"The Silk Road" is a word associated with caravans loaded with exotic goods that moved forward across sultry deserts, steep slopes; advanced from flowering and rich towns of the Mediterranean, Near East countries via the Central Asia to mysterious "silk people", as the Chinese were referred to in the ancient times. Did this road exist in reality or were there alternative routes? Or the Silk Road was, perhaps, an aggregative name that symbolized centuries-old interest of the West in the East and vice versa? At any rate, the history of the Silk Road informs about the developed civilizations of the peoples and states in the reviewed period. Not infrequently, "war wagons" swept past the beaten track, and hoof-beat and saber-rattling changed into measured sounding of bells on the neck of camels. Towns collapsed, peoples and religions left, old paths were sanded, and the new ones arose across the northern steppes of the Central Asia or via the southern highland.

The Silk Road has its own pre-history going back to the oldest historical strata – the III-II millenniums BC, as evidenced by numerous archaeological finds having been discovered many
thousands kilometers from manufacture sites. Thus, there had once existed the so-called "Nephrite Road" and "Lazurite Road". The latter was connected with Iran-speaking Sak nomadic tribes that settled a vast "Scythian steppe corridor" from Siberia to the southern Russian steppes and the Black Sea region.

The paper provides archaeological monuments of Tajikistan located on the Silk Road, starting with one of the oldest settled agricultural cultures – highly urbanized settlement Sarazm in the basin of the river Zeravshan (Sari Zamin, i.e. origin of Earth, valley) [Isakov, 1991]. Its discovery proved to be a remarkable achievement of the Tajik archaeological science of the later 20 century.

The proto-urban settlement Sarazm is located 15 km away to the west from the town Penjikent on the way to Samarkand, i.e. ancient caravan route. Total area of the settlement is approx. 100 he. Four consecutive chronological periods were sorted out to comply with results of radiocarbon analysis: Sarazm I – 3500-3200 BC; Sarazm II – 3200-2900 BC; Sarazm III – 2900-2700 BC; Sarazm IV – 2700-2400 BC Thus, Sarazm as a settlement of proto-urban type existed about one and a half thousand years.

Four types of structures were examined in Sarazm: dwelling, household, cult and administrative buildings. Dwelling houses consisted of apartment buildings. The excavation-II revealed structures of all four periods.

In the second period, the settlement was built to comply with a specific design; monumental buildings arose. Houses were separated by courtyards, streets and side-streets. Various household and industrial premises were located in the courtyards. The excavation-III revealed a public building erected on a square platform, dimensions: 15 x 15 m; height is 0.7 m. It consists of 8 adjoining premises in two rows. Also, two adjoining corridors are attached to them from the western and the eastern sides that served as a granary (according to A. Isakov), while interior components formed an administrative part.

The second horizon of the excavation-V found a structure, round in plan, with lower rows of brickwork extant only. The building was a regular-shaped circle of two rings. A diameter of the outer ring is 7.7 m; of the inner ring is 4.25 m. The outer ring is made of two rows of parallel
brickwork, dimensions: 52 x 25 x 10-11 cm. The first (inner) row is laid with brickwork in the run of the circle; the second row – perpendicularly to the first one. Thus, the outer ring is hemmed with the brickwork. There is a corridor-shaped space, 75 cm wide, between the two rings. The second ring located in the center of a larger circle is comprised of one-row brick laid by the circle in length. The circle is known to be a symbol of Sun. That's why the researcher (A.Isakov) believes that this structure is devoted to the solar deity. In the period that came next (Sarazm III), it was destroyed, and a new cult building was built on the site (7 x 5 m) with five barrel lights in the northern wall and a round altar-hearth in the middle that served as a fire sanctuary. The excavation XI discovered an identical temple that existed in the Sarazm III period. It consisted of the central room with four by-pass corridors where animal cremations occurred. A great quantity of cattle bones were found on the floor, and traces of a bonfire with burnt bones and ashes in the center. A circular hole was discovered outside in the south-western corner of the building, diameter 1, 15 x 1,15 m, with remains of offering – bones of primitive Caucasian goat [Sarazm, 2006, p.18].

The Sarazm III period is characterized by a strict planning of buildings location, including industrial districts, commodious houses of rich townsmen, and cult-administrative centers. Widely used in the sanctuaries was a wall painting. Geometrical forms of ornament, including triangles, parallel lines and crosses are prevalent. Since the Sarazm III period, the sanctuaries were becoming monumental; side by side with square altars, there appeared the round ones. In some cases, they were built outside housing estates to function as public-cult centers (excavations IV-V-IIX-XII). Some sanctuaries around altars revealed wall paintings with depictions of the "Maltese cross".

In the Sarazm IV period the settlement gradually dwindled.

It should be noted that Sarazm had always been a center of ores; in the periods III-IV miners extracted ore in the mountains of Mushistan to smelt copper and tin into bronze. This unique minefield had always been in the focus of attention of the ancients from the Central Asia and the Near East; it was no mere coincidence that earthenware from Iran, Beludjistan, South Turkmenistan, North India and Priuralye.

Residents of Sarazm were engaged in various kinds of handicrafts, including weaving, chamoising, woodworking, manufacture of ceramics, etc. The jewelry reached its height: artisans manufactured high quality beads of cornelian, turquoise, lazurite, as well as shells brought from Lidia. There was a great number of metallic fabrics.

In the IV-III millenniums BC, Sarazm maintained intensive trade relations with countries both inside and outside the Central Asia. Of interest out of earthenware are two unique finds – a clay stamp and a stone crosier with beak-shaped head and a hole for a rod. The stamp is typical for monuments of ancient agricultural culture. Analogues were found on separate monuments of Mesopotamia, Iran, Beludjistan and India. Testifying to the trade relations above are minerals used by jewelers: turquoise, agate, cornelian, lazurite that came from Afghanistan and some
Prominent Archaeological Sites of Central Asia on the Great Silk Road

Central Asian regions. Among the rarest finds there are shells from India properly processed for manufacture of buttons, bracelets and other adornments. These shells were brought from India, because they were found in the Indian Ocean only.

