The American Journal of Social Science and Education Innovations
(ISSN – 2689-100x)
Published: January 31, 2021 | **Pages:** 528-538
Doi: https://doi.org/10.37547/tajssei/Volume03Issue01-94

IMPACT FACTOR
2021: 5. 857
OCLC - 1121105668

Issues Of Scientific Research And Museum Of The Archaeological Site Of Yunusobod Oktepa

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ABSTRACT

In this article, the issues of scientific research and museumization of the Yunusobod Oktepa archeological site are studied in detail. Also, research on this archeological site, excavations and reconstruction processes were analyzed.

KEYWORDS

Yunusobod, Oktepa, archeological site, monument, archeologist, restorer, reconstruction, charter of Lausanne.

INTRODUCTION

The study of the ancient history of the city of Tashkent began in the second half of the XIX century. Since that time, archaeological excavations have been repeatedly carried out on various monuments, such as Shoshtepa, Oktepa Yunusobod, Oktepa Chilanzar, Kugaittepa, Minguryuk settlement, etc. The Charter of Lausanne stated that the archaeological heritage is the main source of information about human activity in the past [1]. Therefore, the protection and proper handling of it is vital to enable archaeologists and other scientists to study and interpret it for the benefit and benefit of future generations [2].

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In the 70-80s of the last century, the Institute of Archaeology of the Academy of Sciences of Uzbekistan conducted archaeological research mainly on two monuments of Tashkent - the monument of Oktepa Yunusobod and the settlement of Shoshtepa. During the excavations, entire complexes with a well-preserved planning structure were uncovered. Therefore, it was decided to start restoration and conservation work on some uncovered sites of monuments for the purpose of their further museumification and for public visit. A program of conservation works was drawn up, which included both partial restoration and chemical treatment of the raw walls of the premises [3].

Studies have shown that the ancient architectural monuments of the city of Tashkent were built from large-format raw bricks, paths blocks on building solutions of clay and loess. As a waterproofing and plasticizing components, ensuring the longevity of the ancient solutions, used vegetable and animal glues, plant ash etc. However, the destructive influence of time leads to the fact that the remains of ancient buildings, partially destroyed in ancient times, built from such non-water-resistant and fragile materials as clay and loess, after opening in the course of archaeological excavations, begin to deteriorate intensively.

By that time, the restorers of the Institute of Archaeology had already accumulated positive experience in the development and practical implementation of methods for the conservation of raw archaeological sites (restoration and chemical conservation of the defensive wall of the VI-V centuries BC at the Afrasiab settlement was carried out [4]. As a result of the conducted research and subsequent testing at experimental sites, a group of monomers from the class of diisocyanates was selected as preservatives. Laboratory tests have shown good results. Monomers polymerize inside the loess under natural conditions. The rate of formation of the fixed layer is quite high. It was also found that clay plays the role of an active filler, that is, it enters into chemical interaction with diisocyanate. Therefore, the resulting coating has high physical and chemical characteristics. The compressive strength of the samples increases by 3-4 times. Processed raw materials almost do not change under the influence of ultraviolet rays, changes in humidity and temperature, resist biodegradation. During the polymerization reaction, carbon dioxide is released, which preserves the porous structure of the object. This is very important to ensure the free migration of soil salts and moisture exchange, which occur in natural conditions on ancient architectural monuments. The color and texture of the fixed samples remain natural [5].

