



Archaeological research on the Kanka fortress city: between nomads and farmers

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ABSTRACT

The settlement of Kanka is one of the largest urban centres on the right bank of the Syrdarya. It comprises a citadel, three shakhristans, each surrounded on three sides by defensive walls, and a suburb of rabad. The fourth side of the settlement bordered the riverbank, along which a wall also ran. A significant object, discovered during the excavations of Shakhristan 1 was the city temple, which was a large monumental structure. The core of the temple complex was a square hall surrounded by bypass corridors. The walls of the temple were decorated with paintings and relief moldings. New research in the settlement was conducted on the eastern part of the city temple, the supposed entrance part site of the temple complex. The archaeological excavations at the Kanka monument have yielded insights into the lifestyle of an outpost city situated at the border of the territories of nomads, pastoralists, and farmers in ancient Central Asia. The findings indicate that ancient nomadic populations likely played a significant role in the dissemination of scientific progress. Through their extensive migrations and cultural interactions, they could have served as conduits for exchanging knowledge and technological innovations among disparate regions.

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Introduction

The ancient settlement of Kanka is one of the largest urban centers on the right bank of the Syrdarya and one of the oldest urban centers of the Tashkent oasis (Chach). The ruins of the ancient settlement are located 70 km southwest of Tashkent, on the left bank of the old channel of the Akhangaran, and 10-12 km from the Syrdarya River [coordinates 40°48'09.65» n.l. and 68°58'58.60» e.l.]. The ancient settlement is administratively located in the Akkurgan district of Tashkent region.

The city existed from the end of the 4th century BC to the 12th century AD and is identified by researchers with Antioch of Yaksart (in ancient sources), Yueni, Shi-Zheshi (in Chinese sources) and Harashket (in medieval sources) (Bichurin, 1950: 186-187). According to sources, Antiochus I Soter, who considered himself the successor of Alexander the Great, also tried to expand and strengthen the empire's territories. Additionally, he, like Alexander, carried out creative work on the territory of the empire and built several cities. Antioch, founded behind the Yaksart-Syrdarya (in some sources it is called Tanais), is one of such cities. As Pliny reports, during the period of active Scythian attacks, as a countermeasure, the strategist of Seleucus and Antiochus Demodamus (293-280 B.C.) made a campaign against them behind Iaxartes and «erected an altar to Apollo at Didyma behind it» (Pliny, VI: 18, 49).

The ancient settlement of Kanka was built in the style of ancient fortresses in the form of a square with a square citadel. Not by chance that its earliest fortifications were built of square bricks, which is not characteristic of the Tashkent oasis, but was widely used in Sogd and Bactria during the spread of Hellenism. The finds of Sogdian-type ceramics in its lower layers are also interesting. Relating to the same period.

The first mention of the Kanka archaeological site dates back to 1868 when the Russian battle painter V.V. Vereshchagin documented its existence. Subsequently, in 1896, members of the Turkestan Circle of Amateur Archaeologists, E.T. Smirnov and I.A. Belyaev, visited and inspected the site during their expedition to Shahruhiya. However, the precise member of the Turkestan Circle of Amateur Archaeologi who attempted archaeological excavations at the beginning of the 20th century remains undetermined. In 1934, M.E. Masson conducted a survey, resulting in the creation of a topographic plan of the monument and its identification with Harashket (Masson, 1953). However, it was not until 1957 that the site was re-surveyed by a team from the Museum of the History of the Peoples of Uzbekistan.

In 1966, Kanka was included in the archaeological map of the Tashkent region by the Chatkal-Kuramin detachment of the Academy of Sciences of the Republic of Uzbekistan. The first archaeological excavations at the site began in the period from 1969 to 1972, conducted by the Main Directorate for the Protection of Monuments of the Ministry of Culture under the direction of K. Abdulloyev (Abdulloyev, 1975).

Since 1974, the site has become a subject of study for the Institute of Archaeology of the Academy of Sciences of the Republic of Uzbekistan. Large-scale planographic and stratigraphic research of various parts of the site and its environs was conducted from 1974 to 1996 (Buryakov, 1975; Ancient and Medieval..., 1990; Buryakov, Bogomolov, 1990). During this

period, the results of the research were actively published (Bogomolov, 1995; Abdullaev, 1974: 45-47; Bogomolov, Gendelman, 1990; Bogomolov, Gendelman, 1991; Bogomolov, Musakaeva, 2020).

From 2003 to 2009, periodic archaeological work was carried out on-site by the archaeological detachment of the Main Scientific Production Unit of Cultural Heritage Objects of the Ministry of Culture and Sports of the Republic of Uzbekistan (Ashirov, Sheiko, 2004). In 2007–2008 and 2010, small-scale excavations were conducted at the site by the Department of Archaeology of the National University named after Ulugbek in collaboration with the Institute of History of the Academy of Sciences of Uzbekistan. In 2009-2010, large planigraphic excavations were carried out in the eastern and southeastern parts of Shahrستان III (Gritsina, 2016).

Since 2021, the site has once again become a focal point of research for the National Center for Archaeology of Uzbekistan, Academy of Sciences of Uzbekistan. Archaeological research of the ancient settlement of Kanka in 2021 was carried out in the first shahrستان, east of the citadel (Fig.1). Here, in the 80s of the 20th century, a temple dating back to the III-VI centuries AD was opened (Buryakov, Bogomolov, 2009: 21-25). Main objective of the new researches on this site is to study the infrastructure of the city temple and further identify the elements of Hellenic architecture (Buryakov, 1983: 103-104). For this purpose, the area in the eastern part of the temple was taken as an excavation site.



