CHARACTERISTICS OF ARCHITECTURE OF ANCIENT BACTRIA (IN EXAMPLE SAPALLITEPA AND JARKUTAN)

Abstract: This article gives information about characteristics of ancient architecture of Bactria. Architecture of Sapallitepa and Jarkutan sites is analyzed in this article.

Key words: Bactria, fortress, monument, archaeological research, expedition, citadel, temple, architectural construction, settlement, defense construction, castle, square.

Language: English

Citation: Togaev JE, Usarov UA (2017) CHARACTERISTICS OF ARCHITECTURE OF ANCIENT BACTRIA, IN EXAMPLE SAPALLITEPA AND JARKUTAN. ISJ Theoretical & Applied Science, 10 (54): 28-31.

Introduction
Ancient Bactria is considered as a historical and cultural land which was situated in the south-eastern part of Central Asia originally consisting of the upper flow of the Amu Darya. Ancient Greek authors (Strabo, Ptollemey) supposed that, Amu Darya formed the boundary in the southern part of Bactria, next generation researchers stated that, Hisar Mountains marked the northern border, Hindi Kush Mountains marked the southern border (Dyakonov, Stavisskiy, Pyanov, Masson). Bactria included both banks of Amu Darya River that is modern territories of northern Afghanistan, southern Uzbekistan and Tajikistan.

Several archeological researches were carried out in various years by M.E. Masson, G.A. Pugachenkova V.M. Masson, L.I. Albaum, B.A. Litvinsky, E.V. Rvveladze, A.A. Askarov, A.S. Sagdullaev, V.I. Sarianidi, T.Sh. Shirinov, Sh.B. Shaydullaev and others, important information which helps study ancient architecture of Bactria was obtained [1, P. 24-26].

Humanity after encountering to copper in the Eneolithic Age used it in making tools of handicraft. However, copper tools could not satisfy demands which stone tools did. The discovery of bronze led to noticeable changes in communities. Bronze tools were superior to copper tools because of being solid and it was easy to form a shape of them. In addition, bronze has lower melting points than copper. Exactly, copper has a melting point of 1084 degrees Celsius, but bronze has relatively lower points of 700-900 degrees Celsius.

Materials and methods
The Bronze Age settlements of Bactria were located in the near mountain areas, in the oasis among mountains and beyond the basins of rivers. The agriculture developed in the favorable geographical conditions of small and large oasis in the foot of mountains was based on artificial watering [2, P. 30]. In terms of territory, we can divide the Bronze Age settlements of Northern Bactria into two parts: Southern Uzbekistan and Southern Tajikistan. In the Bronze Age, small and big agricultural oasis formed in the territory of southwestern Uzbekistan.

A.Askarov classified the Bronze Age settlements of Surkhandarya region of Southern Uzbekistan into three oases according to territorial location: Sherabad, Shurchi and Bandikhan [3, P. 7-12].

The number of villages increased since the Bronze Age, new lands were acquired, new types of architecture and handicraft were developed. Large central places were in the form of city and the construction of them met particular architectural plans (streets, squares, large social buildings). It is the fact that, architecture required practical knowledge and skills.

Valuable information on Bronze Age architecture was obtained as a result of
archaeological excavations conducted in Sapallitepe (southern part of Uzbekistan, Sherabad) settlement, situated in northern Bactria. The perfectness of defensive walls and architectural construction of accommodation complexes proved that the Bronze Age people possessed an extremely sophisticated knowledge of engineering.

The fortress of Sapalli was in the shape of square, the total area was 82x82 m and surrounded by three lines of walls [4, P. 13-18]. The thickness of the walls was more than two meters. The walls were built in accordance with complicated architectural design. According to ancient engineers, at first, the defense system was to be a trap, and was divided into exact size bricks.

Outer blocks were attached through rooms in type of passages to accommodation complexes in the fortress. Inner blocks served as a shield. They were similar to entrance gates from outside view. There were 4 blocks in each side of the square fortress. In fact, there was an only entrance gate to fortress, and it was in the south. Although the outer and inner blocks were purposed to be a special defense, absence of any outer threat in the area led them to be used for various purposes (accommodation, pottery workshops).

Inner courtyard of the fortress consisted of 8 accommodation complexes which were separated from each other by narrow streets. Initially, accommodation complexes were attached to the inner walls of the fortress, and they became broader along the narrow streets connected with the central square of the fortress.

The information given in the “Avesta” was compared with the results of the archeological researches conducted on the Bronze age and Iron age monuments in 60-80 years of XX centuries. The settlement Sapallitepe was compared by A.A. Askarov with “vara”, rectangular fortress, mentioned in the “Avesta” [4, P. 143]. According to A.A. Askarov, eight large patriarchal families lived in Sapallitepe, they formed representatives of “vis”, a common clan [4, P. 147].

V.I. Sarianidi considers that the development of the first city culture led to the appearance of the state by the period before the Achaemenids. Plan of the Sapallitepe monument is symmetric; the number of vessels found in the tombs increase depending on the age of the dead and these show social equality in the team, the role of the elders in the life of the community and a small number of the population lived in the area [5, P. 151-155].

In general, settlements of Margiana and Bactria can be divided into two main groups: unfortified and settlements with fortresses. Unfortified settlements were in the form of multi – roomed houses supposed to be accommodation and household rooms and they were separated from each other by small streets. Such kind of settlements belonged to ordinary village communities.

