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## THE SAPALLI CULTURE IN THE SYSTEM OF EURASIAN ANTIQUITIES

*In Uzbekistan's extreme south, in the lands of ancient Bactria during the early 2nd millennium BCE, an ancient Eastern-type early urban civilization, known as the Sapalli culture appeared (hereafter designated SC). This article examines the appearance of steppe traditions from the pastoral tribes of Eurasia within the SC, which served as the most important generator in forming this new cultural expression under discussion whose further development occurred during the urban Bactrian period. This topic's appeal is dictated by the data accumulated in recent years which confirms that these processes in the region were extremely dynamic and diverse.*

*Among the material sources that allow us to analyze the essence of this region's distinct cultural change during the Late Bronze Age, a special place belongs to the multicultural necropolis of Bustan VI (hereafter referred to as B VI). This site has been widely studied and represents the final stage of the SC (Mollali, Bustan), revealing new facets of originality. Among the burial rites of B VI, along with the established norms of the SC, new ritualistic forms have been recorded (i.e. cremation, partial, and secondary burials, fire-solar rites, animal sacrifice, sacred ceremonial sites, etc.) in which the dominant steppe background is detected. Objects of extraordinary importance include semi-terrestrial mudbrick chambers, which are interpreted as chambers for the cremation of the dead. They represent a completely new phenomenon among the known burial complexes from the Eurasian Bronze Age. A change in the vector of cultural-historical and economic ties can be observed which makes it possible to reasonably substantiate several issues concerning cultural ties to the cultural genesis of Bactrian civilization. The integration process was long and extended over time, and, apparently, of a peaceful nature.*

**Key words:** Bronze Age, ancient agricultural culture, steppe innovations, foreign cultural symbols, funeral rite.

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**D**URING the Bactrian civilization's cultural genesis of early urbanization, a special place belongs to the Sapalli culture (hereafter designated SC), which was discovered thanks to the large-scale research of A.A. Askarov (1973, 1977). Located in the middle reaches of the Amu Darya River in southern Uzbekistan, the area is included in the settlement of ancient agricultural communities during the Bronze Age which were the primary ancient Eastern-type urban cultural centers. Archaeological realities in the SC's history demonstrate that at the turn of 3rd to 2nd millennium BCE the cultural and historical situation changed significantly in all spheres of life and was associated with the emergence of new relations with the population of the Eurasian steppes.

Over the past decades, Uzbek scientists have determined spatial-temporal indicators of contacts and infiltration of Indo-Aryan ethnicities from the steppe

into prehistoric Bactria. The vectors of connection with the cultures of the Andronovo community dominate. Growing interaction took place from mid- 2nd millennium BCE between the traditional bearers of the steppe Bronze Age culture in the Amu Darya oasis and the tribes of the Fedorovo culture which was caused by the economic and environmental crisis of the period. This material is an important source for studying the historical situation not only in early urban Bactria, but also for the cultures of neighboring territories. The information we have at our disposal from the Sapalli, Jarkutan, and Bustan cultural complexes specify the time; describe much more accurately the nature of the penetration process at the intraregional level; clarify the picture of the interaction of steppe societies with the population as noted in the Northern Bactrian cultural layer (ceramics, metal, stone, and bone products); and provide import-

ant ceremonial indicators which include details of the construction of funerary structures, rituals, and religious ceremonies associated with the kindling of fire, methods of handling a corpse, etc. A number of artifact comparisons and burial procedures from the bearers of the steppe traditions found in the sealed complexes of the SC make it possible to synchronize them and has resulted in discovering the following: a) The stages in development of the farming culture were from the Proto-Bactrians most of all associated with certain groups of Andronovo, Srubnaya, Tazabagyab, and other associations; and, b) which regions of the steppe this cultural material and its carriers come from.

The penetration and impact of northern pastoral communities on agricultural oases can be traced throughout the territory of prehistoric Bactria which incorporates southern Uzbekistan, southwestern Tajikistan, and northern Afghanistan. This material seems to be an important source for studying the synchronous realities of early urban Bactria. The impact of the steppe population was multifactorial and quite effective. A system of relations was formulated, which was based on a) direct interaction of cultures with simultaneous subsidence; and, b) the promotion of individual groups from the west and north (Ural-Kazakhstan region) as well as to the south because of trade and exchange relations which were dictated by the characteristics of the raw materials from different territories.

It should be noted that the middle class itself arose and developed because of intercultural and transcultural processes. It was part of a broader Central Asian sphere of interaction that included cultural contacts involving the movement of people, goods, technology, and so on.

The SC population's connection with the pastoral tribes of the Eurasian steppe have taken place since the growth of a bloc of chariot formations at the turn of the 3rd-2nd millennium BCE. The cultural status of the Sintashta-Petrovka heritage is recorded in Sappalitepa and in the early layers of Jarkutan (Fig. 8).

The cultural changes that occurred were not due to the influence of external impulses, but rather to the direct participation of pastoral tribes. This author interprets the establishment of Sintashta-Petrovka culture as the cultural-genetic basis for the cultural genesis of Bactrian civilization. This process occurred in conditions of close interaction between the two worlds. The cultural content's assessment of the agricultural and pastoral population from prehistoric northern Bactria remained ambiguous for a long time. The first attempts were made by Vinogradova and Kuzmina (1986), Askarov (1989, 1990), Avanesova and Tashpulatova (1999, 2003). This author's present appeal on this topic is based upon new evidence

found concerning the problem under discussion which confirms that these processes in the region were extremely dynamic and regular. The settlement of the new region by the steppe community largely depended on the local population's tolerance and openness.

