Gonur Depe – City of Kings and Gods, and the Capital of Margush Country (Modern Turkmenistan)

Its discovery by Professor Victor Sarianidi and recent finds

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Abstract: Over 40 years ago, in 1972, Professor Victor Sarianidi picked up the first fragments of pottery from the surface of a huge hill named by the local people "Gonur Depe" ("Grey Hill" in Turkmen). Excavations were not carried out there every year after that: Sarianidi was busy excavating near the Kopet Dagh Mountains, at other sites in ancient Murghab Delta, and in northern Afghanistan. But steadily the finds of monumental architecture, fine art and engineering, indicative of a complex ideology and social stratification, provided an opportunity to take a new look at historical processes at work on the eve of the 2nd millennium BCE. This settlement lifted the curtain on the formation and development of a previously almost unknown country, a centre of ancient oriental civilisation (2300–1500 BCE) – the Bactria-Margiana Archaeological Complex (BMAC). In addition to the description of major discoveries in the Margush (= Margiana) country, this paper discusses features of the ancient city and some of the factors that contribute to the process of urbanisation.

Keywords: Central Asia, Bronze Age, BMAC, urbanisation, ritual centre, monumental architecture, funeral rituals, migrations.

Резюме: Немногим более 40 лет назад (в 1972 г.) профессор Виктор Сарианиди поднял первые черепки от сосудов с поверхности огромного холма, получившего у местных жителей название Гонур-депе (в переводе с туркменского «серый холм»). Первоначально раскопки проводились там не ежегодно, т.к. археолог работал в предгорьях Копетдага, на других памятниках древней дельты Мургаба, а также в Северном Афганистане. Но открываемые от года к году монументальная архитектура, прекрасные образцы искусства и инженерного дела, сложное мировоззрение и социальная стратификация давали возможность все более ясно взглянуть на исторический процесс на пороге между III и II тыс. до н.э. Это поселение приоткрыло завесу над тайной сложения и развития ранее неизвестной страны – центра древневосточной цивилизации (2300–1500 до н.э.) – Бактрийско-Маргианской археологической культуры. Кроме описания основных открытий в стране Маргуш, обсуждаются отличительные черты древнего города и факторы, способствующие урбанизации.

Ключевые слова: Средняя Азия, эпоха бронзы, БМАК, урбанизация, ритуальный центр, монументальная архитектура, погребальные ритуалы, миграции.

DOI: 10.13173/9783447111690.029

1 Gonur: Its discovery and recent finds

Before the beginning of the 20th century, our knowledge of Central Asian history was restricted to the medieval period: no sites of the Paleolithic, Neolithic or Chalcolithic Periods, nor even of the Bronze and Iron Age, were known in this region. By the end of 1940s, key discoveries had been made by Russian archaeologists: Sergey P. Tolstov had discovered the Khorezm civilisation (Tolstov 1948; 1948a; 1962), and Alexey P. Okladnikov had found Mesolithic sites and caves such as those of Jebel, Kailyu and Dam-Dam-Cheshme (Okladnikov 1949; 1966 etc.). Southern Turkmenistan was investigated by the South Turkmenistan Archaeological Complex Expedition (YuTAKE) under the leadership of Professor Mikhail Masson and later Vadim Masson. Through the efforts of A. Marushchenko and then V. Masson, the Djeitun Neolithic culture was discovered and its outstanding monuments excavated (see, e.g., Hlopin 1961; Masson 1971). By the beginning of the 1950s, thanks to Boris A. Kuftin's excavations at Namazga Depe, the stratigraphy of all Central Asia was becoming clearer. Vadim M. Masson, Ovez Berdyev, Victor I. Sarianidi, Igor N. Khlopin and E. Masimov are the archaeologists who have made a great contribution to our understanding of such places as Altyn Depe, Ulug Depe, archaic Dakhistan (Dehistan), Parthian Nisa, and many other now world-famous archaeological sites in Turkmenistan. Their excavations during the following decades revealed the continuity of cultures over a wide area of the Kopet Dagh foothills extending over millennia. But all information was restricted to the south and north regions of Turkmenistan. Nobody thought that any settlement or city might exist in the sands of the Karakum Desert. Hence, YuTAKE began excavations along the Murghab River. One of pioneers of this expedition was Victor Sarianidi, then a young archaeologist keen to know all about the ancient history of Turkmenistan.

After some years of digging at the Yaz Depe and Takhirbai sites in the Merv oasis, by the end of the 1980s prospecting along the ancient delta of Murghab River had revealed more than 200 Bronze and Early Iron Age sites (Sarianidi 1990). In the 1990s, the international project Archaeological Map of the Murghab Delta was carried out (Gubaev/Koshelenko/Tosi 1998; Salvatori/Tosi 2008), thanks to which more than 500 settlements (including many nomadic ones) were identified. The largest monument is Gonur Depe ("Grey Hill" in Turkmenian), found in 1972 (Sarianidi 1973) and excavated from 1974 to the present day by the Margiana Archaeological Expedition under the direction of Victor Sarianidi. Organised and funded by the Institute of Archaeology of the Academy of Sciences of the USSR, the expedition was conducted in collaboration with colleagues from the Institute of History of the Academy of Sciences of Turkmenistan. Since 2003, it has been a Russian-Turkmenian expedition, carrying out its tasks within the framework of an agreement between the Institute of Ethnology and Anthropology of Russian Academy of Sciences (IEA RAS) and the National Department for Protection, Investigations and Restoration of the Historical Monuments of Turkmenistan of the Ministry of Culture. Since Professor Sarianidi's death in 2013, the present author has been the head of this expedition. Many scholars from different countries and institutions have taken part, and are still taking part, in the excavations. In 2013, an agreement on co-operation between IEA RAS and Bern University in the archaeological investigation of Gonur Depe was signed.

A large amount of C14 data (Zajceva et al. 2008) shows that there were three main stages of building at the site (approximate dates; we can now refine the dating for various monument areas):

I period – the start of construction and the foundation of the centre: 2300–ca. 1900 BCE;

II period – reconstruction of the buildings after a "large fire": 1900–1700 BCE;

III period – last years of habitation and final abandonment: 1700–1500 BCE.

