscape and function, and that ‘systems’ of cities have developed in all countries, evolving out of the socio-economic conditions that characterize them. The controversial issue, one that intrigues geographer, sociologist, and historian alike, turns to a considerable degree on the relationship between value systems and social organization, on the one hand, and the development of city systems and various types of urban morphological patterns, on the other. It also involves levels of living and rates of economic development as they influence the nature of cities in various societies and countries. In other words, if types of urban hierarchy or urban morphology as taken as ‘dependent variables,’ to what extent is ‘culture’ as an ‘independent variable’ significant in ‘explaining’ the differentiation among them?”


A.1 The Central Asian City as a special case within the examination of the Islamic City

Discussions initiated in previous chapters on the evolution and morphology of the Central Asian city in the early Middle Ages, and particularly when affected by the Arab invasions, have demonstrated the special character of these cities within the region of Sogdiana. While morphological similarities emerge across the broad sample of cases,
closer analysis reveals details unique to individual cases, outlining differences inherent within these prevailing morphologies. Urban historical and archeological research in the Soviet-dominated era of scholarship examined several of these cities in great detail, compiling reports and monographs, primarily in the Russian language. The discussion has so far employed these with some flexibility, raising several questions that still remain unanswered. It is evident, however, that despite containing a seeming wealth of documentary information, these studies rarely contrasted and critically compared between the different cases they discussed. Little was done to suggest any framework of analysis that would include all of the observed cases within its gamut, and accommodate any new evidence, revealed through ongoing research or archeological excavations. Finally, in recent decades the political divisions of the large area that had once comprised the ancient cultural sphere of Sogdiana have disguised how widespread the special character of these cities may have historically been, through the creation of distinct republics (the several \textit{stans}), whose socio-political agendas have stressed differences rather than cultural unity.

At the level of scholarship, there is yet another important factor that has been instrumental in creating a fragmentary, piece-meal picture of Central Asian cities. Especially prevalent in popular literature, and even to a degree in some scholarly writing, this has been the inclusion of these cities as examples to illustrate general discussions on Islamic cities. It is speculated that this has occurred largely owing to the superficial similarity of certain formal characteristics present in these cities with those in the other parts of the Islamic world, especially as regards to their physical layout and morphology,
rather than an in-depth understanding of the evolutionary process that created them. While the Central Asian urban centers researched in this particular dissertation were indeed witness to radical changes as a result of the Arab invasions beginning in 675 AD, and with the resulting spread of Islam in these new territories, there is little in these developments to suggest that they were typically *Islamic* in character. On first examination there does appear to be an interesting continuity of the urban model of the *amsar* settlement within the larger region of Sogdiana, along with the socio-political conditions and institutions it generated. However, as the thesis has proved, the urban interventions created from this source were vastly different from the static models that are implied in the Western Islamic city model. It is therefore highly likely that the migrations and movements of the Arab forces eastwards, to conquer the lands of Eastern Persia, Central Asia, and subsequently the Indian sub-continent, did carry the general notions of an urban type, though with only partial fidelity to any archetype. In extension, it would be fair to argue that either the Central Asian city should be considered a special case within the general examination of the characteristics of Islamic cities (which in itself is the field of intense debate), or more logically, that the description of characteristic Islamic cities must be reasonably altered to accommodate examples of cities in the Central Asian region. This chapter seeks to support this latter premise, emphasizing that the commonly-prevalent Arab-Middle East ‘Islamic City’ model needs to widen its gamut to include more culturally and geographically diverse examples of urbanism, produced through the synthesis of Islam with existing regional and local characteristics. This described process is also viewed as enabling prevailing scholarship on cities in the
Islamic world to become far richer in content, facilitated by the ‘thick descriptions’ of the cities under focus through this thesis.¹

Figure 101: N. AlSayyad's proposed analytical model for interpreting the nature of urban form in the Islamic City, combining the issues of functional form and physical form.

¹ Urban layouts may also be considered to be ‘signs’ to a culture that must be observed, recorded and interpreted completely. C. Geertz. “Thick Description: Towards an Interpretative Theory of Culture” in The Interpretation of Cultures (New York: Basic Books, 1973).
Figure 102: The Stereotypical Muslim City of North Africa, based on text by W. Marcais (1928), . Marcais (1945), and J. Berque (1958).
A.2 The Western Islamic City

Our discussion must begin by an examination of what comprises the character of the so-called western Islamic city, presuming that there is a prototypical one in the first place. In fact, scholars such as Nezar AlSayyad, through an extensive historiography on the evolution of the western Islamic city, conclude that all Arab Muslim cities did contain, at one point or another, elements of this prototype, enumerated as the central palace, mosque, residential quarters and *bazaar*.² In extension, therefore, in what special configuration did these common cultural characteristics appear in the diverse settlements across the Islamic world? While the stereotypical image presented is that of a dyadic mosque-market model with irregular street patterns and social segregated neighborhoods, scholars have also argued that there is an unmistakably Islamic character that can only be attributed to a prevailing spiritual identity, as materialized through a consistent daily practice and the corresponding built environment.³ So then, what is ‘Islamic’ *per se* about these settlements? In extension, what political, social, religious or economic institutional forces shaped them?

While many of these questions appear central to the study of cities in the Islamic world, it must be realized that they were all raised in the first few decades of the twentieth century. While discussion on cities across the Islamic lands was rather routine subject matter in the descriptions of medieval historians and geographers, a largely formal and descriptive

³ This quality of ‘Islamic-ness’ has been a recurrent theme in the writings of several scholars on the Islamic city, and Bianca’s research is a recent example. See S. Bianca. *Urban Form in the Arab World - Past and Present* (London: Thames and Hudson, 2000).
approach was employed to record the events and changes that were witnessed in these settings. The literary genres of their authors did not extend to actually explaining the causes of those changes or contextualizing them within a set of related or generalized events. Rarely, and when such explanations and elaborations did happen, they were centered on specific historical, sociological and ecological interpretations, and seldom on religious and idealist ones. Each city was therefore viewed as in some way created under special conditions and permeated with qualities of space and character that were unique.

Interestingly, this situation appears to have become reversed in the writings of modern-day historians and social scientists, commencing in the early decades of the twentieth century, and continuing well into the 1970s. Evidently informed by the Weberian notion of the ideal-type, these modern-day scholars postulated and then searched for an essentialist Islamic city type within the plethora of examples available to them. Somewhat differently for each scholar, this type (or archetype) thus constructed, was based on a set of morphological and legal criteria that were attributed to Islam and the special religious conditions it created in the urban context, and which seemed to transcend the historical processes that had attracted such involved observations in the past. Also, the details that had surrounded descriptions in each case, which had colored the medieval accounts, had now been reduced to a dry narrative of cities across the Islamic world.

Convention also constrained urban historians to categorize cities according to types associated with traditional periodization, geographical location, political representation

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4 All of the early scholars on the Islamic city appear to have been influenced by Weber’s notion of what makes a ‘real’ city and its distinguishing characteristics. Max Weber. *The City*, translated by D. Martindale and G. Newirth (Glencoe, 1958).
and specialization. Likewise, the beginnings of scholarly interest in the so-called ‘Islamic city’ in the early decades of the twentieth century, by a group of European scholars - the Marcais brothers, Sauvaget, LeTourneau, and Von Grunebaum - led to a description of non-Western city types from a colonialist perspective. William Marcais’ article in 1928 on the cities of the Maghreb first suggested that Islam is essentially an urban religion, producing a civilization whose essence lay in the organization and sedentarization of cities. His ‘evidence’ for this claim appears to have been the urban bourgeoisie lineage of both Mohammed the Prophet and the early caliphs. In addition, he argued that Friday prayer in a major congregational mosque necessitated urban congregation for the continual survival of the Islamic religion. By extension, the Friday Mosque, nested with its adjoining suq and hammams, became the quintessential ensemble within a Muslim city. The other Marcais brother - George Marcais - engaged with this discussion in the 1940s, emphasizing the position that the interaction of this “urban” religion of Islam, with the mosque as a function, created the Muslim city. George noted the importance of the market and the baths, and added three other physical properties that characterized the Maghrebi city. These were the differentiation between commercial quarters; the segregation of residential quarters according to ethnicity or specialization; and a hierarchical order of trades in the market, locating cleaner trades in relative proximity to the mosque. (Figure 97)

Figure 103: (103.1) The stereotypical Muslim city of the Middle East, based on Sauvaget's text (1934 - 41); (103.2) The characteristics of the Muslim city of the Middle East, based on Von Grunebaum's text (1955).
Figure 104: (104.1) Schematic layout of a typical Muslim city based on Monier's thesis (1971); (104.2) Schematic layout of the early, medieval Arab city according to Ismail (1972).
Figure 105: (105.1) The general order of the Muslim city and its arrangement of elements, according to Ardlan and Bakhtiar (1973); (105.2) The structure and main elements of the Islamic city with concentration on Iran, according to Gaube (1979).
Figure 106: Model of the typical Islamic town, according to Wagstaff (1983).
The Marcais brothers’ urban model, while providing generic descriptions of the Islamic town, presented little specific information, in fact no more than was already know about these cities. Also, owing to the great degree of generalization based on studies of Maghrebi cities, it was hardly location-specific. In contrast, a close reading of the geographer Al-Maqdisi, and his belief that this vast tract of territory (the Magreb) that comprised North Africa, Al-Andalus (Islamic Spain), and Isqiliyah (Sicily) contained the largest number of urban centers than all of the other aqalim, would rightfully have necessitated several variants of the urban model for it to be truly useful in any overarching system of classification. Also evident from the Marcais literature was its comparison of the Islamic city with well-known medieval European counterparts, employed to explain the structure of the former. The analysis relied heavily on the formalist tradition, it positioned the Islamic - the unusual artifact - as the direct opposite of its European, and thereby more familiar counterpart. Here the Muslim city was interpreted mainly through an identification of its physical components, with little or no reference to the institutional structure or social organization that gave rise to these entities. Best summarized by AlSayyad, “the Marcais brothers used the city to understand urban form and not vice versa.” Continuing the Marcais theses in part or whole was the work of Roger LeTourneau and Jacques Berque. This second formalist approach added

9 Noha Nasser, agreeing with Au Lughod, feels that there was and still exists a general agreement that the ‘traditional Islamic city’ exhibits qualities common with cities in medieval Europe, therefore belonging to the genre of pre-industrial cities. “The synonymous usage of traditional city and pre-industrial city is seen as the antithesis of the industrial city and its association with capital. By definition, therefore, the pre-industrial city is finite, the critical date being that of industrialization.” See N. Nasser. “Islamicate Urbanism: The State of the Art” in Built Environment (ed. N. Nasser), Vol. 28 (3), 2002, pp. 173 - 86.
little to the description of the urban stereotype. Both scholars concentrated on cities in North Africa, with LeTourneau applying the characteristics of Fez in the Middle Ages in an *en mass* and uncritical fashion across the large region.\(^{11}\) For Berque, while the three typical elements still remained as the Friday mosque, the *suq*, and the *hammam*, at a holistic level the city served as a place for witness and an arena for exchange, the three mentioned elements accommodating these functions.\(^{12}\) All of the Maghrebi examples examined above were characterized by an organic-accretive fabric that appeared to have evolved ‘spontaneously’, in the words of some urban scholars. The term ‘spontaneous’ was evidently interpreted as ‘disorganized’ in these formal and descriptive approaches, which privileged an exteriorized view of the city, without essentially unraveling its causative processes.

