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CONTENTS

JOURNAL OF MOSAIC RESEARCH

Archaeology / Arkeoloji

- 1 Nissma BOUZOUBAA - Abdelilah DEKAYIR

Bases de Données et représentation spatiale des mosaïques romaines du Maroc

Fas Mozaiklerinin Mekânsal Temsilleri ve Veritabanları

- 17 Nadezhda A. DUBOVA - Natalia A. KOVALEVA - Galina E. VERESOTSKAYA - Anatolij M. YUMINOV

Mosaics from the Bronze Age Necropolis in Gonur Depe, Turkmenistan

Türkmenistan, Gonur Depe, Tunç Çağı Nekropol Mozaikleri

- 37 Maria de Jesus DURAN KREMER

Some Considerations on the Interplay Composition - Surface

Etkileşim Kompozisyonu Üzerine Bazı Düşünceler - Yüzey

- 47 Amir GORZALCZANY - Baruch ROSEN

The Marine Scene in the Lod Mosaics

Lod Mozaikleri Üzerindeki Deniz Sahneleri

- 63 Eva GROSSMANN

Iconography of Marine Vessels Depicted in Mosaics and Its Importance to Marine Archaeology

Mozaikler Üzerinde Betimlenen Deniz Taşıtlarının İkonografisi ve Deniz Arkeolojisi Açısından Önemi

- 75 Jamel HAJJI

Le Patrimoine Mosaïstique En Tunisie : Un État De Lieu

Tunus Mozaik Mirası : Genel Bir Tanı

- 107 Hakan HİSARLIGİL - Beyhan BOLAK HİSARLIGİL
The Third Dimension of the Magdough Mosaic in Antioch
Antakya Magdough Mozaïği'nin Üçüncü Boyutu
- 119 Cetty MUSCOLINO
The Gold in the Mosaics of Ravenna
Ravenna Mozaiklerinde Altın
- 133 Miguel PESSOA - Ana Luísa Ravara MENDES - Elsa SIMÕES -Sónia VICENTE
Roman Villa of Rabaçal, Penela, Portugal. A Mediterranean Production Centre and Palatial Home with Mosaic Floors from the Late Antiquity in the Territory of the Ciuitas of Conimbriga and the Lands of Sicó
Rabaçal Roma Villası, Penela, Portekiz. Conimbriga Kentleri ve Sicó Toprakları Bölgesinde Geç Antik Dönemden Bir Akdeniz Üretim Merkezi ve Mozaik Tabanlı Saray Evi
- 149 Michael TEICHMANN
Republikanische und kaiserzeitliche Mosaik im südlichen, küstennahen Latium. Ein quantitativer Analyseansatz
Latium'un Güney Kıyılarındaki Cumhuriyet ve İmparatorluk Dönemi Mozaikleri. Nicel Bir Analiz
- 161 Licínia WRENCH - Marcelo MENDES PINTO - Fátima ABRAÇOS
Contribution to the Corpus of the Roman Mosaics of Conuentus Bracaraugustanus: Study of the Geometric Mosaic of the Roman Villa of Sendim, Felgueiras, Porto, Portugal
Conuentus Bracaraugustanus Roma Mozaikleri Korpusuna Katkı: Felgueiras, Porto, Portekiz'deki Sendim Roma Villası'nın Geometrik Mozaığının İncelenmesi
- Modern Mosaic Studies / Modern Mozaik Çalışmaları**
- 179 Mustafa ŞAHİN
I. Uluslararası Apollonia Mozaik Çalıştayı, 26 Ağustos - 1 Eylül 2019 - Gölyazı / Nilüfer / Bursa
I. International Apollonia Mosaic Workshop, 26 August - 1 September 2019 - Gölyazı / Nilüfer / Bursa
- Book Review / Kitap İncelemesi**
- 193 Maja KRAMER
Diseños geométricos en los mosaicos del Conuentus Astigitanus, Sebastián Vargas Vázquez.
- 199 Guidelines for Authors / Yazarlar İçin Yazım Kuralları

Mosaics from the Bronze Age Necropolis in Gonur Depe, Turkmenistan

Türkmenistan, Gonur Depe, Tunç Çağı Nekropol Mozaikleri

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Abstract

Unique mosaic composition of the end of the third millenium BC from the “Royal Necropolis” of Gonur Depe is describing. Some walls of the underground “hypogea” and so-called “ostensories” as well small originally wooden boxes found in them were decorated by figurative mosaics. These mosaics combine two techniques – painting and inlays (tesserae), which were made from the specially prepared minerals. They also presented the earliest example of using the technique of cutting the edges of the tesserae. Analogies of the images between Gonur Depe and Mari palace in Syria are underlined.

Keywords: *Figurative mosaics, mosaic technology, cutting the edges of tesserae, funeral rights, elite graves.*

Öz

Gonur Depe’deki “Kraliyet Nekropolisi”nde bulunan ve MÖ 3. binyıla tarihlenen özgün mozaikler tanıtılacaktır. Yer altındaki “hipoje” veya “ostensory” olarak adlandırılan mekânların bazı duvarları ve bunların içinde bulunan küçük ahşap kutular figüratif mozaiklerle süslenmişlerdir. Bu mozaiklerin yapımında boyama ve özel hazırlanmış minerallerden oluşan kakma (tessera) tekniği olmak üzere iki teknik kullanılmıştır. Aynı zamanda tesserae kenarlarının kesilmesi tekniğinin en erken örnekleri de bu mozaiklerde görülmektedir. Gonur Depe mozaikleri ile Suriye’deki Mari saray mozaikleri arasındaki figür benzerlikleri vurgulanacaktır.