At the centre of Gonur Depe was the moumental Kremlin, a fortified complex (120 × 120 m) that included a palace with official ceremonial halls, a complex for funeral rituals, a royal "chapel", smaller living apartments exclusively for the ruler and his family, and two duplex structures (so-called "temple-towers" according to Artem'ev/Urmanova 2010: 195–199). Apart from the palace complex, *kelyii* (cells) (Urmanova 2014), the rooms for guards and service staff, are situated in the Kremlin, which is surrounded by a fortification wall that had rectangular towers (Sarianidi 2000; 2002; 2002a; 2007a; Artem'ev/Urmanova 2010). Outside the Kremlin, on the eastern side, there is a Fire Temple (Sarianidi 1998: 120–132); and in the northern part there is a "royal sanctuary" (Sarianidi 2005: 112–123); and in the western, southern and south-eastern parts, there are sacrificial temples (Sarianidi 2005: 148–165). All the temples, together with round altars on the west and water pools in front of the east, west and south entrances to the complex, are surrounded by an enclosure wall with rectangular towers, a *caré*.[1] In the area outside this second wall, non-residential premises were built and not less than four complexes for communal eating (two to the north, and one

1 From the French *carré* (square). Victor Sarianidi gave this name to the second row of walls at Gonur.

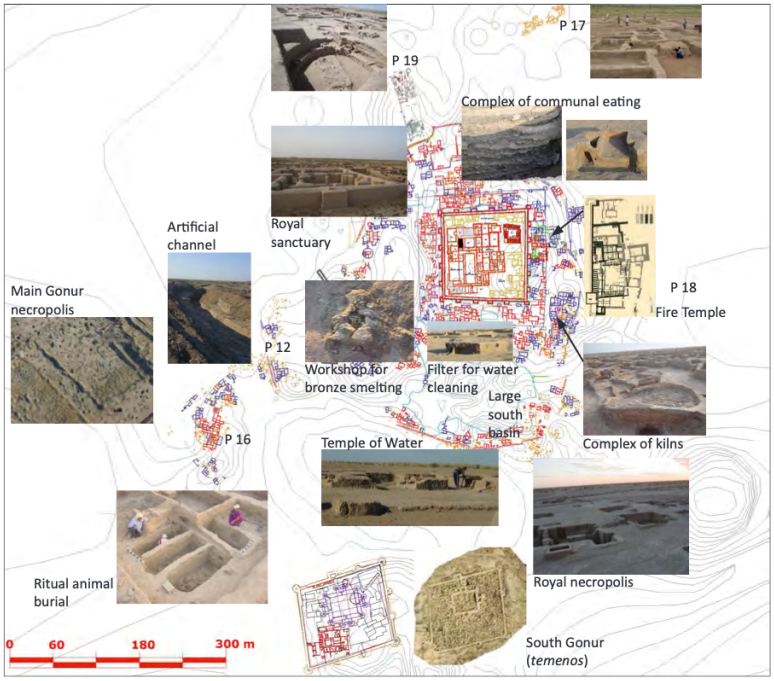

Fig. 1: General plan on Gonur Depe, with images of the main objects, 2015 (© Margiana archaeological expedition).

each in both the east and the south), all of which included a water pool, rooms with ritual double ovens (see e.g., Sarianidi 2010: 36–38, 133–134), and large squares filled with a "pie" of alternating layers of clean sand and ash with animal bones (Sarianidi 2005: 125–145; 2010: 44–45, 137–138). Professor Sarianidi identified two Temples of Soma-Haoma (one south-west, one south-east), the characteristic features of which are large vessels embedded in the ground. Some of them have many layers of white substance, and others small ceramic plates with 1–2 large fragments of animal bones (Sarianidi 2010: 75–79, 146–148) (**Fig. 1**).

A system of two pools was located to the south: the large 120 × 85 m, and the small 58 × 29 m. For water cleaning, a special filter construction connected these two reservoirs. On the south side of the large basin there was a Temple of Water (Sarianidi 2005: 167–181), identified on the basis of some open rooms with several ritual double ovens facing the water. On the north-western bank of the same water pool, a workshop for smelting bronze, where many moulds, melting pots, tools, and other appropriate artefacts, including ritual ones, were found (Dubova 2008; Papachristou 2008; 2010). The remains of possibly one more similar workshop were excavated on the east side of the basin (Sarianidi/Dubova 2014: 103–109). Not far from this, a "royal" graveyard had been discovered earlier. It consists of eight sepulchre-like multi-room underground houses and three huge pit tombs. Though all sepulchres were robbed several times in antiquity, they still provided very rich findings – gold, silver, stone and unique bronze artefacts that confirme the high social status of the buried (Sarianidi 2005; 2006; 2007; Sarianidi/Dubova 2010). This was the first time tombs of this type have been found in Central Asia. Particularly interesting are mosaic compositions with elements of painting (Dubova 2011; Sarianidi/Dubova 2013).

All listed architectural ensembles were surrounded by the third encircling wall. Only 1 m thick, and thus unlikely to function as a fortification, it was probably a wall protecting the holy place from the profane world outside. The settlement was at the beginning of the delta on the right bank of the Murgh-

Fig. 2: Types of tombs at Gonur Depe graveyards, with their frequency (© Margiana archaeological expedition).

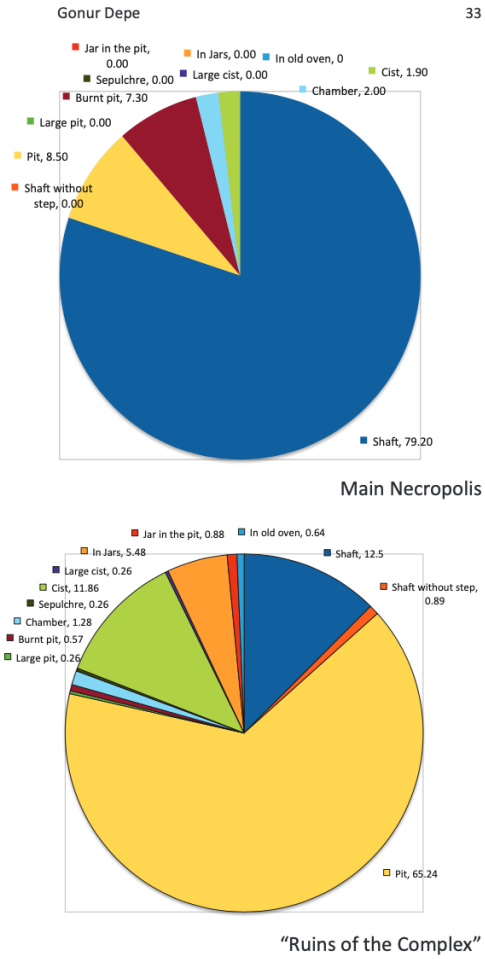

Fig. 3: Frequencies of different types of tombs at the Great (Main) Gonur Necropolis and at other graveyards in the ruins of the former monumental buildings.

ab River (or one of its major branches), which made it possible to control and regulate water flow to the oases located downstream. On the other bank of the same branch, 300 m to the west of the described settlement, a large graveyard was found (Salvatori 1993; 1994; 1995; Sarianidi 2001; 2007). Outside this necropolis with its almost 2,900 known tombs, more than 2,000 human burials were additionally found in different parts of the site (mostly in the last stages of Gonur's habitation). At the Great (or Main) necropolis, only adults and juveniles (over eight years old) were buried. Young children were mostly buried near the occupied houses in the ruins of abandoned buildings (Dubova/Rykushina 2007).