Employing a relatively more scientific approach, Jean Sauvaget’s work on Damascus and Aleppo attempted to examine these cities through an examination of their ancient Greco-Roman heritage. It proposed that the pre-existing geometric, Hippodamian block structure of these cities began to decompose with the decline of the Byzantine Empire, this process consummated under Arab-Muslim rule when this grid was gradually eroded by a network of organic linkages. As corollary, the *suq* element evolved out of the ‘spoils’ and ‘encroachments’ to the colonnaded avenue of the Byzantine town. Similarly, urban institutions such as mosques and citadels were sited on older sites, while the central square was encroached by a network of disorganized alleyways, owing to the greatly

decayed urban legislation. It is interesting to note that in Sauvaget’s thesis on the Islamic town, based on the specific examples of Aleppo and Damascus, the suq takes a linear form, the mosque is not necessarily located at a central place in the urban fabric, and the citadel is located east of the main city. While Sauvaget’s methodology was and is certainly attractive to urban historians for its relatively logical de-coding of urban processes, it has remained a hypothesis that sprung from the vision of an eroding geometric grid. Also, historians today question the validity of the premise that urban legislation began to decline with the arrival of the Arabs, whose conquests ruptured and debased classical institutions or replaced them altogether. More logically, long before the Arab-Islamic conquests, the institutions of the polis had begun to decline. The Arab conquests did not destroy the institutions of the city, but rather confirmed and continued changes begun in late antiquity.

Some of these prevailing generalizations were adopted by oriental scholar Gustave Von Grunebaum, whose classic article “The Structure of a Muslim Town,” has had more influence on scholars studying the Muslim city than any other piece of work by his contemporaries. Grunebaum’s shortcomings in his analysis of cities in the Islamic world include the collation of data from several sources to form his central focus, and the

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14 I. Lapidus. Middle Eastern Cities (Berkeley/Los Angeles: University of California Press, 1969), p. 22. This view is also supported by excavations and studies on some of the Roman cities in the Province of Arabia (all of which lay along the Via Traiana Nova), such as Philadelphia (Amman), Gerasa, Bostra and Philippopolis (Shehba), where an older urban framework was superimposed with a regional architecture several centuries before the arrival of Islam. See A. Segal. “Roman Cities in the Province of Arabia” in Journal of the Society of Architectural Historians, Vol. XL (# 2), 1981, pp. 108 - 21.
relatively sparse set of examples employed. He was, however, able to successfully bring
to the forefront some vital aspects that qualified the term ‘city’ in the Islamic context.
The first of these was the existence, or absence, of urban institutions and infrastructure
(government offices, gymnasiums, the theater, markets, piped-water supply and
fountains); the second highlighted the presence, or absence, of a governmental legislative,
decision-making body that represented the city and its interests. Beginning from the
Classical world, he stressed that the concern for contrasting between urban and non-urban
(or rural) settlements based on such categorizations also appeared in the writings of Arab
historians who described the cities of the Muslim world. Accordingly, the village, the
town and the fortified capital were differentiated by specific terminologies - the *qarya*,
*medina* and *qasaba* respectively. And, as a case in point, the geographer Yaqut (d. 1229)
actually disputed the claims of the great litterateur al-Hariri (d. 1122) regarding his
categorization of the city of Barqaid in upper Mesopotamia as a *qasaba*, for it lacked the
two indispensable qualifications of township, a *jami*, and a permanent market with its
complex of institutions.

Grunebaum also drew attention to an important difference in the way the Classical and
Islamic cities worked, and this was regarding the absence of what he called as a non-
governmental, urban ‘body politic’ in the Muslim city. Therefore, while it could be
argued that the absence of gymnasiums and theaters in the Muslim town was functionally
compensated for by the social and educational aspects of the mosque and, from the
eleventh century onward, by the existence of special institutions of legal and religious
learning - the *madrasas* - most of these new institutions were supported and patronized
by the government rather than through private patronage. In effect, he believed that there was no room for the usual educational and cultural obligations expected of the body politic (as in the Classical city), since one did not exist. No association of citizens held quasi-autonomous control over the town while it formed part of the territory of an outside power. Independence or self-government was only possible over extremely limited periods of time, and there was no sense of any executive officials being designated or elected by the full citizens of the city. Likewise, there were no formal qualifications for residence in a Muslim town for the simple reason that there was no body of town dwellers in whom political or civic authority resided. Grunebaum, continuing with his obvious preoccupation with the Classical polis, went on to define the Muslim city merely as a functionally unified, administrative entity with a more or less stable complement of settlers or inhabitants, and as, “merely aggregations of men ... who are the subjects and servants of a part of their own state”, borrowing from Plato's characterization of certain states. He viewed it as a settlement in which the religious duties of the Muslim and his social needs could be completely fulfilled, providing a setting for obligatory, communal prayer with, creating a secure haven for the sedentarized population over the nomads. But even this urban population was not seen as entirely cohesive, i.e. functioning as a combined body serving the state. Instead, its population was made up of separate individuals, who lived under the umbrella provided by the state, constantly commanding the truth and prohibiting the bad - following the concept of the so-called hisba.

In Grunebaum's view, two kinds of urban settlements are created as a result of these processes in the Islamic lands - the spontaneous and the created - the former evolving as a
result of no specific plan or intent, but rather the aggregation of urban elements over time, and frequently after conquest by Muslim forces, the latter appearing as the by-product of pre-mediated acts of will. *Amsars* were the first examples of created cities, planted in loosely-controlled country, sometimes in the neighborhood of an older urban center, and frequently in relative isolation from competing settlements. Satellite townships - the other example of created cities - were usually created in response to a political situation which induced a sovereign to force a recalcitrant town into submission by erecting a rival in its very vicinity. A newly-founded town, whether an *amsar* or a satellite, served to symbolize the power which it helped to consolidate, and would normally be deserted by the founders’ successors and rapidly fall into decay. Urban agglomerations of a third kind could also develop around a sanctuary, the hermitage or tomb of a saint, and must be viewed as ‘spontaneous’ developments, since they would on the whole evolve without systematic planning on the part of a governmental body, and, on occasion, even against the wishes of the ruler.

Despite, however the lack of the institution of the body politic in the Muslim city, there still existed some legislative mechanisms for the control of the government, which essentially took the form of the appointment of certain individuals to mediate between the local populace and the government. However, significantly, there did not exist any code regulating the competence of the government and this appointed citizenry, other than tradition. Grunebaum viewed this as largely due to a concept of rulership which had failed to set clear-cut limits to the executive and which, at the same time, assumed that when the government failed to interfere, traditional bodies - more or less informal -
would take charge. The Muslim city was therefore characterized by a certain degree of whimsicality or arbitrariness, which was provoked by the spectacle of frequent shifts from an extreme *laissez-faire* to an equally extreme regime of state control.

Therefore, under the larger overlay of the state structure, there would continue to exist a rudimentary organization in the quarters, which, in general, simply continued the tribal custom of accepting the guidance of the *sayyid*; in addition, the professionals, following the late classical and the Byzantine corporative tradition, would constitute a rather large number of guild-like associations within which most individuals, not excluding beggars, thieves, and prostitutes, would find a place and a certain measure of protection against the hardships of economic life as well as against governmental negligence or oppression. Similarly, the government would generally be prepared to recognize the *de facto* authority of the leading personality of the city-quarter, although the official appointment on the part of the ruler of a “precinct master” or *shaikh al-hara* can also be documented. Grunebaum clearly indicates here, that all these seeming official personalities, and the others who could be effectively counted as notables of the city, functioned as a system through which the townspeople did homage to a new ruler, and it was through them that the ruler learned of common grievances or, conversely, would convey his orders to the residents. However, despite their influence and importance, these notables of the Muslim city, most significantly, lacked the possibility of taking any political initiative. What influence they had was due to their prestige rather than to any active resistance which they could have organized, beyond the customary closing of the markets as a sign of protest and in self-protection.
With reference to Grunebaum's physical description of the full-fledged Muslim town, certain important points emerge. The first is the location of the jami mosque at a prominent location in the urban structure - usually at a site on the urban crossroads - a development indicating the processes of cultural borrowing from the Greco-Roman city. The chief government building was located as an annex to the Jami, thereby creating a combination of political and religious functions at the focus of the settlement. Extending out from this urban center, were the chief markets or suqs of the city, containing caravanserais, qaisariyyas, hammams, and specific business districts particular to specific commodities - all comprising the ‘official or business’ section of the city. As a second point of observation, this official and business section could be clearly differentiated from the ‘general’ or non-business section of city by its architecture and general layout. While in the former the unity of the town was apparent; the arrangement of the unofficial urban area - comprising largely of residential districts - reflected the separatist tendencies at work within. In their newly-founded cities, after the basic foundation and large-scale layouts, the Arabs would settle by tribes, each tribal quarter replete with its own mosque, bath, and as a rule, its own market. In Baghdad, Persians and Arabs lived apart from the beginning, while in the city of Samarra, Mutasim saw to it that the natives of Ferghana and the Turks occupied separate quarters without direct contact with the Arab population.\footnote{C. Robinson (ed.). A Medieval Islamic City Reconsidered - An Interdisciplinary Approach to Samarra (Oxford: Oxford University Press, 2001).} Not infrequently, the individual quarters were walled and their gates locked during the night to counteract the insecurity of the town, which was in large measure due to the perennial inter-quarter animosities. (Figure 107, 108)
Here Grunebaum pointed to the thoroughness with which the Hellenistic checkerboard has been rendered ineffective by the build-up of the individual quarters, a process which had begun in some places as early as the second century AD. The ancient political interest in the community, and the classical ideals of city-oneness and of the clarity of architectural (and administrative) design had now been replaced by a dominant religious interest, and by the ideals of quarter or group loyalty.

Following this literature, the mid and late 1960s witnessed a spurt of interest in the re-examination of cities across the Islamic world. This renewed interest, however, was critically removed from extending some of the important features that had appeared in Grunebaum’s work, and was instead a predictable return to the earlier, reductive generalizations that had prevailed. The famed orientalist Xavier De Planhol was among its first proponents, and his work centered on the regularity and uniformity of the ancient European city in contrast to the layout of the Islamic city. In his historiography of the Islamic city AlSayyad\textsuperscript{17}, quotes De Planhol’s view as, “...irregularity and anarchy seem to be the most striking features of Islamic cities. The effect of Islam is essentially negative ... By a truly remarkable paradox this religion that inculcates an ideal of city life leads directly to a negation of urban order.”\textsuperscript{18} Following De Planhol’s lead, Jairazbhy, in his examination of cities in Mughal India and the Arab Middle East, rebutted these positions and explained otherwise, employing the inherent qualities of the religion and its people as being instrumental to the creation of a haphazard and irregular system within the city. Here too the discussion was left incomplete, creating a mysterious aura of sorts.

\textsuperscript{17} N. AlSayyad. \textit{Cities and Caliphs: On the Genesis of Arab Muslim Urbanism}, p.23.
regarding how Islam (or Islamic-ness) may have shaped these settlement and urban patterns, without emphasis on studying the formative processes that generated these environments.\textsuperscript{19} Two other scholars who deserve brief mention in the chronology of developments in the 1960s were Monier and Ismail. Both extended the Grunebaumian stereotype with slight variations, Monier proposing the diagrammatic scheme for an Islamic city through a model that relied heavily on the city of Cairo\textsuperscript{20}; while Ismail proposed a system of settlement types, ranks and sizes which would qualify any study of urban form in the Arab world.\textsuperscript{21} (Figure 99)

In anticipation of this growing interest in the Islamic city and the ensuing debate, among the first scholarly symposia on Islamic urbanism was also organized in the late 1960s by Albert Hourani, resulting in an often-cited publication that claimed to bring together a large number of prevailing viewpoints on the Islamic city.\textsuperscript{22} Besides summarizing these arguments, which in themselves were not radically different, it concentrated to a large extent on the early developments of the Islamic period, and limited itself to the western parts of the Islamic world. Also, the city of Baghdad appears to have formed a focus for several contributions, even though the utility of the example as an urban archetype was and still is a matter of scholarly debate.