**Material world.** Evidence of multicultural traditions can be traced in the material culture. An expressive and informative set of objects with a syncretic nature has been obtained which have broad analogies with the Ural-Kazakhstan sites. These will be considered based on the cultural material and assess how significant the material layer is in the settlement and burial complexes of the SC. This mechanism of interaction will be synchronized and clarified through the search for a cultural environment and, of particular importance, the analysis of the main categories of clothing material. The most significant finds include stucco and wheel-produced pottery. The absolute majority in this collection is represented only by fragments from the upper parts of vessels. This includes more than 60 fragments from 31 vessels, as well as seven whole ones (Fig. 1–3). Even though the sample is statistically insignificant, it substantively marks the cultural components of the steppe impulse within Sappalli society. The steppe tradition can be found in the pottery with hand molding technique discovered in Sintashta (specifically in the temple and the canal bed of Jarkutan); in the Alakul version (at Jarkutan temple site); in the Fedorovo version (at the sites of Jarkutan temple, citadel, and hill 4.5; Bustan VI, VII), among the Tazabagyab and Tagiskent imported goods artifacts (Bustan VI, VII). There are certain pottery fragments of Sargarino-Alekseevskoye and Begazino (Bustan VI) pottery. Typologically, the ceramics line of development is in accordance with the general temporal changes of the pre-Andronovo, Andronovo, and post-Andronovo traditions. The ratio of steppe ceramics in the archaeological layers of the SC is different. From the Kuzali and especially from the Mollali period, the dishes from pastoral cultures received independent, intracultural development in a foreign location (Fig. 3 'B'). An archaeological indicator of this phenomenon is the vessels molded on a potter's wheel but decorated with elements that imitate their hand-molded type specimens (at Jarkutan – on the sites of the temple, citadel, palace, and burial ground). There are dishes similar in shape to Andronovoid items (Fig. 3 'A': 1, 3, 7), but obviously made of a potter's wheel (Bustan VI, VII) Besides monofunctional votive vessels from the Bustan VI necropolis (Fig. 3 'A': 4, 5, 6) have to be regarded as the Andronovo heritage. It shall be noted as an anomaly though that only ceramic fragments predominate at these sites. Most of them were found outside the graves in areas with hearths, crematoria, ritual pit-altars, and altar devic-