Figure 1. Plan of the ancient settlement of Kanka

Material and methods

The primary aim of the new research on the monument was to comprehensively investigate the history of the city's main temple. The task was to delve into its ancient origins and to uncover how this pivotal part of the city evolved during later periods. It holds significance in unveiling the societal life of Chach in the early and developed medieval periods, bridging the worlds of farmers and pastoralists. This region occupied a crucial position in the process of adaptation of nomadic pastoralists to new natural conditions, social, and cultural environments. It is essential to elucidate the transformation process that occurred in the lives of the inhabitants of Chach during the spread of the new ideological idea – Islam – in the 8th century.

As a result of the excavations, several construction horizons were revealed, reflecting a complex picture of the habitation of this part of the settlement.

The upper building period is represented by an excavated shallow oval-shaped structure and numerous utility pits with almost identical dimensions. Usually, such remnants of the structure remain from temporary dwellings - yurts of cattle breeders. Most of the pits are concentrated to the south, in the immediate vicinity of the dwelling. The place of the yurt itself has a trapezoidal shape, measuring 4.05x2.7 m (in the southern part) and 1.8 m in the north. In the center of its southern wall, an entrance and descent were arranged, from which a narrow step has been preserved. The floor level of the dwelling is uneven and bumpy. To the west of the entrance, there is a patch of pink, a faint trace of burning, possibly from a fire pit that burned for a short time. According to the findings, this stage can be dated to the 14th-16th centuries.

Buildings of the Late Karakhanid period. As it turned out, during the construction of the place for the yurt, a part of the wall of the next underlying horizon was cut off. Its construction remains are badly destroyed and have been preserved to a low height (up to a maximum of 30-40 cm). This is partly due to the low quality of construction, often using bricks and their halves from earlier designs. It can be assumed that there were at least four rooms functioning here. Only at one of them (qv-2), in the center, one room is completely opened, all other rooms are either not fully preserved or go beyond the excavation boundaries. In the central room (kv-2), along the northern wall, 0.7 m wide (preserved to a height of 34 cm), three holes were cleared in a row along the wall from the pillars that supported the ceiling. The buildings in the eastern part of the excavation (qv-3-4) are badly destroyed. In two households, separated by a wall, hearths made of burnt bricks and their halves, placed on the edge, were found (Fig. 2). From the house in the north-east corner (kv-3) there are two rooms separated by a wall.



Figure 2. Hall of the «mosque»

In the northern corner, a large burnt spot covered with a thick layer of ash, almost 1.5 cm thick, was cleared. The dimensions of the hearth are 80 cm wide, 1.18 m long with the podium. The inner part of the hearth is 45x40 cm. Its northern part is a podium (tray), the inner surface of which is deepened by 4-6 cm. The walls are lined with burnt bricks in two lines and form a U-shaped frame border. The last open part adjoins the hearth itself. The hearth is made of mud bricks and rises slightly above the podium. The inner surface of the podium was paved with burnt bricks flat, but its northern part is preserved only. Moreover, the side walls of the podium rim are separated by a brick insert ('butterfly'), a technique characteristic of the 12th century. The dimensions of the bricks are 32x?x4 cm.

The third construction period. The new building horizon is also represented by four rooms. In the center (kv-1-2), the household consisted of three premises (which were identified). The household was bounded on the east by a pakhsa wall adjacent to the eastern households. Along this wall was a corridor 10.55 meters long, which led out of the excavation in its northern part. On the sides, the corridor would be bounded by two lines of burnt bricks, laid flat and joined with a poke (Fig. 2). The space between them was occupied by a figured callout (laid out in an angle). Dimensions of burnt bricks 30x14x4cm, 29x14x4 cm. In the southern part, a rectangular room (4.65x2.7 m) adjoined the corridor (along its entire width). The tazar was built almost in the center, but closer to the southern wall. Its walls were made of bricks placed on the edge of the wall. And the outer edge of this lining is encircled by an

additional line of brick. The room floor was also covered with brick paving, and it is uneven, noticeably lowering towards the tazar. Dimensions of burnt bricks 28x14x3 cm, 30x14x3 cm. The northern wall is quite thin, 35 cm wide, and its bottom is made of burnt bricks. The masonry is preserved up to 3-4 rows of bricks in some places. The dimensions of the bricks of the wall of the room are 20x4 cm. The upper part of the wall can be made in the form of «sinch» (Kubaev, 2022: 119-154).

Unfortunately, it was noticeably damaged by a late pit in the later period. The neighboring room is large, rectangular in shape (2.95x4.8m). Its floor surface is 4-6 cm above the corridor level. The floor is dense, it is a monolithic pakhsa-clay mass. In the center, near the southern wall, a large pit descended from above, partially destroying the wall. Probably, the room was separated from the corridor from the east by a thin wall, but the latter has not been preserved. Behind the northern wall, a part of another room was cleared, where the remains of two fires were found. Near one of them, almost an entire ceramic cauldron has been cleared. It is possible that this utility room (kitchen) had access to the corridor and was connected to the central household.

In the eastern part of the excavation (qv-3-4) the remains of two rooms were also identified. In the northern (north-eastern) part, there is a narrow corridor framed by a one-brick adobe wall and with a figured burnt brick on the floor. The corridor continues to the east (going into the wall of the excavation). In the south-eastern part of the excavation, a third household was revealed. It is represented by a large room (or courtyard), the surface of which bears the remains of its burnt brick (in an oblique grid), its separate sections are cleared in the south-eastern corner of the excavation. From the south, the room was bounded by a narrow corridor stretching along the west-east line. The floor of the corridor was covered with burnt brick pavement. The base of the walls is made of burnt bricks, joined in a row with a long side. Most of the pavement was dismantled in the medieval period. The material collected from this level allows us to date it to the second half of the 11th-early 12th centuries.