The first works to preserve the unique monuments of the raw architecture of Tashkent were carried out at the archaeological site Oktepa, which is located in the territory of Tashkent, in the Yunusobod microdistrict. For a number of years, the Institute of Archeology of the Academy of Sciences of the Republic of Uzbekistan carried out complex restoration and conservation work there. They were based on the principle - by means of imperceptible and minimal interference, to prevent the destruction of the exposed areas of ancient architecture. For the restoration work, traditional materials and technologies were used - raw bricks, similar in size and composition to the ancient samples, as well as clay plaster. The work continued for six field seasons. During this time, repair and

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restoration work was carried out in three utility rooms (storage facilities), in the premises of winemakers and in some other areas of the monument. Oktepa Yunus-Obod - ("ok-tepe" in translation from the Turkic "white hill"). Today it is the largest archaeological site. For the first time, archaeologists led by Doctor of Historical Sciences V.A. Shishkin excavated this area in 1948. Then coins of Chach and the foundations of ancient buildings were found here. Oktepa is the highest point of the Yunus-Obod region of Tashkent, and Yunus-Obod, in turn, is the highest area of the city. The first works to preserve the unique monuments of the raw architecture of Tashkent were carried out at the archaeological site Oktepa, which is located in the territory of Tashkent, in the Yunusobod microdistrict. For a number of years, the Institute of Archeology of the Academy of Sciences of the Republic of Uzbekistan carried out complex restoration and conservation work there. They were based on the principle - by means of imperceptible and minimal interference, to prevent the destruction of the exposed areas of ancient architecture. For the restoration work, traditional materials and technologies were used - raw bricks, similar in size and composition to the ancient samples, as well as clay plaster. The work continued for six field seasons. During this time, repair and restoration work was carried out in three utility rooms (storage facilities), in the premises of winemakers and in some other areas of the monument. In the course of the work, individual collapsed areas on the ruined walls of the premises were restored. This made it possible to protect the walls of structures from further destruction, to reveal the partially lost planning structure of the premises and to restore the original thickness of the walls. To preserve the surviving adobe bricks from destruction, the surface of the walls was coated with clay plaster. A very important place in conservation work is occupied by the waterproofing of the ridges and bases of the walls, places of collection and drainage of atmospheric precipitation. To waterproof the ridges of the walls, roll roofing was used, followed by pouring it with clay mortar. Roofing paper, introduced as an insulating layer, in combination with clay coating, should serve in this case as a protective coating. After the restoration work, chemical treatment of the surface of the walls of the premises was also carried out to make them water resistant. For this, solutions of diisocyanates were used. At the same time, experimental work was carried out on the test sites to test methods used in other countries, as well as new techniques developed in the laboratory of the Institute of Archeology of the Academy of Sciences of the Republic of Uzbekistan [6]. To observe the results of the experiments, the treated areas were monitored annually. Long-term observations have shown that a positive effect in the stabilization of raw structures is achieved when using toluene isocyanate solutions as preservatives.

MATERIALS AND METHODS

However, here we are faced with the negative impact of the anthropogenic factor. Since the monument was not museumified (and at the same time it is located in a densely populated residential area), people caused significant damage to it, climbing and walking along the crests of the walls, lighting fires inside the premises, etc. As a result, the waterproofing coatings of the crests of the ancient walls were broken, and pieces of repair plaster were broken off. Water seeping into the cracks formed led to the destruction and collapse of certain sections of the walls. Therefore, in

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order to preserve the uncovered areas, it is necessary to carry out regular repair and restoration work and museumification of the monument with the solution of issues of protection, further maintenance and use of the monument.

If you go up the Oktepa hill, then from here you can see the whole of Tashkent at a glance. But few people know that this hill is the remains of a guard fortress, built in the 5th century AD, which guarded Tashkent from enemy raids from the north from the 5th to the 8th century. As it turned out as a result of archaeological research, the most ancient Zoroastrian temple was also once located here. And many scholars seriously believe that Zoroastrianism originated precisely on this land, and the first mentions in written sources about Tashkent (then it still bore the name - Chach) are found in the Avesta - the holy book of Zoroastrianism. In Russian, this area in the XX century was called Basmach Mountain, but now it bears the same name (fig. 1).

The area in which the settlement is located is watered by a medium-sized irrigation canal (aryk) of Oktepa. Judging by a number of evidences, such as numismatic finds, traces of a strong fire, the palace suffered a catastrophe in the first quarter of the 8th century, which corresponds to the predatory campaign of the Arabs in Chach. In part, the re-habitation of the destroyed remains of the fortress took place in the second half of the VIII century. In the 9th and 12th centuries, Yunusobod Oktepa was one of the fortified settlements in the district of the then capital of Chach – Binket (fig. 2). By the time of the Mongol invasion at the beginning of the XIII century, it fell into decay.

