

## THE INDO-IRANIAN PROBLEM IN THE LIGHT OF THE LATEST EXCAVATIONS IN MARGIANA

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The discovery of the Bactria-Margiana Archaeological Complex (BMAC) does not only open a new page in the ancient history of the Near East but it helps us to solve the Indo-Iranian problem too (Sarianidi 1998a). Prof. Parpola is one of the few linguists who closely watches all the latest archaeological discoveries concerning the Indo-Iranian problem and compares them with the linguistic data. I had the pleasure to invite him to Margiana where he followed the excavations and where he was able to check his ideas about the contacts between the settled farmers and steppe tribes (see Parpola 1995: 362–366). In spite of our different approaches to the given problem, I hope that the present article devoted to the latest archaeological discoveries in Margiana will be of interest to my friend Asko Parpola.

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The problem of the ethnic and linguistic identification of the tribes who lived in Margiana at the end of the third millennium BC takes a special place in the ancient history of this country. In ancient days three main things characterized ethnic definition: language, religious beliefs and funeral rites. The absence of written records makes one concentrate exclusively on the material data. The archaeological finds provide us with enough evidence that helps us to reconstruct the ancient religious beliefs and funeral rites.

One of the ways to compare the religious beliefs of different ancient tribes is to study their cult buildings (temples and other sacred places). Though these buildings were located at a distance from each other we can still discern certain common architectural principles. The latest archaeological materials prove that the tribes who built these temples and palaces had similar cult ceremonies and common religious beliefs.

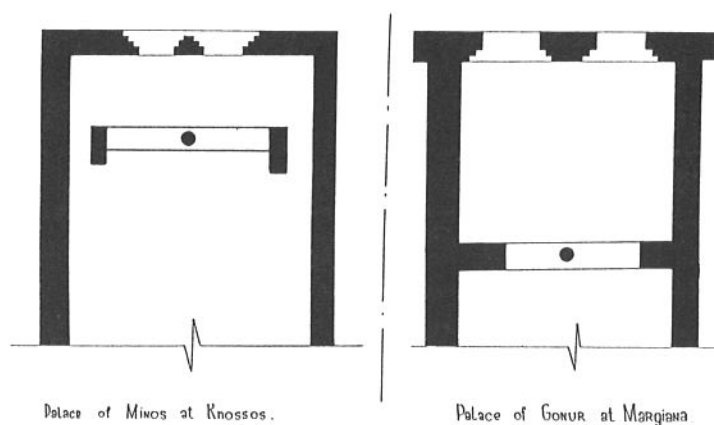


Fig. 1. Propylaea of the Knossos and Gonur palaces.

Thus, a fire temple in Djarkutan (northern Bactria) and two temples in Dashli-3 (southern Bactria) manifest common principles of ancient Bactrian architecture. A fire temple and three other temples excavated in Margiana were dedicated both to the fire cult and the cult of the hallucinogenic beverages of the soma-haoma type. In Gonur, the capital of Margiana, a fortress with a centrally located palace was fully excavated, and the obtained material allows us to come to a preliminary conclusion that individual buildings in Margiana, both secular and religious, have certain analogies with corresponding buildings in other regions of the Near East. In spite of some specific features of the monumental architecture of Margiana and Bactria, it can still be compared with the architecture of northern Mesopotamia and the Aegean world. The parallels between the architectural blocks under comparison are few in number but they are so representative and clear that one cannot ignore them.

First of all we should mention the Propylaea (fig. 1) of the northern Gonur palace, where two passages and rabbets were directly analogous to the ones on the second floor of the Knossos palace in Crete (Evans 1928, fig. 448). It should be noted that rabbets are considered a definite element of monumental architecture (Roaf 1998: 57–58) and the “burnt building” in Hasanlu was defined as a temple exactly because its central entrance was decorated with such rabbets.

Another element characteristic of this temple is a hall with wide low thresholds sided by two opposite projections with rabbets and a centrally located column that sometimes rests on a stone disk. Usually (but not always) these thresholds were found in official rooms (figs. 2 & 3), as the case was in the audience hall of the Gonur palace (Sarianidi 2000, rooms 188 and 194). The same was characteristic of



*Fig. 2.* Gonur palace. Audience hall. A passage with a threshold. A male figure stands on the place of a former column.



*Fig. 3.* Gonur palace: Audience hall. A threshold with the remains of a column in the centre.

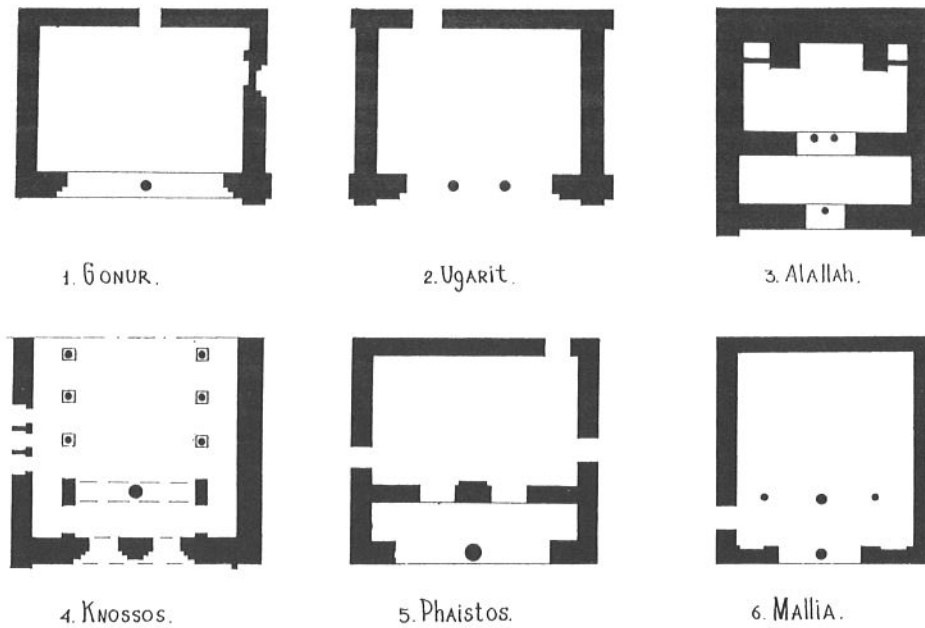


Fig. 4. A comparative table of passages with columns.

the monumental buildings of the Knossos palace, as well as of Alallakh, Ugarit and Mari in Syria (fig. 4). Sometimes such thresholds divided a room into two parts as, for example, in the audience hall of the Gonur palace and in the official rooms of Alallakh and Ugarit (Lampe 1968, fig. 111). In both Alallakh and in Gonur the supporting columns rested on basalt disks (Woolley 1955: 123, fig. 44).

It has been proved that thresholds and supporting columns were exceptionally popular in the palace architecture of the Aegean world (Phaistos) and from there they spread over the eastern Mediterranean and are now found in Margiana, as well. On the other hand, passages with rabbets resembling the Propylaea of the Knossos and Gonur palaces were found in northern Mesopotamia in the temples of the XIII layer of the Tepe Gavr site of a much earlier period and "have nothing to do with the lower temples of the same site" (Graham 1962: 30). This proves that the Aegean and Mesopotamian architectural details had undergone a long and intricate method of development. In this respect the hall (room 170) at the Gonur palace is rather representative. Two walls of the palace were replaced by very wide passages with thresholds and centrally located columns, and the parallels with the public cult building of Harappa do not seem to be accidental at all. (Dhavalikar & Atre 1989, fig. 20.)