Anahtar Kelimeler: *Figüratif mozaikler, mozaik teknolojisi, tesseraın kenarlarının kesilmesi, cenaze hakları, elit mezarları.*

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The site

Twentieth century has brought to light many fine archaeological discoveries all over the world as well in Turkmenistan. In this country a new brilliant center of Ancient Oriental civilization was open and excavated in the Kara-Kum desert by the efforts of Soviet, later Russian and Turkmen archaeologists (Sarianidi 1973; 1990; 2002; 2008 and many others; Masimov 1979 and many others). To the beginning of 1990s more than 200 Bronze Age sites were found in the ancient delta of Murghab River (Sarianidi 1990). Some facts enabled V. Sarianidi (1981), following V. Struve (1949: 15) to relate these settlements to the country of Margush, which was mentioned in famous Behistun inscription by Darius I of Persia.

The largest and fully investigated site there is Gonur Depe (Fig. 1). It was founded in the late third mill. BC and by the end of its existence in the middle of second mill. BC its dimensions reached 40 hectares. This site is a model one for Bactria-Margiana archaeological culture/complex (BMAC) (Sarianidi 1974; Kuzmina 2008: 47; Antonova in print) also named as Oxus civilization (Francfort 1984: 2016).



Figure 1
Location of Gonur Depe site on Turkmenistan map.

One of the brightest pages of the investigations of Gonur Depe treasures was the discovering there a complex of elite graves finding many parallels with Royal tombs of Mesopotamian Ur (Sarianidi 2006: 2007) (Fig. 2). This graveyard included: nine underground constructions (hypogea) that looked like houses with many rooms (3220, 3230, 3235) and with a special courtyard in several cases (graves 3200, 3210, 3880, 3905, 3915); three very large pits of a ca. 6 m in diameter also called “ditches” (3225, 3240, 3900); some chamber tombs (3205, 3245, 3250), one shaft tomb (3870) and several tombs with bull and donkey remains situated between them (Figs. 3-4). Three groups of dog burials were

Figure 2
Gonur Depe, Turkmenistan. General view of the “royal necropolis”, 2004.
© Margiana archaeological expedition.