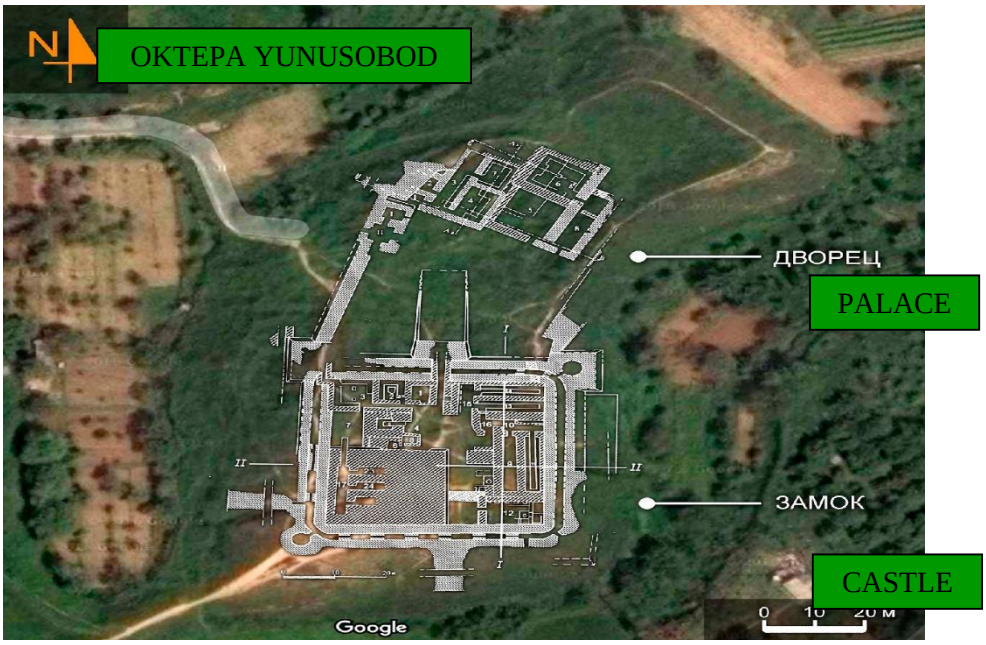

Fig. 1. Location of Yunusobod Oktepa archeological site.

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Fig. 2. Ruins of Oktepa

The archaeological monument was first noted by V.P.Nalivkin in his work "On the mounds in the vicinity of Tashkent" (1886). In 1940-41, quite active excavations, which, however, were of a reconnaissance nature, were carried out by A.I.Terenozhkin, for the first time covering the archaeological site in scientific publications. The main study of the settlement was carried out by the Tashkent archaeological expedition (which included M.I.Filanovich, M.S.Mershchiev, D.P.Varkhotova, E.V.Rtveladze, S.R.Ilyasova, E.M.Yuldashev) in 1975 and 1977-1985.

The total area of the archaeological site was about 100 hectares. At present, most of this territory is built up by a quarter of the city of Tashkent (fig. 3). In the southern part of the settlement there are the ruins of a fortress castle (keshka) in the form of a high hill with steep slopes (about 22-28 meters high), to which an unfortified settlement adjoined.

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Fig. 3. Graphic reconstruction of Oktepa Yunusobod

The palace, 86–180 m in size, is oriented approximately from north to south and is separated from the settlement by a ravine of considerable depth, which served as a moat. According to the excavations, the castle was built in the 5th century AD on a hill using an ancient platform made of raw bricks (pakhsy). It consists of a two-story building with a long and wide staircase (ramp). The first floor had dimensions of 80x80 m, the second floor - 50x50 m (fig. 4). On the inner side, both floors are encircled by a long gallery corridor, outside of which a high wall was erected.