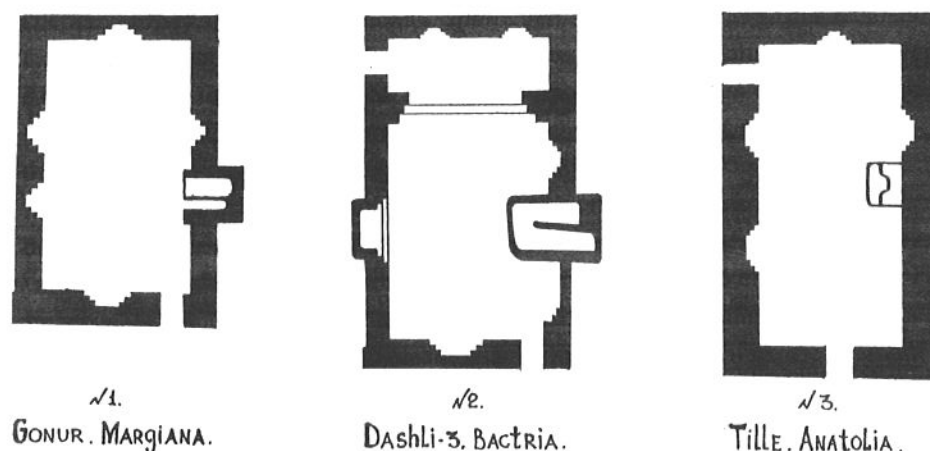


Fig. 5 A comparative table of sacred rooms with "blind windows".

In the palace and fire temple at northern Gonur (Sarianidi 1998a) that belonged to the earliest period in the history of the BMAC, i.e. to the last ages of the third millennium BC, there were found so-called "blind windows" or altar niches of a kind. Especially representative is the sacred place (room 100) in the fire temple with its five "blind windows" and a double chambered hearth of a special construction (Sarianidi 1998a, fig. 63). The same kind of sacred place with several "blind windows" was also found in the palace of northern Gonur (room 185), where a similar, though much bigger, double-chambered hearth was placed on a centrally located low platform (Sarianidi 2000). These two double-chambered fire places were not used for cooking but for sacrificial ceremonies. They were constructed in such a way that fire reached the cooked meat, a condition that directly corresponded to the Zoroastrian sacrificial traditions with their roots in "Iranian paganism" (Boyce 1989: 153). Each hearth was divided inside by a low partition into two unequal chambers; the smaller was used as a furnace and the bigger as a place for cooking sacrificial food (Sarianidi 1998a: 171).

Both the sacred rooms of Gonur (100 and 185) used for sacrificial ceremonies have direct parallels in the monumental building of Tillya Tepe (fig. 5) in eastern Anatolia. The latter belonged to a much later period and also had several "blind windows" and special hearths made in the floor (French 1983, pl. 1). In spite of their distant location, the common planning – as well as supposedly the functional purposes – of both sacred places makes one believe that they were used for similar

cult and ritual ceremonies and that the given tribes had some common religious beliefs. It should also be added that at the beginning of the first millennium BC, “blind windows” decorated the interiors of some temples located in the territory stretching from eastern Turkey (Tilya) through the Urmia Basin (Hasanlu, Baba Jan) and up to Media (Tepe Nush-i Jan). The fact that these “blind windows” found parallels in Tepe Gavri, where they were used as temple decorations in the middle of the fourth millennium BC, may testify to the existence of centuries old architectural decorations used in this part of Asia Minor (Sarianidi 1998a: 164). One may suppose that the common place of their origin lies in northern Mesopotamia.

The Mitannian temple in Tell Abraq, with its altar in the form of a “blind window”, occupies an intermediate chronological place between the monuments of northern Mesopotamia and Margiana (Oates 1987) and gives a certain support to this assumption. The elite of the Mitannian society was known to consist of Indo-Iranians, the fact that to a certain extent allows one to presume the Aryan character of the Tell Abraq temple. Such supposition can lead one to the conclusion that parallels between the “blind windows” in the fire temple and the palace at northern Gonur (as well as at the Bactrian Dashli-3 site), on the one hand, and the corresponding altar in Tell Abraq, on the other, reflect – besides the architectural similarity – common cult ceremonies and rituals that in the long run can somehow be connected with Indo-Iranian religious beliefs.

Speaking of western parallels one should mention the link between the paired niches of the “swallow’s tail” type in the corners of the throne hall of the Gonur palace (room 196) and the similar ones in the central courtyard of the Mari palace, especially in the official room 5 in Alallakh (Woolley 1955: 100, pl. xv). In the Gonur palace a throne niche of the same type is located on the side rather than in the centre, thus corresponding to the throne location in the Mari palace. Finally, with its wide flat “cheeks” the eastern passage in room 119 of the Gonur palace brings to mind the passage decorations at the Knossos palace (Graham 1962, fig. 106). Also, narrow recessed niches in the audience hall of the Gonur palace have direct parallels with the analogous niches in the throne hall of the Knossos palace (Niemeier 1987, fig. 1).

In short, there are certain similar features between separate monumental architectural blocks of northern Mesopotamia and partly of the Aegean world, on the one hand, and the Bactria-Margiana complex, on the other. Moreover, the “strong influence of the Aegean world” on the eastern Mediterranean and especially on Syrian monumental architecture has been referred to (Moortgat 1969: 79; Plommer 1956: 92), and now this influence is, to a certain extent, noticed as far away as in Central Asia.

It seems most unlikely that the recorded common features could be simply explained by cultural exchange. Most probably the constructions of Bactria and

Margiana in the described period reflect the so-called “architectural memory” of new settlers who came to Central Asia from the faraway western areas.

Having discussed the western parallels of the monumental architecture of the BMAC let us make a short study of new funeral rites of Margiana as they were revealed at the Gonur necropolis where the first colonists of this territory were buried.

The necropolis was situated to the west of the Gonur capital. It occupied an area of over ten hectares and included 6,000–7,000 dead. Besides this necropolis, some smaller graveyards were also excavated in Margiana. They, too, were located outside the inhabited areas, as, for example, the “rural” cemetery of Togolok-24 (Sarianidi 1998a, fig. 31). The excavations in ancient Bactria have also yielded some isolated graveyards outside the areas of the settlements.

At present, 1,500 tombs have been excavated at the Gonur necropolis. The majority of them, up to 70%, were shaft tombs in the shape of a vertical pit with a side-chamber on the bottom. The dead were placed in a flexed position on the right side with their backs against the entrance to the side-chamber. The heads, and the funeral gifts next to them, are north-oriented. After the dead person was buried the entrance to the side-chamber was capped with bricks and the vertical pit was filled with earth. The other popular type of grave belongs to the so-called pit tombs that make up 25% of all the excavated tombs. These were either rectangular or oval pits (very rarely round ones) in which the dead were placed according to the same funeral rites as in the shaft ones.

Some of the pit tombs were intensively burnt prior to the interments and they comprised 5% of the general number of excavated tombs at the Gonur necropolis. Most of the pit tombs had human burials, except for one with an animal burial. Some of them contained single bone fragments such as finger bones and teeth, which were from previous burials. One pit contained two skulls without skeletons, and in four pits the skeletons belonged to people with obvious physical defects, among them one dwarf.

The burnt pit tombs were probably used not only for those dead who had obvious physical defects but also for sterile women, and for mothers whose babies were born dead, for example. In this case the preliminary burning of pits was done not simply to prevent the pollution of the pure element of fertile soil by the stinking bodies of ordinary dead people but of those that had different kinds of anomalies and thus were considered twice “unclean”. It should be noted that some shaft tombs had side chambers that had been burnt to redness (Salvatori 1994: 17–18). It is likely that this was also done with the single purpose of protecting the soil from being polluted by a stinking dead body.

Three per cent of the excavated tombs were chamber tombs that obviously stood out in the general system of the graveyard. All of them seem to belong to the

local Margiana aristocracy. The chambers were of rectangular shape, their size varying from 3 to 7–8 square meters. The inside of the walls was covered with bricks; the vaults are believed to protrude over the day surface and the general height from bottom up to ceiling was up to two meters.