Very characteristic of Gonur is the range of burial types. Ten types can be distinguished: sepulchres (multi-room underground houses with an entrance); cists (underground pits with arch roof and walls lined with mud bricks); chambers (two or three rooms with tables, niches for vessels, ovens

Examples of some analogies between Gonur artefacts and architecture and those of Middle East and Mediterranean

Fig. 4.I: Map of the distribution of similar motifs, found on seals and amulets (after SARIANIDI 1994: 38).


a


b


c

Fig. 4.II: "Harpoons" or "rods". **a**: from the tombs at Gonur Depe, Turkmenistan: tomb 3280 on the top, tomb 3130 – two others (© Margiana archaeological expedition); **b**: in the hand of Ishtar Goddes (her foot is on the lion's back) on the wall painting in the Royal Palace of Mari in Syria, II Mil. BCE (modern location – Louvre Museum; detail of photo by N. Dubova); **c**: Egyptian khopesh (photo by N. Dubova).

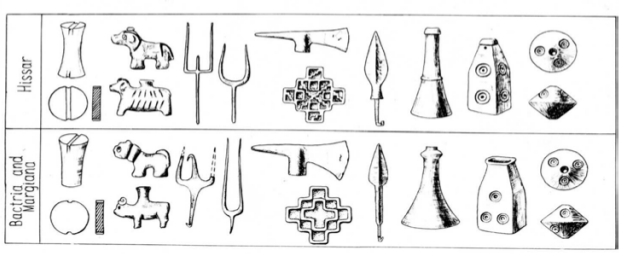

Fig. 4.III: Comparison of artefacts from Bactria, Margiana and Tepe Hissar, Iran (after SARIANIDI 1990: 81).

a b c

Fig. 4.IV: Comparison of wheels. **a**: Choga Zanbil (Tehran archaeological museum); **b:** tomb 3225 at Gonur Depe; **c:** on Ur Standart (British Museum) (all photos by N. Dubova).

Fig. 4.V: Bird-headed men on the impression of the cylinder seal on the ceramic vessel from the Gonur palace, Turkemenistan; see also Fig. 4.I (©Margiana archaeological expedition).

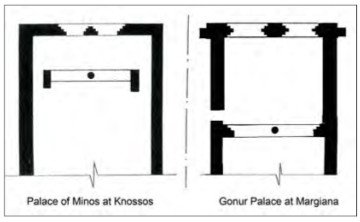

Fig. 4.VI: Comparison of the plans of main hall. **a**: of the Palace of Minos at Knossos (Greece); **b**: audience-hall of the Gonur palace (after SARIANIDI 2008: 287, fig 17).

a b

Fig. 4.VII: "Griffin in cartouche". **a**: from the tomb 3210 at Gonur Depe (©Margiana archaeological expedition); **b**: griffin on the wall painting in the Royal Palace of Mari (Syria, II Mil. BCE) (modern location – Louvre Museum; detail of photo by N. Dubova).

Examples of some analogies of Gonur artefacts and architecture with those of the Harappan (Indus) civilisation

a b

Fig. 5.I: Seals with elephant image. **a**: from Gonur Depe, Turkmenistan (© Margiana archaeological expedition); **b**: Mohenjo Daro, Indus Valley (photo by J. Lyytikkä; courtesy by National Museum of India, accession no. 134).

a b

Fig. 5.II: Ivory sticks for "future telling" or games. **a**: from Mohenjo Daro (after MARSHALL 1931: Pl. CXXXII, 22, 27); **b**: from Gonur Depe (Area 5, room 115; © Margiana archaeological expedition).

1 2 3 4

Fig. 5.III: Monkey figurines. **1**: from Gonur Depe (tomb 4150); **2–4**: from Mohenjo Daro (**2, 4** after MACKEY 1938/1939: Pl. C; **3** after MACKEY 1931: Pl. XCVI; Fig. 5.III also published in SARIANIDI/BOROFFKA/DUBOVA 2014: 137).

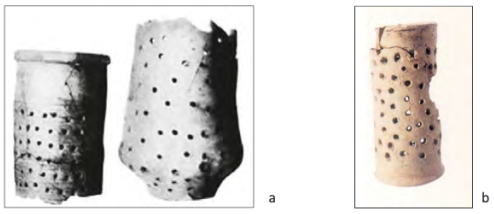

Fig. 5.IV: Perforated jars. **a**: from Mohenjo Daro (after MARSHALL 1931, vol. 1: 289); **b**: from Gonur Depe necropolis (© Margiana archaeological expedition).

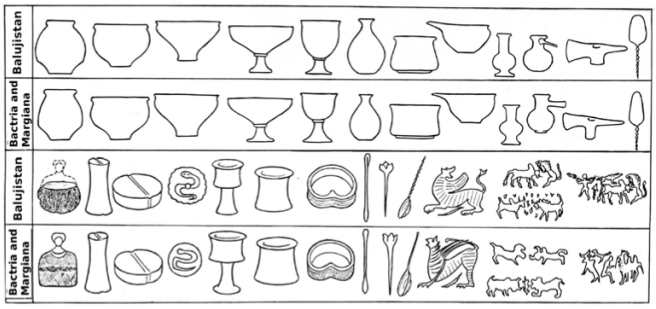

Fig. 5.V: Comparison of artifacts from Bactria, Margiana and Baluchistan (after SARIANIDI 1990: 86).

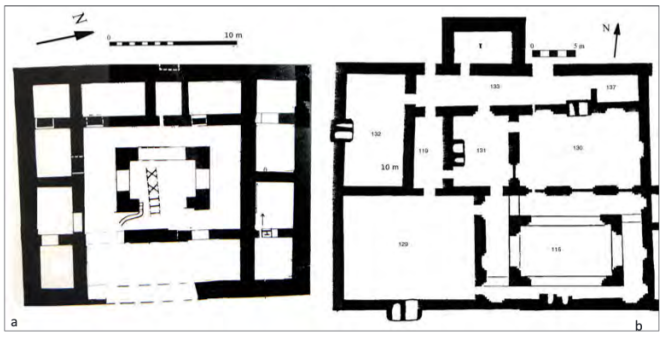

Fig. 5.VI: "Kiosk" construction. **a**: at area HR of Mohenjo Daro (room XXIII, after MARSHALL 1931: Pl. 39); **b**: at Gonur Depe, Area 5 (after SARIANIDI 2012: 26).

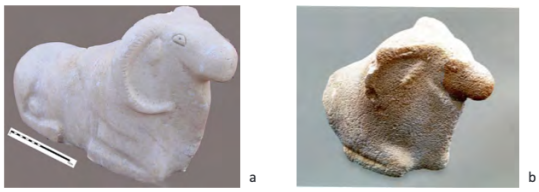

Fig. 5.VII: Stone ram sculptures. **a**: from Gonur Depe (tomb 3220; © Margiana archaeological expedition); **b**: and Mohenjo Daro (after ARUZ 2003: 289, Fig. 275b).