The fourth construction period. Further excavations showed that there was a huge hall 14 m long and 6.5 m wide at this site, and the walls of the hall were 1.10 m thick. In the third period of construction, the hall consisted of two parts, the southern part was covered with a brick floor. On the western wall of the room, a space 1.5x2 m wide was separated by two rows of bricks. There are many pieces of burnt wood in this place. Some of them are comparatively well preserved, and the upper part was a panel with a carved pattern.

And on the eastern part of the excavation, 2 underground chambers were discovered, stretched along the west-east line. The total length of the first structure (including the chamber) is 3.05 m (Fig. 3). The chamber itself is almost rectangular in shape 124x85 cm and 125 cm high. One of them, opposite the entrance, is 30 cm wide, 22 cm high and 23 cm deep. The second is dug in the northern wall of the chamber, its width is 70 cm, depth 32 cm and height 47 cm. The manhole is 192 cm long, the width is not the same, in the western part it is 40-44 cm, closer to the chamber it widens to 88 cm, the width of the passage to the chamber is 65 cm. At the western end of the manhole there is a rather stepped descent of five steps, all of which are badly worn. Then from the bottom step to the entrance to the chamber - 110 cm. The floor level drops slightly sloping to the chamber. The floor in the chamber is 10 cm below the bottom of the manhole. It is unusual that the walls of the manhole are lined with

pakhsa blocks 40-42 cm long, 20 cm wide and 25 cm high. In the chamber, two jugs, several fragmented vessels, and half of a seashell sawn in half, which apparently served for libations, were cleared. The ceramics obtained from the cellar date back to the 7th-8th centuries AD.

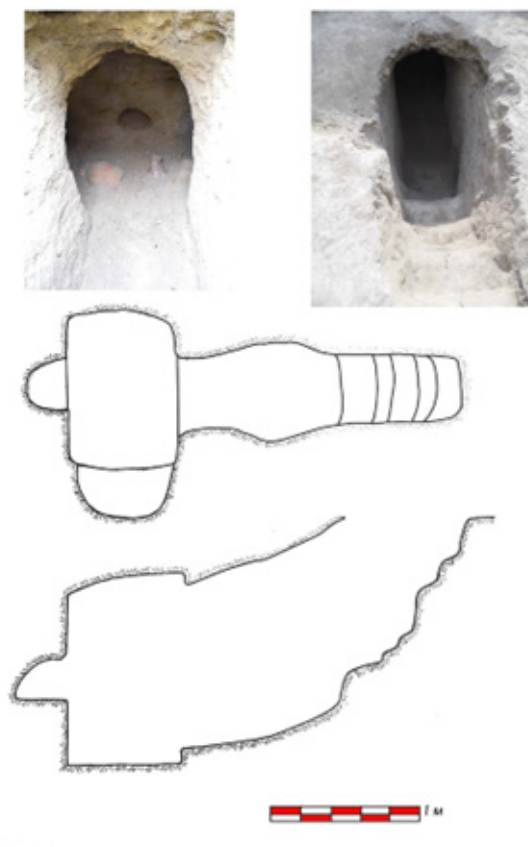


Figure 3. No.1 basement in the excavation area

The second structure is located 4 m north of the first cellar. The dimensions of the structure are much different in size from the first cellar. The building is also built in a west-east direction and with a corridor leading downstairs, as well as storage rooms. The corridor was 3 m long, and here the width is also not the same, in the western part it is 50-60 cm, closer to the chamber it widens to 90 cm. The width of the passage to the chamber itself is 1 m, the height reaches 1.20 cm. The floor in the chamber is 10 cm below the bottom of the manhole. The chamber itself is almost circular with a diameter of 3 m and a height of 150 cm. The width of the corridor reaches 0.90 cm. The floor of the vault is located 10 cm below the floor of the corridor and is plastered with straw clay. At the junction of the corridor with the underground storage, horse equipment was found in one place: horseshoes, stirrups, and an iron handle of an unknown object. The cleared part of the floor of the structure does not contain any finds that can be assessed as in situ.

In the south-western part of the hall, next to the mihrab, there is a place that goes under the floor of the room, and a small room measuring 3x2 m was made. On the northern wall of

this room, a conical device 1.5 m high was made (Fig. 4). The width of the device is 50 cm at the top and 1.20 cm at the bottom. The inside of the cone-shaped device is filled with pieces of mud brick. Some pieces of mud bricks turned red when exposed to the fire. Accordingly, it can be assumed that the interior of the device was once lined with burnt bricks. Subsequent seismic changes caused the bricks to shift and fill the interior of the structure. There are no findings inside the device. Only a metal object was taken near the floor. The product consists of a round main part and a 4 cm long handle. Total length 14 cm.