Brick “tables” and “beds” were found along the short wall on some floors of the chamber tombs. Above the “bed” there was a kind of a “niche” which looked like a “cupboard” filled with intact vessels (figs. 6 & 7). A brick hearth and a small blind niche with some light traces of fire made as a model of a double chambered fireplace of the above-described type were found in the fire temple (room 100) and in the palace of northern Gonur (room 185). All chamber tombs had one common feature: entrances with steps wide enough to carry in a dead body were made in the short walls of the tombs. They were capped with bricks without any clay mortar between them. This means that the entrance could be easily opened in case of necessity. The chamber tombs were definitely built for multiple usage: the skeleton of a previous dead person was moved aside together with the funeral gifts to give room for a new one.

Besides one-chamber tombs, double-chamber tombs with a common passage between them (figs. 8 & 9) were found. In these tombs a new corpse was placed in the first chamber while the previous dead body with his funeral offerings was moved to the second chamber. In other words, the chamber tombs were family graves for the Margiana elite used by certain families and clans (fig. 10).

The chamber tombs at the Gonur necropolis can be looked upon as house models used by the Indo-European peoples, Indo-Iranians in particular (Gimbutas). In the Greek literature this type of grave is called the “House of Hades”; in the *R̥gveda*, correspondingly, it is called the “House of Yama” (Jones-Bley 1997: 194–200; Hansen 1980: 35–37). Alongside brick-layed tombs, there existed simple ones in which the walls had only a thick clay plaster instead of brick-laying.

Most graves at the Gonur necropolis were plundered soon after the funeral and only 20% of the necropolis (including all chamber tombs) remained untouched. In many chamber tombs it should be noted that bone crumbs and small bones (teeth, finger parts) – instead of full skeletons – were found on the floors. This proves that some time after the burial the relatives gathered the bones of the dead and reburied them in some other place. This assumption was additionally supported by the fact that the level of floors dug in the sand soil were 15–20 cm below the brick walls. This can probably be explained by the repeated sweeping of sand floors after each removal of a decomposed dead body.

All the above-mentioned facts offer additional support to the conclusion that we are dealing with a certain stable funeral ritual that included the use of so-called temporary tombs. The graveyard in Swat (Gandhara Grave Culture) is a good



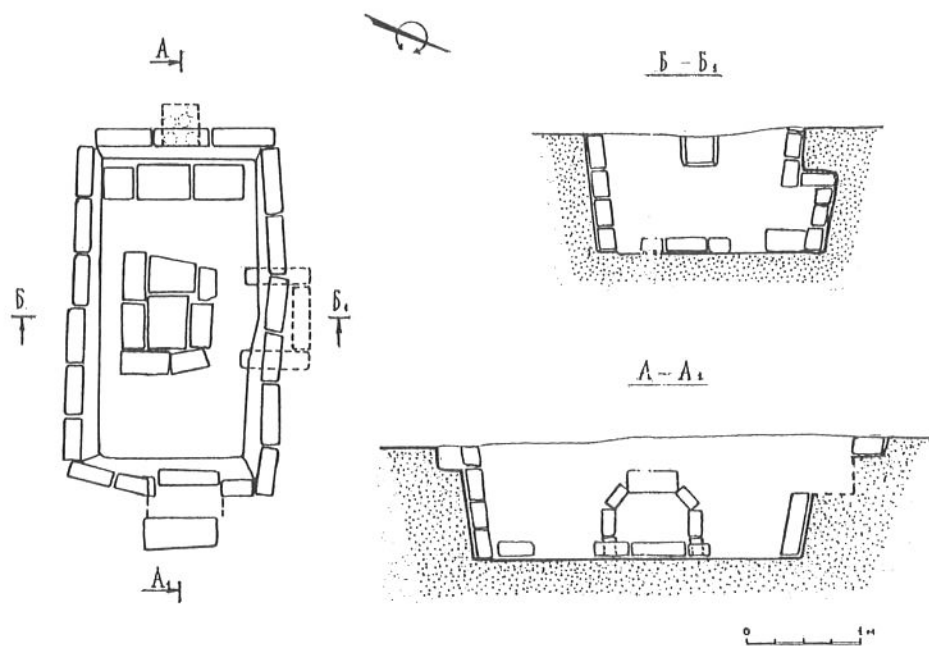


Fig. 6. Gonur necropolis. Chamber tomb. (burial no. 256).

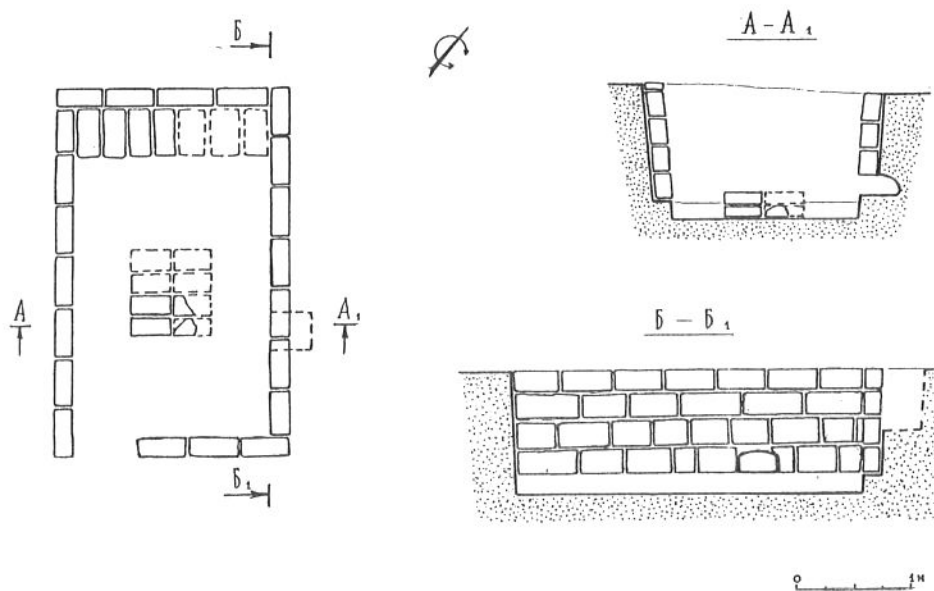


Fig. 7. Gonur necropolis. Chamber tomb (burial no. 450).

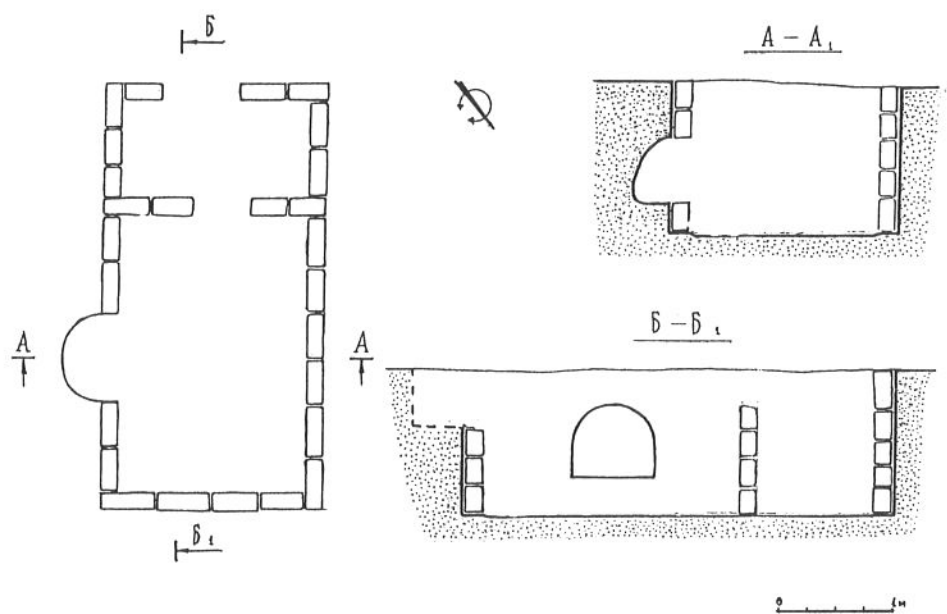


Fig. 8. Gonur necropolis. Double chamber tomb (burial no. 124).