Fig. 5.VIII: Ivory artefacts from the tomb 3245 at Gonur Depe (© Margiana archaeological expedition).

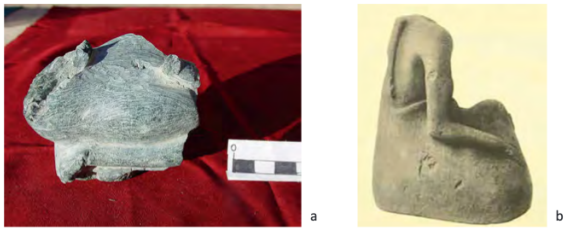

Fig. 5.IX: Fragments of seating stone statuettes. **a**: from Gonur Depe, Area 5, room 130 (© Margiana archaeological expedition); **b**: from Mohenjo Daro (after MARSHALL 1931: 176, Pl. C).

and entrance); shaft tombs (pits with a niche in one wall, where the human remains were placed); simple ground pits; "burnt pits" (with the walls burnt to red); and huge pits (diameter more than 5 m, depth around 2 m); burials in jars (only children); fractional burials (simple pits with secondary burials of isolated human long bones and scull) (Sarianidi 2001; 2007); and one grave-like *dakhma*[2] (Sarianidi 1998: 70–73) (**Fig. 2**). The greatest proportion of graves at the Great Gonur necropolis are shaft graves (ca. 80%), while in other areas pit graves predominate (65%). There is a difference in the frequency of other grave types between the areas (Dubova 2014; Sarianidi/Dubova 2016) (**Fig. 3**).

Between the Great Necropolis (on the other side of the river) and the south-western corner of the encircling wall, two architectural ensembles were found: most likely buildings for household purposes (Area 12) and complex finds called "ritual animal burials" – three chamber graves where sheep were buried, and a pit with a donkey with three lambs near its hind legs (Sarianidi/Dubova 2008: 28–64). An artificial channel constructed when the Murghab River began to dry up was found crossing the earliest buildings close to the west side of Area 12 (Sataev 2008).

On the north-western side outside encircling wall, one more complex was excavated, revealing houses and some unusual graves – huge cists (ca. 6 m long) with rich funerary offerings (Area 19) (Sarianidi/Dubova 2014: 98–99; Sarianidi/Boroffka/Dubova 2014). To the east of this area outside the encircling wall, Area 17 was used for household purposes, in particular for making wine (Sarianidi/Dubova 2012: 29–33).

Only one space (Area 18), on the east side of the central part of Gonur North, shows traces of agriculture: the earliest layers of this part of the complex (within the encircling wall, but outside the walls of the Fire Temple). The basis of the economy of the population of the Gonur oasis was irrigation agriculture (in the early stages estuary, later irrigation). The main crops were wheat and six-row barley. Also for a crop, millet was grown, for legumes there were lentils, chickpeas and peas, and from the gardens came apples, plums, cherries and grapes. Melons were also grown (Sataev/Sataeva 2010; Sataeva 2014). On the southern edge of the same Area 18, many kilns were the earliest structures over which at a later time (ca. 1900–1800 BCE) rooms of a different function were built.

Later in date than the palace and the Kremlin (dating to approximately 2000 BCE) is the *temenos* of Gonur South, a large Soma-Haoma sacred place with powerful walls, having round towers at the corners of a parallelogram and half-towers along the perimeter. In the south-western part of the ensemble, there is a small temple, the centre of which is a courtyard with doors on all four sides, three leading to corridors and one to a unique vestibule. Over time, a small temple named the "fort" was built inside the *temenos*. The fort's walls have a cruciform plan, with a round tower at each of the 12 angles (each of which has a special narrow-door), and rest on the ruined walls of the structure of the first period, which are already covered by thick layers of waste accumulated over time (Sarianidi 1994; 1997). The fort remained unfinished. Of all the known monumental Middle Eastern buildings, the closest parallel to it is the fire temple at Tepe Nush-i Jan (Stronach/Roaf 2007) in Media (Sarianidi 1996; 1997: 160).

Apart from monumental architecture, which reveals a high level of attainment in the art of building, brilliant jewellery and other fine-art objects indicate a complex social structure. When Victor Sarianidi analysed the worldview of the people of Margiana, he found much evidence of the presence of the cults of Fire, of Water, of Earth, and of the Dog, as well as of the plants and drink used in the worship of Soma-Haoma, and he suggested that in Margiana early religious beliefs subsequently evolved into Zoroastrianism (Sarianidi 1998; 2010: 27–57, 66–84).

Of particular interest are the 74 animal burials and places with partial remains of animal skeletons. The most frequent burials are of rams/goats (37 burials with the remains of 58 individuals), and dogs (33 burials, 57 individuals). Special tombs for the animals with funeral gifts comprise a little more than half of these burials. If we add to this information the placement of the animal burials throughout Gonur Depe, it seems plausible to consider that the 2nd millennium BCE inhabitants of Margush included rituals associated with sheep, horses, camels and dogs in their religious system. Perhaps deities were embodied by those animals. It is difficult without written sources to reconstruct ideological concepts, but it is clear that they had their own image of the world and the afterlife, connected somehow with animals (Dubova 2012; 2015).

Animal burials have also been encountered at other sites, including Togolok 24 in Margiana (Sarianidi 1990: Table LV), Dashly 3 in northern Afghanistan (Sarianidi 1977: 54, Fig. 24), Sapallitepa (Askarov 1973), and Buston VI (Avanesova 2003: 24; 2013: 18, 23, 28) in southern Uzbekistan. Almost all the graves in which rams (or sheep) were buried in a central position are characterised by rich funerary offerings, thus indicating the high social status of the buried persons. Among the offerings are miniature columns, stone staffs, bronze rods ("harpoons"), game-boards, gold and silver objects, bronze plates with holes (so-called "staircases"), and other objects.

2 *Dakhma*: a structure in which the bodies of the dead were exposed to predatory birds or animals to clean the bones of soft tissues, in accordance with Zoroastrian rituals.

So far, the theme of the burials of animals and their role in religious beliefs has been considered only within the same region, within the same type of farming, and of one or more, but close, historical periods. However, a lot of such material has been found: from the graves of dogs in the Neolithic centres of the Baikal region (Okladnikov 1961: 73; Danilov 1983) to a wide range of sources in a special relation to dogs/wolves and horses among the Scythians, to the ritual burials of bulls in Egypt (Brass 2002), and to animal burials (mainly donkeys) in the Nile Delta (Bietak 1996) and in Syria (e.g. Schwartz 2012). The occurrence of such rituals traditionally associated with the emergence of pastoralists in the agricultural areas had, for example, a place in the Egyptian countryside of Nagada, where the arrival of the shepherds of the desert areas led to the spread of the ritual burial of domestic bulls (Brass 2002). All Gonur animal burials have many parallels and analogies with those of the Middle East. In this relation, the Gonur tombs 2900 (Sarianidi 2007: 146–155) and 3310 (Dubova 2014: 111, 117–119) are very significant since they have not one but a group of animals (including sheep, donkeys and dogs) buried close to a human tomb. The important role of animals in the life and beliefs of the people of Margush country was underlined by archaeozoological investigations (Sataev 2016).