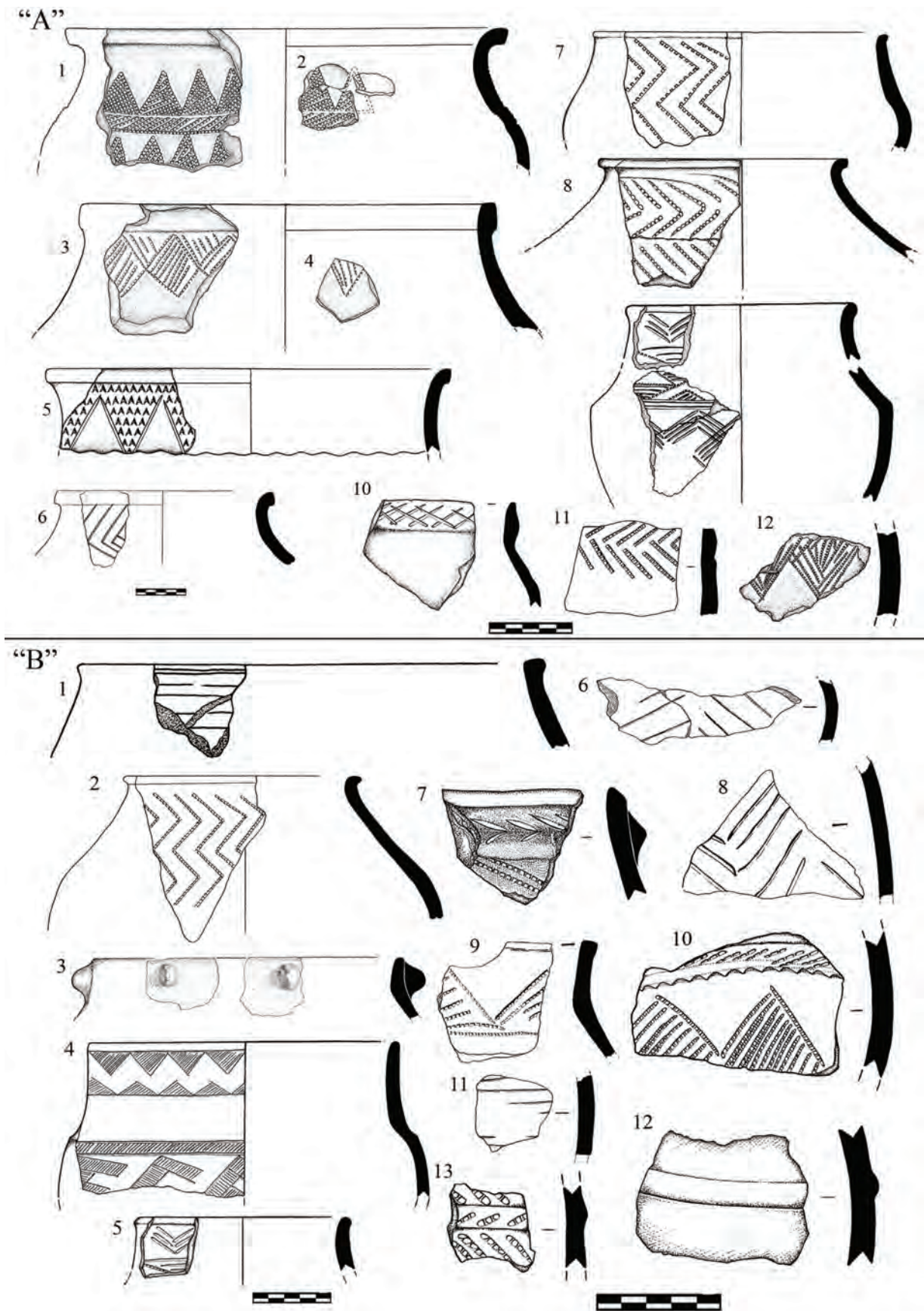


Fig. 1. 'A' Jarkutan. Steppe pottery. "B" Bustan VII. Steppe pottery



es, along with the remains of a funerary meal. Several small pottery fragments were found in a cluster of bricks<sup>1</sup>. Probably, the funerary rites of steppe societies in a foreign cultural environment did not provide for the placement of whole vessels with burials and as objects of worship. According to the cultural material of the Bustan VI necropolis, the remains of the steppe vessels were used as a kind of business card. In the context of the funerary ceremony, a fragment of Andronovo ceramics was placed in the grave, near the head. By comparison, a similar burial tradition is known in the Zhylandy burial ground in central Kazakhstan (*Kadyrbaev* 1974: 37-38)

Cultural and chronological interpretation in the system of Eurasian antiquities is based primarily on comparing characteristics of technical, technological, and morphological features of pottery. The sample of the collection under discussion is not statistically significant; therefore, its analysis is conducted only based on morphology with clearly defined Sintashta-Petrovka, Alakul, Fedorov, Tazabagyab, and Postandronovo features.

Modest finds (the remains of two fragments) of Sintashta-type vessels require their own separate description. They represent parts of the rim and shoulder with the body of a pot or jar with a pronounced ribbed profile and a concave shoulder (Fig. 1 'A': 12; Fig. 8: 5). The decor has a complex composition with a combination of triangles occupying the area of the rim, shoulder, and body. The pattern consists of a series of grouped isosceles, hatched triangles (with alternating rows of horizontal and oblique strokes). The bending zone of the rib is marked with horizontal shallow grooves. A four-row horizontal zigzag is applied along the body. The drawing is made using an incising technique of flat and comb stamp impressions (framing triangles). The surface has traces of burnishing and is carefully smoothed. On the inside are traces of textile imprints and wood chips. The fabric in the molding mass included talcum powder, organic matter, and fireclay. The firing is uniform and the color of the potsherd is dark gray, yet brownish gray in the cross-section. This described pottery originated from a section of the dry channel of the Jarkutan site's drainage system which functioned only during the early stage of the region's development (*Askarov, Shirinov* 1993: 76-77).<sup>2</sup>

The pottery under discussion can be identified as a vessel of the Sintashta type from the Ural-Kazakhstan

region. Among the significant culture-forming indicators of this type researchers include sharp-ribbed pots (the transition from the shoulder to the body is designed as a highly raised rib); the design is made mainly with a smooth stamp which traces the area of the neck and the upper part of the body. Most of these designs are isosceles, obliquely hatched triangles in combination with horizontal zigzags; Other indicators include surface burnishing and the formulation of the molding composition which includes talcum grit and chamotte (*Zdanovich* 1983: 60-61; 1988: 110; 2002: 42; *Gudkov* 1995; *Vinogradov* 2007: 27; *Tkachev* 2007: 327-331). The key characteristics listed generally correspond to the analyzed ceramics. Numerous comparisons of the latter are found in the Sintashta burial ground (*Gening, Zdanovich, Gening* 1992: Fig. 55:4, Fig. 63:2-4, Fig. 76:3, 4, Fig. 81:3-5, Fig. 92:1, 2, etc.); in the Arkain necropolis (*Zdanovich* 2002: Fig. 20:7, Fig. 22:7, Fig. 49:1); similar pottery is present in the sites of the southern Urals (*Tkachev* 2007, Fig. 49: 8,10, Fig. 50:1,13,18); in the burial grounds of Kri-voye Ozero (*Vinogradov* 2003: Fig. 8:6,11, Fig. 27:7, Fig. 90:2) 2); Stone Barn (*Epimakhov* 2005: Fig. 22:1, Fig. 26:1, Fig. 37:6, Fig. 49:4, Fig. 96:6) and the southern Trans-Urals.