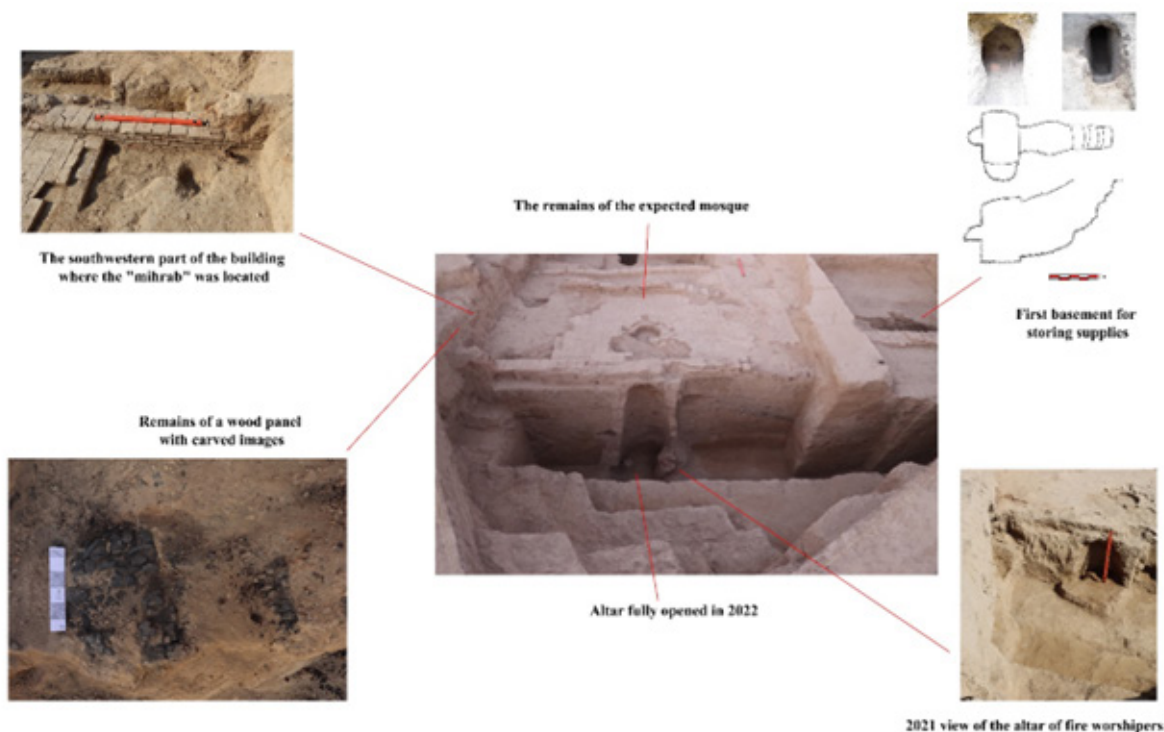


Figure 4. General view of the excavation from the period of the spread of Islam and the Karakhanid period

The sizable hall, erected during the fourth phase of construction, is attributed to the 8th-9th centuries, as evidenced by discoveries unearthed from the primary basement. Corroborating our assertion are the structural characteristics of the hall, featuring thatched walls measuring 14x6.5 meters and with a thickness of 1.10 meters. It is noteworthy that during subsequent periods, a prevailing trend emerged wherein walls of such grand edifices were commonly constructed using brick and stone, marking a discernible shift in architectural practices.

Analysis Socio-cultural adaptation

Thus new archaeological research in Shahrستان I has shown almost continuous settlement of the site from the Early Middle Ages to the end of the 12th century, then a period of abandonment and an attempt at new settlement in the 14th-16th centuries. The materials

obtained from the remnant of the architectural structure also provide interesting data on the everyday life of the people who lived in the Middle Ages.

The discovery of a yurt belonging to nomads in the 14th-15th centuries testifies to the fact that nomadic herders lived in this territory, nowadays occupied by agricultural fields. In the 8th century, for reasons yet to be fully understood, the precinct of the fire-worshipper temple was demolished and leveled, upon which a new enormous hall was constructed. Erected in the late 8th to early 9th century, this hall, with minor modifications, continued to function until the 13th century. The new building deviated from the previous east-west orientation of the temple, being constructed in a north-south direction. Therefore, this process, namely the destruction of the fire-worshipper temple, could be linked to the Arab invasion of Chach during this period. According to sources, Chach was conquered during the Arab campaigns of 739 CE. As was customary in all regions under Arab caliphate rule, proponents of the new religion often commenced with the destruction of temples of the old faith to facilitate the spread of Islam. It is conceivable that a new mosque was swiftly constructed on the site of the fire-worshipper temple, serving the interests of the ruling authority (5-fig.). A similar situation was observed in Samarkand and Paykent, where mosques replaced fire-worshipper temples.