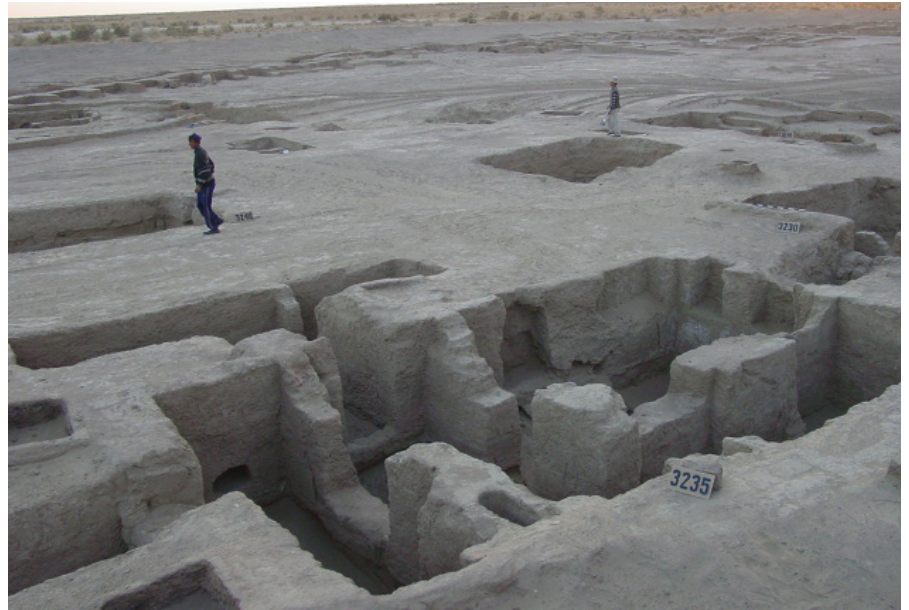
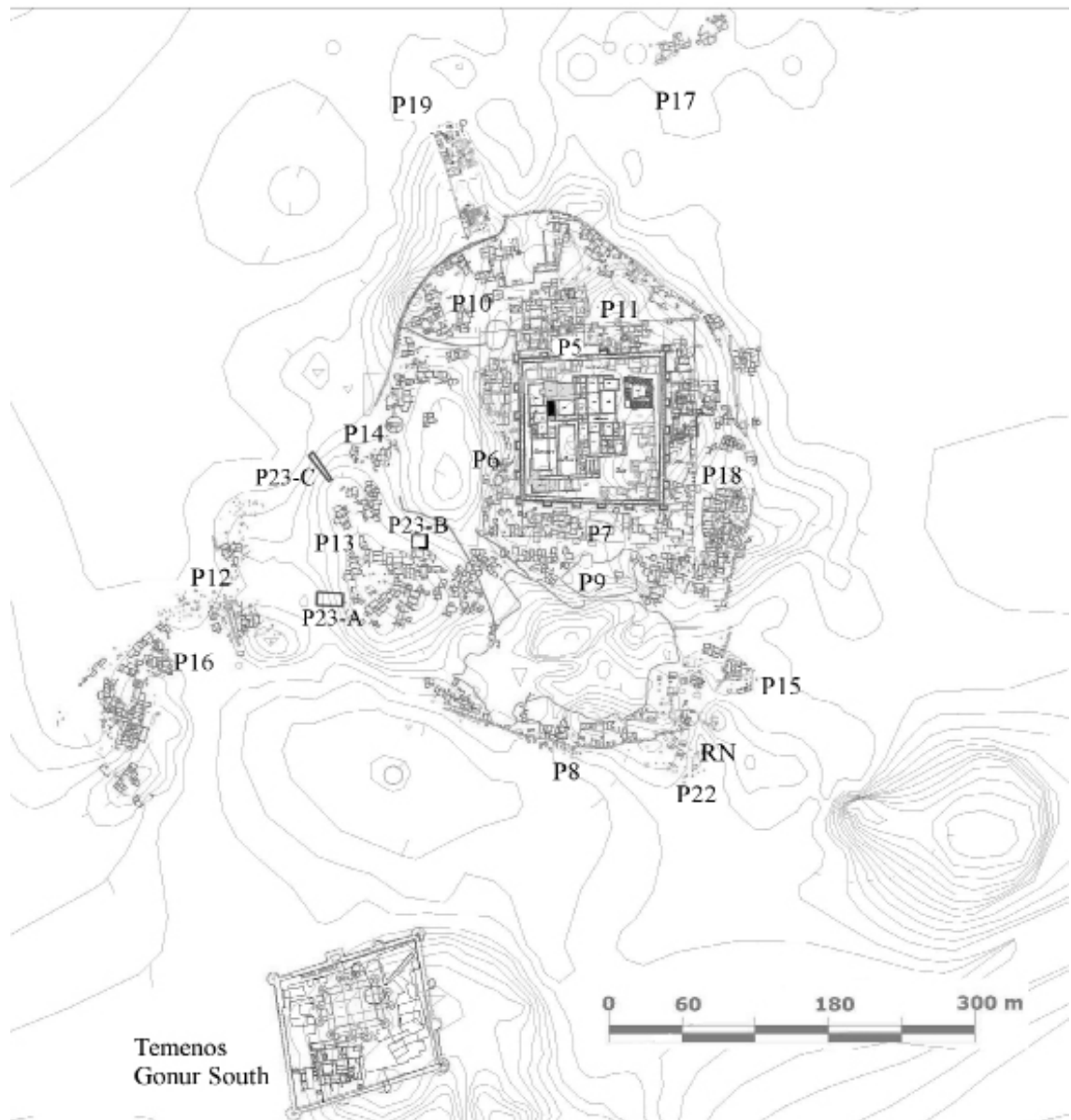


Figure 3
Gonur Depe. General view. P1–P23 – excavation areas; RN – location of the “Royal necropolis”.
© Margiana archaeological expedition.



excavated in 2011 to the east, south-east and south of the hypogea complex (Dubova 2012; Sataev - Dubova 2016). The complex construction of these tombs, the presence there of four-wheeled wagons, of various human and animal sacrifices, of many symbols of high social status and of numerous gold and silver funeral gifts though the graves had been grabbed several times showed that representatives of the aristocracy or priests were buried there. It was therefore named the “Royal Necropolis” (Dubova 2004; Sarianidi 2006; 2007a; Sarianidi - Dubova 2010).

Some radiocarbon dates could be obtained for this cemetery: from the graves 3210 (2121-1512 BC), 3915 (2195-1786 BC), 3245 (2200-1957 BC) and 3900 (3091-1768 BC). The earliest date, made on animal bones, is of little use because of its large spectrum. The latest date has also a large spectrum (tomb 3210), and the charcoal sample used for the datation comes from the “courtyard” and could be related not to the burial itself but to its later looting. Unfortunately, in general, in these elite tombs there are only very few charcoal remains. Taking into account the archaeological context of the site, we consider the dates between 2200-2000 BC for the whole Royal necropolis to be adequate.

The Discovery of Mosaics

Subject mosaic compositions are among the most remarkable discoveries in the hypogea. They used to decorate the walls of the graves 3210, 3220, 3230, 3235, 3915 and so-called “ostensories” - large wooden boxes, probably for the disposal of valuable offerings as suggested by V. Sarianidi (Fig. 5). “Ostensories” have been discovered in tombs 3230, 3220, 3880 (Sarianidi 2008: figs. 100, 163, 165, 166; Sarianidi - Dubova 2013). Small boxes of different shapes and sizes, probably made of wood, were also found in tomb 3235, shaft tomb 3870, and