High quality of painted ceramics is accounted for by high level of artistic culture. The ornamentation analysis enabled A. Isakov to uncover relations between drawing’s motifs and their protective functions, as well as symbolization of the environment. Plots of paintings on walls are characterized by rich color gamma.

Five graves inside a large stone enclosure were unearthed on the territory of the site. Worthy of notice is a rich burial of the woman aged 19-20. Her attire was embroidered in lazurite, turquoise, cornelian and steatite. She had golden and silver beads on her neck; bracelets on her arms. Four stone roof-shaped covers, a bone awl, a bronze mirror and two terracotta statuettes were found near her head. Sheep’s bones – funeral meals were scattered next to her legs. Two more burials were discovered in the grave: a male aged 21-22, and a girl without any inventory. The buried were covered with a broad beaded shawl. In all probability, members of one kin were buried here.

An already built part of the settlement occupied 5 hectares where supposedly 5,000-8,000 resided. In 3000-2000 BC (early Bronze), rudiments of social differentiation revealed themselves and a cult ideology with its sanctuaries and sun- and fire-related altars developed. Furthermore, A. Isakov maintains that Zoroastrian religious concepts going back to the Bronze of the Central Asian region came up in the cult views of Sarazm communities.

In the end of the III millennium BC Sarazm became a center of the manufacture of copper and bronze products, Sarazmians – exporters of metal articles. In the end, the development of metallurgy led to the differentiation of handicrafts: ceramic, jewelry, stone-working, textile, tanning, spinning and, particularly, metal production.

As a whole, the formation of the Sarazm culture in the IV millennium BC progressed with the involvement of the south-western regions of the Central Asia (for instance, Geoksur oasis), as well as the mutual impact of architectural traditions of the mentioned regions and Upper Zeravshan. The III millennium BC saw the expansion of cultural relations of Sarazm covering Mesopotamia, Khorasan, Beludjistan, India, etc. A number of public buildings (a temple, a granary with strict layout made of mud-brick) sprang up in Sarazm. Handicrafts were specialized to foster the development of a new branch – exchange and trades. This, in

*Sarazm. Excavation V. The fragment of the temple of the Sun*

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*Sarazm. Excavation V. Hearth-altar*
turn, contributed to the deepening of ties and contacts outstripping the bounds of cultural interaction [Isakov, 1992; 1993; Razzakov, 2002, p.112; 2003, p. 98-105].

As a result of progress in ore production and deposits of gold and silver in the river Zeravshan valley, Sarazmians had an access to vast markets of the Eastern countries and India. Gold deposits of Taror and Jilav, silver deposit of Mirhand, lead –zinc deposit of Koninukr, as well as smaller deposits of antimony, mercury, wolfram and tin of Mushistan provided the Penjikent oasis with certain economic supremacy over many centuries [Tajikistan...,1999, p.161.

There is a furcation, 30 km along a trade route from Hudjand towards Istaravshan, that leads to the regional center Zafarabad and the Uzbek town Bekabad. The first large populated locality on this track is the village Kurkat. Ruins of the site Shirin are situated 4 km to the north-west from a modern village on the left bank of Shirinsaya [Mirbabayev in co-authorship..., 2008]. Remains of its ancient citadel are buried on the crest of a high rocky mountain. Cave-shaped crypts are noticeable on gullied steep eastern slopes. The site Shirin is identifiable with ancient Ustrushan town Kurkat as referred to in many guide-books of Arab-speaking travelers who described the town as a major center of transit trade. “Kurkat” means “the town of Cyrus or Cyrusopolis”. The probability remains that it was Cyropolis mentioned in the works of ancient historians as a town that stubbornly resisted the army of Alexander the Great. In the past, the town rose high above a northern jut of Mt. Shirin.

The local epic tradition tends to associate the town’s origin with a famous exploit of legendary Farhad who fell in love with beauty Shirin. The monument – site Shirin had first been registered by the Farhad archaeological expedition of 1943-1944; thoroughly described by workers of the Ustrushan branch of the Tajik archaeological expedition of 1950. Note that stationary excavations are carried out by workers of the North-Tajik archaeological expedition since 1969 [Ancient..., 2003; Mirbabayev, in co-authorship, p.32].

Remains of the town Kurkat are scattered in two groups at the foot of strongly fortified citadel Shirin I. At present, the rest of the town is used as cotton fields. Excavations Shirin I revealed a whole complex of premises of corridor-comb-type layout of a large monumental architectural structure of the ancient period. It was a corridor stretched from the west to the east that formed an organizing link of the complex. It ended with a small vaulted room of cross-type form in the west, and with a small courtyard on the edge
of the mountain with a view of Syr Daryay valley in the east. The citadel was reinforced with two rows of walls designed to strengthen its fortification might. Brickwork of lower defensive walls is extant on approaches from the south and the north, as well from the east. Remains of the upper walls are preserved on the eastern front. Reputation of one of the most significant architectural structure of Ustrushana is based on a good state of preservation of rooms, walls, palace arched apertures, vaults and the quality of masonry.