Another find from this type under discussion deserves attention which is a vessel whose upper part has an open mouth and a narrowed neck with diverging sidewalls (Fig. 1 'A': 3). The rim's edge is everted, the profile is flattened and has a flat external thickening (often noted by researchers as a "collar," or "cuff"). The decor is in one area along the neck, seen as a ribbon of obliquely hatched vertical rhombuses interconnected by side corners, the tops of which abut against the lower edge of the rim, forming isosceles triangles without a base. These described ceramics came from the floor of corridor 3 of the Jarkutan temple (one of the corridor-like rooms also called a "reliquary" in the description), found with fragments of a Jarkutan-phase vessel.<sup>3</sup> Another example should be referenced which is an identical small potsherd from a vessel sidewall found in the Jarkutan layer of the citadel (hill 5, excavations by Sh. B. Shaydullaev)<sup>4</sup> from the settlement of the same name (Fig. 1 'A': 4). Direct analogues could not be found. It should be noted that identical vessels are practically unknown among pre-Andronovo pottery. Based on the level of composition, zonal confinement, decorative application

<sup>1</sup> The finds of crushed pottery fragments in the brick collection suggest the presence of short-term shepherds' camps in the Sherabad oasis.

<sup>2</sup> I express my deep gratitude to the head of the Department of Archeology Funds of the State Museum of Samarkand, E. Lushnikova for pointing out this find (K.P-4802, A - 433/16) and for the opportunity to study the SK collection.

<sup>3</sup> Askarov A. A., Shirinov T. Sh., Duque H. Report of the Sherabad archaeological team for 1983. Based on excavations at the settlement of Jarkutan. Samarkand, 1984. *Funds of the Scientific Archive of the Institute of Archeology of the Academy of Sciences*. RUz F5, Op-1, D-125. Pp. 42-44.

<sup>4</sup> I express my gratitude to Sh. B. Shaydullaev for help in determining the topography and stratigraphy of the finds at the Jarkutan settlement and for the use of unpublished materials.

technique, and method; the greatest similarity is noted with Sintashta culture pottery from the Tanabergen II burial ground in the southern Urals (*Tkachev* 2007: Fig. 51:14). Characteristics of the Sintashta pottery assemblages are marked by a decorative belt on the neck; a thickened molding on the outside; and a flattened section of the rim (*Malyutina, Zdanovich* 2003: 120; *Vinogradov* 2007: 22–23, 27–28). As noted below, the proportion of Sintashta artifacts seems to be more significant than previously thought.

Of certain interest is a fragment from the upper section of a large *khum*-type vessel with similar pot-shaped outlines.<sup>5</sup> It is characterized by a clearly defined, thickened, everted rim; a mouth that strongly widened towards the vessel's top; a distinct concave, and a thickened neck with a smoothed roller ledge at the transition from the shoulders to the rounded body (Fig. 1 'A': 1). The decorative composition consists of two tiers of isosceles triangles with oblique shading having their apexes facing upwards with a dividing horizontal belt between them (oblique imprints). The pottery in question was found in room 5 (sacred ash storage) of the Jarkutan temple. It is important to note that an identical fragment of pottery was found in the stratigraphic excavation of hill 4 (Fig. 1 'A': 2) from the Jarkutan building horizon.

According to their formal features, pottery-shaped vessels of the Arkaim settlement (type G-III as referenced by *Malyutina, Zdanovich*, 2003: 116–117, Fig. 6:6), are also comparable to large capacity jars whose walls have pronounced thickening near the neck (*Zdanovich* 1997: 53, Fig. 8:1, 2). The latter characteristic becomes one of the diagnostic features in the design of the neck from Alakul ceramics. The positional placement of multi-tiered triangles finds parallels in pottery decoration from the Petrovka II settlement, specifically the eponymous Bolshekargan burial grounds (*Zdanovich G., Zdanovich S.* 1980: 188, Fig. 3–10.11; *Zdanovich* 1988: 51, Fig. 18:11, Table 10 A:23; *Botalov and others.* 1996: 78, Fig. 14:6). Attention should also be paid to the technique and decorative style which create the relief of Jarkutan ceramics and demonstrate a certain similarity with the Sintashta sites in the southern Urals (*Tkachev* 2007: 181–182). In general, this vessel is characterized by such a combination of features that do not allow for an unambiguous interpretation. Thus, the general appearance of the vessel is more in line with the Petrovsky-type pottery.

Unfortunately, the limited scope of this article does not allow for a detailed discussion on the descriptive characteristics of each fragment. Yet, some

vessel samples from the necropolises of Bustan VI and VII deserve special attention which in the system of Andronovo antiquities find correspondence with Alakul and Fedorovo pottery.

Among the numerous fragments, one from a large vessel with pronounced Alakul diagnostic characteristics is distinctive (Fig. 1 "B": 4). In the pot's shape, the container is open with a straight neck, a slightly convex body with a carinated shoulder separating the neck from the body. The decoration adorns the transitional part of the neck and consists of a smooth zigzag strip between two rows of hatched triangular figures with their apices facing in opposite directions. The ribbed ledge is emphasized by the obliquely hatched horizontal ribbon. Below it is a meander pattern, consisting of interconnected straight segments of obliquely hatched ribbons. This type was recorded in a hearth-altar (M 19, B–VII) together with pottery fragments of the Kuzala type. We define the place of these analyzed dishes in the collection of Andronovo antiquities as the pottery from the Alakul tribes. It bears the greatest resemblance to Alakul artifacts found in the western regions of the Andronovo community (*Sorokin* 1966). It is also necessary to note the almost absolute similarity with the vessels from the Tasty-Butak 1 burial ground (*Sorokin* 1962: Tab. XLIV–11, 34, 49, 61).