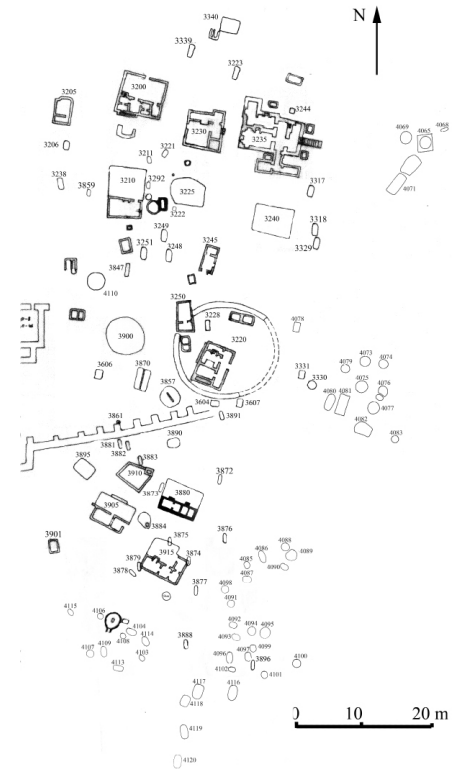


Figure 4
Gonur Depe. Scheme of the “royal necropolis”. © Margiana archaeological expedition.



Figure 5
“Royal necropolis” of Gonur Depe. “Ostensory” in the “hypogeaum” 3220 during cleaning. © Margiana archaeological expedition.

Figure 6
 “Royal necropolis” of Gonur Depe. Small originally wooden box with ivory and stone mosaic in the shaft tomb 3870 during cleaning. © Margiana archaeological expedition.

possibly 3220 (Sarianidi 2008: fig. 140; Sarianidi 2009: fig. 114) (Figs. 6-7). No similar artwork has ever been found in any synchronous, later or earlier archaeological sites of Central Asia, Ancient Egypt, Mesopotamia, China, or the Indus Valley. The Gonur mosaics differ from previously known examples, on the one hand because they combine two techniques – painting and inlays, on the other hand because they include inserts made of specially prepared minerals.



Figure 7
 “Royal necropolis” of Gonur Depe. Small originally wooden box with the stone mosaic decoration in the “hypogeum” 3235 during cleaning. © Margiana archaeological expedition.



First mosaic inlays were discovered in the North Gonur palace, in the second half of the 1990s (Fig. 8) as well as small originally wooden containers for round bronze mirrors in two rather rich graves (n°194 and 199) on the Large (Main) Gonur Necropolis (Sarianidi 2001: pls. 5, 11,12; Sarianidi 2007: figs. 205, 206; Sarianidi 2008: fig. 144). These wooden boxes were decorated on the outside with geometric ornaments made with small white stone square inlays 0,5 cm. side. Some of the squares and spaces between them were painted in red and black and created a bright colorful cross-like composition (Fig. 9).



Figure 8
Gonur Depe Palace. First mosaic inlays discovered during excavations in the north-western part in the 1990s. © Margiana archaeological expedition.

In all mentioned above “hypogea” there were separated inlays or some compositions of them. Fully preserved “ostensory” with mosaic decoration belong to the grave 3880. It stayed in the “yard” of “hypogeum” and present composition of different crosses and squares (Figs. 10-11). Under this box another subject composition was lying: “The battle between snake and dragon” (Figs. 12-13). We have no evidences if it was a separate one or connected anyway with “ostensory”, but it’s very impressive and shows how the snake (which personifies the positive forces) has seized the winged dragon (personifying evil) and defeats him. Also well preserved compositions came from the tomb 3210. They are “Griffin in cartouche” (Fig. 14) and “Pairs of opposing griffins” (Figs. 15-17). We have only fragments of one more panel, which can conditionally be called “Snakes and goats”, where in the center there were several snakes of different species intertwined and forming one circle. We don’t know what can be in the center of this circle with diameter around 15 cm. Only convex smooth surface stayed on its place. Two similar compositions representing a dragon swallowing a kid – possibly can be peripheral parts of the same panel (Fig. 18).

The walls and “ostensory” in the hypogeum 3220 were decorated with the same element (red inside with white curb) – a heart or leaf of the pipal tree (*Ficus religiosa*), under which some hundreds years later Buddha attained enlightenment (Figs. 5, 19a-b). Maybe, because it is red, but not green, it can symbolize both items together (achieving enlightenment in the heart). This “hearts” have different sizes and are arranged in two, three or four lines. Only one of them was about 7 cm, but unfortunately lay alone in the ground filled one of the hypogeum’s room and it’s impossible to speak for what composition it can belong. The central part of all inlays in the form of ‘hearts’ was made from one mineral and peripheral part (curb) – from another. They are differed both in the density of the mineral and in its color. About the stones used for the producing mosaic inlays it will be said later.

Figure 9
Gonur Depe. Large (Main) Necropolis.
Originally wooden box, decorated
with geometric mosaic from the grave
n° 1999 during cleaning. © Margiana
archaeological expedition.



Figure 10
“Ostensory” from the hypogeum 3880 at
the “Royal necropolis” of Gonur Depe
decorated with crosses and squares. V.
Sarianidi and M. Rzakov are cleaning it
in the expedition camp.
© Margiana archaeological expedition.