The excavations also revealed several remarkable finds, including a golden medallion, inimitable for the Central Asia, with a vivid depiction of human face. A reverse, tracery side of the medallion depicts a male figure in helmet with a bowl in his hand and a jug near his legs. The medallion is pertaining to typical Central Asian products though manufactured under the influence of ancient Greek art. Of great interest is a bronze horse figure with a stylized horseman and a coral rod in golden rim with a broken end behind. The monument is dated to the 2-7 centuries [Ancient..., 2003; Mirbabayev in co-authorship., 2008, p.32-34]

Archaeologists are currently engaged in exploring a particular type of funeral structure, unique for the Central Asia – crypts, discovered 300 m to the south from the town Shirin. They are made on slopes with their facades looking eastwards. Above 30 crypts have so far been discovered on the site. Their greater part is found to the west from the site. They were scattered in one or several groups with two, five and more units. Sixteen of them were unearthed; remains of burials discovered in twelve of them; the rest proved to be empty. An area of the chamber ranges from 6 to 11 sq. m. The Kurkat crypts revealed an all-embracing collection of jewelry. Suffice it to mention above 2,000 beads.

The Kurkat monuments, including the site and crypts, are the northernmost archaeological monuments of of the historical-cultural region Ustrushana [Ancient Ustrushana..., 2003; Mirbabayev in co-authorship, 2008, p. 34-35].

The temple of fire Aktepa. The village Kulanbosh where ruins of the temple of fire Aktepa were discovered is located at 16 km of the motorway Hudjand-Istaravshan that traverses the Silk Road route, 200 m to the right from the motorway. The monument was known from the 19 century but researchers started exploring it in 1965 only. There are two apertures on the foundation of the central hill: two from the western side; one from the northern side. Excavations made it possible to unearth two construction horizons; an upper horizon includes ten various rooms going back to the 7 century. A building of the second horizon was in a better state of preservation Round-form towers protruding by 3 quarters from walls’ plane were situated in four corners. Note that the towers were fitted with loop-holes. The building was composed of a central room and bypass corridors; the central part was connected with corridors by dint of
doorways. This sort of layout is typical for “fire houses” of the Zoroastrian religion and reminiscent of ancient temples in Iran. Remains of rectangular structure with the sacred fire extinct inside were found in the central part. Traces of fire were also found on walls of the central part of the building. There was a secret passage laid of mudbrick on the floor of the north-western tower. As viewed by finds and typical engineering devises, the “fire house” goes back to the 4-7 centuries [Mirbabayev in co-authorship, 2008].

Bundjikat. The capital of ancient Utrushana – town Bundjikat was located 25 km from Istaravshan (Ura-Tybe) near a regional center Shahristan. Note that in the early Middle Ages the town was connected with urban centers of Sogd through the Silk Road routes. This town is thousand years old as evidenced by numerous archaeological monuments.

In the south-western outskirts of Shahristan there are several large archaeological monuments – sites Kalai Kahkaha 1 and 2, Childuhtar, Tirmizaktepa, etc. Russian researchers, including Acad. V.V. Bartold, informed about them as far back as since the end of the 19 century. They were the first to have identified the ruins of the site Kalai Kahkaha with the capital of the medieval Utrushana – town Bundjikat. Systematic archaeological excavations in Shahristan that started in 1955 by the North-Tajikistan expedition of the A. Donish Institute of History of the Academy of Sciences of the Tajik SSR headed by Prof. N.N. Negmatov revealed excellent monuments of architecture, painting, fretwork, applied artistic handicrafts that account for Utrushana’s capital as one of the largest centers of the early medieval Central Asia.

At the foot of the palace, in Shahristan Bundjikat archaeologists are presently engaged in exploring the urban structure, quarters, nature of houses and dynamics of town development as a whole. An essential part of the quarter consisting of separate sections of dwelling and industrial premises has so far been unearthed along the northern wall (objects II and III). A guard-barrack complex was uncovered in the south-western part of the town (object I). A number of dwelling sections, a multi-column temple (later a mosque) and other auxiliary premises were unearthed on the objects V and VII nearly in the center and the southern part of the site. In perspective, unification of all the objects excavated may provide valuable materials on some specific aspects of the social-economic life of Bundjikat, as well as other questions of the development of the medieval town [Negmatov in co-authorship., 1966; Ancient...,2003; Mirbabayev in co-authorship, 2008].

Shahristan. Site Kalai Kahkaha I. Palace of Utrushana Afshins.
Reconstruction by S. Mamadzhanova
Bundzikat is notable for a palace of Afshins, enormous, architecturally majestic and splendid in interior; with a huge 3-tier hall (230 sq. m) and a throne loggia; another, smaller hall (95 sq. m), a palace temple, bedrooms, chambers, places for courtiers, a network of connecting corridors, as well as palace bakeries. Interior of all the front premises and corridors was characterized by multicolored paintings of secular, battle and mythical nature; trimmed with wooden architectural constructions, panels and friezes with skilful carving of vegetation and geometrical ornament and sculptural depictions of men, animals, birds, etc.

A palace, dimensions: 38 x 47 m, rose 57 m above the course of saya that flowed at the foot of the hill. Building’s walls made of pahs and adobe were covered with clay plaster. Excavations showed that the palace was deficient in vaulted roofing, and though walls were mostly massive, a roof was braced. The analysis of charred remains enabled researchers to identify the structure of wooden parts of the building. For example, walls and a floor of wide apertures were planked, while corners were reinforced by wooden columns at the juncture of rooms 6 and 7. Note that forms of columns left their imprint on plaster layers. Similar doorway constructions and identical columns in corridors are found in some dwelling houses of ancient Penjikent. The palace consists of about twenty rooms, including a main 3-tier front hall with a throne loggia, dimensions: 17,65 x 11, 77 m; a small reception hall, dimensions: 9, 65 x 9, 50 m; a dwelling donjon-tower, several dwelling and household premises linked by wide and long corridors. Basic components of the palace complex included a temple and an arsenal with a great quantity of stones to defend the complex. There was a square dwelling tower (room 9) in the middle, of which just a massive pahs socle is extant. Besides towers, the building was one-storied; surrounded by a courtyard and fenced with a fortified wall. Gates were cut into the western wall of the ark. In a good state of preservation is a half-destroyed tower as a part of the whole ark’s fortifications.