Attention should also be paid to pottery with observable Fedorovo features represented in the B-VI collection from several finds. Most of them were found in the fill of hearths and altar devices. Thus, only two fragments should be discussed in detail.

A) This is a pot-shaped vessel with a wide neck, a straight rim with a rounded edge, a delicately profiled neck with slightly rounded shoulders (Fig. 2:8). The decoration is divided into three areas on the vessel: the rim, the lower part of the neck, and the shoulders. Linear and zigzag motifs are combined with rectangular obliquely hatched triangles and teardrop-shaped indentations. This example was discovered in the grave fill of pit 64 together with other Mollalin pottery.

B) This vessel is from a Fedorovo characteristic most clearly observed in pottery with a decorative scheme with an appliqué style (Fig. 2:15). The elongated, narrowed neck with an everted, circular rim and slightly outlined shoulders suggest that the fragment is closer to having being part of a jug-shaped vessel. The decoration is, in effect, a solid-color area. The composition is centered around large obliquely elongated triangles with their apices pointing upwards. The technique of applying the pattern is from a finely serrated and flat stamp in combination with fluting. This vessel was found in a fire pit (M 335) of the cultic complex along with pottery from the Mollalin period. There were two small fragments with the

<sup>5</sup> **Ed. note:** A *khum* in Central Asian archaeological contexts is the term used to describe large storage vessels, similar in function and size to pithoi in Greco-Roman archaeological contexts.



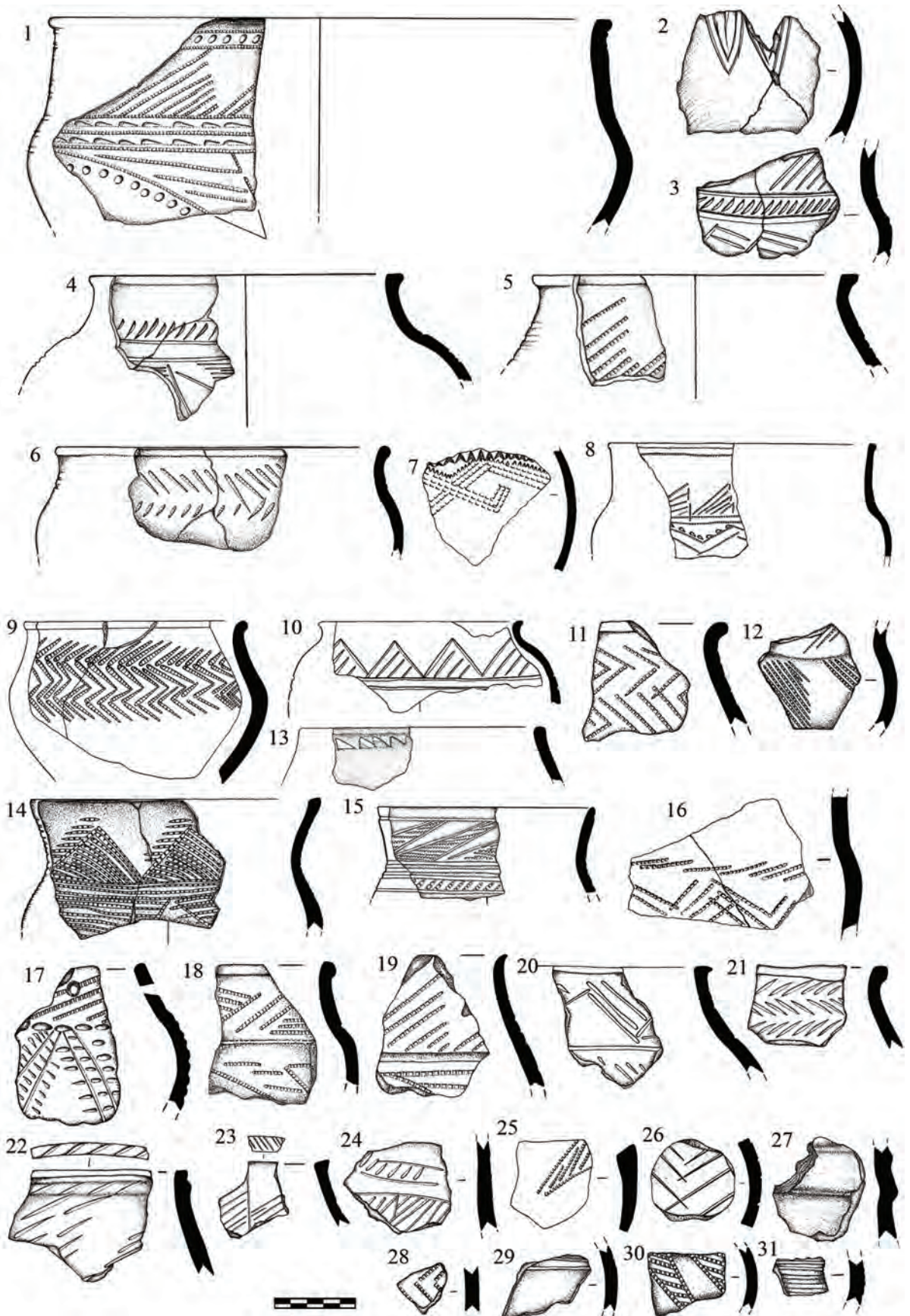


Fig. 2. Bustan VI. Steppe pottery

same type of design found in a cluster of bricks (Fig. 2:28, 30).