\textsuperscript{22} A. Hourani and S. M. Stern, eds. The Islamic City (Oxford: Bruno Cassirer, 1970).
Figure 107: (107.1) The early organization of the *amsar* of Basra (about 634 AD), according to N. AlSayyad; (107.2) A reconstruction of the general organization of Basra following the redevelopment plans of Abu Musa and Zaid (around 675 AD), by N. AlSayyad.
Figure 108: (108.1) The plan layout of the city of Kufa, 638 AD (Al-Janabi’s reconstruction); (108.2) A schematic reconstruction of the general organization and urban elements at Kufa, according to AlSayyad.
Figure 109: Two reconstructions of Damascus before the Arab conquest, based on AlSayyad's research. To what extent the Arab interventions modified the orthogonal organization of the city is still a matter of debate among scholars.
Figure 110: (110.1) Plan of Islamic Damascus, based on AlSayyad's reconstruction of Al-Munjid's accounts. (110.2) The street structure of Damascus during the Umayyad era, showing the transformation from a gridded structure to a more organic-accretive structure. The outline of the Arab city overlays the Hellenistic city with its regular grid and major monuments (based on AlSayyad's reconstruction based on Gaube).
Figure 111: The Umayyad Caliphate and its influence over the eastern territories about 650 AD.
This section must conclude with a brief discussion of two other contributors, particularly so since their research dealt specifically with urban centers located in what was historically Persia (present day Iran and the western part of Central Asia), therefore in close proximity to the region under focus in this dissertation. Ardalan and Bakhtiar’s publication, entitled The Sense of Unity, examined some of the most important Iranian cities, seeking to relate the logic of their physical structure to a larger zeitgeist in Islamic society.\(^{23}\) The latter was seen as responsible for perpetuating the cosmological-religious beliefs that underscored the urban layouts of these Iranian cities. Ardalan and Bakhtiar’s analysis was never substantiated by historical research, nor was it extended to include cities outside Islamic Persia. (Figure 100 top) Heinz Gaube, also working on Iranian cities, explained the workings of these cities somewhat differently. Based on his background in history and archeology, he was more interested in the physical history of these cities, and interpreted them as regional variations of the typical Islamic city.\(^{24}\) In other words, rather than undertaking a critical examination to discern differences among his chosen samples, Gaube’s Islamic city in Iran had four major functions which manifested themselves in the physical ensemble of each Iranian city. These were - governmental authority manifested in the palace or the citadel; religious and intellectual life embodied in the mosques and madrasas; economic activity prevalent in shops, qaisariyyas, and caravanserais of the bazaar; and urban population occupying the urban residential quarters. Essentially, Gaube’s research began by suggesting a type and then examining each example through the set of filters allowed by the type, rather than attempting to understand how the type may have varied across the sample. It comes as no


\(^{24}\) H. Gaube. Iranian Cities, p. 18.
surprise, that by employing this strategy, Gaube is able to weave a common thread between Isfahan, Bam and Herat, cities separated by substantial geographical distances and differing historical destinies. (Figure 100 bottom, 101, 105)

### A.3 Critical writings on the isnad of the Islamic city

In contrast to these researches, the Islamic world also attracted the attention of scholars who engaged in investigations that strongly contradicted the conventional construct of the Islamic city, especially its adherence to the Weberian criteria. Robert Brunschvig was among the first to investigate the underlying causes of the physical patterns of Muslim cities.\(^\text{25}\) His exploration, coming long before Besim Hakim’s thesis on similar lines\(^\text{26}\), led him to conclude that legal and religious bodies played an instrumental role in Muslim urban life. By employing old Arabic manuscripts, Brunschvig was able to demonstrate that these resultant patterns were a rendition (or interpretation) of Muslim law as practiced by qadis or judges relating to urban problems that yielded the physical fabric and urban structure of Muslim cities. At the other end of the scale was Louis Massignon’s examination of institutions within the Muslim city, highlighted in his writings on the ‘sinf’ or guild-like organizations of professional cooperation as a predominant urban institution.\(^\text{27}\) According to Massignon, such a cluster of organizations served as the basis of Islamic urban society, also underlining social solidarities among the community of believers. While scholars such as AlSayyad believe that Brunschvig and Massignon were

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unintentionally responding to Weber’s contentions, in trying to prove that the Muslim city possessed institutions equivalent to those in European cities, on closer examination it is evident that they were attempting to propose a new methodology which these cities must be viewed through.

Among the most vocal protestors of the isnad of the Islamic city was Ira Lapidus in the early 1970s, who addressed the important issues raised in these investigations. At a first level he critiques the examination of the Islamic city by scholars who employed the Classical or European city as a filter. Lapidus suggests re-examining the presence and absence of the body politic as implied by the self-governing commune versus the bureaucratically-administered city, and is concerned at the dominance of this misconstrued dichotomy within research on medieval cities, which stresses on the study of cities as form rather than process. In contrasting descriptions of European and Asian cities, communal associations and the physical spaces that these imply, have seemed crucial in accounting for these differences. Lapidus believes that this has occurred to an extent where the idealization of the European commune (comune), together with its socio-political, economic, cultural and physical manifestations, has been interpreted to be the ‘pure’ form of pre-modern city organization; and as extension the assembly of self-governing citizens and their chosen representatives as manifestation of the true, complete,

28 N. AlSayyad. Cities and Caliphs: On the Genesis of Arab Muslim Urbanism, p. 34.
30 I. Lapidus, Muslim Cities in the Later Middle Ages, pp.
and ideal fulfillment of city life. Scholars have elaborated this picture by describing how it were communal associations which enabled medieval European cities to overthrow imperial oppressors and potential conquerors, and therefore enjoy the vitality and intensity of commercial life, others gaining the capacity to sustain the Crusades, the adventures of European expansion, and the culture of the Renaissance. In contrast, the Muslim world is represented as one where the great bureaucracies of oppressive empires actually snuffed out the independence of towns, in addition to the ancient heritage of communal independence and voluntary associations - a claim reaffirming that the commune was indeed the ‘original’ culture of all urban foundations. Within this described trajectory, the Muslim city is never regarded as an arrangement of communities, but rather as a collection of isolated, internal groups unable to cooperate in any endeavor as a whole, with notables capable of common action only on an exceptional or ad-hoc basis.

31 Max Weber puts the case for the European city being the only “full urban community” in The City, pp. 88 - 96.
32 With reference to the fortified cities of early Middle Age Europe (burgs), Benevolo explains that the burgesses (bourgeois) - who initially comprised the traders and artisans - were in majority from the very beginning. It was their movement to free themselves from feudal political and economic control, which was the origin of the commune. In no way was this how these cities began. Also, the commune was actually opposed by other associations that represented special sections of the urban community - in England these were the guilds, the arti in Italy, and the Zunfte in Germany. See L. Benevolo. The History of the City (London: Scolar Press, 1980), pp. 290 - 92.
33 On the patrimonial-bureaucratic nature of the Mughal Empire, see S. Blake. Shahjahanabad: The Sovereign City in Mughal India 1639-1739 (Cambridge: Cambridge University Press, 1991). Also, in a large number of cases, commune-like bodies did exist within the city, protecting the rights of their residents. A case in point was the city of Ahmedabad, in Gujarat (India) - established in 1411 A.D., and displaying ‘micro-communities’ termed as puras or pols on the urban scale within the structure of a larger city. Both physically and ideologically, such social units were controls against the unsettled and insecure Maratha administration in the early 18th century. See K. Gillion. Ahmedabad - A Study in Indian Urban History (Berkeley: University of California Press, 1968), pp. 90 - 91; and V. Nanda. “Urbanism, Tradition and Continuity in Ahmedabad” in Mimar, Vol. 38 (1991), pp. 26 - 36.
Pushing further, Lapidus describes how this mindset is beginning to change because historians of Muslim cities are already discovering elements of autonomy within the eastern towns. Far from being socially amorphous, as was previously proposed by Grunebaum and Weber, Muslim cities spawned organized bodies demonstrating solidarity and drive to independence from established imperial regimes similar to those found in the West. Lapidus holds the view that civic spirit and the desire for autonomy were forces within the once-Roman world, and the forces which constituted a polity, formed a social order, and actually governed a population, therefore cannot be grasped in the simple dichotomy of commune versus bureaucracy. Rarely in Europe did the commune become the universal expression of needs, activities, and powers of the collectivity or the total context of urban experience. On the other hand, rarely in the East did its absence actually entail a complete want of communal vitality. In effect, Lapidus feels that he is able to show that although Muslim cities did not possess corporate structures corresponding exactly to those found in European cities in the Middle Ages, they should not be viewed as formless in their mechanisms of urban legislation and control. Rather, he argues, these cities were defined by a complex organization of relations between the various classes of urban society and the ruling amirs. Lapidus demonstrated that the elements of social order took on cohesion at the level of the urban quarter and that the ulema acted as crucial mediators between the government on the one hand and the merchants, craftsmen and the lumpenproletariat on the other.\textsuperscript{34}

\textsuperscript{34} J. Weinberger. \textit{The Rise of Muslim Cities in Sogdia, 700 - 1220}, pp. 2 - 3.
Figure 112: An aerial photo showing the ruins of Samarra, the sister city to the Abbasid capital at Baghdad. Built between 762 and 836 AD, by successive rulers of the Abbasid line, Samarra was significant not merely for its sheer size and scale, but for the nature of its obsessive rectilinear organization - was it an *amsar* at a large scale?
Figure 113: Examples of the structures that housed the cantonment at Samarra. The Balkuwara Outer Enclosure; the al-Karkh cantonment area; and the al-Dur and al-Mutawakkiliyya cantonment area.
Approaching the study of the Islamic city from a different angle, Richard Bulliet has focused attention more intensely on a single class within the urban context, that body of merchants, bureaucrats and religious scholars which he calls the patriciate. Bulliet is able to view the city of Nishapur through the socio-political and economic structure of the patriciate, yet another critique of how the Islamic city has been examined. He reveals the educational system which the patriciate developed and how it bound the members of this class together, similar to the survival of the *comune* within a larger political scenario. He also shows the political divisions within the patriciate which often led to bloody civil strife, arguing that the leaders of the patriciate maintained their power and asserted a measure of local autonomy through the hereditary possession of the offices of the *Qadi*, *rais* and *khatib*.

There is a second, critical aspect on Islamic cities that must also be examined at some length. Scholars have frequently asserted that Islamic towns or settlements did not have any tangible order or internal unity. In the case of the European city such a unity could be discerned by observing the line of demarcation where the urban region ended and the rural domain began, the demarcation usually signified by a city wall. For the European city, it was also easy to differentiate the urban and rural domains by the integrity of the urban systems that prevailed within the walls of the city - the ways in which it assumed the form of a grid, established ensembles of institutions at predictable locations, and introduced legislative mechanisms - and which disappeared outside this enclosure. In contrast, in the several cities in the Islamic lands selected for this study, the relationship

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of the city to its surrounding countryside proves to be exceedingly complex. The lack of an orthogonal organization system, or a predictable linkage pattern makes it difficult to discern where the city or urban district begins and ends. In fact, Lapidus point out that in many situations, no absolute distinction between the rural and urban habitats could be drawn, especially by outsiders. This web of the relationships that bound the city to the land in which it resided, and created complex inter-relationships that transcended simplistic spatial organization, have been largely ignored in the early works on Islamic urban life. Scholars such as G. Marcais, W. Marcais and above all, G. Grunebaum, perceive an unbridgeable opposition between the city and the countryside. According to them, the market and the mosque, structures indispensable to the true city, are not found in villages, and the city is the seat of government and law courts. Only in cities can be found the elements of a complete social, economic and political existence; only within the city walls is a fully ‘Muslim’ life possible. In contrast to the urbanite stands the rustic (or rural), who dwells in the remoteness of the countryside, somewhat removed from profit, justice and sanctity.