The palace proved to be a genuine “store-room” for art monuments. Approx. 70 parts of pictorial scenes and 200 fragments of charred fretwork were put together. These included several masterpieces of world significance. One of them is a large fretted panel to function as tympanum above a doorway of the throne hall of the palace. The tympanum was composed of three massive boards fixed by internal crampon of refined semi-oval form. Its widest part is 293 cm; height – 143 cm; width – 8-9cm. All the panels are devoted to motifs of heroic epos that had later been glorified by Firdawsi in his famous “Shah-nameh”. Impressive are paintings with pictures of “4-armed goddesses on the lion”; “3-headed deity” and a 6-meter composition “she-wolf nursing her wolf-cubs”.

Of great interest is a palace’s multi-pillar hall where a wide entrance way carved and decorated with a splendid fretted tympanum was in the northern wall in front of the throne loggia. A hall, rectangular in plan, is 2-tier: a floor and sufs of the northern half are located
lower that its southern part. A female bas-relief posed as caryatid at the throne hall, as well as several boards with human head relief served canopy elements and a wooden bed-ottoman. Besides front halls, the palace had a dwelling tower-donjon at the level of the second floor. A garrison and ruler’s serving staff was located inside. In performing defensive, utilitarian and official functions, a donjon of the Bundjikata's palace served a compositional dominant of the building notable for its strict geometrical volume with wall surface’ revetment with figured burnt brick and traditional stepped “kungra” merlon.

It should be noted that hall, rooms and corridors of the palace had sufs and tambours with wooden walls-screens (typical for dwelling rooms) that in combination with wall painting, fretted wooden columns, friezes and ceilings imparted smart appearance to the interior. That was one of the Central Asia's largest classical palaces of the early Middle Ages.

The most remarkable is an architectural décor closely related to the fine arts. Masterly performed, rich in colors and content, the wall painting of reception halls and front corridors is an eloquent testimony to the unsurpassed craftsmanship of Ustrushana architects who conducted to create masterpieces unprecedented for the Central Asia's architecture in the reviewed period.

Imaginative and diverse, the architectural decor of the Afshin palace proved to a model for architects to lay down principles of the Tajik fine arts. Scores of ornamental motifs of the palace of Bundjikat rulers have continued to our days in the folk architecture of Northern Tajikistan.

The most worth seeing at the river Zeravshan’s going out into a broad valley is ancient Penjikent. This early medieval town's image was made clearer due to years-long explorations of the participants of the Tajik archaeological expedition, renowned researchers from Leningrad (St.-Petersburg), Moscow and Tajikistan, including A.Y. Yakubovskiy, M.M. Dyakonov, A.M. Belenitskiy, O.G. Bolshakova, I.B. Bentovich, B.I. Marshak, B.Y. Staviskiy, V.I. Raspopova, V.L.Voronina, Y.Y. Yakubov, A.I. Isakov, V. Shkoda et al.

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*Towns on the Great Silk Road along the Vakhsh river*
Of interest is the fact that over a short time of its existence the town experienced two principal construction periods when its layout underwent no changes, so did the nature of urban building. The town's structure included a citadel, a shahristan, suburban country estates and a necropolis. Lines of shahristan's walls, irregular in plan, were fitted with rectangular towers and gates from the south, west and east. The town was cut through by two main streets that come together near a town complex – temple buildings with courtyards [Belenitskiy, 1959; Belenitskiy in co-authorship, 1973; Voronina, 1960; Semenov, 1996].

Above 60 archaeological excavations on the site of ancient Penjikent provided new materials on the layout of the town. In particular, archaeologists found out that Penjikent arose as urban settlement in the 5 century when a defensive wall was built from the southern part. A settlement of earlier period, most probably, later ancient, is supposed to exist here. Above one third of shahristan and a half of the citadel were unearthed in ancient Penjikent.

The medieval town of the Central Asia has not been excavating and studied thoroughly as was ancient Penjikent. Note that Penjikent is a single town of the 5-8 centuries that has for above 60 years been regularly studied by researchers [Belenitskiy in co-authorship, 1971]. A unique fundamental material has been obtained to describe the town.

In describing buildings of Penjikent, A.M.Belenitskiy pointed out that "in terms of density of buildings when each structure sides with another and an outward wall of one building is attached to another, it was very difficult to divide the district into independent houses in some cases a supposed segmentation of house and grounds out of the whole tract is disputable or calls for additional research" (Belenitskiy, 1959). It should be added that though a considerable part of Penjikent has been excavated, there are no houses with rums of the second floor in a state of good preservation, that's why its very difficult to judge about the number of rooms. Nevertheless, houses of ancient Penjikent townspeople may be divided into three groups.
The first group includes ordinary houses with area of 36 to 100 sq.m; they dispose of no front room. The second group is comprised of house and grounds with area of 100 to 175 sq.m. Of 16 houses of this group, just one building, skillfully painted, had front rooms on the first floor. Houses of the third group had area of above 175 sq.m. The smallest building occupied about 330 sq.m and had a courtyard with area of 730 sq.m.

Of interest is a large house and grounds which is characterized by many indications of the palace of Penjikent ruler by its dimensions and structure. This building, area 2100 sq.m, was located in the north western part of object XVI.

The archaeological materials say that the Penjikent house was 2-storied, very rare – 3-storied. On the first floor there were front and household rooms, while dwelling rooms were located on the second floor.

Every rich house had its own front 4-column hall with area 25 to 100 sq.m. These halls had a stable internal layout. A sufa stretched along the walls to emphasize an Asiatic origin of house's master. Excavations revealed that most halls were noted for remarkable decoration of walls: they were covered with 3-tier multicolored painting. As a rule, a front corridor led to the whole, the walls of which were also painted. Sometimes there were a front ayvan and a vestibule to thus create an integral space. From a vestibule the tenants, using a ramp, went upstairs to the front rooms of the second floor. Most frequently, a domestic sanctuary with architecturally decorated altar on the wall and not infrequently flanked columns was located on the second floor. Note that walls of the sanctuary were often painted in black or red color. Tympanum of the sanctuary could have been decorated with fire figures. Perhaps, the sanctuary acted not only as a temple but also as worshipping of family idol.