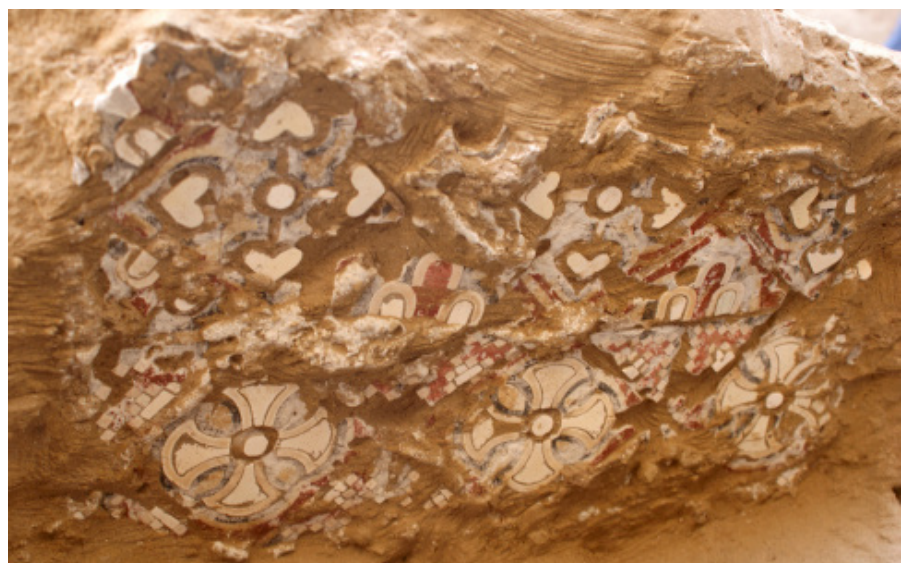


Figure 11
Fragment of the “ostensory” from the
hypogeum 3880 during cleaning.
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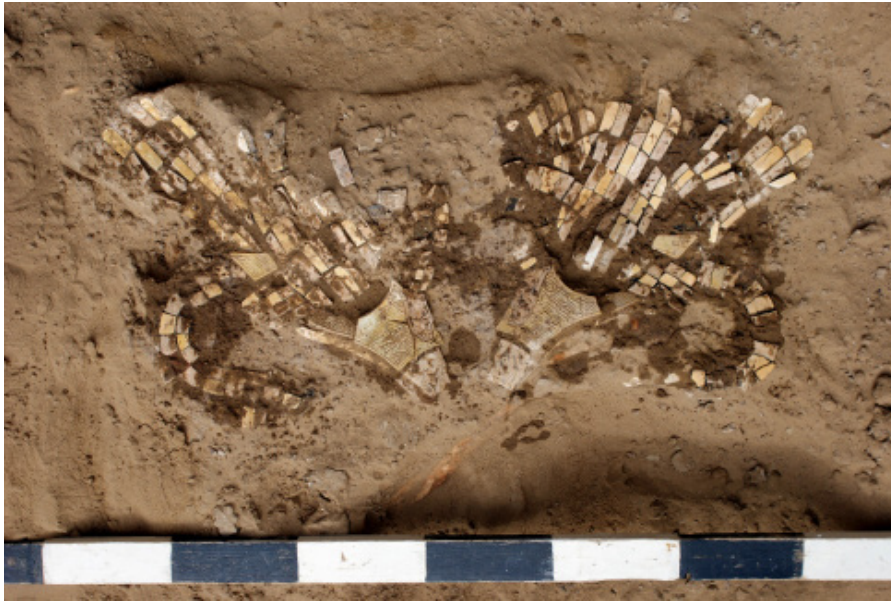


Figure 12
"Royal necropolis" of Gonur Depe. Mosaic composition "The battle between snake and dragon" from the hypogeum 3880.
© Margiana archaeological expedition.

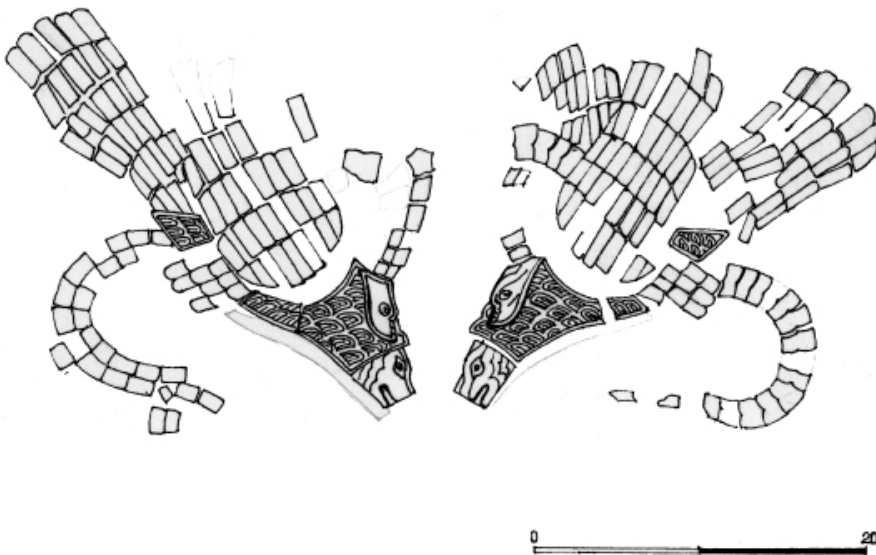


Figure 13
Drawing of the mosaic composition "The battle between snake and dragon" from the hypogeum 3880 made by Irina Sarianidi.
© Margiana archaeological expedition.