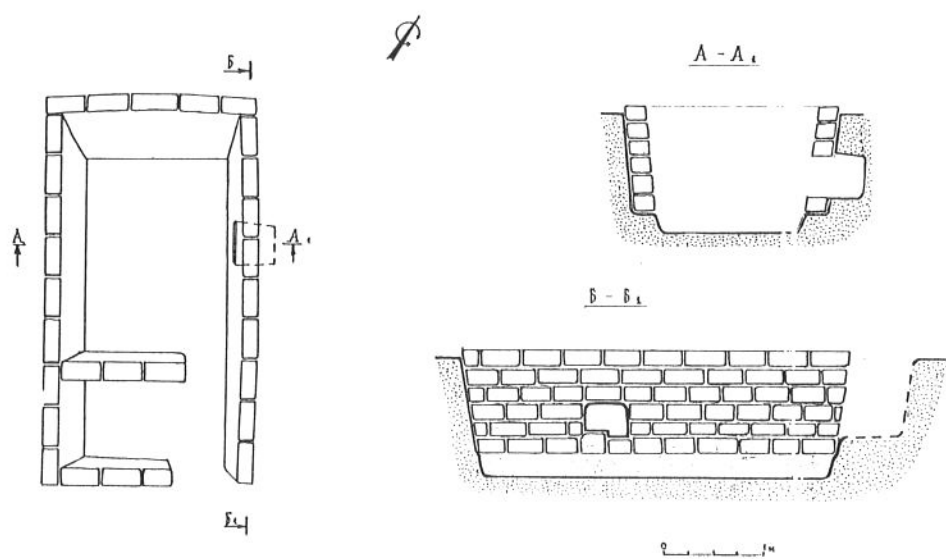


Fig. 9. Gonur necropolis. Double chamber tomb (burial no. 555).

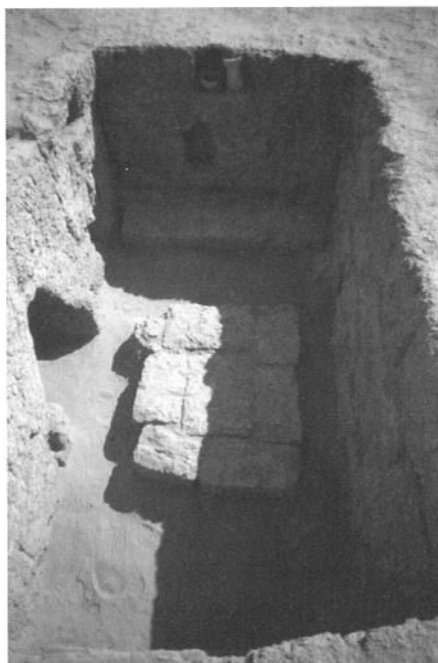


Fig. 10. Gonur necropolis. General view of burial no. 256.

example of this. According to the Videvdad, the tradition of building temporary tombs was typical of Zoroastrian funeral rites. Such temporary tombs or *kata* “may be considered as a kind of morgue of the earlier period” (Hismatullin & Krjukova 1997: 219), and it seems very likely that the Indo-Iranians used the practice of re-burying their dead. Since Margiana represents “Iranian paganism” (Grene & Gnoli), the temporary graves at the Gonur necropolis reflect ancient Iranian funeral traditions that existed in the Iranian world long before the origin of the Zoroastrian religion.

In this respect, the “complex of funeral rituals” in the western wing of the Gonur palace (fig. 11) is of special interest. All rooms of the complex are joined together by common passages, while all walls and floors (except in room 55) were completely covered with white plaster, often in several layers. It is quite probable that the rooms of the “complex of funeral rituals” were whitewashed not only inside but outside as well, since traces of plaster were found on the facade of these rooms.

The central passage almost in the centre of the facade wall leads to a vast room with smaller rooms on both sides. Room 48 stands out among them. It was decorated with a great number of recessed niches and with a round hearth in the centre of the floor, which bears slight traces of fire on the inner brick layer. Opposite the hearth there is a fire-place with traces of fire inside it. The traces of fire in the central hearth indicate the special purpose of this room.

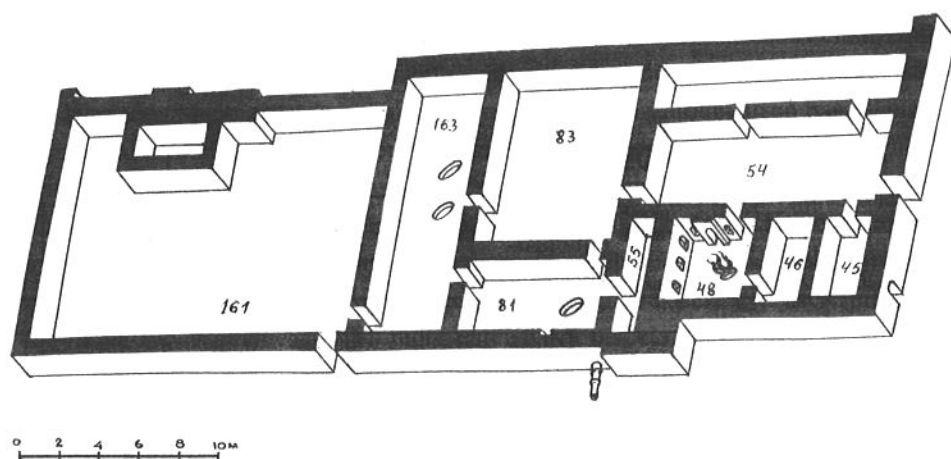


Fig. 11. Gonur palace. Complex of funeral rituals.

With its round pit and clear traces of water on its bottom, room 81 deserves special attention. A small outlet with three ceramic tubes is seen in the wall next to the pit. The whole picture gives one an impression of some kind of a drainage system used for letting out waste water (fig. 12). Two similar pits, also with traces of water, are in line in room 163. Shallow pits filled with burnt animal bones indicate that this was part of the “complex of funeral rituals”.

The plan of this complex reflects certain Zoroastrian funeral rituals, and one may have sound grounds to believe that the complex was most probably used for washing corpses. Though the fact of corpse washing is not mentioned in the Videvdad, later Zoroastrians were known to practise it and this tradition is still alive nowadays. If our assumption is true, we may suppose that the above-mentioned pits with water spots, and especially the excavated drainage system, may testify to the fact that the room was actually used for washing corpses. The number of excavated pits (three altogether) fully corresponds to the funeral rituals of late Zoroastrians who used three pits for this purpose: for men, women and children correspondingly.