The gallery is 2 meters wide and 2.3 meters high. The outer wall and the roof arched covering the gallery corridor are lined with blocks of raw bricks (pakhsy), popularly known as devgisht, using elongated pakhsa bricks. The blocks are 70 x 70 x 70 cm in size. At the corners of the upper corridor were round domed towers with rooms inside. The interior of the building consisted of long, narrow rooms with domed roofs that were connected by a system of corridors.

In the first quarter of the 7th century, the estate was rebuilt. The narrow premises were covered with earth, thereby turning the building into a solid pedestal on which new buildings were erected. The four corner towers were fortified, and a 22 x 22-meter keshk castle was erected in the southwestern part of the estate. The castle had the shape of a multi-tiered pyramid with a donjon tower, possessing four defensive tiers. Judging by the preserved part of the building, it was also two-story. Its lower floor was occupied by arched rooms, the upper floor was occupied by the owner and the guest room [7].

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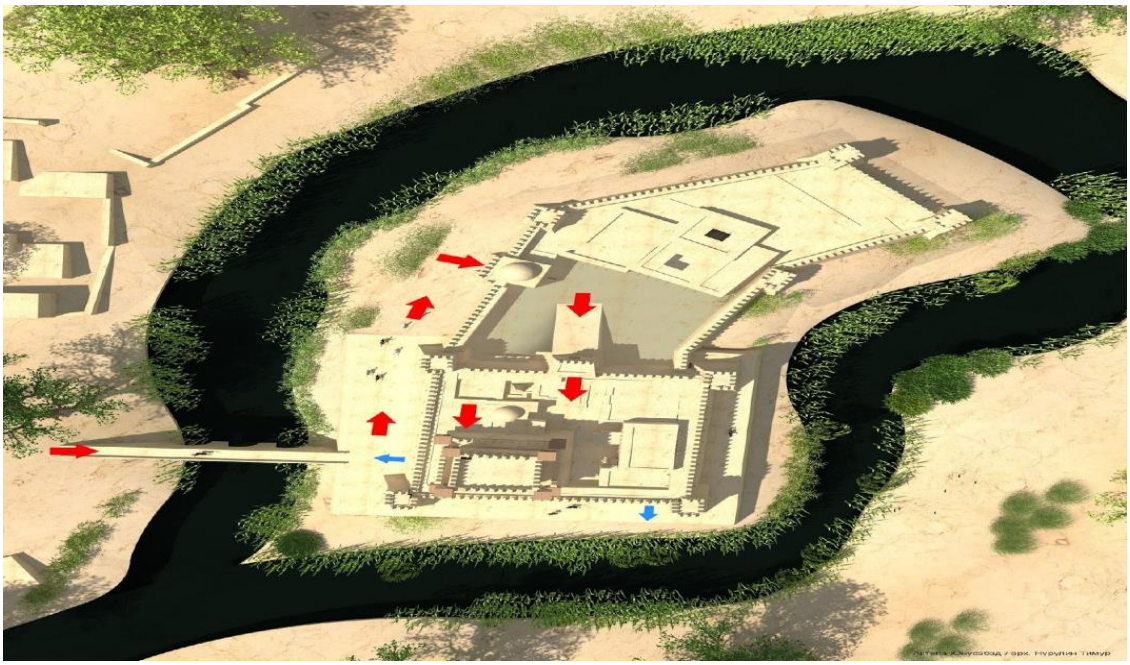

Fig. 4. Entrances and exits to the Yunusobod Oktepa archeological site.

In the northern part of the palace, 10 rooms were found that made up the temple complex. Religious buildings gradually formed around the dome of the mausoleum - Naoussa. Adjacent to it was a two-room sanctuary, in one of the rooms of which there was an altar of fire, and the other served as a ceremonial hall. In separate rooms were made a memorial of the sacrifice and living quarters for the priest.