Even though the overall appearance of the BMAC culture is very close to those of the Kopet Dagh foothills (the greatest part of pottery relates to Namazga VI and a smaller one – with Namazga V complexes), certain parallels between Gonur, the Middle East and eastern Mediterranean world as a whole can be seen in some architectural details, in the images seen on seals, amulets, and mosaics images, and in types of vessels (**Fig. 4**). But the artefacts also show the influence on Margiana culture of another Oriental centre – the Indus (or Harappan) civilisation is also present at Gonur (**Fig. 5**).

Here an important question arises: Are these parallels a result of trade and cultural transmission, or of the migration of people? In one of his latest books, Vadim Masson has remained faithful to his idea that the culture of the agricultural population of the south Turkmenistan foothills – characterised by the spread of durable unfortified settlements and the production of painted ceramics, and home-craft and semi-craft production – was transformed into a new culture, a nascent class-based social structure associated with a monumental palace and defensive architecture, the mass production of prestigious products, the use of the potter's wheel in the ceramic industry, and other signs of an emerging high civilisation (Masson 1981: 119–131; 2006: 61–85). In this case, all the above-mentioned analogies can be explained by trade and contacts. But the whole complex of BMAC materials indicates that not only the old delta of the Murghab River, but other areas as well experienced the influence not only of powerful cultural forces, but also migration from the Middle East at the end of 3rd millennium BCE (and possibly earlier). Gonur's culture shows many similarities with those of the Near and Middle East and with the Indus. Only a few salient examples can be noted here. The cosmetic spatula from tomb 3245 at the "royal necropolis" of Gonur (see **Fig. 5**) is made from ivory and has a handle with an engraving of a typical Margiana-Bactrian scene: a winged dragon swallowing a goat. Another example is the well-known large silver cylindrical vessel from "royal sepulchre" 3220, which has a relief of two fine, carefully crafted images of two-humped camels, Bactrians. A third example: Gonur mosaics, the subjects and image style of which are closely related to Middle Eastern examples (Sarianidi/Dubova 2013) (**Fig. 6**). Unfortunately, art critics and specialists in ancient art have not studied these images. This is a task for the near future. Nevertheless, we can already say that many of the mosaics' subjects are very characteristic of Margiana and Bactrian art. The technology of mosaics production was unique: neither in contemporaneous nor in earlier and later periods on the closely located areas is such a technique of connecting painting with mosaic inlays known.

Other interesting details in connection with mosaics should be mentioned. On the back of some stone inserts having similar form there are certain characters – circles, ticks, crosses, hearts, ovals, and dashes. The same marks appear on the insets, which can make one figure or whole composition (**Fig. 6g**). A careful analysis of all available photographic material, as well as insert labels, allowed G. Veresotskaya to create a reasonable reconstruction of one of the most interesting compositions from sepulchre 3210 (**Fig. 6h**) (Veresotskaya 2014; 2016: 179, 180, 183).

Analysis of the minerals from which the inserts are made is also indicative. Sedimentary rocks in which the siliceous component predominates (flask, bergmeal, and diatomite) were used as raw materials for the production of mosaic inserts (Yuminov 2012: 189–190). It is important to underline that a similar technique of minerals processing for the making the beads, including those with serrated edges, was noted at another Bronze Age site in Turkmenistan – Altyn-Depe (Kirčo/Kovnurko 2003). The method of burning the minerals in order to facilitate their handling is known at monuments in the Indus Valley civilisation, starting from the Neolithic (Vidale 1989). Harappan seals were produced mainly from steatite after it had been fired (Masson 1977: 149).

Most mosaic inserts at Gonur have a sloping profile, which means that details could be sharpened when assembling the image (**Fig. 6i**). T.A. Shaposhnikova has shown that the greater part of the outer bevel inserts range from 45 to 85 degrees. A num-

Gonur mosaics

Fig. 6.a: Coloured stone mosaic insets in the form of bird's heads from tomb 3230.

Fig. 6.c: Stone mosaic inset in the form of a dragon's head from tomb 3210.

Fig. 6.e: Volumetric object (possible mosaic inset) from tomb 3250.

Fig. 6.b: A marble mosaic inset in the form of a lion's head from sepulchre 3230.

Fig. 6.d: Some of the first mosaic insets found in 1997, on the area of Gonur palace in a cultural level without context.

Fig. 6.f:
Volumetric insets from sepulchre 3880.

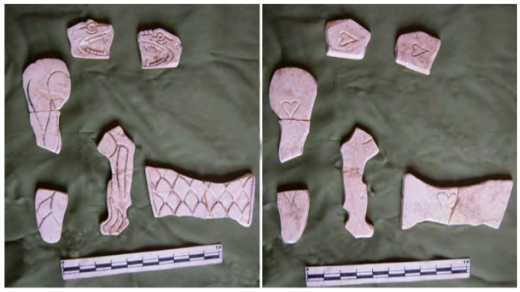

Fig. 6.g: Mosaic insets from sepulchre 3210 with the marks on the reverse (on the right).

Fig. 6.h: Variant of the reconstruction of the mosaics compositions on the "ostensory" from sepulchre 3210 (drawing by G. Veresotskaya).

Fig. 6.i: Mosaic insets from sepulchre 3235 on which slants are seen.

Fig. 6.j: Coloured stone inset in the form of animal head in sepulchre 3210 during cleaning.

Fig. 6.k: The box with mosaics from ivory and stone in tomb 3870 during cleaning.

Fig. 6.l: A box decorated with stone mosaics in sepulchre 3235 during cleaning.

(all photos ©Margiana archaeological expedition)

ber of inserts are followed by a straight profile (90 degrees). Among the dozens of stone tools at Gonur, cutters were found, shaped and sharpened at an angle that allowed the cutting of mosaic inserts with the profile that was found in the "royal" sepulchres. This indicates that master stone-cutters and artists created the magnificent compositions at Gonur. Art literature states that in early antiquity, mosaics were formed from naturally formed coloured pebbles, and that it was only by 200 BCE (at Morgantina in Sicily) that cut-stone tesserae were being used in Ancient Roman decorative mosaic panels and floor mosaics (e.g. Jenkins/Mills 2012). The cutting of stones was employed to ensure that there was a snug fit between tesserae so that details could be more clearly defined. But, as shown by Gonur material, the technique of fitting stone inserts to each other by giving them sloping profiles was already known at the end of the 3rd millennium BCE. These observations make it necessary to consider the history of ancient art in new way.

Mosaics, as well as many other examples of Margush art, demonstrate the highest level of the arts and crafts of the ancient population of the Murghab oasis. A detailed analysis of their subjects, as well as many hundreds of seals, amulets, images on vessels and other objects, is only just beginning. Their symbolic or narrative meaning indicate the wide range of ideas the ancients had about the world around them. And it must be said that the splendour of medieval portals and the domes of mosques and madrassas could well have been seen in the ancient Gonur mosaics.