According to Zoroastrian rituals, the dead person was brought into the “house of the dead” through one entrance and taken out through a special hole. Our excavations seem to illustrate this, since in room 45 the corpse was brought into the “complex of funeral rituals” through a central entrance and taken out through another door. Iranian Zoroastrians also had a special room for keeping their funeral equipment in the “house of the dead”. In our case, this role could easily be played by the extremely narrow room 55, that was the only room in the “complex of

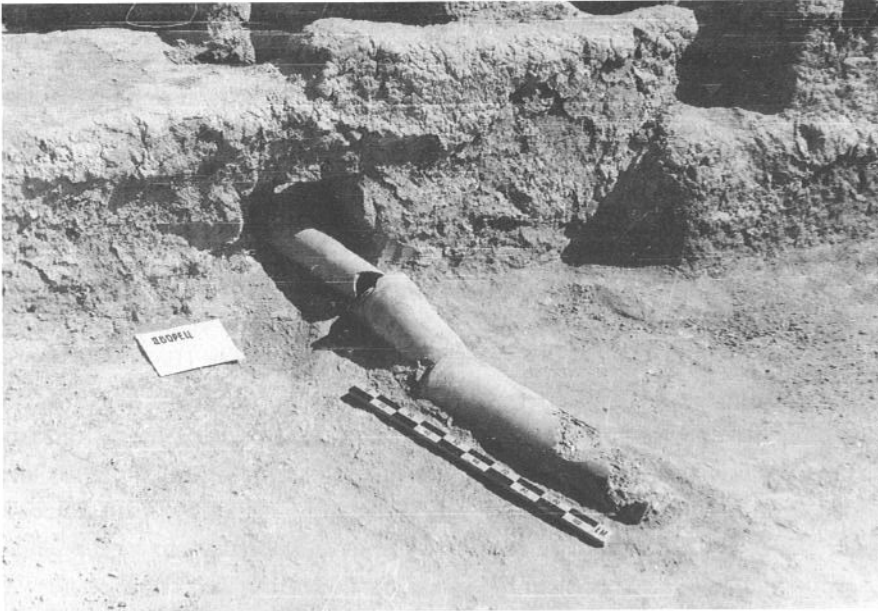


Fig. 12. Gonur palace. Drainage system in the complex of funeral offerings.

funeral rites” without a plaster layer. It seems quite possible that a corpse could be kept there for some time. Zoroastrians used to keep a fire for three days and nights in the room adjoining the one where a corpse was placed (Hismatullin & Krjukova 1997: 219). The slightly burnt hearth in room 48 is good proof of this, since it is clear that the fire was only smouldering there instead of really burning. Our attention was drawn to a slightly burnt brick that was found inside the hearth and which could serve as a good illustration of the habit of placing a brick instead of the corpse, the fact that symbolised the idea of the “last dead” (Hismatullin & Krjukova 1997: 222–223).

Zoroastrians believed that the soul of the dead person lived in the body for three days, and therefore it was necessary to “feed” it. In this case the double-chamber hearth in room 163 could have been used for cooking sacrificial food.

Zoroastrians are known for their diversity of funeral rites. This is confirmed by several burial ceremonies found at the Gonur necropolis. In some cases archaeological data from the necropolis directly correspond to the linguistic material of the Videvdat and give grounds to believe that Zoroastrian burial customs are closely similar to the rituals of “Iranian paganism” (and are sometimes identical with it). Here it is important to notice that in the process of the codification of the Videvdat some burial rituals were defined for some unknown reason as the “right” ones and were thus approved, while the others were treated as “wrong” ones. To some extent

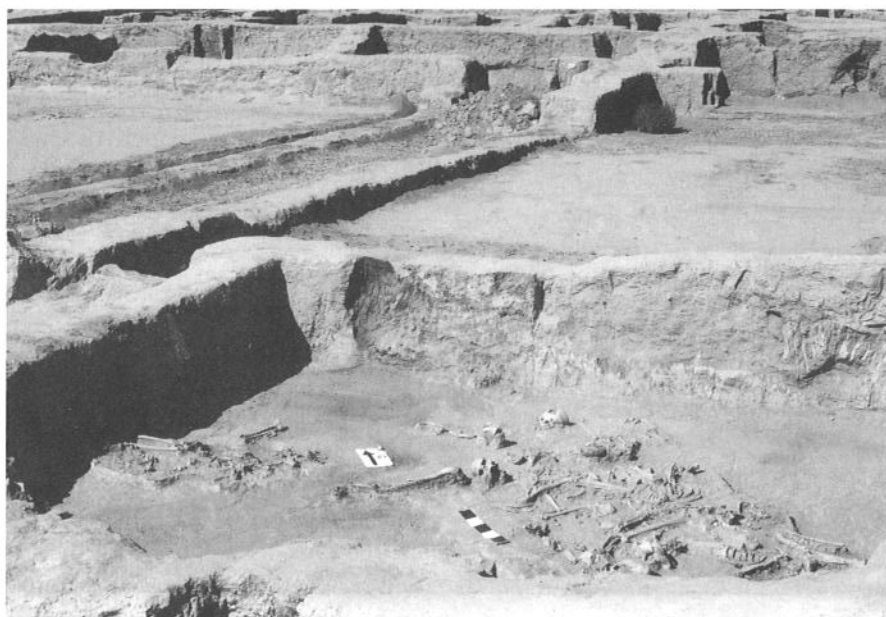
this can explain the discrepancy between the rites described in the Videvdāt and the archaeological material found in the “complex of funeral rituals”.

Lacking local roots, the Gonur necropolis reveals clear and definite parallels with the material from the middle part of the Euphrates, especially at the Tuttul graveyard from the middle of the third millennium BC. Probably some tribes who came from this area brought their funeral rites to the territory of the Gonur necropolis.

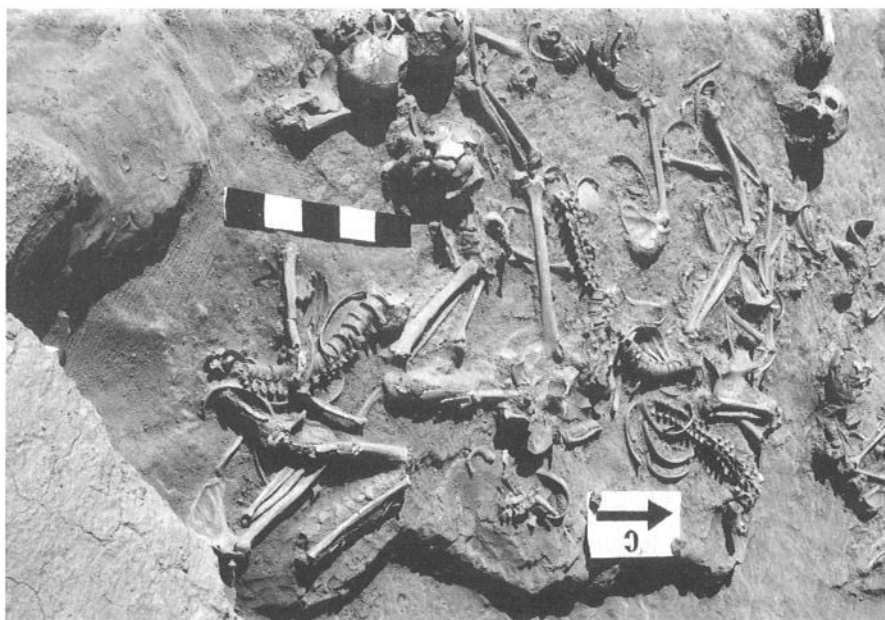
The Russian and American geomorphologists came to a unanimous conclusion that in the second half of the third millennium BC the solar activity caused a xerothermic period in the Near East that affected the territory from Greece to Indus and partly caused the collapse of the ancient Egyptian kingdom (Bell 1971; 1975; Klimenko & Prusakov 1999). It is very important to notice that the xerothermic period influenced the territories of the Near East unevenly: some areas (from Anatolia up to the Iranian plateau) seemed to remain untouched while some other areas suffered from a considerable lack of water and the local tribes were forced to migrate in search of new fertile oases. Asia Minor and Mesopotamia were already densely populated when this tribal migration started and so the people set forward in a general eastern direction searching for a new homeland. At last they reached the fertile oases of Central Asia and decided to settle and colonise the historical lands of Bactria and Margiana (Sarianidi 1998a).

This vast tribal invasion embraced a huge territory of the BMAC from the southern coast of the Caspian Sea up to the northern coast of the Arabian Sea and Baluchistan, also including some areas of the Indian subcontinent. At present, monuments of the BMAC type are known in the Kandahar area (southern Afghanistan) and Quetta (Pakistan) in the vicinity of the Indus Valley (personal communication of C. Lamberg-Karlovsky). This new material completely supports the theory of the arrival of the Near Eastern tribes in Central Asia and farther up in the Indian subcontinent (Sarianidi 1998a: 150–166).