In the eastern part of the fortress there were 9 elongated two-story buildings of the economic and auxiliary part. In some of them there was a narrow clay soup, adjacent to the inner wall, light windows were made in the back wall, holes for beams were preserved. The first floor mainly served as storage rooms, where soups in large ceramic vessels (hums) stored food supplies: flour, oil and wine. The second floor served as the home of the servants and the garrison of the guards. The castle had its own tandoor ovens for bread and kitchen hearths. In addition, a separate room in the back yard was occupied by a wine distillery.

Excavations were also carried out in adjacent to the castle of the fortress-settlement in the region of the outer walls of the fortress, the tents of Chakarov in the courtyard and along the walls, in parts rising to the castle driveway, in the premises of the main complex adjacent to the gate. In addition to the usual fragments of pottery found in the ancient settlements of Central Asia, archaeological work on the site revealed stone, bone and metal weapons, jewelry (silver rings with inserts of rock crystal), iron knives, daggers, three-bladed arrowheads, stone millstones, colored terracotta. During the excavations of the estate, silver coins of local rulers of the V century, 12 dirhams of the Umayyads and a copper coin with Sogdian inscriptions were found [8].

Similar conservation works were also carried out at another archaeological site – the Shoshtepa settlement, which is located in the southern part of modern Tashkent on the banks of the Jun Channel. In the eastern part of

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the monument, after a thorough cleaning of the walls, chemical preservation of the outer wall of the citadel was carried out using solutions of diisocyanates and polyatomic alcohols. Monitoring conducted for five years showed that the condition of the treated areas is generally satisfactory. The color and texture of the mud brick remained natural. A test site was also laid here, where new versions of the methodology for the conservation of monuments of raw architecture were tested.

RESULT AND DISCUSSION

Small conservation works were carried out on the Kanka settlement in the Tashkent region. In the field season of 1984, corridor-type rooms with an arched ceiling of mud bricks were opened here. After a thorough cleaning of the wall surfaces, their preservation was carried out using compositions based on diisocyanates and technical xylene. The total area of the treated areas was 70 m2. Subsequent observations showed that the lack of protection on the monument and uncontrolled visits by local residents led to the partial destruction of the treated areas.

In recent years, considerable experience has been accumulated in the conservation and museumification of ancient monuments of raw architecture in Central Asia. Large-scale conservation works were carried out on the Buddhist complex Fayaz-tepa (Uzbekistan), the settlement of Otrar (Kazakhstan), on some monuments in Iran. Based on the results of previous work and observation of the “life of monuments”, a new understanding and approaches to the process of conservation of archaeological sites are being developed. The most relevant and basic principles are minimal intervention, reversibility of materials used in conservation. A thorough study of the ancient building materials of a particular monument, their compatibility with modern conservation materials and compositions that will be used in the restoration of a particular archaeological site is of great importance.

Scientific documentation on conservation also plays an important role in the process of preserving ancient monuments. Article 16 of the Venice Charter states "…. All conservation, restoration or excavation work should always include documentation in the form of analytical and critical reports, illustrated with drawings and photographs. Each stage of the cleaning, strengthening, reconstruction and consolidation works, as well as the technical and formal features defined in the work process, must be carefully recorded..." [9].

Studying and analyzing the results of the first experimental conservation work carried out at the archaeological sites of Tashkent and Samarkand, one is convinced of the complexity of the tasks associated with the preservation of archaeological objects of raw architecture in the open air. The program for carrying out these works depends on the individuality of each monument, in particular, on the physical condition of the object itself and the environmental conditions in which the particular monument is located. However, no conservation work will help preserve the monument if it is not museumified in a timely manner, i.e. taken under protection and protection [10]. Only in this way can we extend the life of archaeological sites, each of which is an invaluable object of our cultural heritage (fig. 5).