The 2-storied house in question (object XVI) had 2 front halls on the first floor: multi-column with area 250 sq.m and 4-column with area 97 sq.m; front courtyard with area above 300 sq.m; three cult rooms. In all probability, one of them was a temple; another – a sanctuary of idols; the third – (room 21) – storehouse of sacred books. On the walls of the last room there were inscriptions in bad state of preservation, possibly, from sacred books of Sogdians. There were also unearthed blacksmith's rooms, workshops and a bazaar behind the western wall of the building. Note that 47 bulls- clay stamps that goes to show intensive economic activity of house's master. To all appearances, the master was the largest trader or dihkan of Penjikent.
Sometimes, houses retreated from “red line” of the street, and rows of trade and handicraft shops were placed in front of the houses; various goods were exhibited in broad passages and verandahs of semi-domical types. There were also intra-district bazaars. Two bazaars of this type were unearthed in Penjikent. A larger bazaar was behind the town’s walls.

Facades of rich houses had verandahs decorated with paintings, wooden fretted columns, doors, different figured friezes. For instance, an ornamental frieze of figured brickwork decorated the palace of Devashtich. To judge by paintings that depicted a building of temple type, upper floors were very stylish thanks to wooden balconies with tents, as well as friezes out of figured brickwork or wood. Roofs of rich houses had a parapet. In peaceful days it was used for household and everyday purposes; under military conditions it was used for defense of the abode. All types of rooms on the first floor are found frequently on the second floor as well, though there were residential, kitchen and rooms for storage of foodstuffs. There were few vaults on the second floor where wooden braced ceilings were prevalent. Walls of the third and partly second floors were of frame type. All aristocratic houses were individual. One-type houses are found in the buildings of ordinary and well-to-do townspeople.

Houses along the street are tight; no courtyards and vacant space for gardens are available. It was large householders that had small courtyards. Sometimes these courtyards had tents.

Ancient Penjikent. Temples I and II
along the walls that rested on columns; in some of them there was sufa along the walls. Each courtyard had a room attached to this courtyard.

It was years-long excavations in the shahristan of ancient Penjikent that enabled archaeologists to restore a general image of dwelling houses of citizens of different social status. One can say with certainty that a typical building of Penjikent citizen had already been established in the reviewed period. In front of the building there was a veranda with flat roofing or semi-domical portico in the form of deep niche. Many dwelling houses of the second floor had wooden balconies, verandah's and side windows-pendjara. Small bazaars were located in the town with the principal bazaar behind the town's walls.

The citadel was separated from the shahristan by a ditch and composed of a square courtyard and a residential tower-donjon on the natural platform. Front houses of the rulers of the town and the country were identified on the citadel where "the Sogdian king and Samarkand sovereign" Devashtich resided. Note that the latter was executed by Arabs in the 8 century. The palace included a suite of front halls decorated with multi-plot paintings and sculptures.

The Penjikent citadel consists of 2 parts in plan: a castle (internal structure) and a palace attached to it from the east (outward courtyard). Each of them is reinforced by a separate fortified wall; the castle is surrounded by a double line of walls from the south and the west. Note that the palace complex of Penjikent rulers is composed of front, household and barn rules. Pertaining to the front buildings is a throne-room with area of about 250 sq.m and three practically identical (10 x 7; 10 x 9.5; 10 x 11 m) halls. Attached to them is a front verandah, a
Prominent Archaeological Sites of Central Asia on the Great Silk Road

List of archaeological and architectural monuments of Hissar historical reserve

1. Hissar fortress
2. The Mosque Sangin
3. The madrasa Chashmai mohiyn
4. Tahjratkhona
5. Mahdumi/A'zam Mausoleum
6. The madrasa Kuhna
7. The madrasa Nav
8. Caravanserai
9. The gate of Fortress
10. Khodja Nazrullo
11. The mosque Odina
12. Anabkhona
13. The madrasa Koriyon
14. The mosque Charrgaron
15. Garmoba
16. The mosque Kholgaron
17. Medieval urban walls
18. Untitled

Corridor and a vaulted room. Remains of paints on the surface of the walls make it possible to suppose that all front rooms had once been decorated with multi-color paintings (Isakov, 1977, p.119-120, fig.31, 42; 1982. Fig.31).

The analysis of shahristan’s structure at its earliest stage of development made it possible to identify a regular rectangle with three gates where the southern one had private reinforcement. Such a placement of shahristan’s gates is indicative of regular planning basis of the town. Sectors of streets that restricted residential districts testify to their rectangular net oriented according to the cardinal points. When expanding the town, its plan underwent changes and became complicated, however, a regular nature of street net design remained unaltered (Gurevich, 1977, p.59-60; 1979; p.37-41). Despite integral nature of dwelling, public and industrial buildings, nearly each dwelling cell had a large front hole decorated with multi-plot paintings. Note that the hall was lit from above by dint of complex wooden constructions that frequently rose above other structures. A town-planning emphasis was laid on a square in front of which two temples with extensive porticos were located (Mukimov in co-authorship, 1990. Fig. 17, 19).

Two monumental temples on high platforms with wide lent-toes on columns were unearthed in ancient Penjikent. They were founded in the 6 century on the territory of an initial town. Remains of park with canals and decorative water reservoir were dug out in the courtyard of the temples. Courtyard space was so vast that in the 5 century it occupied about 1/6 of area. It goes to show that Penjikent was not only administrative center but also a cult complex of the region (Voronina, 1957; 1960).