Until lately it was believed that the recently arrived tribes settled only in the territory of Bactria. The latest excavations at the Gonur necropolis, however, give grounds to suppose that they reached as far as the Swat Valley. The excavations by Italian and Pakistan archaeologists, who found graveyards of the Gandhara culture in this valley, offer an additional support to the idea of the vast tribal settlement. The funeral ceremonies of this culture included flexed burials, cremation and fractional burials. The latter presuppose the removal of soft tissues from dead bodies before burying the bones and the existence of temporary tombs with the consequent way of burying. All these types of burials, except for cremation, were found at the Gonur necropolis. The fractional burials at the Gonur necropolis were represented by a kind of “dakhma” (figs. 13 & 14) found in the ruins of a neglected palace. It contained the mixed up bones of more than ten corpses placed on a special layer of ashes (Sarianidi 1998a: 71–72).



*Fig. 14.* Gonur palace. "Dakhma" (general view).



*Fig. 14.* Gonur palace. "Dakhma" (detail).

It is worth mentioning that, apart from common funeral ceremonies, the graves at the Gonur necropolis and the Swat graveyard manifested similar ceramic complexes which represent the late variation of the BMAC.

The similarity between Swat and Margiana was also supported by another detail. Some anthropomorphic statuettes had a specific common feature: a cup-like hollow on their heads (Sarianidi 1998a, fig. 11.1). This detail was earlier unknown in Central Asia. Statuettes with high "crowns" widening upwards were found in Swat graves at the same time (Antonini & Stacul 1972; Dani 1967, pls. li & liii). These "crowns" find their analogies in Turkmenistan of the Namazga V period. There is only one iconographic difference between them: all statuettes of this type from Margiana and Swat are represented standing (Sarianidi 1998a, fig. 16.2) while the Namazga V statuettes are always seated.

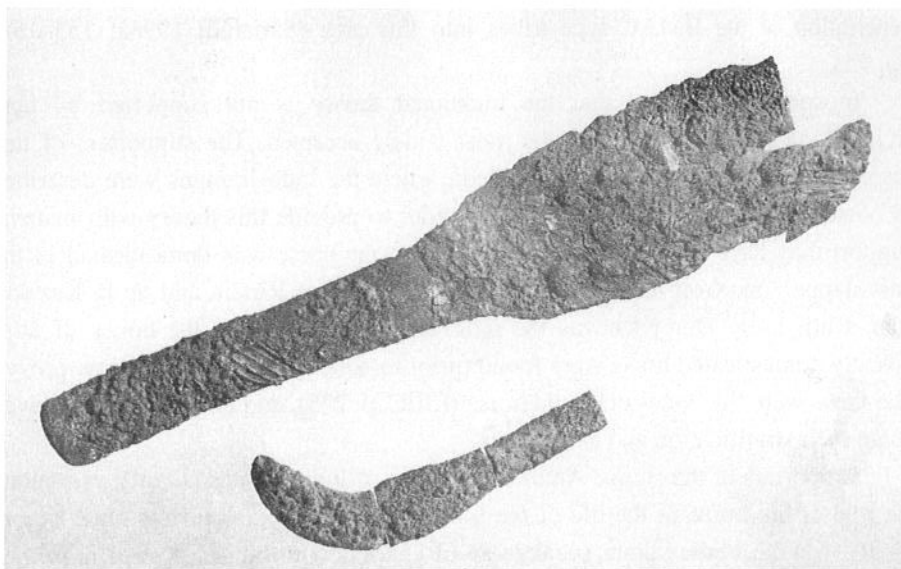
The typological similarity of metal pins is also very representative. To exclude the fact of accidental coincidence, we shall concentrate only on the rare and specific pins and disregarded the simple ones. Thus, the pins from Swat with their tops decorated with small rings (Antonini & Stacul 1972, fig. 24c) are very similar to those from Margiana (Sarianidi 1998a, fig. 34). They probably had one common western origin, i.e. Anatolia. Especially characteristic were the pins with heads in the form of disks with a small ball underneath. They are probably the most popular decoration found in the Swat graves as they are found there in dozens (Antonini & Stacul 1972, figs. 24b and 24e; Dani 1967, pl. xlviii). A silver pin of this type was found at the Gonur necropolis (Sarianidi 1998a, fig. 25.8). Its type is clearly defined indicating that it is of the same origin as the ones from the Swat graveyard.

Asia Minor (Troia) (Blegen et al. 1950, I.2, fig. 356) and partly the Aegean world are the westernmost points where identical golden pins have been found. In the east they have been found in many graves (as the case was in Swat) of Chagar Bazar. They give an impression of appearing "suddenly" as something that was imported from somewhere outside (Mallowan 1937: 152, pl. xvi). The find of a silver pin at the Gonur necropolis marked this place as an intermediate point on the journey that these pins took as they travelled farther to the east, almost up to the Indian subcontinent.

The copper "double-teeth forks" from Yaz Tepe in Margiana (fig. 15) and Hissar III in the Iranian Khorasan (Schmidt 1937, pl. iv) offer further proof of this statement, and they closely resemble the analogous ones from Swat (EIEC, p. 559).

In spite of the difference between the graves of Swat and Margiana they still reveal some common features. Some fractional burials and niches at the Swat graveyard (Antonini & Stacul 1972: 211, 234, 141, 147), for example, remind to a certain extent those from the chamber tombs of the hypogaeum type at the Gonur necropolis.





*Fig. 15.* Yaz Tepe, Margiana. Double-toothed “fork” from the excavations by F. Hiebert.

The Swat Valley is unanimously considered to be the only suitable way through which the Indo-Aryans could have reached the Indus Valley. In such a case Swat may be looked upon as an intermediate point on the journey that Indo-Aryan tribes took when migrating from the BMAC to the sites of the Harappan civilization. It has already been mentioned that Swat materials find their closest analogies in Central Asia and North Iran but still “by no way should we forget the fact that the grey pottery could only outline the direction and cannot be associated with the Iranian ethnos” (Mallory 1989: 47).

On our part, we believe that the Swat monuments should be compared with the BMAC ones rather than with the sites of the Bishkent culture (as the old theory proposes). As a matter of fact, the Bishkent culture can be taken as a late spreading of the BMAC farther up to the north and as its further assimilation with the local steppe tribes of the Andronovo type. Equally, the Swat culture is a result of the late spreading of the BMAC farther towards the east where it partly assimilated with the local population of the Harappan culture, the latter having the “H” type necropolis on the Indian subcontinent.

According to some scholars (Mallory 1989; Sarianidi 1998a), there is no archaeological data testifying to the presence of the steppe Andronovo tribes on the Indian subcontinent. On the other hand, there is a lot of material proving the

penetration of the BMAC type tribes into this area (Sarianidi 1998a: 153–158, fig. 75).

In spite of the fact that the traditional theory is not supported by new archaeological data, it still remains most widely accepted. The supporters of this theory find their main proof in the *Ṛgveda*, where the Indo-Iranians were described as horsemen familiar with the wheel. In order to provide this theory with material support they have tried to find the place where the horse was domesticated in the vast steppe zone from Ukraine all through the south of Russia and up to Kazakhstan. Until lately Derejvka was the most ancient place where the bones of supposedly domesticated horse were found (prior to 4000 BC). But later it was proved that these were the bones of a wild horse (EIEC, p. 275), and doubts appeared even about their stratification and chronology.

Supporters of the steppe Andronovo origin of Indo-Aryans slightly exaggerate the role of the horse in the life of the Indo-Aryan tribes. C. Renfrew notes that in the *Ṛgveda* the Vedic hymns speak more of chariots with horses than of horsemen (Renfrew 1998).