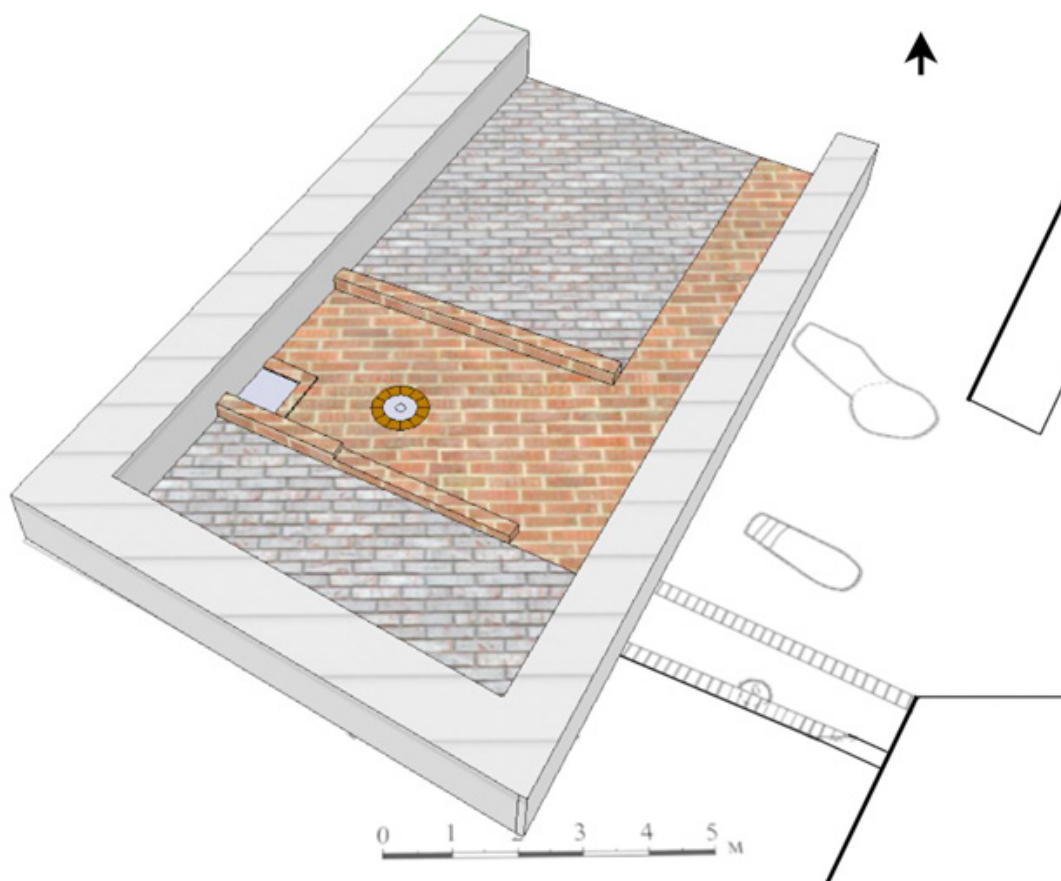


Figure 5. Reconstructing the Architectural Layout of a Public Structure

During the 2022 research, the discovery of a carved wooden space measuring 1.5x2 meters on the western wall of the hall further reinforced our interpretation. The sumptuous decoration of this space led to the assumption that it served as a 'mihrab'. The 'mosque' consisted of a vast hall and surrounding ancillary rooms. Particularly, in the eastern part of the hall, there were utility rooms and two underground storage areas.

The construction from the fourth period, found beneath the floor of the mosque, provides valuable insights into the social and cultural life of the population. In 2021, speculation arose that this structure might have been a kiln. However, its structure and dimensions necessitated a reassessment of these assumptions. Notably, no hearths typical of such constructions were observed. Discoveries from the inner part of this structure were scarce, with the interior primarily filled with partially burnt raw bricks. The fact that a majority of these bricks were charred on one side suggests they were used to line the interior of a building. Moreover, this structure cannot be identified as a pottery kiln. Typically, the inner chamber of pottery kilns is enclosed to attain high temperatures, with only openings for air intake and fuel placement. Additionally, signs of reddening or even melting of kiln walls or brick kilns due to intense heat are usually observed. The absence of such indications in the Kanka structure suggests it was not intended for this purpose.

However, according to historical sources, the conversion process of Central Asian peoples to Islam was challenging. Some populations retained their old religions for a time. In particular, sources mention places in Bukhara and Samarkand where idols were sold. Therefore, it is plausible that the structure uncovered at the Kanka monument could have served this purpose. That is, even during the existence of the new religion, a group of people may have continued to worship fire, constructing a «hidden» shrine beneath the mosque at the site of their ancestors' temple. Thus, it can be inferred that the process of spreading the new religion in Chach was neither rapid nor easy. Ceramic samples retrieved from the underground chambers indicated a construction date in the 8th and 9th centuries. In the early period, the mosque took the form of a rectangular hall, while in later periods, it comprised three rooms connected by a long corridor. In the early period, two underground storage areas were situated on the eastern side of the mosque.

Adaptation to the natural environment

The first was relatively small and designed for storing liquids, while the second, a larger underground storeroom, served for the storage of other products.

Similar burials have been studied in the monuments of Samarkand, Fergana and the Tashkent region (Gulyamov, Buryakov, 1969: 273; Dzhurakulov, Krikis, 1969: 314; Kabanov, 1969: 47; Sharakhimov, 1981: 69; Shishkina, 1969: 149). They date from the end of the 8th century to the 50s of the 19th century. To date, the cellars opened at the first shahristan of the Kanka monument can be considered the earliest. In the forms and building materials of the cellars there is also a peculiar continuity of traditions, as well as innovations in connection with the development of the art of building. In particular, if the cellars of the monuments of Afrasiab, Akhsiket and the citadel of Timur consisted of a round room with a domed roof and a passage dug in the form of a vault, then at the Kanki monuments the vault and the corridor

of the cellar had a flat roof (Lebedeva, 1986, 136-146; Lebedeva, 1987). Until the 11th-12th centuries they were dug under the floor, the walls and steps were built of mud bricks, molded pakhsa or ordinary pakhsa, and the walls were plastered with straw clay. In the 11th–12th centuries in Fergana, the monument to Akhsiket marks the beginning of the construction of these structures from burnt bricks (Anarbaev, 2013: 75, 116, 145, 182) (fig. 4).

Viewed in a global context, structures of this type have been studied in many parts of the world. In particular, in ancient Iran, such structures were called «Pachals» and were mainly intended for storing ice. But there is evidence that meat and other food products were also stored in the ‘Pachals’ (Mahdavinejad, Javanrudi, 2012: 133-139). The appearance of these structures was associated with the hot climate of Iran (Sharif, Saleh, 2022). According to researchers, Iranian cellars appear in the 4th century BC, there is also evidence that such structures appear in China thousands of years BC. In the Middle Ages in ancient Korea, there were also special structures for storing ice, and they were called ‘seogbinggo’.

The proliferation of such structures, particularly from the 8th century onwards, prompts two conjectures. Firstly, it is conceivable that the climatic exigencies of the Chach Oasis necessitated the fabrication of such apparatuses for the preservation of commodities. Alternatively, it is plausible that the influx of nomadic tribes during this epoch precipitated the introduction of such implements into Central Asia. Given the longstanding trade connections with diverse regions, it is unlikely that trade exerted a pivotal influence on the genesis of these constructs. Thus, it can be surmised that nomadic tribes played a pivotal and constructive role in disseminating these novel innovations. The impact of migrations in this context is also discernible in the evolution of heating systems within ancient domiciles. For instance, during this era, a heating apparatus akin to the ‘kang’ or ‘ondol’ heating system became customary, initially in Ferghana, later diffusing to Tashkent and other locales.

Results

The research results demonstrate a complex relationship between cultural traditions, technological advancements, and environmental requirements.