2 Gonur: A city

So in the second decade of the 21st century, Victor Sarianidi was able to convince many academics that in south-eastern Turkmenistan at the end of 3rd/beginning of the 2nd millennia BCE, the ancient delta region of the Murghab River was the location of a flourishing, independent Oriental civilisation. The largest and most fully excavated site was Gonur Depe, the original name of which, unfortunately, is not now known.[3] But was this site a real town, or even a city? This is not a simple question. The general definition of a "city/town" is "a territorial centre, a settlement surrounded by a wall". Other definitions include: "a *town* is a human settlement larger than a *village* but smaller than a *city*", and "a town is a large settlement, whose residents are mainly engaged in industry (earlier in crafts) and commerce, as well as in the areas of maintenance, management, science and culture. Usually the administrative and cultural centre for the surrounding area." Several scholars stressed that a city must have the specific features characteristic of urban life. Russian scholar N. Šahova has analysed many different points of view, beginning from Maximillian Weber's, and identified five criteria of the early city applicable to the archaeological objects: 1. the significance of the monument for the region and the period, combined with a relatively high density of building, reflecting a significant density of population; 2. a complex of monumental buildings with different functions; 3. complex building structures that reflect social and industrial differentiation; 4. craft and trade centres; 5. fortifications, or the use of the natural terrain for this purpose (Šahova 1995: 13; 1996: 8).

Gonur Depe has good, well-planned monumental architecture surrounded by three walls. According to scholars, the arrangement of low (1.1–1.2 m from the ground) narrow triangular openings intended to provide light to the closed-in spaces and bypass gallery rather than for defence testifies to the mostly "peaceful" nature of the fortifications. Each tower of the Kremlin has a double-chamber oven of sophisticated design. It is therefore likely that the towers had a ritual rather than defensive purpose. Victor Sarianidi thought that their "defensive shape", as well as constructions like "*kelyii*" (cells), may have been a form of "architectural memory" – the memory of the real walls that could protect against an attack in one case, or perform some function (probably ritual?) unclear to us now.

The various types of graves, and the differentiation in funeral gifts in them, are evidence of a complicated social structure in the Gonur/Margush population. Several architectural substructures at Gonur Depe can be distinguished. More than 200 Bronze Age sites in the ancient delta of the Murghab River have been identified, but only eight of them are excavated (Masimov 1981; Sarianidi 1981; 1981a; 1986; Sarianidi/Dubova 2012: 39–44; Rossi Osmida 2007; 2011). In some satellite settlements or villages, houses much simpler than the aristocratic Gonur palace can be seen. There are many more living spaces, but only a few of them (in the inner part of the Kremlin and small complexes of rooms outside the encircling wall) can be discerned at Gonur. As has been shown by many publications, different crafts reached a high level of development. It is therefore necessary to conclude that in this area of 25–30 ha (ca. 50 ha if the large necropolis is included), there were very few permanent residents. This feature is the only one that does not accord with the selected criteria of a city mentioned above.

Various analogies demonstrate that in the Bronze Age close economic and cultural interactions between different centres of the ancient civilisation were widespread. A unique cultural community was created over a vast territory thanks to the contacts, caravan routes in particular, mutual influence, and

3 Daniel Potts (2008: 165–194) has argued that it might have been Simashki, the original home of an Elamite dynasty.

the interactions of different peoples (Dubova 2012: 148). Victor Sarianidi underlined the fact that the trade routes of the so-called Silk Road began to develop long before the silk trade. They started to be used in the Bronze Age, if not earlier. It was through the contact and interaction of various cultural traditions, and the peaceful coexistence of different economic-cultural types in Central Asia in general, and Turkmenistan in particular, that people had the opportunity to enrich one another with the latest knowledge and technology, and moreover to create a brilliant centre of world culture (Sarianidi 2012b: 157).

3 Anthropological data

The new paleoanthropological material (unique by its quantity – more than 5,000 tombs with human remains) has shown that not only cultural transmission and trade took place, but real and not sporadic migration. Analysis of the anthropological traits[4] demonstrates that the gender ratio was near normal, with an insignificant number of men exceeding the number of women (1.06), as noted by G.V. Rykushina (Babakov et al. 2001; Dubova/Rykushina 2004; 2007a). Though the greater number of men over women in the entire group is insignificant it is quite reliable. As it does not correspond to the normal biological gender ratio (1:1), it is possible to surmise that the first settlers of Gonur were immigrants, who usually have a significant excess of men over women. As the site of Gonur is characterised by three periods of agricultural life, the gender ratio was levelled in due course and became almost equal. It is possible to assume that some of the women (about 36%) could be included in a population from outside regions. It may also be possible that a group coming from a new territory superseded part of the local male population and included among its members local women. Therefore, if the second assumption is true, the people who founded Gonur Depe probably came not only in one wave but in several.

Preliminary analysis of the general parameters of the skull, developed by A.P. Pestryakov (Babakov et al. 2001), shows that length, width, and height of skulls from the Gonur necropolis are typical of the synchronous Bronze Age population of the Middle East, from Mesopotamia to north-west India. Towards the Great Eurasian steppe in the north, the impurity of Tropoids (long, narrow and low skull) decreases, and the most remote cranio-series (Okunevo, Karasuk, Plitoschniki of Transbaikalia) are probably completely absent. This conclusion is based on the variability of the craniometrical and angular features of the brain and the facial parts of the skull. The Gonur series shows a variation from the smallest to the greatest sizes of many dimensions. This data allows us to speak of its heterogeneity. The presence of more archaic and more progressive forms in the anthropological type of Gonur population is attested, as well as the existence of a Veddoid component (gracile face with the lower part protruding forward – prognathism).

G. Rykushina (Babakov et al. 2001; Dubova/Rykushina 2001; 2007a) assumes that odontological traits show that for numerous reasons the Gonur series differs from the ancient and modern Europoid series by the interpolation of a complex of signs of the "western odontological trunk". This series also shows features of the eastern trunk. It is also possible to speak of the reference of Gonur people to the group of undifferentiated odontological types and of their mixed character (between "western" and "eastern" odontological trunks). In both cases, the population buried in the Gonur necropolis occupies a marginal position, showing on the level of eastern odontological traits a complex similarity to the majority of ancient Europoid series, and, on the expressiveness of the western complex, approaches to the modern population of southern and south-eastern Asia (Oraon, Munda, and Viets). This last circumstance allows us to connect a certain specificity of the Gonur population with contacts to representatives of South Asia. Also, we can suppose that the Gonur (or, more widely, the Margiana) population was a part of the ancient anthropological substratum that was widespread in the territory from south-west Asia to northern India.