This discussion is particularly relevant to the urban-rural relations that defined the spatial structure of cities in Sogdiana over its long history. In the Sogdian condition, this opposition will need to be re-examined, if not reversed. The studies of scholars on Iranian cities are a case in point. Eastern Iranian cities shared several characteristics with Sogdian ones, by virtue of being in the same cultural context. Jean Aubin, in a discussion on the state of the study of Iranian cities, was troubled by how little they resembled the model of the so called solitary Islamic city, in terms of its generic model provided by scholars.

36 I. Lapidus. Middle Eastern Cities, p. 60.
Iranian cities were for Aubin so inseparable from their hinterlands that he chose to speak of them as urban agglomerations rather than as cities. However, he hesitated to question the model of the Islamic city and instead suggested that Iranian cities not be treated as a class of the Islamic city, but as *sui generis*.\(^{37}\) (Figure 106)

A large part of this misinterpretation on the Muslim city could be clarified through a fuller consideration of the physical form of these cities and the regional geographies that served to create a web of cities across the Islamic lands. At a first level, larger settlements such as metropolitan centers, provincial or regional capitals, smaller market towns and even some large villages were not generally distinct entities, but often composites of lesser units. Settlements of all types, from the largest metropolises to the smallest towns and villages, were clusters of distinct physical and social units. Consequently, the largest capital cities - Baghdad, Cairo, Nishapur, Samarkand, Bukhara and several others - were not single cities, but composites of cities that had seemingly fused together over time. Some were also twin cities or double cities made up of wholly distinct physical entities, often separated by open spaces. In time, these double, twin or separated cities grew together across the spaces that separated them, negotiating natural and man-made structures that lay in the interim. There were also different kinds of double or co-existing cities - those composed of discrete fortresses and their suburbs, and those formed whenever suburbs grew in size and facilities to equal the ‘mother’ settlement. Parts of the Fertile Crescent, Persia and Central Asia had already witnessed these kinds of urban conurbations in the Sassanian times, and while some of the larger cities in these regions

were greatly advanced versions of this process, others were composed of still-distinct units - a citadel, the city proper, and its suburbs - each surrounded by its own set of walls.\textsuperscript{38} Also, three variations of these conurbations could be suggested - double cities formed by adjacent settlement units separated by rivers or estuaries, multiple fortresses with surrounding suburbs, and double/multiple cities with a Friday mosque located in each sector. In effect, for a double city or conurbation, the urban system within the walls became largely redundant owing to a substantial suburban sprawl and the presence of more ‘cities’ in the proximity. Finally, to complicate matters further, these double multiple cities were also internally divided into separate quarters.

In the formation of such settlements, no absolute distinctions were made between urban and rural elements, i.e. among quarters, suburbs, and adjacent villages. Lapidus states that these cities often had an agricultural component, and walled suburbs were often used for gardening and other forms of agriculture, and that frequently, outlying villages could be regarded as quarters or suburbs of the city proper.\textsuperscript{39} In addition, the fabric of Muslim settlements, despite its density, actually allowed for gardens and agriculture inside the city proper, either in open spaces or in lots attached to the houses. Many cities, especially in Iran, were also surrounded by gardens and fields owned and worked by people residing in

\textsuperscript{38} A large number of examples of double, twin or co-existing cities may be given from across the Islamic world, though it must be remembered that these cities were radically different from the urban foundation and the intervention. But double, twin or co-existing cities, were characteristic developments associated with the Arab invasions across the eastern lands, including Central Asia, whereby new foundations (misr or interventions), were most frequently employed to appropriate a city.

\textsuperscript{39} I. Lapidus. Middle Eastern Cities, p. 64. In this regard, Lewcock’s description of Sanaa is also useful here. See R. Lewcock and R. Serjeant. Sana - An Arabian Islamic City (London: World of Islam Festival Trust, 1983). So are the accounts of Babur in the Baburnama for the cities of Samarqand and Shahr-i Sabz.
in these cities. In effect, urban settlements would combine very dense areas composed of built-up structures, with relatively sparser areas with cultivated land and gardens, and finally areas of waste or fallow land. The quarters themselves contained a full complement of urban facilities - baths, markets and mosques - except at a somewhat reduced scale and in smaller quantities. Many, especially those that had started as villages before they were integrated into the fabric of the ‘mother’ city, were also fortified to provide local security. These fortifications, that had once served practical use in the spread-out oasis, often appeared in disrepair or as vestige once these fortified villages became part of the main urban region. Others, still retained their khans or ribats, protecting their position along the trade routes.40

On this basis, it would be fair to conclude that many so-called ‘cities’, and evidently several of those in the early studies on the Islamic city, had rural components as intrinsic elements of their morphology. Likewise, many villages had urban features or were in fact small towns in all but name. Therefore, in some regions of the Islamic world no hard and fast formal distinction between urban and rural habitats may be easily formulated, contrary to the assertions presented by scholars. Instead, the urban and the rural appear to have formed a continuum of geographical and ecological traits, also percolating into the

40 For villages with fortifications, see Bosworth. The Ghaznavids, pp. 118, 159; V. Barthold. Turkestan down to the Mongol Invasions, p. 99. For cloth manufacturing villages, see al-Narshakhi. The History of Bukhara, p. 16; G. Le Strange. Lands of the Eastern Caliphate, p. 312. For villages with a jami or minbar, see V. Barthold. Turkestan down to the Mongol Invasions, p. 136; al-Narshakhi. The History of Bukhara, p. 68. For villages with facilities of manufacturing towns, see V. Barthold. Turkestan down to the Mongol Invasions, pp. 74, 98, 156, 158; al-Narshakhi. The History of Bukhara, p. 12; Minorky. Hudud al-Alam, pp. 136 - 37. For villages fully town-like, see R. McAdams. Land Behind Baghdad, p. 94; V. Barthold. Turkestan down to the Mongol Invasions, pp. 148 - 49.
socio-cultural lifestyles of several populations. In the region of Central Asia, nomadism made this phenomenon particularly dramatic through the course of urban developments witnessed by the region, and in several cases cities began to express the complex characteristics of the urban, rural and the intermediate fringe conditions. Consequently, cities of the kind described and analyzed above, where frequently the population was divided into non-contiguous, spatially isolated settlements, would be more accurately termed ‘composite’ cities.41 (Figure 102, 103, 104, 105)

A.4 Special characteristics of the Central Asian City

In effect, a number of distinct kinds of approaches have characterized the study of cities across the Islamic world, at least until scholars began to be increasingly critical in terms of their research methodology. The first has viewed the city as a physical artifact that must be analyzed to discern its logic, this analysis executed in a manner that disregarded the instrumental forces that shaped the city over time. This view also ‘searched’ for pre-conceived characteristics that would occur in each example, confirming the notion that there was a type that prevailed. Not that the notion of a type would be detrimental in itself, since it allows the facility to clump seeming diverse examples under a single conceptual umbrella, but because the type has in this case been used as a limit affecting the nature of inquiry. A second nature of inquiry has examined the socio-cultural mechanisms that operated within these cities, seeking to constantly look back at the European city for comparison and terminology, a misplaced emphasis owing to the very different historical trajectory of historical developments in the Islamic world. The

41 I. Lapidus. Middle Eastern Cities, p. 68.
previous chapter of this dissertation described some selected settlements in Central Asia 
keeping in view that these two methods had their limitations, and in reaction introducing 
a methodology supported by the critical work of scholars such as Lapidus. It was also 
realized that the morphology of these cities is vastly different from their counterparts in 
other parts of the world, creating the need to examine them afresh.

Sheila Blair, in her review of “Urban Developments in the Islamic World,” begins by 
characterizing the traditional urban Islamic world as one where no single type of city 
existed, but instead, several diverse types resulted from a varied set of factors combining 
in each instance.42 Within her three-fold categorization of urban types in the major 
cultural zones of the Islamic world - lands of the Mediterranean and Near East; Iran and 
Western Central Asia; and Anatolia and the Balkans - she points to the ‘fundamental 
feature’ of the Arab Islamic city within the Central and Western Islamic lands as one 
where “… [there] is the separation between public centers for economic, religious and 
cultural activities, and private zones, mainly reserved for residence.” She reiterates this 
important feature when describing the functional organization of these cities in a 
subsequent paragraph.43 While Blair’s analysis of cities in the Central and Western 
Islamic lands makes it apparent that this segregating feature of distinct public and private 
domains may have been to some extent true for certain kinds of cities in the western 
Islamic world, it must also be handled with some caution with respect to the region of 
Central Asia.

For one thing, Blair’s detailed thesis and descriptions almost completely depend on the model of the concentrically-organized city, one where a central zone developed in close proximity to an urban focus (such as a fort or qala, palace or diwan, or main mosque), and this was in turn completely surrounded or enveloped by residential tissue. How then would her proposed model work for non-concentric urban environments? These would necessarily have some ‘curious’ interstitial spaces or zones which could never be accounted for within the present framework. Blair’s article also focuses too narrowly on cities with a single, main center, accessible primary by means of major linkages that began at the city walls and passed through the public center. While this was to some extent true for some of the cities she mentions in the text, it is difficult to gauge how the explanation works if one considers several of the smaller (though nevertheless very public and active) bazaars of these cities as part of an urban system. This was in fact closer to how urban and public space worked in these cities. Would the public-private separation be still as conspicuous in all cases? In other words, Blair’s review gives the impression that it was merely the city center (geometrically located about the center according to the model), that was the focus of all socio-cultural and economic activity in the Arab Islamic city. This may be easily proven otherwise, if the bazaars and carnivals at the city gates are considered within the larger picture. Furthermore, in several of the medieval cities in question a large quantum of business was actually transacted outside the city walls, through traveling merchants who met at the fortified ribats and caravanserais located on the outskirts of the city. It would, therefore, have been difficult to discern where the public domain ended and private domain began. Last, but not the least, while Blair does closely examine urban developments in the Islamic context, and
repeatedly reiterates the separation between public center and private zone as a conspicuous characteristic of traditional Arab cities, she cites no clear reason why this may have happened in the first place. As observed by Lewcock, urban quarters within Islamic towns came to represent aggregations of clans of friendly tribes, and they were separated by open spaces from those of hostile tribes who might reside in neighboring sections of the city. Taking this view, the so-called space between adjoining quarters, or for that matter between certain parts of the city, may not have come about because of the often argued public-private dichotomy, but because it became neutral territory, used by tribes to separate their quarters. Of course, public-private gradients did definitely exist in these cities, and the entrance of the quarter or mohalla, with its small aggregation of public functions (few shops, a small mosque, possibly a madrasa), would have served as the adequate transition, but carrying it a step further, and claiming that the entire city may have developed on this basis, may need to supported with better evidence. Lewcock’s arguments on the other hand, can be proven to be true on the basis of recent studies on how land parcels or ‘khittas’ were sub-divided among the several tribes at the time of urban foundation. In any case, while there were superficial ‘physical’ barriers between private and public domains in the city, this dichotomy did not necessarily decide the way the city was constructed. In other words, this was merely part of the socio-cultural psyche of the people.