The Bronze Age fortresses presenting solemn architecture, regarded as one of the peculiarities of the architecture of Bactria-Margiana. Defense order surrounded them was nearly the same, and in different shapes. (Kelleli 3, Gonur 1, Sapallitepe, Dashli 3 were square, Togolok 21, Dashli 1- were right angle). In most cases quadrangle, circular, semi-circular or right angle towers were fixed to fortress walls.

Narrow rooms were opened along the defensive walls of Dashli 1, and they might be built for several purposes. Accommodation and household rooms were built beside these rooms. Quadrangle fortress of Dashli 3 used to be a castle, circular fortress used to be fire temple.

Jarkutan (situated in the southern part of Uzbekistan) was another important monument in northern Bactria and researches had been carried out in the area continuously since 1973. The total area of Jarkutan was not less than 100 hectares and it consisted of the following 2 parts – “citadel” and “shahristan” (trading quarter). Dwelling buildings, objects of various branches of the city handicrafts, fire –worshippers’ temples were in the town part, castle complex of governor of the city, metal melting furnaces were situated in the territory of the ark fortress.

The total area of the citadel was 3 hectares, and surrounded with thick defensive walls built from raw brick mixed with straw. Thickness of the walls was 3 meters, and strengthened by towers in the form of square in order to enhance the defense - power of the fortress [6, P. 42-44]. The height of this defense construction was not less than 5-6 meters at that time, but the remaining parts of the walls are no more than 1meter.

The entrance gate to the citadel is in the south, a street can be observed which went down to the central part of the citadel. The road started from the gate of the citadel was, in fact, a central road. It turned to the west in 25 -30 meters, then, the second branch of the road which went to the east can be noticed. As believed by A. Askarov the road went to the west stopped at the gate of the monumental building, so this building may be the city governor’s castle.

The remains of multi roomed house where a patriarchal family lived in opened as a result of the researches done in the southern part of the citadel. The yard, paths, accommodation rooms, connected to the yard, of the house have been worked over until present time.

Architectural style of the citadel was determined as a result of the researches carried out in northern, central and southern parts of Jarkutan citadel. The citadel functioned only in the period of Jarkutan. A monumental building - fortress was in

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ISPC Applied mathematical modelling, Philadelphia, USA
the west of the citadel, houses patriarchal families lived in was situated around the Ark fortress. The central part was a wide open area.

A “shahristan” part of Jarkutan consisted of 15 hills which start to extend from the citadel towards the south. The citadel, and areas connected from the south and south-east were acquired firstly. Archaeological researches carried out on two of these hills, exactly, on 5th and 6th hills, finished with relevant results.

The 5th hill was a dwelling area, 3000 sq m of it was worked over. The houses opened here were built on the platform that was 1.5 meters thick and consisted of multi-roomed courtyards. At least two or three pairs of families are suggested to be lived in every courtyard. The 6th hill was the highest among the hills of the shahristan and also was situated in the central part of the monument. A fire temple was opened and studied by A. Askarov and T. Shirinov. Temples like these have been defined in a number of archaeological monuments. For example, a complex of religious center in Altintepe, a temple in Dashli 3, a complex of religious center in Sarazm, Togolok and Gonur temples. A.A. Askarov and T.Sh. Shirinov mentioned that the first cities were in “ministate” or “chifdnom” format and put Jarkutan monument into the first cities categories relying on several features of the monument, in particular, thousands of tombs which show social isolation of groups of communities, castle remains, ideological centre – temple, the citadel, including royal castle, was surrounded by defensive walls, the population made progress on handicrafts and architecture [7, P. 206].

Jarkutan temple is a square building (44.5x60 m), was built taking the light into consideration and surrounded with thick walls built from raw brick. The temple consisted of two parts, the first part was intended to hold holy worshipping ceremonies, the second part was supposed to be a place for household and funerals. Obtained archaeological information proves that architecture developed in Bactria in the Bronze Age.

Moreover, over two thousands of graves studied so far in Sapallitepe and Jarkutan settlements. Social origination of population of these settlements was also studied based on the collected date.

A.A.Askarov divides population of the settlement into three (social) groups based on the items found in the Sapallitepe graves:

1. Lower layer of the community. Graves of this population layer are very simple, very few, and sometimes, we can see only a single earthenware item in a grave, that is all.

2. Full-fledged members of the community. In graves of this rank, there are a few earthenware items and bronze vessels and jewelry.

3. Rich people of the community. In graves of this rank, there are about 50 earthenware items, various jewelry items and tools [8, P. 30-31].

Graves of the rich discovered in Sapallitepe, were mainly belong to women. It could be a ground to suggest that women had a high status in the Sapallitepe community. Of course, this is a biased opinion, this is undervaluation of achievements of the Sapallitepe population in agriculture, handicraftsmanship, construction, metal works, that is, it disregards the fact these jobs are men's work [9, P. 174].

Professor M. Tosi believes that, precious items found in graves of women in Sapallitepe are a custom characteristic to nomadic nations [10, P. 69-71]. The main reason of the fact that graves of the rich in Sapallitepe were mainly belong to women and seals were found in these graves can be explained by the fact that women played a leading role in household.

Conclusion

In the Bronze Age architecture and handicraft relations sufficiently developed in Ancient Bactria.

In conclusion, architecture was in high level in ancient Bactria in the Bronze Age. The construction of settlements was based on a clear plan, residential areas and religious centers were built in order, and this proves advanced engineering knowledge of the population.

Valuable information on socio-economic life, architecture of Bactria was obtained as a result of researches carried out in Sapallitepe and Jarkutan.

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