The described vessels are distinguished by the following characteristics: a neat, finely combed decorative technique; general principles for constructing the decor on the rim, neck, and shoulders with a separator between them; additional pattern elements (oblique and rectangular triangles, flutes); careful surface treatment (burnishing); and the firing mode and molding composition. The combinations of all the listed features are similar to the diagnostic indicators of Fedorov-type dishes (Sorokin 1966). Some similarities can also be drawn from the ceramics of Kokcha site 15 from the Tazabagyab culture (Itina 1977: Fig. 17:1; Fig. 20:1,2,3). These materials demonstrate the greatest similarity (morphological and decorative features) with ceramics from the Fedorovo site near the Kirov state farm and a small collection from the Kanguurtut settlement in southwestern Tajikistan (Litvinsky, Solovyov 1972: Fig. 19B: 1, 2, Fig. 20B: 1, 4, 11; Vinogradova 2004: Fig. 25, Fig. 44B: 6; Vinogradova and others. 2008: Fig. 7: 36; Fig. 24: 2, 3, Fig. 35: 26, 27). E. Ye. Kuzmina considers elongated, oblique triangles to be a feature of the Fedorovo tableware in Tajikistan (Kuzmina 2008: 94). The occurrence of Fedorovka ceramics from the Bustan VI necropolis can be reliably associated with the Mollalin phase of the SC, which makes it possible to synchronize them chronologically.

There are reasons to believe that the vessel found in the Jarkutan 4B necropolis (Ionesov 2002: Fig. 7), is the product of local potters, but made in the tradition of the Fedorovo craftsmen (Fig. 3 'A': 2). It owes its appearance in the Mollalin complex (M 83) to the Fedorovo pots which have a smoothly profiled body. The latter is casually covered with multiple rows of grooves, or flutes, which is also considered a characteristic of Fedorov-type dishes. There are similar features found with the vessels of the Dashti-Kozy burial ground (Isakov, Potemkina 1989). Close comparisons are also observable in the Tasty-Butak burial ground, in which V.S. Sorokin notes that these grooves are most often found on non-decorated dishware (Sorokin 1962:70, Table XLVIII–36; XLIX–45; LVII–98; LX–117).

Among the manifestations of the Fedorovo ceramic tradition include unfired, molded miniature vessels discovered during excavations at the Bustan VI necropolis (Fig. 3 'A':4, 5, 6). This example is a pot whose profile has an ellipsoid body and a flat, small base with a ledge which has been identified together with pottery from the Mollalin collection (Avanesova 2000:126, 127: Fig.6, 7). The decisive confirmation of production by the Andronovo masters (in addition to their morphological characteristics) is their position in the grave, specifically, placed upside down on the

charcoal "litter." This practice is well known in the Allakul burial ground, in Subbotino, Zhaman-Uzan II and others. (Salnikov 1952:52–62; Avanesova 1975: 110, Fig. 1; Potemkina 1985: 239).

In addition to the pottery described above, is the rather peculiar pottery comparable to the Tazabagyab ware with several key indicators. These included the shape of the vessel, the pattern and motif of the decoration, the surface treatment, and color and structure of the potsherd. The collection includes fragments from 11 vessels including pots, jars, and narrow-necked dishes. Of specific note is a large upper fragment from a pot found in a crematorium VII (Fig. 2: 1) (Itina 1977: Fig. 55:2).

From the pottery collection of the Jarkutan necropolises Bustan VI, VII, are the easily recognizable forms of the actual Tazabagyab dishes (Fig. 1 'A':6,7,8; Fig. 1 'B': 2, 9,10; Fig. 2:1, 5, 6, 9, 17–19,22). Most prominent are the originality manifested narrow-necked vessels and open pots with typical tazabagyab ovoid forms of the shoulder and body (Itina 1977: 116,118,124; type 4, 8). Their patterns are mainly made with a pottery comb, less often with a smooth stamp. The decoration consists of a limited number of simple motifs, specifically the dominate vertical zig-zags or the less often belts of horizontal and vertical evergreen trees that adorn the throat and body which is found in one specific area, specifically the throat and shoulders. Also, there is a consistent pattern of open triangles. One of the vessels is decorated with large triangles framed with a fringe of short notches; a consistent technique in the decor of Fedorovo vessels (Fig. 2:14). A significant part of these vessels correspond to the morphological standards for pottery from the sites of Angka 5 and Kavay 3 (Itina 1977: Fig. 52–4, 7; Fig. 53–1; Fig. 55–5; Fig. 56–1, 2, 5). The latter belong the late stage of Tazabagyab culture from the 13th–11th centuries BCE, as determined by M. A. Itina. Based on the relative chronology of the SC, part of this examined pottery is contemporary with the Mollalin phase and the other part is associated with the Bustan phase