In the second part of her review, Blair states that cities in the Eastern Islamic world are less well-known than those in Arab Islamic lands. She is correct about the lack of

information which has plagued research on the subject, largely owing to the fact that most of them were constructed in mud-brick which has perished over time, and also the fact that several, are still unexcavated sites. However, her description of a typical east Islamic city leaves much to be desired. In her understanding, while the inner city (shahristan) was centered on a citadel (kuhandiz) and flanked by suburbs (birun), it was essentially a modification of a pre-Islamic core. Following the upheavals of the tenth and eleventh centuries, the cities were usually fortified. Major arteries led from the gates to the city center, and quarters between them were divided into residential blocks. Furthermore, within the blocks hence created, twisted cul-de-sacs gave pedestrian access to individual buildings.\footnote{S. Blair. “Islamic Art - Urban Development” pp. 264 - 65.} If Blair’s version is to be believed, then the kind of city we would visualize in the eastern Islamic world, and more precisely in the Central Asian region, would be largely similar to that in the central and western Islamic lands (which Blair has described earlier). This was in fact generally not the case, except for certain obviously superficial characteristics. There were some important differences that modified the so-called separation between the public center and a private zone.

\section{A.5 The Rabad as the unique feature of the Central Asian City}

It is within this background that our own examination of the two terms that form the focus of this discussion, namely ‘public center’ and ‘private zone’ in Central Asian cities, must begin. Our point of departure is the first distinguishing feature of the Central Asian city at this time, namely the rabad. Prior to the Arab invasions on the region, the city had been made up of only three parts or zones, delineated by two sets of walls, namely the
qala, shahristan and the balad. In the ninth and the tenth centuries (the pre-Samanid and Samanid eras), this model was radically altered by the addition of a new zone - the suburb or rabad - an area to which the most important activities of the city were transferred. While Barthold and a number of other scholars believed this suburb or rabad to be a mere extension of the city, or suburbia growing beyond its walls, Scerrato, writing several years later, believed that it presence indicated yet another historical dimension to add to that which archeological research had identified. He proposed that the rabad - which virtually became a city after the first waves of sub-urbanization - attracted administrative and governmental offices as well. This could have been possible only if it became the nerve-center of control in the pre-Samanid and Samanid city, attracting activity from the traditional core of the city.

The rabad became a new addition to the structure of the Central Asian city in this period; it was the virtual antithesis to the notion of a city as a densely-built up area contained by a wall. Prior to the Arab interventions, the few studied pre-Islamic towns of the Zarafshan Valley usually covered a relatively small area, and were fairly compact structures. The walls of early medieval Samarqand, by far the largest city in the region till the seventh century, enclosed a total area of 70 hectares, while smaller capitals like Penjikent, Maimurg (Kuldor-tepe), Abgar (Durmen-tepe), Kabudanjaket (Kurgan-tepe), the royal residence at Varaksha, and the self-governing urban community of Paikend, were on

average concentrated within areas of 20 hectares.\textsuperscript{48} Even at Bukhara, most estimates have kept the urban area within a 35-hectare limit.\textsuperscript{49} Spurred by the effects of the Arab invasions, Samanid cities on the other hand spilled beyond their limiting walls and formed un-fortified agglomerations covering large areas of formerly rural territory. Estimates by contemporary geographers and historians on the city’s size were therefore virtually impossible, for it was unclear where the urban area actually ended and the rural area began.

Pumpelly’s study of the numerous castles or \textit{kurgans} dotting the area around the city of Merv oasis is illustrative here.\textsuperscript{50} Free-standing castles or rural settlements of this kind, partially fortified and significantly isolated from the main city wall or at a distance from it, were not accidental developments. In contrast to the situation in the period prior to the Arab invasions, now it appears that fortifications were no longer required, nor did they perform their traditional role of defending the city against attack. Barthold has, on the

\begin{itemize}
  \item \textsuperscript{50} E. Huntington. “Description of the Kurgans of the Merv Oasis” pp. 219 - 32.
\end{itemize}
basis of early Islamic sources, even shown that city citadels in this period were sometimes abandoned completely. Therefore, beginning with the Samanid period, while no new fortifications were built around *shahristsans*, the older ones were neglected and allowed to fall into disrepair. In Paikend, where city walls had been constantly strengthened and restored during the last three centuries of the pre-Islamic period, minor repairs to the fortifications were done only once and in one place through the Samanid period, positively dated to the ninth century or later. Furthermore, no Samanid fortification has been found in other Sogdian cities up to that date, with the exception of one area of repair to brickwork on the citadel wall at Afrasiyab. This picture appears striking in contrast to the earlier periods, when constant repairs and enlargements led to the appearance of walls which were ten or more meters thick in practically every city of the region.\(^{51}\)

At Merv, the *ark-shahristan-rabad* tripartite plan therefore no longer held, since in the tenth century, the "true" city, the prosperous city of Merv - called the "mother of all cities in Khorasan" according to al-Muqaddasi’s descriptions - was essentially the area contained in the elaborate *rabad*. The *ark* at Merv was reduced to a watermelon plantation and the *shahristan* was almost completely abandoned. Extensive suburbs now stretched along the banks of the great canals which criss-crossed the entire urban region. As if attesting to the extent to which the suburbs actually were important, among the three Jami Mosques in Merv, only the first, the Jami of the Bani Mahan, stood within the *shahristan*. The second, called the Masjid-al-Atik or ‘the Old Mosque’, stood at the gate opening on to the Sarakhs road, at the westward Bab-al-Madinah; while the New Mosque

of the Majan suburb was outside this gate, where the great markets of the city of Merv were found. At Nishapur, which was also built on such a plan, the administrative center and the commercial life of the city were in the *rabad.*

At Herat, the seat of the government lay about a mile to the west of the actual city. It must be remembered, moreover, that in the ninth and tenth centuries, a sharp distinction was not drawn between the *shahristan* and the *rabad.* The latter, when it existed, was not, as has been seen, a true suburb, but rather a part of the city itself, often set within the walls, as in Samarqand. The focal points of these cities were the market places, surrounded by the shops of the artisans and merchants and the *caravanserais.* While the main streets of the city were laid out in a uniform network, and centered on these squares, the number of main streets varied depending on the size of the city and its population density. Nishapur is presumed to have had more than fifty, while at Bukhara an estimate can only be made by an analysis of the nineteenth-century city, as proposed by Belenitskii. Scerrato believes that the streets were often broad and well-constructed, and almost all of them were paved in stone, as at Samarqand and Bukhara. Next to the market place was situated the most important building of the city - the mosque. The other administrative buildings of the city were usually, though not always, located on another square.

The case of the Balkh oasis was similar. It was at one time surrounded by long walls for protection against nomadic invasions. As if attesting to the immense size of the oasis, and

its sheer density of settlement, the total length of the walls around Balkh is given as twelve farsakhs in circumference. By the time of the Arab domination, however, these walls no longer existed, and the city appears to have shrunk, or rather became differentiated into specific areas which were concentric in organization. The settled area was divided, like the other towns mentioned, into the town itself (the madina or Persian shahristan), and the suburb (rabad). Significantly, however, no citadel (kuhandiz) is mentioned in this period, indicating that either one did not exist at all, or else that the older structure, which still existed in some form, was probably being used for the same purpose, and did not attract special comment.55

In the absence of archeological excavations on the site of the Balkh oasis, Barthold made some conjectures on the urban subdivisions of the city. Using the model provided by the other, larger towns of the region, he formed the view that at Balkh too, the innermost part of the city - the shahristan - was surrounded by its own special wall. In addition, he used the word rabad to describe the area between this inner wall and the outer wall of the town, though the term itself originally seemed to denote this outer wall. We may extend this conjecture further on the basis of analogy with the information that we have concerning the history of individual cities, especially the relatively detailed information by Narshakhi on the urban topography of Bukhara in the tenth century. It becomes apparent, therefore, that the shahristan was in fact the earliest part of the town of Balkh, serving as the virtual anchor for the foundations of cities around it in the course of its history. It appears to have originated at the time of the exclusive domination of the landed aristocracy, when the representatives of the merchant and artisan classes lived in the

55 V. Barthold. Turkestan Down to the Mongol Invasions, p. 78.
rabad, where the markets were also concentrated. As the landed aristocracy declined, and the merchant-artisan class rose, life shifted more and more from the shahristan to the rabad.56

The creation of the rabad, and the massive migration of population to it owing to the increased sense of security outside the urban walls, evidently produced a very different kind of city from one which had existed prior to the Arab invasions. No longer was the city concentrated about a single point or area. With the creation of the rabad, usually an uneven growth that dominated a part or all of the city’s periphery, the older center or core of the city no longer remained its only focus. Many, if not several centers, developed at various locations within the rabad, each one concentrating about a group of public institutions and possibly an urban space. The public center, as it were, actually stretched and spread out to create an unprecedented poly-centric city, re-configuring the public-private relationships in radical ways by restructuring the patterns of land-use; thereby residential areas became partly commercial, commercial areas residential and partly institutional, and major linkage arteries cut through residential districts changing their intrinsic character.

Apparently, and the certainty of this will depend on further evidence from future research, this meant that communities from within the city migrated out in large numbers, and vice versa. That such changes did really happen within the urban environment of a large city, such as Bukhara, is seen in one particular neighborhood of the city. This was a part of the town, to which great importance was attached in the eighth century, where the

56 V. Barthold. An Historical Geography of Iran, pp. 12 - 14.
Kash-Kushans, rich-merchants of foreign extraction, had retired after Qutaybah’s conquest of the town. Tomaschek supposes them to have been descendants of the Kushans or Hepthalites. They gave up their houses in the shahristan to the incoming Arabs and built for themselves 700 castles amidst gardens outside, and settled their servants and clients there, so that the population of the new town rapidly exceeded that of the old. The locality received the name of the “Castle of the Magians” (Kushk-i Mughan), and here for the most part were to be found the temples of the fire-worshippers. Social unrest in the Samanid period, associated with the escalation of land prices in the part of the city occupied by the Kash-Kushans, appears to have led to the eventual destruction of most of these palaces. In Barthold’s view, building material from them, especially idols from the castle gates, were reused in the construction of the Friday Mosque in the city. Based on Narshakhi’s descriptions, Barthold situates the Kushk-i Mughan near the Gate of the Street of the Magians, locating it in the north-western part of the town.