The material from Gonur shows for the first time that on the territory of Central Asia the Bronze Age population of Margiana, being dolichocephalous as a whole (the male cephalic index is 71.0, the female 71.6), was subjected to brachicephalisation: among representatives of both sexes, there are brachicephals (they are 5 or 2.1%). It is important to note that sites such as Tepe Sialk and Tepe Hissar in Iran are the first centres of the brachicephalisation process. As V.V. Bunak, A. Valois, I. Schwidetzki and M. Cappieri have demonstrated (Bunak 1927; Vallois 1939; Schwidetzki 1950; Cappieri 1961), in many aspects this process is interfaced with extensive immigration and connected with several previous groups not in contact with each other. On the other hand, the ecological factor was also very important (Alekseeva 1977: 16–18; 1998: 45–51). It is clear that the craniological series of Gonur – which can be testified as the population moved from one of the earliest centres of brachicephalisation (the Near Eastern one) and about the presence in the population of metisation process of various groups – previously lived away from each other.

4 Paleoanthropological research is being carried out with the financial support of the Russian Humanitarian Science Foundation (project No. 16-01-00288).

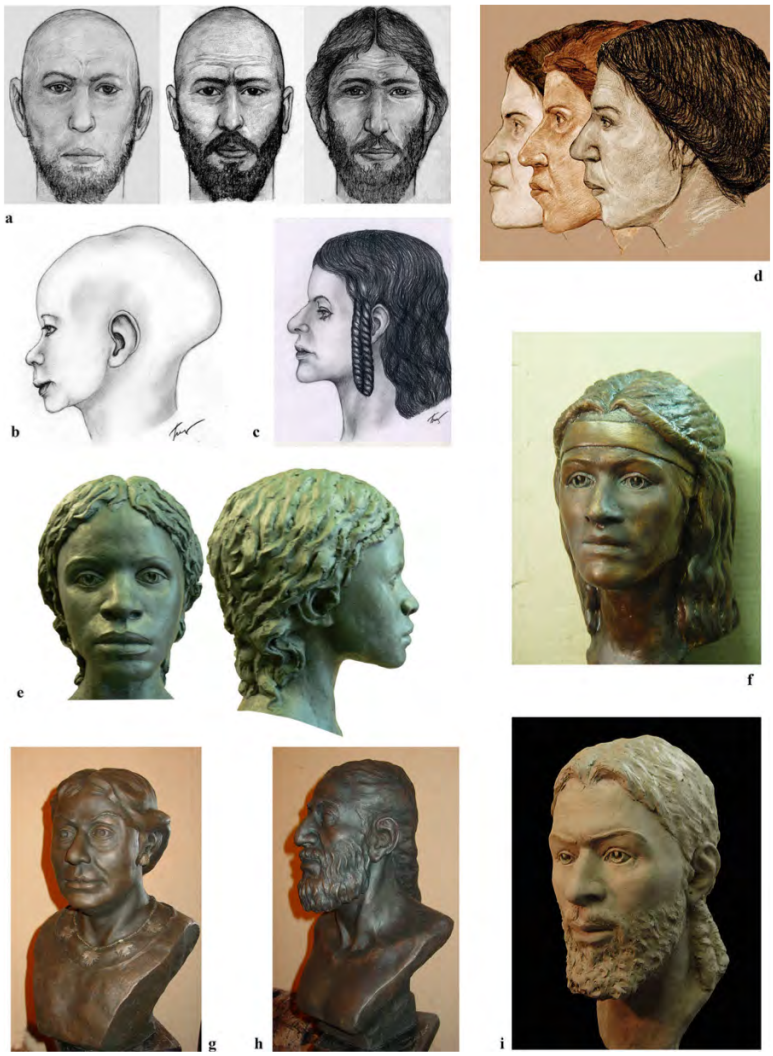

Fig. 7: Graphic (**a–d**) and sculptural (**e–i**) anthropological reconstructions after skulls from Gonur Depe tombs. By T.S. Balueva (**b, c, g**), E.V. Veselovskaya (**h**), and A.I. Nechvaloda (**a, d, e, f, i**) (all photos and drawings © Margiana archaeological expedition).

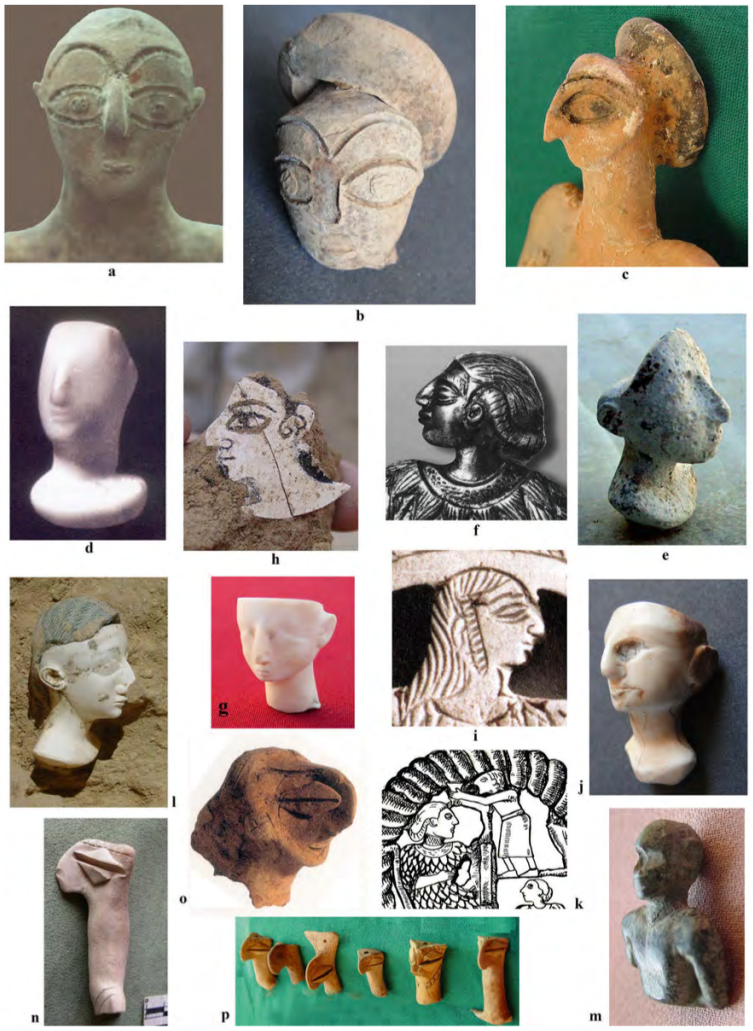

Fig. 8: Anthropomorphic Gonur plastics. Fragments of terracotta figurines (**a, b, c, n, o, p**); marble heads from the composite statuettes (**d, e, g, j, l**); fragment of mosaic (**h**); compartment seals (**f, i, k**); stone figurine (**m**), from the population of Margiana (all photos and drawings ©Margiana archaeological expedition).