The temples above consisted of a central 4-column hall looking a portico of verandah-cella behind the whole on a basic axis, and a bypass gallery. The buildings are lifted on the platform with a gentle ramp in the width of the façade. The cella of both temples had a wooden coating and flat earthly roofing. The northern building is slightly larger from the southern one, and both are made of raw product. The most important parts of the temples were 4-column halls richly decorated with wall paintings on secular and cult topics, fretwork painted in clay statues.
As viewed by A.Y. Yakubovskiy, the temple complex was devoted to the cult of Siyavush, as evidenced, to his thinking, by plots of wall paintings. Other versions were put forward as well, for instance, about temples' belonging to the local, eastern variant of Zoroastrian cult (The History of the Tajik People, vol. 2, p. 208; Yakubovskiy, 1951, p. 255) or about the public destination of the complexes above (Khmelnitskiy, 1977, p. 408-416). In A.Y. Yakubovskiy’s opinion, Penjikent was a religious center that united the sanctuaries from all over the district and a powerful cult complex that caused concentration of urban settlement. V.L. Voronina believes that Penjikent was a point of trade exchange on the Karavan route from mountain valleys to Samarkand and other towns (Voronina, 1957, p. 118). Y.Yakubov is prone to think that Penjikent temples with their ayvan-like halls and sufas, like palace chapels, of identical plan eastwards, toward the solar light, designed for demonstration of idols and installation of deity statues. Located in the western wall of both halls, the 2 niches were intended for sculpture, like halls and ayvans rising above the courtyard (like a theatrical scene). All these bear out researcher's point of view that they were homes of deities, as referred to by Narshahi, Tabari and others (Yakubov, 1966, p. 65-66). Of the same view is V. Shkoda (2008, p. 124).

In the 1990s, a fragment of large clay sculpture of goddess on a lion was discovered at the entrance group to the temple courtyards, and in 1995, a remarkable relief with Indian gods Shiva and Parvati on a bull was unearthed. All these were indicative of close Sogdian-Indian ties. Excavations of the last years made it possible to identify new materials to interpret designation of separate parts of the temples. On the basis of thorough research into temple’s cella, B.I. Marshak offered that it was fitted with a hoisting device. Thus, a deity or his painting could have ascended to heavens with the help of a sophisticated device when performing rituals on wall’s cella in front of the entrance. The facts of this sort are known from theatrical performances of ancient Greece that had later been adopted by Byzantines. Note that Sogdian merchants and diplomats that visited Byzantine with its theatrical performances using a scenic mechanism could have familiarized themselves with this sophisticated device.
In addition to the shahristan and the citadel, archaeologists explored suburban estates and a necropolis of the town. Useful medieval materials on the history of the town in the 5-8 centuries were also obtained.

The fortress Khisor, or Khisortepa was a place of residence of district's ruler. First ever, the monument arrested attention in the 14-15 centuries due to the name of town Khisor as referred to in the works devoted to the reign of Timur. Note that the Timur's arsenal was stored at the said fortress.

Archeological excavations on an area of the eminence enabled researchers to discover the earliest abodes going back to the 10 century BC Since that period, no life has ever ceased on the territory throughout 30 centuries. At the turn of our era the urban settlement in Khisor was engaged in handicrafts, including weaving, metal-working and ceramic production. By this period, the town consisted the shahristan and the citadel situated on top of the eastern hill (the site had several defensive lines, including an outward water-filled ditch and high (4-5 m) thick pahs walls, fortified gates southwards, additional intra-urban defensive works. Subsequently, as a result of military-political events (invasion of Turkic armies in the 6 century; Arab caliphate in the 7 century, etc.) the site had repeatedly been destroyed and reborn. Gradually (in the 11-12 centuries), a rabad developed from the southern and eastern sides of the fortress, on the basis of which a medieval town of Khisor with outward defensive walls, 5 km long (they are still extant in fragments).

In the 15-16 centuries, Khisor was a large, well fortified densely populated town with four gates: Darvozai Hoki Safed in the east, Darvozai Shahari in the south, Darvozai Gozien in the west and Darvozai Chashmai Mohien in the north. A town square came to form at the foot of entrance gates to the Khisor fortress. It was Registan with a madrasah, a caravanserai, shopping streets – Rasta, etc. Meanwhile, a residence of town's ruler was located in the citadel, while a neglected ancient shahristan on a lower terrace of the eminence was responsible for the state apparatus. Domestic constructions, barracks and other auxiliary premises were located on the site.

The most reliable information about the Khisor fortress goes back to the 19 century. In the reviewed period there was a palace of Khisor bek on top of the eastern hill built by Amir Muzaffar for his son earlier 1870s. A steep and wide road led to the hill; it was laid on the western slope of the hill in the form of serpentine. Straight at the foundation of the palace there was an external belt of fortifications with monumental entrance gates flanked by to towers built
in the 14-15 centuries. Later 18 century they were substituted for new gates built down from the old ones in their likeness.

These include a composition traditional for fortified structures, including cylindrical towers with etnasis that protruded from wall's plane and flanking a high lancet-formed arch of the central passage to the fortification. Watch-houses were located along the sides of the passage in the form of a corridor with domical roofing. Blind massive of external towers end with small, round in plan, rooms of defensive designation. Six loopholes for firing are located in the walls of these rooms. The foundation of the towers is made of roughly trimmed stone blocks. A width of entrance gates between the two towers is 4.5 m. Panels of the gates not extant hitherto were fixed on cheek walls of the arch. In the 1970s, restoration operations were over, following which the monumental gates came as large as life and impressed detached onlookers with their might, scale and grandeur.