Migrating communities such as the ‘outwards-migrating’ Kash-Kushans, or the ‘inwards-migrating’ Arabs, obviously needed to rebuild the physical environment of their residential sectors. As a corollary, they would have needed to adapt their new environments to their lifestyles. This would have, in all possibility, entailed a significant change in public-private gradients which once existed in the city, in contrast to an environment that preserved these qualities forever. While the ramifications of this change on the exact nature of residential tissue will be discussed a little later, it was not merely

57 H. Gibb. The Arab Conquests in Central Asia, p. 39.
58 V. Barthold. Turkestan Down to the Mongol Invasion, p. 108.
the residential tissue which underwent large changes owing to the creation of the *rabad*. Important changes also affected the so-called public spaces of the city as well. Bukhara during the Samanid period is again a convenient example. In its early period, the Bukharan citadel was a protected structure with an internal keep, a structure defined as the ‘castle’ by Barthold and ‘*kakh*’ by Narshakhi.59 Istakhri, writing in 930 - 3, describes the palace of the Bukhar-Khudat Bidun within this citadel (presumably located in the *kakh*), and its use by the early Samanids. Muqaddasi, however, writing between 985 and 997, claims that the later Samanids only had their treasuries and prison located within the citadel. Obviously the nature of use of the citadel had changed dramatically between 900 and 980 AD. This may have been partly due to the increased sense of security against Turkish nomads in the early decades of the Samanid era.60 Narshakhi specifically writes that the Samanid Nasr II (914 - 43) built a palace in the *Rigistan* with accommodations for his ten different state *diwans* - a process undoubtedly aimed at formalizing the nature of the space. To this ensemble was added a magnificent mosque, built by the *wazir* Abu Ja’far Utbi in 959 under the reign of Abd-al-Malik (954 - 61). During the reign of Mansur b. Nuh (961 - 76), this palace is said to have been destroyed by fire, but Muqaddasi, writing a few years later, says that the *Dar al-Mulk* was still standing on the *Rigistan* and praises it highly.61 But positioning large, public buildings with multiple courtyards appears to have been only one way in which the *Rigistan* space was formalized. There is additional evidence that the Samanids were conscious about defining its perimeter. In this respect, Narshakhi points out to the construction of another royal palace on the Ju-i-

59 V. Barthold. *Turkestan Down to the Mongol Invasion*, p. 100.
60 The strong walls of the city, which were constantly kept in good repair, also fell into ruin in this period. R. Frye. *The Golden Age of Persia*, pp. 205 - 6.
61 V. Barthold. *Turkestan Down to the Mongol Invasion*, p. 110.
Muliyan Canal, located to the north of the citadel, once again in the vicinity of the *Rigistan*, probably on its north-western corner.62

The complications caused by the creation of the *rabad* were further intensified in the Central Asian city by the non-centric location of the *ark* or citadel. As a second characteristic feature of Central Asian cities, this was usually located to the west of the central city area, on a raised mound or ridge. At Bukhara the *ark* was due west of the core, and remained in the same position despite the growth of the city. At Afrasiyab, the *ark* was north-west with respect to the north-south axis of the walled area. It was enclosed within a wall called the *perbaya stena* (first wall or fortification). At Penjikent, the citadel was not only located west of the main city; additionally, it was also built on an entirely different hill. This citadel or *ark* hill was separated from the raised eminence of the *shahristan* by a deep gully, an inaccessible barrier even today. This particular aspect was repeated at Paikend, where the citadel was located to the north-west of the two *shahristans*. Among the four cities examined in the course of research, the western or north-western direction of the citadel or *ark* with respect to the city was a constant phenomenon. This development was also connected to another important issue regarding the *ark*. In two of the four cases discussed, at Bukhara and Penjikent, there was the apparent evolution of the city organization from a concentric scheme to a non-concentric scheme - a process that evidently caused a westward expansion or movement of the fast-growing urban sprawl. The citadel and the city therefore formed two independent systems of fortification, each surrounded by its own set of defensive walls. As is in fact evident at Bukhara, Afrasiyab-Samarqand, Penjikent and Paikend, this strong structural separation

of the citadel and the main city caused the urban tissue to grow in a particular manner, agglomerating as it were around each of the primary elements.

A.6 Orthogonality as the second feature of the Central Asian City

Migrations within the Central Asian city, and the changes wrought by the creation of the *rabad*, were only the first among the critical factors that modified the relationship between the public center and private zone. A second and extremely decisive factor was the nature of the urban tissue itself. An organic-accretive residential tissue had been the chief characteristic of cities in the Arab Islamic world, described by Blair in the first part of her review. Within such cities, neighborhoods or quarters based on internal socio-ethnic cohesion formed clusters. Since no formal notion of the ‘block’ really existed, these quarters created their own internal spatial logic. Individual residences within these quarters therefore faced inwards, towards an internalized space, and rarely, if ever, faced an exterior street. In sharp contrast, a review of the urban patterns at Bukhara, Afrasiyab-Samarqand, Penjikent and Paikend in the pre-Samanid and Samanid period shows the predominance of the inner city as a fortified enclosure, highly rectilinear in its form, in all probability based on a grid-iron plan with cross-axial roads. What then would have nature of the quarter been?

At Bukhara, substantial evidence survives to support the claim for a grid-iron plan; the vestiges from the Kushan period still dominate the layout and street pattern in some parts of the city. In place of the original “crossing” of the streets, the *chahar-su* structure still
exists, now in the form of a domed pavilion that accentuates the intersection. So does the Magoki Attari mosque, believed to have been built on the ruins of an older fire-temple, and the space outside it, which forms a market-place. 63 Similar evidence appears among the ruins of Afrasiyab, located north-east of the present-day city of Samarqand, though there it is somewhat less distinct. While it apparently had a significant north-south axis, and the semblance of an east-west crossroads, it has not been proven to have had a checker-board or grid plan (largely due to the absence of extensive excavations). At Penjikent, evidence for a rectilinearly-organized city is evident in several areas already excavated. Work on other intermediate areas, presently in process, is expected to clarify this picture further. Significantly, at Penjikent, despite a clearly-defined north-south bazaar street, no real cross-axial streets are seen. Was the main “crossing” we are looking for then be located within the area of the rabad, or did the cross-axial streets culminate in a monumental space inside the urban walls? Since no real ‘urban-space clusters’ existed in Penjikent (as at Bukhara), a space of this kind would have been defined by important public buildings along its perimeters or edges. Except a few of the larger structures, almost all buildings at Penjikent have yet to be excavated, let alone critically researched or examined. Finally, at Paikend, not only is the grid-iron clearly seen in both shahristans, so too is an excavated main avenue connecting several of its major institutions. While no cross-axial streets are seen within the walled shahristans, the location of fortified ribats outside the walls, as narrated by Narshakhi, is convincing evidence that the main bazaars of the city would have in all probability been located in the rabad. 64

Could the gridded structures, such as those described in these Central Asian cities, have significantly affected the public-private gradients we are presently concerned with? It could definitely have, assuming that the grid was even or equal across the entire site of the city, in which case all junctions created by intersections of two perpendicular grid lines would have been exactly the same everywhere in the city, except along the edges of the grid. While finding out the exact nature of the grid in these cities may be somewhat premature, considering the state of archaeology in the region, there may be yet another way to discern its underlying presence. A closer examination of the residential tissue located within the grid-iron system, reveals that the now largely-invisible grid extended deeper than mere surface. It influenced the actual plan forms and architecture of buildings within the urban fabric, and the nature of public spaces created between them. The now-demolished Madrasa Bughara Khan, within the Shah-i-Zinda complex built by the first Qarakhanid ruler of Samarqand around 1050 AD, and the surviving Rabat-i-Malik, situated near Kermine on the ancient road connecting Samarqand and Bukhara, built in the tenth and eleventh centuries, are good examples. So too are residential dwellings from the Kushan period excavated at Taxila, Pushpakavati, Mathura and Penjikent. While obviously pre-dating the Arab invasions on Central Asia by several centuries, they are nevertheless valuable assuming that the grid-iron structure in the pre-Samanid and Samanid period had its origins in the Kushan period, or was its faithful reconstruction.

Considering that a variation of the Hippodamian scheme from the Kushan times was used to populate any one of the four cities under review, the method of dealing with houses
would have been simple and obvious. All rectangular blocks not occupied by shrines or public buildings would be available for houses, and each would be divided into a number of rectangular sites, usually but not always uniform in size. At Priene, there was a great deal of variety in the way these blocks are divided. There was no standardization of inner plan; in fact, even on sites where streets and blocks are most rigidly laid out, within the limits set by the local type there was real individuality and an endless variety in the details of the interior arrangement. There was also wide variety in the number of houses per block and their arrangements within the block, and in the size and proportions of the blocks. The blocks at Priene measured 47.20 x 35.40 m (160 x 120 feet, a proportion of 4:3). At Miletus the blocks were almost as large 51.60 x 29.50 m (175 x 100 feet, a proportion of 7:4), though this basic unit was sometimes cut into two parts, not always equal, by a cross street. At Olynthus a more elongated form was found - 300 x 120 feet (5:2) - and a very narrow alley, probably intended mainly for drainage, dividing the houses into two sets of five. While a large house may have occupied an entire block, occasionally two adjoining houses could have converted into one. However, no agglomerations or accretions of the kind that characterized the Arab Islamic city would have appeared as long as the grid was not disrupted.

Additionally, the kind of house type within this setting, made very little positive contribution to the city's architectural scheme. At all times there must have been very few rooms, perhaps one or two, without any distinctive plan. Houses of more ambitious form were built around a small courtyard, looking inwards rather than outwards. Each was self-contained and turned in on itself. The entrance was inconspicuous and the windows
usually placed high. Most of the rooms opened on to the courtyard. In certain types there was one dominant room which gave the impression of being the nucleus of the whole, and the other rooms and the courtyard appeared as appendages. In certain other types this emphasis was absent. The courtyard might have had colonnades on one or several sides, or even a complete and uniform peristyle. In any case, such architectural interest was mainly concentrated in the interior. The exterior was plain and a street of such houses was unimpressive in its general effect, and aesthetically little could be gained by giving it any greater width.65

The grid did allow for some subtleties. At Dalverzin-tepe, in Bactrian territory, we find initial evidence of 'social-sectoring' at work in a Kushan city. Within its dense layout with large buildings blocks, urban thoroughfares and water reservoirs, there existed socio-spatial hierarchies in the city. Houses belonging to the aristocratic section of the population were situated in the heart of the city, while those belonging to the poor were built on the outskirts. Toprak-qala, on the other hand, was a geometrically-ordered city, in the shape of a rectangle. It was actually divided into 10 symmetrical insulae by means of a north-south main street. Significantly, the size of these insulae measures 40 x 100 m, relating back to the Hellenistic antecedents so important for understanding how urban tissue was different in the Central Asian city.66

The city of Penjikent, owing to the extent of its excavated ruins provides us a final idea regarding the nature of the dwelling and the resultant residential sector in the urban setting in the early eighth century AD. The size of the present excavations - about a third of the whole area - gives a precise notion of what the town looked like. Building materials consisted exclusively of mud bricks and clay, and enough wood to form flat roofs. The area was densely occupied, with some 4000 people in the space of 15 hectares (37 acres) within the walls. Detached buildings were few, most houses being built in compact blocks without internal courtyards and comprising two or three floors, sometimes also bridging the streets and turning them into passageways. This congestion was partly due to the influx of refugees in 712 AD, making necessary the demolition of the eastern wall of the city, which previously formed part of the internal defenses, in order to erect in its place a long wall of aristocrats' dwellings.

The animation and congestion of the streets were compounded by the activities of the craftsmen, whose workshops and stores, often sharing the same space and opening onto the street, existed all over the town, but were particularly numerous alongside the houses of the aristocratic quarter. Adjacent to the latter, a metal market had grown where all stages in the manufacture of metal objects took place side by side, from the refining of the ores to the finishing of products such as armor, coins and bronze items. Here we observe the beginning of that process which, in the Islamic period, led to all commercial activity being transferred from the fortified town (shahristan) to the suburbs (rabad). Although most of their work was carried out near the wealthy houses, the craftsmen had no personal links with them; they lived away from their place of work and managed their
own activities. It is much more likely that the craftsmen's dependence on the nobility was strictly a matter of economics; the latter rented out the commercial property, controlled the sources of raw material, and represented the essential requirement of the market - demand.

The social and cultural life of the city mainly took place within private dwellings. Each aristocratic house included a huge reception hall of 80 sq. meters (860 sq. feet) equipped with benches along the sides. The frescoes which embellished the walls from top to bottom, give an idea of the activities which took place in these halls. These included banquets apparently restricted to men, libations to the family deity depicted on the wall facing the entrance; concerts and the recital of legends and epic sagas. Some researchers have claimed that the smaller rooms adjoining this reception space were chapels with fire-bearing alters, but they may simply have been heated winter rooms. Domestic life, and perhaps also the social life of women, was concentrated on the main floor. The craftsmen's houses on the other hand, though considerably smaller in size and scale, often had a reception hall and painted walls; the town-dweller, it seems, however modest, enjoyed a different order of existence from the countryman.