A separate group is comprised of post-Andronovo pottery, specifically, a miniature vessel devoid of decor (ill. 3 'A': 7). This spherical, round-bottomed, bowl-shaped vessel is distinguished by a narrowed, low, everted neck with a ledge at the base. It was found in a undisturbed burial complex (M 71-BVII) from the Bustan phase. Close comparisons are observable in pottery with the aforementioned ledge from the Karasuk cultural tradition (Novgorodova 1970: Fig. 2; II–3. 4; Gryaznov 1979: Fig. 19; Polyakov 2006:8, Table 1–I6). However, it is worth noting the difference in the neck design of the vessel since in Karasuk pottery such a feature is more vertical. Some similarities—slip, gray fabric, curved neck, and



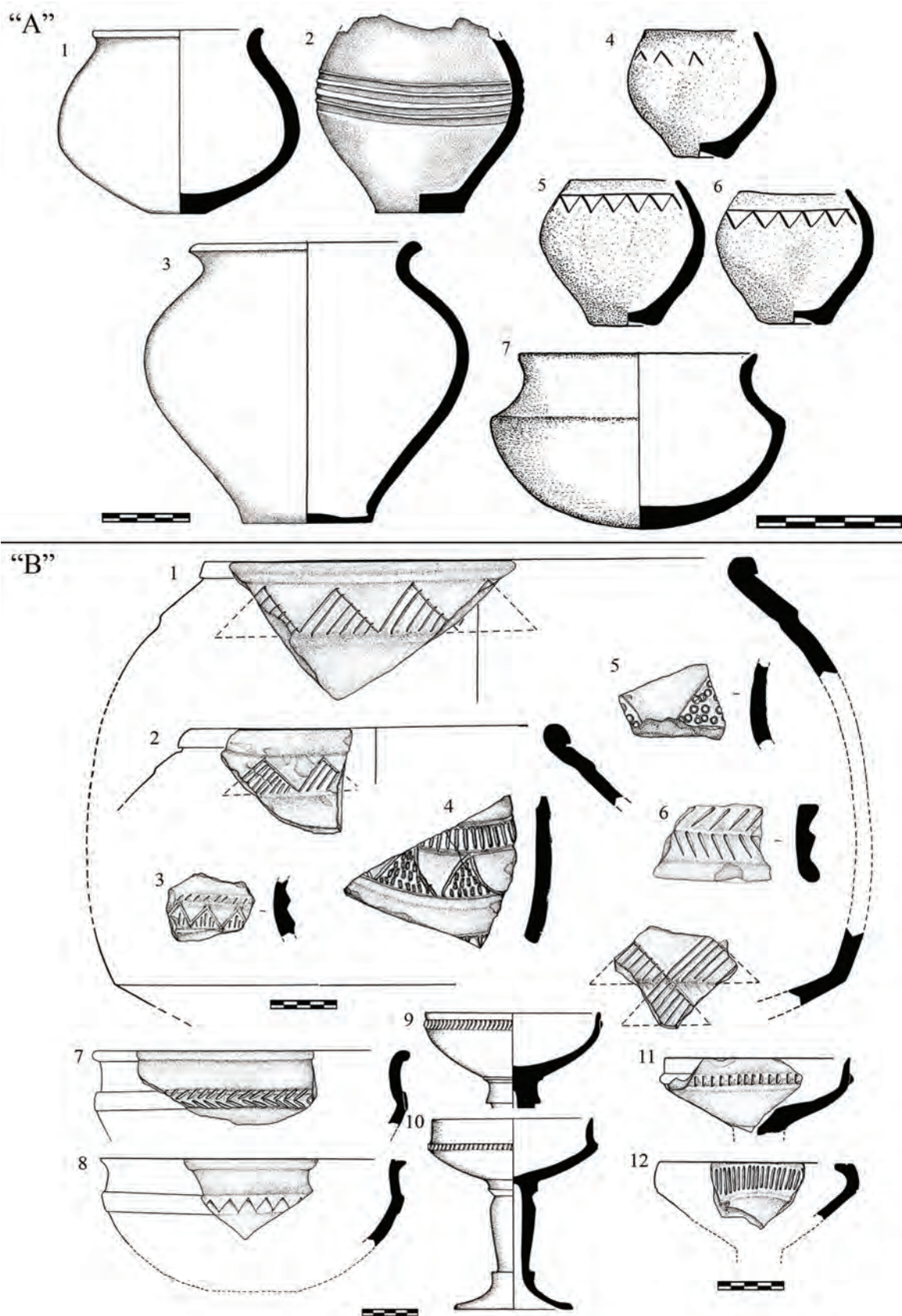


Fig. 3. 'A' Steppe-type pottery from the burial grounds of the Sapalli culture: 1 - Jarkutan 4V, M 157; 2 - Jarkutan 4V M 83; 3 - Bustan VI, mention 34; 4, 5, 6 - Bustan VI, M 120; 7 - Bustan VII, M 71. 'B' Jarkutan. Pottery wheel-made pottery with foreign cultural characteristics



round base—can be observed among pottery of the Amirabad and Tagisken types (*Itina* 1963: 119, Fig. 10–2, 3; *Itina* 1977:155, 167, Fig.80:7; *Itina, Yablonsky* 2001:106, Fig. 64–319).