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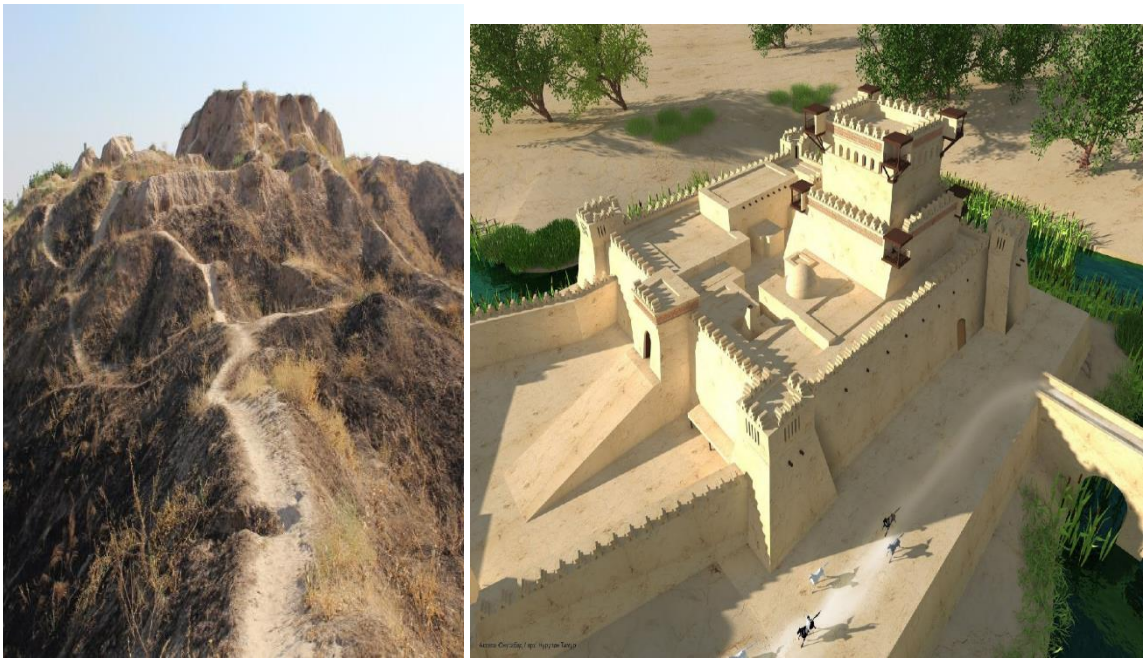

Fig. 5. Preservation and reconstruction of the archeological site

The historical monument, which once covered about a hundred hectares, now has only four hectares. On February 11, 2019, Yunusobod Business City presented the Oktepa archeological site located in the area. According to the Tashkent city administration, the construction will not damage the archeological monument, but will be improved around the monument, create conditions for local and foreign tourists, and be turned into a tourist center. Yunusobod Business city center consists of 4 lots. The first lot of the center, which is expected to be built on an area of 41 hectares, will include 3- and 4-star hotels with 9, 12, 15 floors. The second lot will include a school and a kindergarten, as well as a parking lot for 1,388 children. The third lot with an area of 1.4 hectares will include offices and hotels, 12- and 15-storey buildings (fig. 6). In the fourth lot of 18.2 hectares, it is planned to build a large garden, small shops and restaurants.

In the world experience, in the XXI century, one of the most promising areas of action is the protection of archeological heritage, the preservation of the historical environment of the city and its effective use in tourism. Defining the historical city as a cultural phenomenon, it is important to museum the architectural and artistic uniqueness of the monuments and structures that make up a single exposition on the basis of an axiological approach. In collaboration with architects, historians, archeologists, local historians, art critics, ethnographers and sociologists, it is extremely important to pay attention to the museumization of historical, cultural and social aspects of city life. The accession of the Republic of Uzbekistan to the Convention for the Safeguarding of the World Cultural and Natural Heritage was a unique prelude to the work being done in this direction. The Convention is the most universal international legal instrument for the preservation of

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cultural and natural monuments. Each signatory state shall act on the basis of general principles in the preservation of monuments of national and world significance existing within its territory.

Fig. 6. Scheme of location of an archeological site in a modern urban environment

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