As a reconstruction of a residential quarter in Sogdian Penjikent - the arched doorway opened on the street beside a row of shops and workshops, established on sites leased by the owner of the big house. The plan of the latter was arranged around a reception room two storeys high and decorated with frescoes, beneath a terrace roof supported by four carved wooden columns, in the center of which a lantern opened. A spiral ramp in a
stairwell led to the upper rooms, which included a small salon, possibly reserved for the women, which opened on the exterior by a window with small columns (frescoes also show corbelled balconies). Ordinary houses on the other hand, had vertically stacked spaces connected by flights of steps.67

In this period of time Sogdian and pre-Islamic cities grew manifold. The great increase in urban population caused a marked densification of the urban fabric, changing the character of these cities to a substantial extent. One-storied houses of the fifth century were replaced by two or three-storey buildings in the sixth and the seventh. In the course of the seventh century, the open spaces between buildings and yards were largely eliminated, while by the eighth century, the upper stories of the Penjikent houses were extended on cantilevers over the streets, creating the phenomenon of fully-covered lanes.68 Suburban housing within the rabad, on the contrary, did not form a continuous fabric. Excavations by the Moscow Museum of Oriental Art showed that at the well-preserved environs of Durman-tepe, a large city in present-day Uzbekistan, there were about a dozen castles and strongly built manor houses. Similar conditions are also observed to have existed outside the walls of Penjikent and Paikend, and were in fact attested by the accounts of Narshakhi.69

Figure 114: Spectacular brick portal of the Arab-ata Mausoleum at Tim.
<table>
<thead>
<tr>
<th>Term</th>
<th>Glossary</th>
</tr>
</thead>
<tbody>
<tr>
<td>amal</td>
<td>Department of state concerned with fiscal administration of the empire, administrative district or province</td>
</tr>
<tr>
<td>amir al-muminin</td>
<td>Commander of the Faithful, to the designated area of the campaign</td>
</tr>
<tr>
<td>amir al-umara</td>
<td>Amir of Amirs, commander of commanders (supreme commander), generalissimo; title adopted from Abbasid times by many virtually independent rulers under the nominal suzerainty of the caliphs</td>
</tr>
<tr>
<td>ark, arg (P)</td>
<td>Fortress, raised defensible part of the urban layout, characterized by its centric or a non-centric position within the urban layout</td>
</tr>
<tr>
<td>bab</td>
<td>City gate</td>
</tr>
<tr>
<td>badawi, pl. badu</td>
<td>Nomad or desert dweller, nomad of Arab speech</td>
</tr>
<tr>
<td>balad, pl. bilad</td>
<td>Place, community, village, town, locale</td>
</tr>
<tr>
<td>batin</td>
<td>The inner or esoteric meaning of a sacred text, ritual or religious prescription, often contrasted with zahir or concealed</td>
</tr>
<tr>
<td>beyts</td>
<td>Rooms (as in a house or a palace)</td>
</tr>
<tr>
<td>birun (P), equivalent to the Arabic rabad</td>
<td>Extension of a city or town beyond its actual or metaphorical walls; outskirts; often rendered as ‘suburb’</td>
</tr>
<tr>
<td>caravanserai</td>
<td>Roadside building which provides accommodation and shelter for travelers</td>
</tr>
<tr>
<td>chahar-su</td>
<td>Iranian and Mughal term for the intersection of two market streets where there is usually an open square with four arched entrances. Roughly equivalent to the classical tetra pylon</td>
</tr>
<tr>
<td>durub</td>
<td>Avenue</td>
</tr>
<tr>
<td>darya</td>
<td>River</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
</tr>
<tr>
<td>rustaq, pl. rusatiq</td>
<td>A tract of country (or territory) exhibiting a significant degree of uniformity in terrain and land-use; sometimes rendered as ‘canton’</td>
</tr>
<tr>
<td>dihqan, pl. dahaqin (P)</td>
<td>A social class of land-owning aristocrats (or village chief and local notables) in pre-Islamic Iran (late Sassanian and early Muslim empires)</td>
</tr>
<tr>
<td>dirhem or dirham</td>
<td>Unit of silver currency current in the eastern provinces of the Caliphate, standard weight about 2.97 grams</td>
</tr>
<tr>
<td>diwan</td>
<td>Office</td>
</tr>
<tr>
<td>divan al kharadj</td>
<td>Revenue office</td>
</tr>
<tr>
<td>farsakh, farsang (parsang), pl. farasikh</td>
<td>Unit of measurement commonly used in medieval descriptions of towns, especially in the accounts of Islamic geographers and historians. Its exact length differed in different parts of the Islamic world according to the nature of the terrain, varying from three to four, and sometimes six miles. Within the region of Khurasan, the local interpretation of the term was the distance that a laden mule could cover in the hour. The farsakh is Arabicized from the Old Persian parsang, and supposed to be derived from pieces of stone (sang) placed on the roadside - a historic unit of distance comparable to the league in the European context.</td>
</tr>
<tr>
<td>fustat, pl. fasatit</td>
<td>Pavilion, large, marquee-style tent; as a proper noun, a military cantonment established in Egypt in 641; armed camp on fringes of the kingdom</td>
</tr>
<tr>
<td>fath, pl. futuh</td>
<td>Conquest (as in war or armed confrontation)</td>
</tr>
<tr>
<td>ghazi, pl. ghuzat</td>
<td>Originally on who led or undertook a raid; subsequently, a frontier fighter, especially one who distinguished himself in battle</td>
</tr>
</tbody>
</table>
hadith, pl. ahadith

Literally meaning communication or narration, in the Islamic context it has come to denote the record of what the Prophet said, did, or tacitly approved. According to some scholars, the word hadith also covers reports about the sayings and deeds, etc. of the Companions of the Prophet in addition to the Prophet himself.

hijrah, Hijri

Name of the Islamic lunar calendar. It took its name from the early Muslims who migrated from Makkah to Madinah, and commences from the date of Prophet Muhammad's Hijrah, which he made with Abu Bakr as-Siddiq, in 622 AD.

hissn, pl. husun

A term of considerable variability implying some sort of fortification, fort, stronghold or redoubt.

iqlim, pl. aqalim

Arabic rendering of Greek klima or climate; also used to denote the Persian kishwar; in al-Muqaddasi’s technical vocabulary it signified a domain of autonomous political power modified only minimally by physiographic constraints.

iwan (P)

Vaulted hall open at one end; palace or official building.

jarib

Measure of capacity for grain, etc; subsequently, a measure of surface area; in other words, the area of land that could be sown with a jarib of seed; approximately sixteen hundred square meters.

jizya, jizyah

Originally, a general term of tribute; subsequently, the poll tax paid by dhimmis.

kakh

Citadel, fort.

kaushk

Fortified villas or castles of the landed aristocracy.

khan, pl. khanat

(1) Inn, hostelry; (2) (P) a term applied to various rulers of subordinate status, apparently of Turkish origin.

kharaj

Tax imposed on the revenue from land taken from non-Muslims to ensure their equal rights under Islamic law.
khalifa
Caliph

khittah, khitta, pl. khitat
A plot of land marked on the ground and claimed with official authoritative approval, with the intention of continuing occupancy

khudat
King, ruler (especially employed in Sogdiana)

khums, pl. akhmas
One of the five tribal aggregations comprising early al-Basrah; the spoils of war

kosh
Term employed to describe a formal arrangement of buildings (institutions) around or creating an urban space, with particular reference to the Central Asian context

kura, kurah, pl. kuwar
District, locale, small or medium-sized town

kurgan
Fort (in the Sogdian context)

kushak
Fortified villas or castles of the landed aristocracy (dihqan), generally located outside the shahristan (in the rabad area)

madina or madinah, pl. mudun, madain
Originally seat of the government; subsequently, an inner, usually walled city; in Muqaddasi’s technical terminology, a district capital, usually in a politically and/or ecologically marginal situation

madrasa
Islamic theological school

maidan, maydan, pl. mayadin
A large, open, demarcated area, generally roughly rectangular and designed for equestrian activity

mauza
Administrative portion

mamlakat al-Islam
The Islamic world, the idealized domain of the Caliphate

misl (pl. amsar)
The term misr (pl. amsar) has borne a variety of connotations at different periods in history and, indeed, for different authors. For the Arab historians of the Rashidun and Umayyad periods, it seems to have meant ‘military cantonment.’ In the tenth century, al-Muqaddasi offered four not wholly congruent definitions of this word: (1) According to
Muslim jurists, it signified “a city with a large population, courts of justice and a resident governor, which meets public charges from its own revenue, and is the focus of authority for surrounding territory.” (2) Lexicographers allegedly restricted this term to “a settlement located at the boundary between two regions.” (3) The common people, by contrast, supposedly understood the term to apply to any large and important settlement (balad). (4) al-Muqaddasi himself used the word with specific connotation that is attached to the sense of the term today, that is, “the locale (balad) where the supreme ruler of a territory resides, where the departments of state concerned with fiscal administration (amal) are located, and which exerts a dominant influence over all other urban centers in a region (iqlim)

mawalis  
Literally non-Arab, in the Islamic context

muqatil, coll. mugatilah  
Fighter, warrior, combatant

musalla, pl. musallayat  
Prayer mat, prayer space

nahiyya, nahiyyah, pl. nawahin  
Distinctive territory within a province

qaghan  
Turkish leader

qala (qalah), qila, qulu, related to the Persian quhandidh, quhandiz  
Fortress, citadel, stronghold

qanat, pl. qanawat  
Canal irrigation, especially by means of underground canals

qasabah, pl. qasabat  
In Muqaddasi’s terminology, a provincial capital within an iqlim

quhandidh, quhandiz (P), related to the Arabic qala (qalah), qila, qulu  
Citadel, keep

rabad, pl. arbad, equivalent to the Persian birun  
Extension of a city or town beyond its actual or metaphorical walls; outskirts; often rendered as ‘suburb’

registan (P)  
Literally, the place of sand (desert); used to describe open space within the urban setting (a maidan
enclosed by buildings, not necessarily used for equestrian events)

**ribat, pl. ribatat, rubut**
Originally a mustering of hobbled cavalry mounts; by late Umayyad or early Abbasid times, some type of fortified edifice, usually in a frontier situation and incorporating overtones of a hospice for *ghazis* or even travelers

**rub, al. arba**
One of the four wards (literally ‘quarters) into which Ziyad ibn Abihi divided al-Kufah for administrative purposes in 670; one of the four principal administrative divisions of Khorasan under the Abbasids

**rustak, pl. rusatiq**
A tract of country exhibiting a significant degree of uniformity in terrain and land-use, sometimes rendered as ‘canton’

**saffar (saffarin)**
Coppersmith

**sang**
Group, together

**sanghrama**
Organization or solidarity

**shahanshah**
King of kings

**shahristan (P), equivalent to the Arabic medina or madinah**
Administrative center, inner sector of an east-Iranian and Mashriqi city

**silh**
Capitulation in war

**tamsir**
Transformation of separate sections of a military encampment into the quarters of a developed city, later broadened by scholars to subsume the urban creation and transformation that accompanied the diffusion of Islam throughout the regions of southwest Asia and North Africa

**tepe**
Hill or tell in the Central Asian context

**ummah**
In pre-Islamic usage, a religious community; in the Quran it denoted groups (not exclusively Muslim) to whom a messenger had been sent; by the Madinan period it had come to signify a totally Islamic community
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>unwa</td>
<td>Subjection by force</td>
</tr>
<tr>
<td>vihara</td>
<td>Buddhist monastery</td>
</tr>
<tr>
<td>wali, pl. awliya</td>
<td>Saint, friend of God, or patron. In a political context the terms can also mean administrator or ruler</td>
</tr>
<tr>
<td>waqf</td>
<td>Charitable endowment (document), created in the name of Allah</td>
</tr>
<tr>
<td>zahir</td>
<td>The outward, apparent or exoteric meaning of a sacred text, ritual or religious prescriptions, from which the <em>batin</em> is educed</td>
</tr>
</tbody>
</table>
Figure 115: Map of Central Asia within its larger sphere of cultural influence.
APPENDIX 3: Historical and Dynastic Tables