The continuity of settlement from the Early Middle Ages to the late 12th century, followed by a period of abandonment and subsequent attempts at resettlement in the 14th-16th centuries, underlines the resilience and adaptability of the population. The identification of a nomadic yurt within an agricultural landscape suggests the dynamic nature of human settlement and the coexistence of different modes of livelihood. The demolition of the fire temple in the 8th century and its replacement by a mosque during the Arab invasion of Chach highlights the socio-political transformations and religious dynamics of the region.

Conclusion

The archaeological studies conducted at the Shahrستان I site have provided valuable insights into the socio-cultural adaptation and environmental responses of the population inhabiting the Chach Oasis during the Middle Ages. The research results reveal a complex interplay between cultural practices, technological innovations, and environmental exigencies.

The construction of the mosque complex, with its distinctive architectural features and functional spaces, reflects the cultural syncretism and religious pluralism characteristic of the period.

The discovery of underground cellars, serving as storage facilities for perishable goods, sheds light on the technological innovations and adaptive strategies used by the population to cope with environmental challenges. The proliferation of such structures, possibly influenced by climatic conditions or the influx of nomadic tribes, underlines the importance of local environmental conditions in shaping human behavior and settlement patterns. Furthermore, the intriguing discovery of a structure beneath the mosque floor, initially speculated to be a kiln, offers additional insights into the religious and cultural dynamics of the period. The absence of typical kiln features suggests an alternative function, possibly as a hidden shrine for fire worship, reflecting the persistence of pre-Islamic religious practices despite the spread of Islam in the region. This underlines the complexity of the conversion process and the coexistence of diverse religious beliefs within the community.

Overall, the interdisciplinary approach employed in this study, integrating archaeological, historical, and environmental data, has provided a comprehensive understanding of the socio-cultural dynamics and environmental adaptations of the population in the Chach Oasis during the Middle Ages.

Reference

- Абдуллаев К., 1975. Археологическое изучение городища Канка (1969-1972) // ИМКУ, Вып. 12. Ташкент: Фан. С. 128-154.
- Абдуллаев К.А., 1974. Уникальная находка терракотового фриза // ОНУ, №2. Ташкент. Фан. С.45-47.
- Анарбаев А., 2013. Ахсикет – столица древней Ферганы. Ташкент: Тафаккур. 538 с.
- Бичурин И.Н., 1950. Собрание сведений о народах, обитавших в Средней Азии в древние времена, Часть 2. Москва. 338 с.
- Богомоллов Г.И., Гендельман П.И., 1990. Металлические изделия с городища Канка // ИМКУ. Вып. 24. Ташкент: Фан. С. 93-106.
- Богомоллов Г.И., Гендельман П.И., 1991. Бытовые металлические предметы с городища Канка // ИМКУ. Вып. 25. Ташкент: Фан. С. 137-148.
- Богомоллов Г.И., 1995. О христианстве в Чаче // Из истории древних культов Средней Азии. Христианство. Ташкент: Главная редакция энциклопедий. С. 71-78.
- Богомоллов Г.И., Мусакаева А.А., 2020. Клад металлических изделий и другие уникальные находки с городища Канка // Археология Узбекистана, №1 (20). С. 7-16.
- Буряков Ю.Ф., 1975. Историческая топография древних городов Ташкентского оазиса (историко-археологический очерк Чача и Илака). Ташкент: Фан. 202 с.
- Буряков Ю.Ф., Богомоллов Г.И., 2009. Канка // Археология Ташкентского оазиса. Ташкент. С. 21-25; 69-73; 117-121.
- Гулямов Я.Г., Буряков Ю. Ф., 1969. Об археологических исследованиях на городище Афрасиаб в 1967-1968 гг. // Афрасиаб. Отв.ред. Я. Г. Гулямов. Вып.1. Ташкент: Фан. С. 268-293.

Джуракулов М.Д., Крикис Я.К., 1969. Раскопки здания 9-10 вв. на городище Афрасиаб // Афрасиаб. Отв.ред. Я. Г. Гулямов. Вып.1. Ташкент: Фан. С. 312-316.

Кабанов С.К., 1969. Стратиграфический раскоп в северной части городища Афрасиаб. Афрасиаб. Отв.ред. Я. Г. Гулямов. Вып. 2. Ташкент: Фан. С. 16-84.

Кубаев С.Ш., 2022. История культуры строительства жилых помещений на территории Узбекистана // Узбекистан на пересечении мировых цивилизаций. Ташкент: Baktria Press. С.117-172.

Кубаев С.Ш., 2023. Появление и развитие отопительных систем на территории Узбекистана // Народы и религии Евразии. Т. 28. № 4. Барнаул: Изд. Алт.унив. С.133-141.

Лебедева Т.И., 1986. О самаркандских тагхона // История материальной культуры Узбекистана. Вып.20. Ташкент: Фан. С. 136-145.

Лебедева Т.И., 1987. Тагхона в цитадели Тимура // История материальной культуры Узбекистана. Вып.21. Ташкент: Фан. С. 151-154.

Массон М.Е., 1953. Ахангеран. Археолого-топографический очерк. Ташкент. 144 с.

Шишкина Г.В., 1969. Городской квартал VIII – нач. XII в. На северо-западе Афрасиаба // Афрасиаб. Отв.ред. Я. Г. Гулямов. Вып. 2. Ташкент: Фан. С. 117-156.

Шарахимов Ш.Ш., 1969. Квартал гончаров X – нач. XI в. на северо-западе Афрасиаба // Афрасиаб. Отв.ред. Я. Г. Гулямов. Вып. 2. Ташкент: Фан. С. 224-228.