One of the oldest towns on the Silk Road was Khulbuk (modern Kurbonshaid), the capital of the state Khuttal (Khatlon) in the 9-11 centuries. Excavations had been underway here for 30 years to discover a rich palace complex consisting of two parts: an elevated citadel and living quarters with roomy courtyards made of burnt brickwork, a large theatre and a mosque. Interiors were richly decorated with fretted gunch, paintings of humans, animals, skillfully woven in the ornamental characters.

Impressive is a well though-out system of heating in the form of underground air pipes, water supply and sewage, as well as constructively original palace bath-house. A fragment of broken portal of the entrance group of complex decorated with refined Arabic inscription has recently been discovered.

It should be noted that the Khulbuk palace, like Samanide structures of Bukhara and Samarkand (9-10 centuries), was not inferior to the caliph' palaces of the Arab world in their décor and amenities.

Area of the town was about 70 he. The citadel was located on its south-western outskirts. A Khulbuk's object of note was a palace of the Khuttal ruler with a square courtyard in the middle. A floor of the courtyard was skillfully paved with burnt brick; a deep well with a small mouth for drainage of melt water was in its center. A covered gallery with columns traversed the courtyard where doors and windows of the palace went out. Walls and ceilings were nicely and richly decorated. An architectural décor of the palace is somewhat supplemented by fragments of column order with fretted alabaster capitals with lion pictures, as well as three-quaternary alabaster columns and identical alabaster blocks with inscriptions in kufi, etc. The

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Diagram of "Temple of Oks. Scheme"
palace under the floor had a purification brick canal and a central heating system in the form of mutually connected ceramic pipes.

The citadel is located in the south-western part of the site and protruded far towards the valley. According to archaeologist E.Gulyamova, the choice of the site is accounted for by the fact that the façade plane with a portal as mihrab opened towards densely populated Urtaboz, where monuments – Zoli-Zard, Sayyod and Guliston. Behind Khulbuk, there were located well-known monuments Manzara, Kaynar, Dashtidili, Imom-Ali, etc. It was the capital's location in the bend of the river Suhrob that reliably defended the town.

The portal having been reconstructed on the basis of fragments of the entrance part of the structure has a total height at 13,35 m; width – 8,6 m; width of the entrance is 2,85 m; and a U-shaped frame of several tracks: brick in one row with alternation of the whole and the half; a coupled brick put on a rib to form a pattern of liander, special bricks with a burnt kufic inscription; a coupled brick. Archivolt is supported by a three-quaternary column. The tympanum is decorated with brickwork of geometrical pattern: a stroke on a square net, there is a trowel above the door made of brickwork with a kufic inscription. Brick is in two rows, seven pieces in each. As distinct from inscriptions that frame the portal with their strict size, letters on travels are somewhat narrowed and strongly elongated. A general view of the portal in the plane dissected by rectangular and circular pylons and counterforts is monumental.

A graphic reconstruction of the portal entrance to the citadel of Khulbuk revealed remarkable distinctions. It proved the use of portal in the Central Asian architecture. This architectural component is known to shape after the 10 century (mausoleums Arab-Ata in Tim, Mir-Said-Bahrom in Kermin, etc.).

Buddhism that arose in India and Afghanistan peacefully co-existed here in the first centuries AD with Zoroastrianism and Manichaeism. A brilliant monument of the Buddhist architecture and art is a temple-monastery complex of the 7-8 centuries Ajinatepa near a modern town Kurgan-Tyube. A two-courtyard composition of the complex was built by perimeter with domical and vaulted rooms. Excavations uncovered the south-eastern part of the monument was owned by the monastery complex. It operated for about one hundred years, during which Ajinatepa was populated by Buddhist monks and used to comply with cult purposes. The complex ceased to operate due to the expansion of Arab armies in the middle of the 8 century. The north-western part pursued primarily cult purposes. There was a stupa in the center of the courtyard. A sculpture of Buddha was discovered in Nirvana in one of the corridors (12,8 m long). Walls of this part of the complex were all over covered with paintings, while sculptural pictures of Buddha were installed deep niches.

A building was erected to comply with a single plan within the limits of each part. A monastic half, like a temple part, has a
Tajikistan

Ajinatepa. Graphic reconstruction of the Buddha with a corridor

courtyard 4-ayvan planning composition, i.e. ayvan was located in the middle of the courtyard’s square (a room with three walls looking the courtyard); a back wall was connected with a square (or sub-square) “cella”. These coupled rooms are symmetrical to each other. A stupa in the middle of the courtyard is a single compositional distinction of the temple part of the building. A lower part of the stupa is a square (14 x 14 m) pahs stylobat with multi-angular and stepped foundation. Fragments of staircase to go up to the stupa are preserved in the middle of the south-eastern front. Steps were coated with alabaster and, perhaps, riveted with burnt brick. Ceramic pipes must have been laid under them to serve as drainage and placed into a case of burnt brick plates. As a whole, the stupa had a cross-shed plan with a pahs monolith inside closed from the above by brickwork up to 1 cm thick. A brick drum, or hemisphere rose above a pahs stylobat.

Note that cranked corridors were arranged around the courtyard (each “knee” is 16-16,5 m long and 3,2-3,4 m wide; that’s much greater than corridors of the monastic half). Each “knee” had two arched apertures to get into the courtyard and then to the stupa. Fragments of polychrome painting were uncovered on the surface of the walls. Initially, there were light wooden galleries on the façade part of the courtyard.

The central sanctuary is located in axis with room-1 on the opposite side of the complex; it is slightly “attached” closer to the stupa, and one of the seven premises of this face opens up via the ayvan to the courtyard that surrounds the stupa. Dimensions of the room are 4,35 x 4,25 m; a flooring was of domical type.