Figure 14
Comparison between the mosaics "Griffin in a cartouche" from the hypogeum 3210 at the "Royal necropolis" of Gonur Depe (right) and a fragment of the "Zimri-Lim's investiture" painted scenes in the Amorite palace at Mari in Syria (left). © Margiana archaeological expedition.





Figure 15
“Royal necropolis” of Gonur Depe. Victor Sarianidi is cleaning the mosaic composition “Pairs of opposing griffins” in the hypogeum 3210. © Margiana archaeological expedition.



Figure 16
Fragment of the mosaic composition “Pairs of opposing griffins” in the hypogeum 3210 during cleaning. © Margiana archaeological expedition.

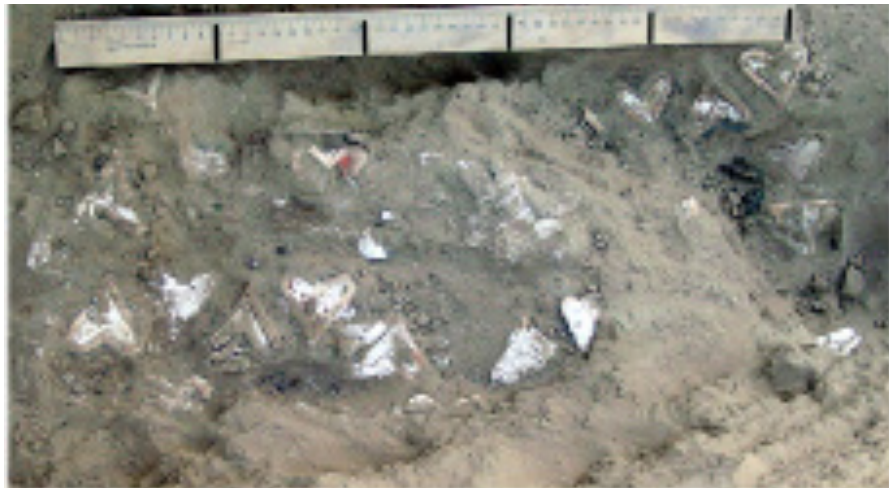


Figure 17
Mosaic composition “Pairs of opposing griffins” from the hypogeum 3210 “Royal necropolis” of Gonur Depe. Variant of the graphic reconstruction by G.E. Veresotskaya. © Margiana archaeological expedition.

An “ostensory” decorated with geometric, but made with great art ornament, was discovered in the hypogeum 3230. It was staying over the top the bodies of five buried servers (or slaves?) and was empty in the moment of discover (Figs. 20a-b). This panels were restored by two authors of this text and now are exhibiting in the State Fine Art museum of Turkmenistan in Ashgabad. In them, as well as in the case of the “ostensory” from 3880, the most striking is the fact that the outstanding visible effect is achieved by using only two colors (black and red) and different qualities of stone inserts (Kovaleva 2016: 120-122).



Figure 18
“Royal necropolis” of Gonur Depe. Central fragment of the mosaic composition “Snakes and goats” in the hypogeum 3210 during cleaning. ©Margiana archaeological expedition.



Figures 19a-b
“Royal necropolis” of Gonur Depe. Fragments of mosaic compositions with the “hearts” or pipal leaves from the hypogeum 3220 in situ. © Margiana archaeological expedition.

Now we can only image what compositions decorated walls of other hypogea. Maybe their walls were decorated by beautiful painting-mosaics composition, because thousands of separated inserts include very remarkable examples: heads of birds (Fig. 21) and different animals (Figs. 22-23), images of mountains (Fig. 24), “wings” (Fig. 25) and a lot of small fragments. The investigations of these material are in progress. But thanks to them now we begin to understand the creation technology of them.

Figures 20a-b
"Royal necropolis" of Gonur Depe.
"Ostensory" in the hypogeum 3230 during
cleaning. © Margiana archaeological
expedition.



Figure 21
Mosaic inserts in the form of the bird heads
from the hypogeum 3230 of the "Royal
necropolis" of Gonur Depe.
© Margiana archaeological expedition.



Figure 22
Mosaic insert in the form of a head of the bore from the hypogeum 3200 at the “Royal necropolis” of Gonur Depe.
© Margiana archaeological expedition.



Figure 23
Mosaic insert in the form of a head of the panther from the tomb 3210 at the “Royal necropolis” of Gonur Depe in situ.
© Margiana archaeological expedition.

Techniques and Materials Used

Here we have no possibility to describe all details of this process. But underline only most important ones. We have some evidences of the presence of the wooden base for mosaics. Maybe not all of them, because another facts testify that some decoration was fastened directly on the plastered wall (Fig. 26), had these stages of creation: preparing the sketch of the composition; plastering the selected wooden surface and mounting the prepared elements into it. But elements that form the basis of the pattern and usually everywhere adjacent and alternating with each other vary considerably in thickness (for example, bright white “cubes” are 4-5 mm thick, and yellowish plates – only 1 mm) (Kovaleva 2012: 181). Under the thin inserts and around the white “cubes” there is a thick layer of the black mastic (black carbon pigment, quartz, gypsum and natural resins) (Kireeva 2014). This black substance aligned the back side to the same thickness. To mount these details working “from the front side” is almost impossible. Only cubes or insert of other forms which have the same thickness and relatively flat front and back surfaces can be easy put inside the cementing mass and connected one with another. It can be supposed that some elements of the decorations were composed not by the direct method, but by the inverse one and using special templates. When the panel was prepared it turned over and the free areas between the inserts on the front side filled with the colors. It can be

Figures 24a-b
Mosaic inserts in the form of mountains
from the hypogeum 3915 at the “Royal
necropolis” of Gonur Depe. Face (a) and
back (b) sides. © Margiana archaeological
expedition.