Table 1: Caliphs of Islam (based on Weit, G. Baghdad - Metropolis of the Abbasid Caliphate)

<table>
<thead>
<tr>
<th>Caliph</th>
<th>Reign</th>
<th>Successor</th>
<th>Reign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mansur</td>
<td>754 - 775</td>
<td>Radi</td>
<td>934 - 940</td>
</tr>
<tr>
<td>Mahdi</td>
<td>775 - 785</td>
<td>Mutaqi</td>
<td>940 - 944</td>
</tr>
<tr>
<td>Hadi</td>
<td>785 - 786</td>
<td>Mustakfi</td>
<td>944 - 946</td>
</tr>
<tr>
<td>Harun al-Rashid</td>
<td>786 - 809</td>
<td>Muti</td>
<td>946 - 973</td>
</tr>
<tr>
<td>Amin</td>
<td>809 - 813</td>
<td>Tai</td>
<td>973 - 991</td>
</tr>
<tr>
<td>Mamun</td>
<td>813 - 833</td>
<td>Qadir</td>
<td>991 - 1031</td>
</tr>
<tr>
<td>Mutasim</td>
<td>833 - 842</td>
<td>Qaim</td>
<td>1031 - 1075</td>
</tr>
<tr>
<td>Wathiq</td>
<td>842 - 847</td>
<td>Muqtadi</td>
<td>1075 - 1094</td>
</tr>
<tr>
<td>Mutawakkil</td>
<td>847 - 861</td>
<td>Mustazhir</td>
<td>1094 - 1118</td>
</tr>
<tr>
<td>Muntasir</td>
<td>861 - 862</td>
<td>Mustarshid</td>
<td>1118 - 1135</td>
</tr>
<tr>
<td>Mustain</td>
<td>862 - 866</td>
<td>Rashid</td>
<td>1135 - 1136</td>
</tr>
<tr>
<td>Mutazz</td>
<td>866 - 868</td>
<td>Muqtafi</td>
<td>1136 - 1160</td>
</tr>
<tr>
<td>Muhtadi</td>
<td>868 - 869</td>
<td>Mustajid</td>
<td>1160 - 1170</td>
</tr>
<tr>
<td>Mutamid</td>
<td>869 - 892</td>
<td>Mustadi</td>
<td>1170 - 1180</td>
</tr>
<tr>
<td>Mutadid</td>
<td>892 - 902</td>
<td>Nasir</td>
<td>1180 - 1225</td>
</tr>
<tr>
<td>Muktafi</td>
<td>902 - 908</td>
<td>Zahir</td>
<td>1225 - 1226</td>
</tr>
<tr>
<td>Muqtadir</td>
<td>908 - 932</td>
<td>Mustansir</td>
<td>1226 - 1242</td>
</tr>
<tr>
<td>Qahir</td>
<td>932 - 934</td>
<td>Mutasim</td>
<td>1242 - 1258</td>
</tr>
</tbody>
</table>

Table 2: Dynastic Tables (based on Soucek, S. A History of Inner Asia)

SAMANIDS (Khurasan and Transoxania, 819 - 1005; Bukhara as the capital)

(a) Saman Khuda
(b) Asad
(c) Asad’s son Nuh, Ahmed (= Ahmed I), Yahya, Ilyas
   1. Ahmed I (819 - 64) = 1st generation
   2. Nasr I (864 - 92), Ahmed I’s son = 2nd generation
   3. Ismail I (892 - 907), Nasr I’s brother
   4. Ahmed II (907 - 14), Ismail I’s son = 3rd generation
   5. Nasr II (914 - 43), his cousin
   6. Nuh I (943 - 54), his son = 4th generation
   7. Abd al-Malik I (954 - 61), his son = 5th generation
   8. Mansur I (961 - 76), Abd al-Malik I’s brother
   9. Nuh II (976 - 97), Mansur I’s son = 6th generation
  10. Mansur II (997 - 99), his son = 7th generation
[11. Abd al-Malik II (999 - 1000), his brother]
[12. Ismail II (1000 - 1005)]
QARAKHANIDS (Semireche, Kashgaria, Ferghana, Transoxania; Tenth century - 1211; Capitals at Balasaghun, Kashgar, Uzgend, Samarqand)

(a) The beginnings -
? Satuq Bughra Khan Abd al-Karim; the first major Turkic convert to Islam = 1st generation
? Sons Baytas Musa and Sulayman = 2nd generation
  1. Ali (d. 998), Baytas Musa’s son = 3rd generation
  2. Ahmad I Arslan Qara Khan (998 - 1015), his son = 4th generation
  3. Mansur Arslan Khan (1015 - 24), his brother
  4. Ahmad II Toghan Khan (1024 - 26), Sulayman’s grandson and their second cousin = 4th generation
  5. Yusuf I Qadir Khan (1026 - 32), Ahmed II’s brother

A split into eastern and western branches -

(b) Eastern branch (Balasaghn and Kashgar):
  1. Sulayman (1032 - 56), Yusuf I’s son = 5th generation
  2. Muhammad I (1056 - 57), Sulayman’s brother
  3. Ibrahim I (1057 - 59), Muhammad I’s son = 6th generation
  4. Mahmud (1059 - 74), Ibrahim’s uncle = 5th generation
  5. Umar (1074 - 75), Ibrahim’s cousin = 6th generation
  6. Hasan (or Harun) (1075 - 1103), Umar’s cousin
  7. Ahmad (or Harun) (1103 - 28), Hasan’s son = 7th generation
  8. Ibrahim II (1128 - 58), his son = 8th generation
  9. Muhammad II (1158 - ?), his son = 9th generation
  10. Yusuf II (? - 1211), his son = 10th generation
  11. Muhammad III (d. 1211), his son = 11th generation

Occupation of Semireche and Ferghana by Nayman Kuchlug

(c) Western branch (Samarqand):
  1. Muhammad Ayn al-Dawla (1041 - 52), the son of Ahmad I the son of Ali b. Musa = 5th generation
  2. Ibrahim I Boritigin Tamghach Khan (1052 - 68), his brother
  3. Nasr I (1068 - 80), Ibrahim I’s son = 6th generation
  4. Khidr (1080 - 81), Nasr I’s brother
  5. Ahmad I (1081? - 89), his son = 7th generation
  6. Yaqub (1089 - 95), of the eastern branch, brother of its no. 6 (Hasan) = 6th generation
  7. Masud I (1095 - 97), Ahmad I’s cousin = 7th generation
  8. Sulaman (1097), his cousin
  9. Mahmud I (1097 - 99), their uncle = 6th generation
  10. Jibrail (1099 - 1102), of the eastern branch, the son of its no. 5 (Umar) = 7th generation
  11. Muhammad II (1102 - 29), Sulayman’s son = 8th generation
11b. Nasr II (1129), Muhammad’s son = 9th generation
12. Ahmad II (1129 - 30), his brother
13. Hasan (1130 - 32), of the eastern branch = 8th generation
14. Ibrahim II (1132), Muhammad II’s brother = 8th generation
15. Mahmud II (1132 - 41), Ahmad II’s brother = 9th generation
16. Ibrahim III (1141 - 56), his brother
17. Ali (1156 - 61), of the eastern branch, the son of no. 13 (Hasan) = 9th
   generation
18. Masud II (1161 - 78), his brother
19. Ibrahim IV (1178 - 1204), his nephew = 10th generation
20. Uthman (1204 - 12), his son = 11th generation

Occupation of Transoxania by the Khwarazmshah Muhammad

GHANZAVIDS (Khurasan, Afghanistan, Hindustan, 977 - 1186)

? Sebuktigin (977 - 97)
1. Ismail (997 - 98), his son
2. Mahmud (998 - 1030), Ismail’s brother
3. Muhammad (1030 - 31 and 1041), Mahmud’s son = 3rd generation
4. Masud I (1031 - 41), his brother
5. Mawdad (1041 - 50), his son = 4th generation
6. Masud II (1050), his son = 5th generation
7. Ali (1050), his uncle = 4th generation
8. Abd al-Rashid (1050 - 53), his uncle = 3rd generation
9. Farrukhzad (1053 - 59), Masud’s son = 4th generation
10. Ibrahim (1059 - 99), his brother
11. Masud III (1099 - 1115), his son = 5th generation
12. Shirzad (1115), his son = 6th generation
13. Arslan Shah (1115 - 18), his brother
14. Bahram Shah (1118 - 52), their brother
15. Khusraw Shah (1152 - 60), his son = 7th generation
16. Khusraw Malik (1160 - 86), his son = 8th generation

Ghurid (Afgan) conquest

GREAT SELJUKS (Iran and Irak, 1038 - 1194)

? Seljuk
? Sons Arslan Israil, Mikail, Musa Yabghu, Yunus
1. Tughril I (1038 - 63), Mikail’s son
2. Alp Arslan (1063 - 72), his son = 2nd generation
3. Malik Shah I (1072 - 93), his son = 3rd generation
4. Mahmud I (1093 - 94), his son = 4th generation
5. Barkiyaruq (1094 - 1105), his brother
6. Malik Shah II (1105), his son = 5th generation
7. Muhammad I (1105 - 18), his uncle = 4\textsuperscript{th} generation
8. Sanjar (1118 - 57), his brother

Takeover by the Khwarazmshahs

KHWARAZMSHAHS (Khwarazm, later much of Central Asia and Iran; several dynasties, the earliest documented date being 898; the last Khwarazmshah perished in 1231)

(a) Semi-legendary Afrighids of Kath, possibly from the fourth century onwards; the first Shah with an Islamic name is the seventeenth - Abdallah b. T.r.k.s.batha, early ninth century; his successors were:

- Mansur ibn Abdallah
- Iraq ibn Mansur, reigning in 898
- Muhammad ibn Iraq, reigning in 921
- Abdallah ibn Ashkum, reigning in 944
- Ahmad ibn Muhammad, reigning in 967
- Muhammad ibn Ahmad, died in 995

Mumunid conquest

(b) The Mumunids of Urgench, 995 - 1017

1. Mamun ibn Muhammad, 995 - 97
2. Ali ibn Mamun, 997 - 1009
3. Mamun II ibn Mamun I, 1009 - 17

Ghaznavid conquest

(c) Ghaznavid governors with the title of Khwarazmsahs, 1017 - 41

1. Altuntash Hajib, Ghaznavid commander, 1017 - 32
2. Harun ibn Altuntash, similar function, later independent and assuming title Khwarazmshah, 1032 - 34
3. Ismail ibn Khandan ibn Altuntash, 1034 - 41
   Conquest of Khwarazm by the Oghuz Yabghu, Shah Malik ibn Ali of Jand, receiving the title of Khwarazmshah from Masud of Ghazna.

(d) Anushtiginids, originally governors for the Seljuks with the title of Khwarazmshahs, eventually independent rulers in Khwarazm, Transoxania and Iran (1077 - 1231)

1. Anushtigin Gharchai, 1077 - 97
2. Arslan Tigin Muhammad ibn Anushtigin, 1097 - 1127
3. Qizil Arslan Atsiz ibn Muhammad, 1127 - 56
4. Il Arslan ibn Atsiz, 1156 - 72
5. Tekish ibn Il Arslan, 1172 - 1200
6. Muhammad ibn Tekish, Ala al-Din, 1200 - 20
7. Mengubirti ibn Muhammad, Jalal al-Din, 1220 - 31

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