Amirmasood Nakhaee Sharif, Sanaz Keshavarz Saleh, Sadegh Afzal, Niloofar Shoja Razavi, Mozhdah Fadaei Nasab and Samireh Kadaei, 2022. Evaluating and Identifying Climatic Design Features in Traditional Iranian Architecture for Energy Saving (Case Study of Residential Architecture in Northwest of Iran) // Hindawi. Complexity. Volume 2022, Article ID 3522883, 12 p. <https://doi.org/10.1155/2022/3522883>

Mahdavinejad M., Javanrudi K., 2012. Assessment of Ancient Fridges: A Sustainable Method to Storage Ice in Hot-Arid Climates // Asian Culture and History. Vol. 4. No. 2; July 2012. <https://doi:10.5539/ach.v4n2p133>

Pliny, 1947-1958. Natural history. With an English transl. by Rackham. Vol. 6. London.

Reference

Abdullaev K., 1975. Arheologicheskoe izuchenie gorodishcha Kanka (1969-1972) [Archaeological study of the Kanka settlement (1969-1972)]. IMKU [History of material culture of Uzbekistan]. Issue 12. Tashkent: Fan. P. 128-154. [in Russian].

Abdullaev K.A., 1974. Unikal'naya nahodka terrakotovogo friza [A unique find of a terracotta frieze]. ONU [Social Sciences of Uzbekistan], №2. Tashkent: Fan. P. 45-47. [in Russian].

Anarbayev A., 2013. Ahsiket – stolica drevnej Fergany [Akhsiket is the capital of ancient Fergana]. Tashkent: Tafakkur. 538 p. [in Russian].

Bichurin N.Ya., 1950. Sbranie svedenij o narodah, obitavshih v Srednej Azii v drevnie vremena [Collection of information about the peoples who lived in Central Asia in ancient times]. Volume II. Moscow. 338 p. [in Russian].

Bogomolov G.I., Gendelman P.I., 1990. Metallicheskie izdeliya s gorodishcha Kanka [Metal items from the Kanka settlement]. IMKU [History of material culture of Uzbekistan]. Issue 24. Tashkent: Fan. P. 93-106. [in Russian].

Bogomolov G.I., Gendelman P.I., 1991. Bytovye metallicheskie predmety s gorodishcha Kanka [Household metal objects from the Kanka settlement]. IMKU [History of material culture of Uzbekistan]. Issue 12. Tashkent: Fan. P. 137-148. [in Russian].

Bogomolov G.I., 1995. O hristianstve v Chache [About Christianity in Chacha]. Iz istorii drevnih kul'tov Srednej Azii. Hristianstvo [From the history of the ancient cults of Central Asia. Christianity]. Tashkent: Main Editorial Office of Encyclopedias. P. 71-78. [in Russian].

Bogomolov G.I., Musakaeva A.A., 2020. Klad metallicheskih izdelij i drugie unikal'nye nahodki s gorodishcha Kanka [Treasure of metal items and other unique finds from the Kanka settlement]. Arheologiya Uzbekistana [Archaeology of Uzbekistan]. No. 1 (20). P. 7-16. [in Russian].

Buryakov Y.F., 1975. Istoricheskaya topografiya drevnih gorodov Tashkentskogo oazisa (istoriko-arheologicheskij ocherk Chacha i Ilaka) [Historical topography of the ancient cities of the Tashkent oasis (historical and archaeological sketch of Chach and Ilak)]. Tashkent: Fan. 202 p. [in Russian].

Buryakov Yu.F., Bogomolov G.I., 2009. Kanka [Kanka]. Tashkent. P. 21-25; 69-73; 117-121. [in Russian].

Buryakov Yu.F., 1982. Genezis i etapy razvitiya gorodskoy kul'tury Tashkentskogo oazisa. [Genesis and stages of development of urban culture of the Tashkent oasis]. Tashkent. 212 p. [in Russian].

Gulyamov Y.G., Buryakov Y.F., 1969. Ob arheologicheskikh issledovaniyah na gorodishche Afrasiab v 1967-1968 gg. [On Archaeological Research at the Ancient Settlement of Afrasiab in 1967-1968]. In: Gulyamov Ya.G., Afrasiab. Issue.1. Tashkent: Fan P. 268-293. [in Russian].

Dzhurakulov M.D., Krikis Y.K., 1969. Raskopki zdaniya 9-10 vv. na gorodishche Afrasiab [Excavations of the building of the 9th-10th centuries at the ancient settlement of Afrasiab]. In: Gulyamov Ya.G., Afrasiab. Issue 1. Tashkent: Fan. P. 312-316. [in Russian].

Kabanov S.K., 1969. Stratigraficheskij raskop v severnoj chasti gorodishcha Afrasiab. [Stratigraphic excavation in the northern part of the ancient settlement of Afrasiab]. Afrasiab. In: Gulyamov Ya. G., Afrasiab. Issue.2. Tashkent: Fan. P. 16-84. [in Russian].

Kubaev S., 2022. Istoriya kul'tury stroitel'stva zhilyh pomeschenij na territorii Uzbekistana [History of housing construction culture in Uzbekistan]. Uzbekistan na peresechenii mirovyh civilizacij [Uzbekistan – at the integration of world civilizations]. Tashkent: Baktريا Press. P. 117-172. [in Russian].

Kubaev S., 2023. Poyavlenie i razvitie otopitel'nyh sistem na territorii Uzbekistana [The emergence and development of heating systems on the territory of Uzbekistan]. Narody i religii Evrazii [Nations and religions of Eurasia]. Tom 28, № 4. Barnaul. Izd.Alt.univ. P. 133-141. [in Russian].

Lebedeva T.I., 1986. O samarkandskih taghona [About Samarkand taghona]. Istoriya material'noj kul'tury Uzbekistana []. Issue 20. Tashkent: Fan. P. 136-145. [in Russian].

Lebedeva T.I., 1987. Taghona v citadeli Timura [Taghona in Timur's citadel]. Istoriya material'noj kul'tury Uzbekistana [History of material culture of Uzbekistan]. Issue 21. Tashkent: Fan. P. 151-154. [in Russian].