The domesticated horse was known to the BMAC tribes as early as on the eve of the second millennium BC. This was proved by the excavations in Bactria where bronze sceptre tops were found in the form of horse heads with carefully plaited mane (Sarianidi 1982, fig. 2). Also their cylinder seals bear horse images (Sarianidi 1998b, nos. 1441, 1442, 1444, etc.). Though these finds were not accurately described, their attribution to the Bronze Age cannot not doubted. This statement is supported by the find of a terracotta horse head on a figurine excavated in Altyn Tepe in the BMAC layer (Sarianidi 1973, fig. 16). The horse's mane is carefully cut, a detail that may speak in favour of a supposition that the statuette does not represent an ordinary working horse but rather a horse used for chariots during official ceremonies. One can believe that at that time a horse was rather an exotic animal and belonged only to a small group of local elite.

A destroyed tomb near Sarazm (Turkmenistan) deserves our special attention because it can prove that the domesticated horse was known to the people of the BMAC. Among the ceramics typical of the BMAC there was a very impressive find: a pin with a sculptured horse figure and a pair of bronze psali (Bobomulloev 1997, Abb. 3). The tomb contained no objects of Andronovo culture. This, together with the general character of funeral offerings, including ceramics, leads to the conclusion that the tomb belonged to the BMAC. And, finally, one should mention the burial of an about one-year-old foal that was found at the Gonur necropolis. The foal was headless and its skeleton was placed in the correct anatomical order. No funeral offerings were found but it is worth mentioning that the foal was placed on its right side and north-oriented – just as the majority of human skeletons at the necropolis.

The image of a spoke-wheeled chariot on a cylinder seal from the grave of the Hissar IIIB of the BMAC (Schmidt 1937, fig. 118) proved the fact that chariots were not foreign to the people of the BMAC. Additionally, the upper layer of the Namazga Tepe revealed terracotta models of one-axis chariots with spokes painted on their wheels.

Until quite recently the supporters of the idea of a local Central Asian origin of the BMAC stated that the domesticated horse appeared in these places due to the mass settlement of the Andronovo tribes in the farming oases. In the light of the latest excavations, this theory should be revised since we have sound grounds to believe that the BMAC tribes came to Central Asia on the eve of the second millennium BC, when they introduced the horse into this area. Naturally, not all the Indo-Aryans who came to Central Asia were horsemen, since the world history of this period knows no tribes that would consist exclusively of horsemen. As Renfrew (1998: 120) states, "a horseman in the cavalry is a later phenomenon that for the first time was registered in Egypt and the Near East after the Kadesh battle in 1275 B.C." It seems that the descriptions of horsemen in the *R̥gveda* were slightly exaggerated and simply reflected the frightening impression that the Indo-Aryans produced in the local population when they saw warriors who moved with an unheard-of speed in the chariots drawn by "exotic" animals.

The Swat necropolis is supposed to be of Indo-Aryan origin. This fact gives grounds to suppose that the most probable way of penetration of Indo-Aryans into the Indian subcontinent was from the Near East through Central Asia. This makes one reconsider many of the old theories and hypotheses concerning the Indo-Aryan "invasion" that ruined the Harappan civilization.

Other evidence speaks in favour of the Indo-Aryan origin of the BMAC. Zoroastrianism is widely believed to have appeared in the Iranian environment, or in other words, in "Iranian paganism". According to many specialists, the BMAC belonged to this society as well. The remark of Prof. Gnoli is a characteristic one. He notes that "finally the so far unsatisfactory study of the 'Iranian paganism' problem seems to receive some solution after the excavations in Margiana" (Gnoli 1989: 175, 178). At present almost all linguists believe that Zoroastrianism appeared in the East-Iranian territory (in the broad sense of the term), and the latest archaeological data gave certain evidence for placing the roots of the origin of the Zoroastrian religion in the territory of the BMAC.

The Zoroastrian religion is a complicated philosophical theory. The excavated material shows that the main cults of this religion were those of fire and libations. In the *Avesta* the drink used during the sacred libations is called *haoma* and in the *R̥gveda* *soma*. At present Margiana is the only place in the whole territory of the Near East where documental proofs of the simultaneous existence of these two cults were found among the same tribes at the end of the third millennium BC. Three

monumental temples (Togolok-1, Togolok-21 and the Gonur *temenos*) have been excavated in Margiana and they are all dedicated to the soma-haoma drink as well as to the fire cult (Sarianidi 1998a).

All the above-mentioned temples have special “white rooms” (fig. 16.1) where fossil remains of ephedra, hemp (fig. 16.3) and poppy are found. It is known that these essences are still used for producing hallucinogenic drinks. It should also be noted that the excavated temples yielded sets of artifacts used for the preparation of soma-haoma drinks. The brief study of this archaeological material reveals how closely it corresponds to the description of the production process of these drinks given in the Avesta and the R̥gveda.

According to the hymns of the Avesta and the R̥gveda, alkaloid plants (that have an unpleasant smell) were first soaked in special vessels. Such vessels were found in all Margiana temples (fig. 16.3). Especially characteristic were “small baths” with the remains of alkaloid plants that were found in private rooms of the Gonur *temenos*. After the stems got soft they were ground with stone grinders found in great number on all the floors of Margiana temples (fig. 16.8). In order to get the soma-haoma drink, the floral mixture had to be squeezed out with the help of special pressing stones (in the Avesta the word *haoma* is literally explained as “something that is being squeezed”). Such flat stones found in the Gonur *temenos* (figs. 16.4 & 16.11) had a special form with half-spherical protrusions and holes. It is significant that two such flat stones with protrusions and holes were found in the BMAC layers on the Ulug Tepe site in South Turkmenistan. There is no doubt that they were used for squeezing juice from plants. After the juice was mixed with barley and milk (including sour milk) and dissolved with some water, it was left for fermentation in special vessels that were set on stone platforms in “white rooms”.

In the final stage, special strainers (fig. 16.6) on ceramic stands (fig. 16.9) were used in order to separate the ready juice from the small particles of plant stems. The bottoms of the strainers were lined with pieces of wool. The juice poured into these strainers drained down into small bowls placed under each strainer, while stems and small plant particles remained in the wool (fig. 16.10). The ready drink was poured into cult vessels with sculptured friezes along the rims. These, too, have been found in Margiana temples (fig. 16.2).

The above-mentioned facts and materials undoubtedly prove that all three Margiana temples were specially designed and dedicated to the soma-haoma deity and connected with the preparation and ritual use of this hallucinogenic cult drink. It seems most likely that the drink was introduced in the territory of the BMAC, and precisely in Margiana, by those tribes who had reached this place after arriving from some more western point.