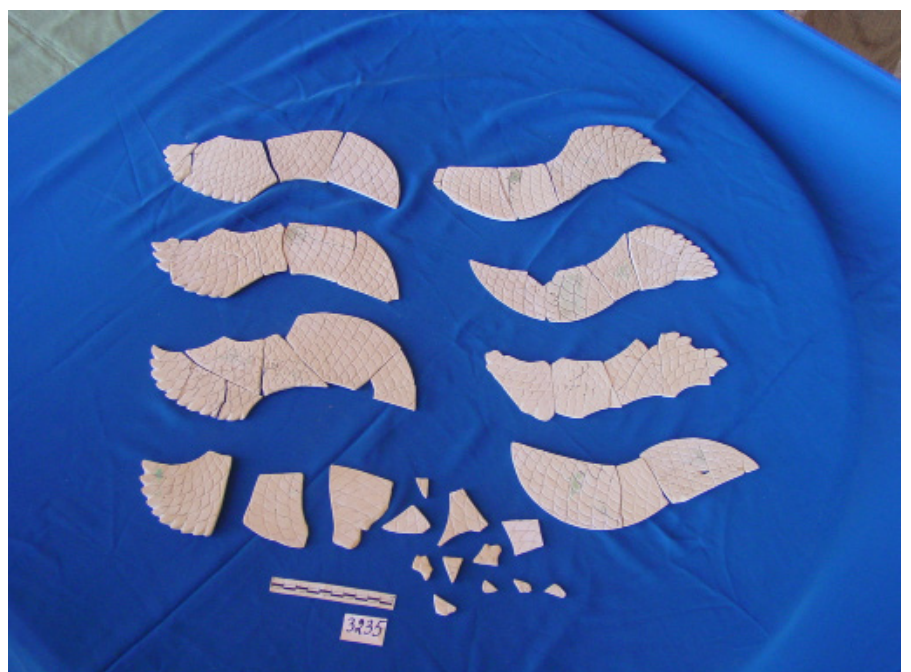


Figure 25
Mosaic inserts in the form of wings from the
hypogeum 3235 at the “Royal necropolis”
of Gonur Depe. © Margiana archaeological
expedition.

assumed that separate elements of the panels (square, rectangular or triangular) have been prepared in advance. They can be stored in the workshop and used while creating a new composition (Kovaleva 2012; Veresotskaya 2012; Veresotskaya 2016: 323). Apparently, due to the various materials used for the composition, each with its own physical and chemical properties, different kinds of mastic were used. We cannot exclude that a specific technological tradition unknown to us was at work in the region.



Figure 26
“Royal necropolis” of Gonur Depe.
Fragment of mosaics on the plastered
wall of the hypogeum 3235. © Margiana
archaeological expedition.

One more very important discovery was made during the restoration of the panels. The great number of inserts has been specially clipped edges. According to T. Shaposhnikova’s observations, the edges of most of the tesserae have a slope ranging from 45° to 85°, while less are cut at a right angle (90°) (Fig. 27). This technique, now called ‘tessellation’, is used to even out the outer surface of the mosaic canvas in the case when inserts have different thickness or uneven front surface. It is known only from the classical period. But Gonur material testify that artisans of even in third mill. BC owned it. Among the numerous stone artifacts from Gonur, A. Yuminov found pieces prepared and sharpened at the same angles as those found in the “royal tombs” (Sarianidi - Dubova 2013: fig. 17).



Figure 27
Micro-slip of mosaic insert, reinforced with
the black mastic on the coating. © Margiana
archaeological expedition.

Gonur artisans used special minerals for mosaics making. The inserts are made of a material that does not have enhanced strength characteristics and are easily tooling. Roentgeno-structural and microscopical analysis shew that they are 95% α -quartz with an average crystallinity index. The material has characteristics, probably caused by changes in the mineral upon its transition to various polytypic modifications of silica associated with the heating of the substance. Judging by the mineral composition and structural and textural characteristics of the material, sedimentary rocks such as flask, diatomite and tripoli could be used as raw materials for the production of mosaic tiles (Yuminov 2012: 189-190).

The method of heating of siliceous raw materials has a long history in South-Western Asia (Barthelemy de Saizieu 2003). It was used in the Indus Valley since the Neolithic period (Vidale 1990; 2007; Lankton et al. 2003: 9). Harappan seals were manufactured from elaborately fired limestone (Masson 1977: 149). The same technique was used for the production of beads known at Altyn Depe in Turkmenistan (Kircho - Kovnurko 2003). Heated beads and seals are frequent also at Gonur Depe (Sarianidi 2001: pls. 22, 1,3,4, 6-11, 13,14; Sarianidi 2002: 46 Tabl. II, 11-14; Sarianidi 2007: 105 figs. 178, 179; Rossi-Osmida 2011: 227, 228; and many other).