Shishkina G.V., 1969. Gorodskoj kvartal VIII – nach. XII v. na severo-zapade Afrasiaba [City Quarter 8th – beginning. 12th century in the north-west of Afrasiab]. In: Gulyamov Ya.G., Afrasiab. Issue. 2. Tashkent: Fan. P. 117-156. [in Russian].

Sharakhimov Sh. Sh., 1969. Kvartal goncharov X – nach. XI v. na severo-zapade Afrasiaba [Potters' Quarter 10th – beginning 11th century in the north-west of Afrasiab] In: Gulyamov Ya.G., Afrasiab. Issue. 2. Tashkent: Fan. P. 224-228. [in Russian].

Amirmasood Nakhaee Sharif, Sanaz Keshavarz Saleh, Sadegh Afzal, Niloofar Shoja Razavi, Mozhdah Fadaei Nasab and Samireh Kadaei, 2022. Evaluating and Identifying Climatic Design Features in Traditional Iranian Architecture for Energy Saving (Case Study of Residential Architecture in Northwest of Iran). Hindawi. Complexity. Volume 2022, Article ID 3522883, 12 pages <https://doi.org/10.1155/2022/3522883>

Mahdavinejad M., Javanrudi K., 2012. Assessment of Ancient Fridges: A Sustainable Method to Storage Ice in Hot-Arid Climates. Asian Culture and History. Vol. 4, No. 2; July 2012. <https://doi:10.5539/ach.v4n2p133>

Pliny, 1947-1958. Natural history. With an English transl. by Rackham. Vol.6. London.

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Қаңқа қала-бекінісін археологиялық тұрғыдан зерттеу: көшпенділер мен диқандар арасында

Аннотация. Мақала б.з.б. 3 ғасырдан б.з. 12 ғасырға дейін болған Ташкент оазисінің көне мәдени орталығының қазба жұмыстарына арналған. Қаңқа ескі бекінісі Сырдарияның оң жағасындағы аса ірі қала орталықтарының бірі болып саналады. Бекіністің зерттеу жұмыстары 20 ғасырдың 30-60 жылдары жүргізілгеніне қарамастан, ескерткіш күні бүгінге дейін археологиялық зерттеуді қажет ететін нысан болып қала бермек.

Бекініс қамалдан, бір-біріне жапсарлас көрінетін, әрқайсысы үш тараптан мықты қорғаныс қабырғаларымен қоршалған үш шахристаннан және рабадтың маңынан тұрады. Төртінші тарапта өзен жағасы олардың ортақ шекарасы болған, оның бойында да қабырға орналасқан. Ірі монументалды құрылыс түрінде көрініс тапқан қалалық ғибадатхана 1 шахристанды қазған кезде ашылған маңызды нысан болып табылады. Айналма дәліздермен қоршалған төртбұрышты зал ғибадатхана кешенінің орталығы болған. Ғибадатхананың қабырғасы кескіндемелермен және бедерлі сылақпен әшекейленген. Бекіністегі жаңа зерттеулер қалалық ғибадатхананың шығыс бөлігінде, кешеннің болжамды кіре берісі болып саналатын орында жүргізілді. Қаңқа ескерткішіндегі археологиялық қазбалар ежелгі Орта Азияның көшпенділері, бақташылары мен диқандары мекендеген аумақтардың шекарасындағы қала-бекіністің өмірі туралы қызықты ақпарат берді. Зерттеулер байырғы көшпенділердің Орталық Азияның кең байтақ кеңістігінде өмір сүрген ежелгі өркениеттердің білімі мен мәдениетін, ғылыми жетістіктерін таратуда маңызды рөл атқарған болуы ықтималдығын көрсетеді. Олардың кең ауқымды көші-қоны және әр алуан мәдениеттермен байланысы түрлі өңірлер арасындағы білім мен технология алмасуына септігін тигізген болуы мүмкін.

Кілт сөздер: Ташкент, Қаңқа, Сырдария, ғибадатхана, мешіт, кірпіш, Ахсикент, асхана, әлеуметтік-мәдени бейімделу, табиғи ортаға бейімделу.

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Археологические исследования города-крепости Канка: между кочевниками и земледельцами

Аннотация. Статья посвящена раскопкам древнейшего культурного центра Ташкентского оазиса, существовавшего с III века до н.э. по XII век н.э. Городище Канка является одним из крупнейших городских центров правобережья Сырдарьи. Несмотря на то, что первые обследования, съемки, исследования производились в тридцатые и шестидесятые годы XX века, до настоящего времени памятник остается объектом археологических изысканий.

Городище состоит из цитадели, трех шахристанов, как бы вписанных друг в друга, каждый из которых с трех сторон был окружен мощными оборонительными стенами и пригорода рабада. С четвертой стороны их общей границей был берег реки, вдоль которого также проходила стена. Значимым объектом, открытым при раскопках шахристана 1, является городской храм, который представлял собой крупное монументальное сооружение. Ядро храмового комплекса составляет квадратный зал, окруженный обводным коридором. Стены храма были украшены росписью и рельефной лепниной. Новые исследования в городище проводились в восточной части городского храма, предполагаемом месте входной части храмового комплекса. Археологические раскопки памятника Канка предоставили интересную информацию о жизни города-форпоста на границе территорий кочевников, скотоводов и земледельцев древней Средней Азии. Исследования показывают, что древние кочевники могли играть важную роль в распространении знаний и культур древних цивилизаций, существовавших на огромном пространстве Центральной Азии. Их обширные миграции и контакты с различными культурами могли способствовать обмену знаниями и технологиями между разными регионами.

Ключевые слова: Ташкент, Канка, Сырдарья, храм, мечеть, кирпич, Ахсикет, кухня, социокультурная адаптация, адаптация к природной среде.

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