Note that the general composition layout of the structure is strict. Each of the two parts of the complex is in line with 4-ayvan-courtyard composition. There is a difference between these parts, for instance, stupa’s space rose above the temple part in the center of the courtyard, while no difference was found in the monastic part. All segmentations are strictly symmetrical. A typical example is a geometrical regularity of many rooms not only with their sides but corners as well having been distributed precisely.
Thus, the architecture of Adjinatepa runs into centuries; architectural-engineering devices and solutions used by builders of Adjinatep are inseparably connected with the Central Asian architecture of the 6-8 centuries. In other words, architects of the developed Middle Ages owe much to their predecessors – creators of monumental structures of mudbrick [Litvinskiy in co-authorship, 1971].

Tahti Sangin – temple of Oks. One of the most interesting temples of Bactria – temple Tahti Sangin (4 century BC), sensation second to the “Oks treasure”, was unearthed at the confluence of the rivers Vahsh and Pyandj where the greatest river of the Central Asia - Amu Darya – ancient Oks springs from. Researchers B.A. Litvinskiy and I.R. Pichikyan point out that the Hellenistic tradition is clearly traced in the architecture of the temple Oks: columnar portico, combination of capitals of Ionian style and toroidal bases of the eastern order. Excavations of the monument (a temple courtyard 60 x 21 m) showed that a focus has top be laid on small rooms abutting upon a square 4-column hall from the two sides of the façade. These, so-called “atashgah” (eternal flame depository) are one of the most essential components of internal structure of Iranian fire temples. As viewed by researchers, the temple Oks’ layout (4-column hall, bypass corridor, atashgahs and columnar ayvan) was made possible due to efforts of an architect who followed traditions of the eastern voluminous-compositional practice of the construction of cult buildings, particularly, a temple of fire. Excavation materials enabled researchers to ascertain the date of temple activity: 3 century BC – 3-4 centuries AD. The temple existed for above 6 centuries to worship Oks, a deity that patronized the water element. In some researchers’ opinion (Masov, Ranov, Litvinskiy), the temple Oks was central for the whole region, the cult of fire was not single one. In particular, not only local residents – Bactrians but Greeks as well did perform rituals here.

The temple was built to comply with the eastern Iranian traditions with elements of the Greek columnar order, including a broad ayvan on columns, 4-column hall of the temple. Numerous finds were discovered to include a sculpture, splendid fretted ivory, musical instruments, stone altars. These finds were exhibited at the museums of Switzerland, Germany, Holland, Italy and attracted attention of numerous connoisseurs of ancient oriental art. A message through the centuries said: “Votive, Atrosok dedicated to Oks” left by Bactrian Atrosok (Burning on fire) on a stone altar together with a sculpture of selen Marcia playing a flute. Archaeologists suggested that “Oks treasure” exhibits from the British Museum are attributes of the temple Tahti Sangin treasure.

The fortress Yamchun. One of the Silk Road routes traversed Mountain Badakhshan called the Pamir Great Road with three branches: Vahan, Shugnan and Karategino-Pamir. A group of principalities with unassailable fortresses was located on Karategino- Pamir branch. One of the oldest and large fortresses is located at 76 km of the trade route above the village Yamchun. The Pamir’s largest fortress Yamchun rises above a rocky steep separated from the main massive of the Vahan ridge by deep gorges along the two mountain torrents – Vakhut from the west and Yamchun from the east. Fortress’ walls are reinforced by 39 towers. The towers (maximum height is 6 m) are of two types: truncated cone, round in plan, and truncated pyramid, rectangular in plan. The walls and the towers have slit-like loopholes in three rows. No external wall is available from the north-eastern side, since the slope is absolutely impregnable. Impressive are dimensions of the structure. The western wall is 800 m long; the south-eastern wall is 400 m long.
The fortress consists of three parts. The first, walled section is in the south-eastern corner of the bench on the bank of the river Yamchun. A path from the southern side leads to the entrance. The gates are reinforced by two towers. Through a vacant space via gates in the north-western wall one can get into a territory on the next, largest square (some researchers are prone to call it the first). Noteworthy is an entrance one has got into. It is located not in line with a wall, as was with the first entrance, but as if put inside. Owing to such a structure, the entrance was safely protected. Besides, gates' protection was reinforced at the expense of two towers situated 15 m one from another. From them, two walls lead inside the fortress, nearly 10 m long. Walls that surround the square are double with inter-wall corridors, sometimes separated into compartments by bulkheads.

A typical distinction of the walls and towers on the section is slit-like loopholes looking inside the fortress to thus reinforce the defense. Traversing the square (traces of some structures are noticeable in the center only) and walking nearly 0,5 km on the straightaway, one can reach a flat top of the slope. A citadel, triangular in plan, is located here with area of 2,000 sq. m. Rises above a valley level by 600 m. No clear-cut entrance is available; it is destroyed. The citadel has several structures inside; remaining space is vacant. A part of the wall, about 9 m high, is extant. A parapet's area is a platform, dimensions: 1,5 x 2 m. Its height from the foot of the fortress exteriorly is 10 m. The platform is fenced with a wall, 0,5 m thick, from the western and northern sides. Note that a part of structures was built of stone only. Of interest is the fact that there are structures that combine a stone foundation with mudbrick walls identifiable with those used in the fortress Kaakha, 75 km from Yamchun. Chronologically, the fortress Yamchun is synchronous to the fortress Kaakha and followed the same purposes; ceased to exist in the 7 century AD. According to written sources, the fortress was erected by rulers of Vahan in front of their ancient capital Khandut on the left bank of the river Pyandj (modern village Khandut) to ensure security during the war. The town Khandut had first ever been mentioned as Khuntoda in the notes of Suang Tsyan. The probability remains that Khuitodo (Khandut) was the ancient capital of Vhan later taken to Ishkashim. Small-scale excavations in the fortress provided materials suffice for dating: 3-1 centuries BC – 7 centuries AD [Bubnova, 2007, p. 231-232].

Thus, by giving several examples (far from exhaustive) we presented outstanding monuments of archaeology and architecture located on the Silk Road, territory of modern Tajikistan.