The reverse side of the inserts, which are the parts of the subject compositions, has special signs (like v, o, ll, heart, π and others) (Yuminov 2012: 189; Veresotskaya 2014: 220). Carried out the systematization of separate mosaic inserts was began from the items in the hypogeum 3210. For example, four types of “wings” belong to different animals (creations) were identified. The outline of the panel “Pairs of opposing griffins” was used as a template to line up the destroyed ones. It was found that the signs mark different details from the same composition. As the result of all this work the new reconstruction of the mentioned panel was made (Fig. 17).

The Subjects Represented and Their Analogies

Only one human portrait is presented at Gonur: it's a beautiful head, probably of a woman dressed in wide fluttering clothes with the black hears (chamber tomb 3245). Natalia A. Kovaleva restored this mosaics and assumes that there were hands depicted also (Fig. 28). Possibly the image of human figures was close to the typical in the third millennium in Mari mosaic compositions or on the famous Standard of Ur (Aruz - Wallenfels 2003: 97 fig. 52), and are also numerous in the early 2nd millennium painted investiture scene mentioned above. But perhaps among mosaic panels destroyed by robbers (all hypogea were robbed many times in antiquity) there can be many human (or composite figures?) images. This is evidenced by finds of many of the tesserae representing elements of cloths (tombs 3210, 3230, 3235) and eyes (burial 3210; see for example Shaposhnikova 2012: 173, 174).

To understand the place of the Gonur mosaics among the other most ancient examples, we need to say, that the famous Uruk mosaics (dating back to the end of the 4th millennium) were made by pressing clay cones (8-10 cm long and 1,8 cm in diameter) into a wet plaster background. Their external surface formed the mosaic surface making geometric patterns like rosettes, triangles or zigzags, generally painted in red, black and white colours (Aruz - Wallenfels 2003: 18-19 figs. 4,5). Inlays found in the ancient 3rd millennium city of Mari were manufactured from lapis lazuli, mother-of-pearl and ivory (Parrot 1967: pl. XI; Aruz - Wallenfels 2003: figs. 96, 97, 100; Margueron 2007: 52 fig. 25). They are also unique in the scenes they depict. The only place with some similar features is



Figure 28
Restored and partly reconstructed (adding a hand) human portrait from the chamber tomb 3245 at “Royal necropolis” of Gonur Depe. Work by N. A. Kovaleva.
© Margiana archaeological expedition.

the frieze of warriors from the Early Dynastic II palace of Kish (2650-2550 BC) where the most important details are highlighted by inserted inlays making contrasting colors. The scene composition is hollowed out of the grey slate and then filled in with white limestone inserts (Aruz – Wallenfels 2003: fig. 48). No mosaic compositions have been found at Mohenjo-Daro, though a large number of separated pieces have been discovered reminding, to a certain extent, the Gonur examples (Marshall 1931: pl. CLV, 26-31, 39-46, 56, 57, 61, 62 pl. CLVI, 12).

“Griffin in a cartouche” from the hypogeum 3210, exquisitely made by the Gonur craftsmen, finds very close analogies with the painted scenes of the “Zimri-Lim’s investiture” in the Amorite palace at Mari in Syria (Musée du Louvre, inventory number AO19826)¹ (Fig. 9). In both the Gonur and Mari versions, the animal is placed in a frame surrounded by a dark border. The other representations in the Investiture scene are similarly framed. As it was mentioned above, at

¹ The paintings found in the Amorite palace of Mari date most probably to an earlier period than the time of Zimri-Lim according to Margueron 2004: 509. He suggests either the beginning of the XVIIIth c. or the XIXth c.

Gonur the black color was used in the final stage of the making of the mosaic, to outline or to draw the borders. The fantastic beast from Gonur Depe tomb 3210 has the torso of a lion, the head of a dragon and spread wings. It is standing firm on its powerful legs. The head of the Syrian winged-lion did not survive, but it may have horns. On the Gonur representation, the beast's head is crowned with black curved horns. It also has a black, slightly curved forward and narrow beard similar to that usually depicted on Egyptian priests' and pharaohs' faces. Other griffins wearing the same beards are depicted on another composition found in the same tomb at Gonur (Fig. 10). The griffin's body generally reminds that of a lion's torso, but there are still noticeable differences: there is no mane, a distinctive feature of a male lion, and the lower part of the belly is colored in bright red. The back of the neck of the griffin reminds that of a buffalo or a zebu since it is depicted with a hump rising immediately behind the head. Several blocks are made of stone tesserae: the head with its wide-open jaws, the legs with their underlined muscles and the wings made of tiny elements in order to underline their volume. The Syrian beast's wings are also multicolored. But its torso is much less powerful, especially in the bottom part. In both pictures, the tails of the animals are raised up and tense. The Mari griffin's tail is rolled around a multicolored disc. Interestingly, in the Mari picture, the lion-griffin cartouche stands over that of a humpback buffalo or zebu with its front leg standing over mountains. These comparisons vividly illustrate the close cultural ties between the country of Margush and the Near East.

Conclusion

The investigation of Gonur mosaics is only in its beginning. We have only few information on the technology of its making. We didn't full analyze the material from which they were made. We made analysis of few fragments of used colors. No one has yet set as the goal a serious study of the panels and their comparisons with known samples. But it's clear, that they are a brilliant, unknown previously example of the ancient Oriental art.

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