New evidence from the population of Margiana of the use of artificial deformation of the skull is not less important. Most likely a kerchief (or special hats popular among modern Turkmens) placed on an infant's head, causing the flatness of the bregma and occipital mound, were an item of baby care (**Fig. 7b**) (Dubova 2004a; 2004b; 2006a).

This custom, judging by the available bibliographical data (Hodžajov 1966; 2000; Tur 1996), appeared in the steppe areas of Eurasia not earlier than the middle of the 1st millennium BCE, whereas at Gonur it had already appeared during the 2nd millennium BCE. It is possible therefore to speak of its spread to the steppe from southern Margiana. Certainly, a parallel occurrence of this tradition in various territories is still not excluded. Anyway, we can conclude that this data does not confirm the presence of steppe migrants in the southern areas of Central Asia in the middle of the 2nd millennium BCE.

It was noticed previously that the images of facial features of anthropomorphic plastics from Gonur are predominantly of Sumerian style, though there are some images of Eastern Mediterranean type (gracile, high and narrow faced, and dolichocranial) (**Fig. 8**) (Dubova 2006a; 2006b). The same process of anthropological plastic reconstruction was performed by several authors, with the application of a method used by M.M. Gerassimov (**Fig. 7**). It is significant that there is no reconstructed figure which could be connected with a Palaeoeuropoid (broad-faced and dolichocranial) population very characteristic of the steppe.

Statistical comparison was carried out on 85 craniological series from steppe, forest-steppe, desert, and semi-desert areas of Central Asia, the Urals, Siberia and the north Caucasus (Dubova/Saipov/Junusbayev 2015). Cranial series from the southern regions of Central Asia, representing populations where the features of agricultural and pastoral cultures are combined (Kokcha III, Buston VI, Karaelematasai, and Patmasai, Djarkutan), have been clearly located between "typical" farmers (Hasanlu, Gonur, Mohendjo Daro, Pakistani Timargarha, and Butkara) and series from the territory of Kazakhstan, southern Siberia, and the Volga-Ural region. At the same time, Gonur skulls from the necropolises situated in and around the ruins of early buildings, and the Buston VI series from Uzbekistan, as well as those from the later layers of Tepe Hissar in Iran, have large transversal dimensions while maintaining the same height-size traits as those of earlier periods from the same monuments. This could be connected primarily with a general brachicephalisation process occurring at that time. But it is also likely that this was the result of the gradual penetration of groups from the Eurasian steppe to the south, which was initially random but then became increasingly common, with frequent mating between steppe groups and farmers. The term "infiltration" best characterises this process of mixing. It should be noted that the currently available archaeological material from Gonur Depe reveals that around such major proto-urban centres (which Gonur was at the end of the 3rd/beginning of 2nd millennium BCE) by the middle of the 2nd millennium BCE, herders were already indigenous, as evidenced by small settlements of cattle breeders in the vicinity of the city walls (see e.g. Hiebert/Moore 2004; Cattani 2004). In addition, separate (sporadic) steppe pottery fragments have been unearthed from some areas of the site and its surrounding smaller settlements (Sarianidi/Dubova 2012: 39–42). However, we must particularly emphasise that at Gonur (i.e. in southern Turkmenistan), manifestations of minimal impurities in anthropological components, which could be linked to pastoral surroundings, were not seen prior to the middle of the 2nd millennium BCE.

4 The status of Gonur

Anthropological data is one more "marker" of the city/town: its variety, heterogeneity by origin, ethnic composition, culture, and other traits. V.V. Karlov (though using the example of Russian medieval cities) has shown that three stages can be distinguished in the process of the formation of a city: first, the necessary cultural and economic potential accumulates in large, conveniently located centres; second, there occurs the introduction and integration of the agricultural population into an urban lifestyle (the "cultural colonisation"); third, the rural and urban periphery are organically included in the activities of the leading centres (Karlov 1976: 57). The third stage defined by V.V. Karlov is – according to V.M. Masson – characteristic for societies with established state power. In such circumstances, the city and the rural periphery function as a unified socio-economic system, subject to the fulfilment of the most important objectives defined by the central government (Korčagin/Mel'ničuk 2003: 59).

Some other hypotheses, formulated on the basis of Mesopotamian data, are applicable to monuments of Margush. Robert C. Adams thought that the development of irrigation systems had a fundamental role in the societal development of the area, and that a strong relationship existed between irrigation agriculture and urban growth. He also believed that cities may be considered as centres to store surpluses of agricultural production, to be used in times of periodic water shortage (when agricultural yield was low) (Adams 1981: 243–244; Adams/Nissen 1972). His interesting idea, that conflicts over the control of irrigation water, caused by the instability of the Euphrates River, led to the interaction of heterogeneous communities taking refuge inside the city walls in times of conflict (Adams 1981: 244) can

be enlarged. It can be said that heterogeneous city communities were also created by the wide trade routes coming together in them.

Guillermo Algaze revisited Adams's conclusions for the Mesopotamian region, and argued that urbanisation was favoured by a combination of high agricultural yield generated by irrigation practices, and by the low transportation costs of people and goods the system of canals provided. According to him, the waterway system and the proximity of settlements provided the south with extensive connections and mobility for goods and people, giving the area an advantageous position for trade relations in respect to other landlocked area of the north (reached on foot or by donkey) (Algaze 2008). So the models used for these studies dealt with the relationships between ecology and trade, and with the interaction of forces between centre and periphery.

Sandro Salvatori, who analysed settlement pattern of ancient Murghab Delta using the "rank-size rule", demonstrated that during the Middle Bronze Age the settlement of Gonur I North attained and perhaps even exceeded 40 ha. This would make it without doubt the largest settlement in the whole delta at that time. When drawing circles with Gonur as the center, and with radiuses of about 10, 15, 20, 30 and 40 km respectively, he covered the entire system of sites as they are known today. He has shown that during the Middle Bronze Age the territorial settlement patterns indicate some form of integrated territorial hierarchy or political-administrative dominance by the centre in Gonur (Salvatori 1998a: 58). He also mentioned that inside the triangle that can be drawn between Sarazm (Zeravshan River, Tajikistan), Mundigak (Kandagar, Afghanistan) and Namazga depe (Southern Turkmenistan) lie the two regions of Bactria and Margiana, with delta systems suitable for the development of agricultural communities technologically similar to those of the Late Chalcolithic and Early Bronze Age. It is no coincidence that all these regions that saw the development of important agricultural communities during the Middle and Late Bronze Age later became the fulcrum of large urban centres throughout the Iron Age and up to the well-known instances in historical times (Salvatori 1998: 52).

We believe that all the evidence from Gonur suggests that Gonur Depe demonstrates the third stage of the scheme of Korčagin/Mel'ničuk. So, despite having only the palace, ritual and crafts buildings, Gonur was a settlement very close to being a real city. It is not an accident that one of the books by Victor Sarianidi has the subtitle *City of Kings and Gods* (2005).

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