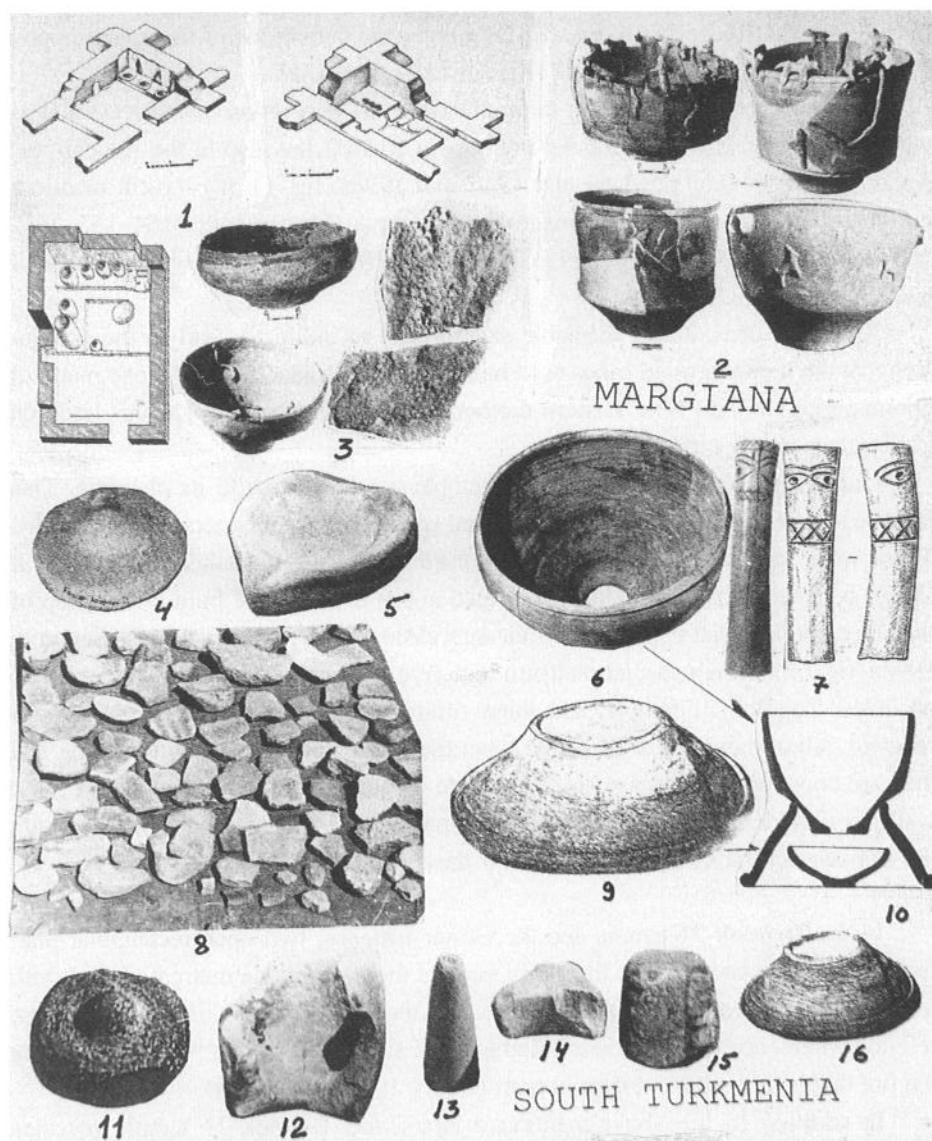


Fig. 16. Margiana. Complex table of objects used for the preparation of the soma-haoma type drinks.

Temples of this type were excavated only in Margiana and nowhere else in the Near East. At the same time it is known that Asia Minor as well as the Aegean world were familiar with the opium poppy and used it as a narcotic essence (Merlin, 1984). As proof of this, one may refer to the Beycesultan excavations in which a vessel with poppy seeds was found (Lloyd 1965, pl. vi.a). It is believed that the

Indo-European tribes were those who distributed the cultivation of the opium poppy over the territory of the Old World (Merlin 1984: 161, 189).

Also, it is not accidental that the tradition of the decoration of cult vessel rims with sculptured friezes was popular not only in BMAC but also in the Aegean and Anatolian world – and nowhere else (Sarianidi 1998a, fig. 1). It is worth mentioning that bone pipes with facial images from Cyprus (Morris 1985: 164–165, figs. 263–268 + pl. 190) are analogous to those used in Margiana for the consumption of hallucinogenic drinks.

In other words, all the available data directly or indirectly lead to the conclusion that the newly-arrived tribes used hallucinogenic drinks (at least those made of opium poppy) in their Near Eastern motherland and that they brought this tradition to Margiana and Bactria.

Out of four excavated temples, one temple stands out due to its planning. This is a fire temple with a chain of fire altars and special brick containers located nearby. These were “containers of sacred ashes” used for storing the ashes from altars. It should be noted that the fire altars excavated in this temple were built one on top of the other, the fact that can testify to the succession of fire cult traditions (Sarianidi 1998a, fig. 62). Also a special platform with five analogous fire altars was excavated in the Togolok-21 temple, and three similar altars were found in the Gonur *temenos*. All of them are of the same type: they have simple rectangular shape and they are constructed in virgin soil. They are located in the open air behind blind walls, as if hidden from the eyes of the uninitiated. The altars are in accordance with the Zoroastrian tradition as they are “on the sight level of a seated man” (Boyce 1989).

In the Togolok-21 temple and the Gonur *temenos*, two open rectangular platforms were excavated next to the altars, each of them about one metre high and with a fence around them. They are reminiscent of the so-called *pavi* of the Zoroastrian religion where, according to their beliefs, Gods sit unseen by the people and enjoy the fire that is lit in altars in their honour (Boyce 1989).

In addition to the above-mentioned altars, the Togolok-21 temple revealed some other altars that were round and low. They were used for cult libations and contained the remains of some oily liquid, such as milk and melted fat (the analysis was made by Prof. N. Meyer-Melykian in the laboratory of Moscow University). The altar under discussion had a cup-like form with a small hearth on the bottom. One can imagine that the oily liquid streamed along the altar sides, met the fire down in the hearth, flared up and the flames went up high in the sky. Such a picture may be a good illustration of the sacrificial rites prescribed in the sacred books of Zoroastrians. It is important to add that a small bone tube with a facial image and remains of poppy pollen inside was found at the entrance of this altar.

According to the available data, Margiana during the Bronze Age seemed to be inhabited by people who belonged to “Iranian paganism” which one can assume to be the roots of the Zoroastrian religion. Yet, very few specialists support this theory. Ten years ago a discussion in the magazine *Vestnik drevnej istorii* (1989, no. 2) showed that quite a number of specialists did not support the theory of the Central Asian roots of the Zoroastrian religion. Their main argument was based on the fact that no temples were mentioned either in the Avesta or in the *R̥gveda*. The latest archaeological discoveries, especially those of the fire temple in Tepe Nush-i Jan, made linguists B. Litvinskij and M. Dandamaev state that the old theory should be revised and a new approach to the problem should be formed. Moreover, it could be that temples of “Iranian paganism” were simply ignored by the prophet and excluded from the Zoroastrian religion.

According to some scholars, Zoroastrianism originated among the nomads who were on a low level of social development and who knew no urban life. A contrary opinion is strongly supported by another group of specialists. Thus, G. Gnoli confirms that “... Zoroastrianism could be formed only in the territory with an urban civilisation and in a society with social hierarchy” (Gnoli 1989: 175). On the other hand, M. Dandamaev believes that Margiana had “... too archaic a material culture and primitive social institutions” to be able to become a centre of a new religion (Dandamaev 1989: 170). The last statement was made long before the excavations at North Gonur with its splendid monumental buildings. Palaces in general are believed to be one of the best indications of the level of social life, and the Gonur palace with its complicated and well-designed planning testifies to an extremely high level of social development. Palaces are one of the symbols of royal power, and the Gonur palace is a good example that proves the existence of a well-developed social system in Margiana. A real urban life, brought to Margiana by immigrants, is a landmark in the ancient history of Central Asia. A lot of research should be carried out to fully appreciate the significance and importance of this revolution for the history of Central Asia.

The chamber tombs of the local elite found at the Gonur necropolis is another proof of the high level of development of Margiana society. Also the stone “sceptres”, found among the funeral offerings, witness the existence of royal or religious power in Margiana.

One may have the impression that though we have entered the 21st century we still carry along the ideas and theories of the 19th century. The time has come to review old hypotheses and ideas. In many cases, the latest archaeological material, instead of supporting the old theory, directly contradicts it. The new facts allow us to weigh up and co-ordinate the archaeological and linguistic material in order to solve the Indo-Iranian problem in general and the Indo-Aryan one in particular. It is absolutely clear that, on the turn of the third and second millennium BC, the whole

of "Outer Iran" (and not only Bactria and Margiana) was the territory widely settled by Indo-Iranian (more precisely: Indo-Aryan) tribes. Their religious traditions became slightly transformed in the new homeland and gave birth to the first "world-wide" religion – Zoroastrianism.

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