Discussion concerning Amarabad-Tagisken types should include two fragments of black-burnished pottery with a carved lattice belt along the collared rim with a design of triangles inscribed with their vertices pointing down (Fig. 1 'A': 10; Fig. 2:2). Typically, late examples also include the upper parts of vessels with knobbed molding and using the technique of filling the decoration with white paste (Fig. 1 "B":3; Fig. 2:13) (*Itina* 1977: Fig.74–7; 80–10; *Itina, Yablonsky* 2001: Fig. 88–578, 580; Fig. 93–632). This ware with the abovementioned features also has a sufficient degree of similarity with the Begazy-Dandybay collections (*Margulan* 1979).

An analysis of the entire collection of steppe type SC pottery demonstrates that the penetration of pastoral tribes into Bactria began during the pre-Andronovo period, or the Sintashta-Petrovo period, from the territory of the southern Urals, but noticeably increased during the Fedorovo period from the Andronovo community. As seen below, the proportion of Fedorovo components in the SC collection seems to be impressive. As an anomaly, it should be noted that stucco ceramics of the Fedorovo, Tazabagyab and Postandronovo types are also found in other agricultural oases of prehistoric Bactria (Shar-tugay, Kangurtut, etc.) (*Sarianidi* 1977: 144, Fig. 66; *Francfort* 1989: p. 58: 11–13; *Vinogradova* 2004: Fig. 24, 26–34, Fig. 42:1,18,19; *Vinogradova* and others. 2008: Fig. 24; Fig. 31:11,12;39), but nowhere do these types form any significant collection. Indeed, this is a rather surprising fact, with still no clear explanation. Considering that such ceramics (mostly fragments) are known from cult objects, they should be considered as evidence for public ceremonies. Perhaps the Andronovans, living in a foreign cultural environment and trying to somehow preserve their traditions, took special care of their dishes, using them only for ritualistic purposes.

These considered materials (a combination of various ceramic traditions) reflect the complex cultural and historical situation that occurred in the SC, demonstrating a wider range of cultural ties with the steppe-world population, which makes it possible to consider new aspects of historical reconstruction. As demonstrated, pottery, both direct imports and locally made, were in accordance to the recipe of the steppe traditions (Fig. 3 'A': 1, 3, 7). No doubt, the impetus for the perception of steppe traditions came from the Andronov people, indirectly via the Tazabagyab people. The presence of Sintashta talc ceramics, typical for the pottery tradition of the southern Trans-Urals (*Salnikov* 1967:129; *Stokolos* 1972:140)

definitely indicates where the population came from in prehistoric Bactria. In the light this evidence, the cultural and chronological correlation of the steppe with Sapalli antiquities is of particular importance. The problem of chronology has deliberately not been discussed here. This topic is beyond the scope of this study and requires special consideration<sup>6</sup>.

Thus, ceramics, both wheel-based and hand-molded, serve as a temporary indicator of pottery production transformation during the SC. Thus, the heterogeneity of ceramic collections indicating different time layers reflects the vector between the populations of these two worlds.

**Metal products.** These artifacts, typical of steppe societies, are represented by weapons, implements, and adornments (Fig. 4, 5, 6). Examples include a set of specific pre-Andronovo type artifacts, specifically blade knives and a dagger without a stiffener, which were found in the layers of the Sapalli and Early Jarkutan phases. This was a dagger with a marked hilt (Fig. 4:2), double-edge leaf-shaped stemmed and stemless knives with a marking notch (Fig. 4:13); and a single-edge stemless knife (Fig. 4:42). Of note is a Sintashta-type petiolate ornamented arrowhead from a Sapalli burial (Fig. 5'A'-3, 4). These artifacts are further evidence of contacts with the SC carriers' among the Sintashta population of the southern Urals (*Gen'ing* et al. 1992: Fig. 146:1, 6, Fig. 148:9, 19, Fig. 185:1, 3; *Tkachev* 2007: Fig. 54:12; Fig. 55:3). One feature of the Sintashta metal collection is the items' especial plasticity.

The most important changes in SC metal production occurred beginning with the Kuzalin period. Utility items were being replaced by monofunctional miniature copies of real prototypes from Andronovo images. Such a reorientation could not have happened by accident. Probably, it was dictated by the economy of strategically important raw materials. However, the cultic purpose of these products cannot be ruled out, given that metal production at that time was established in the Jarkutan temple (*Askarov, Shirinov* 1993; *Askarov* 2018:158). The overwhelming majority of the metal collection consists of imitations of functional tools and weapons, including single-edged and double-edged knives of the Andronovo Loghouse type: leaf-shaped stemmed and stemless knives with a notch (Fig. 4: 4–41), single-edged stemless knives (Fig. 4:53, 54, 48), as well as knives with a handle (Fig. 4:45–65, 47, 49; Fig. 5 'A': 52, 55, 64) and knife-shaped sickles (Fig. 5 'A' – 12–17). It should be noted that similar products are known in southwest Tajiki-

<sup>6</sup> Solving the problem of cultural and chronological synchronization is significantly complicated by disagreements in understanding the issues of the cultural status of individual stages of the Andronovo community and periodization, origin, and dating of the SC.



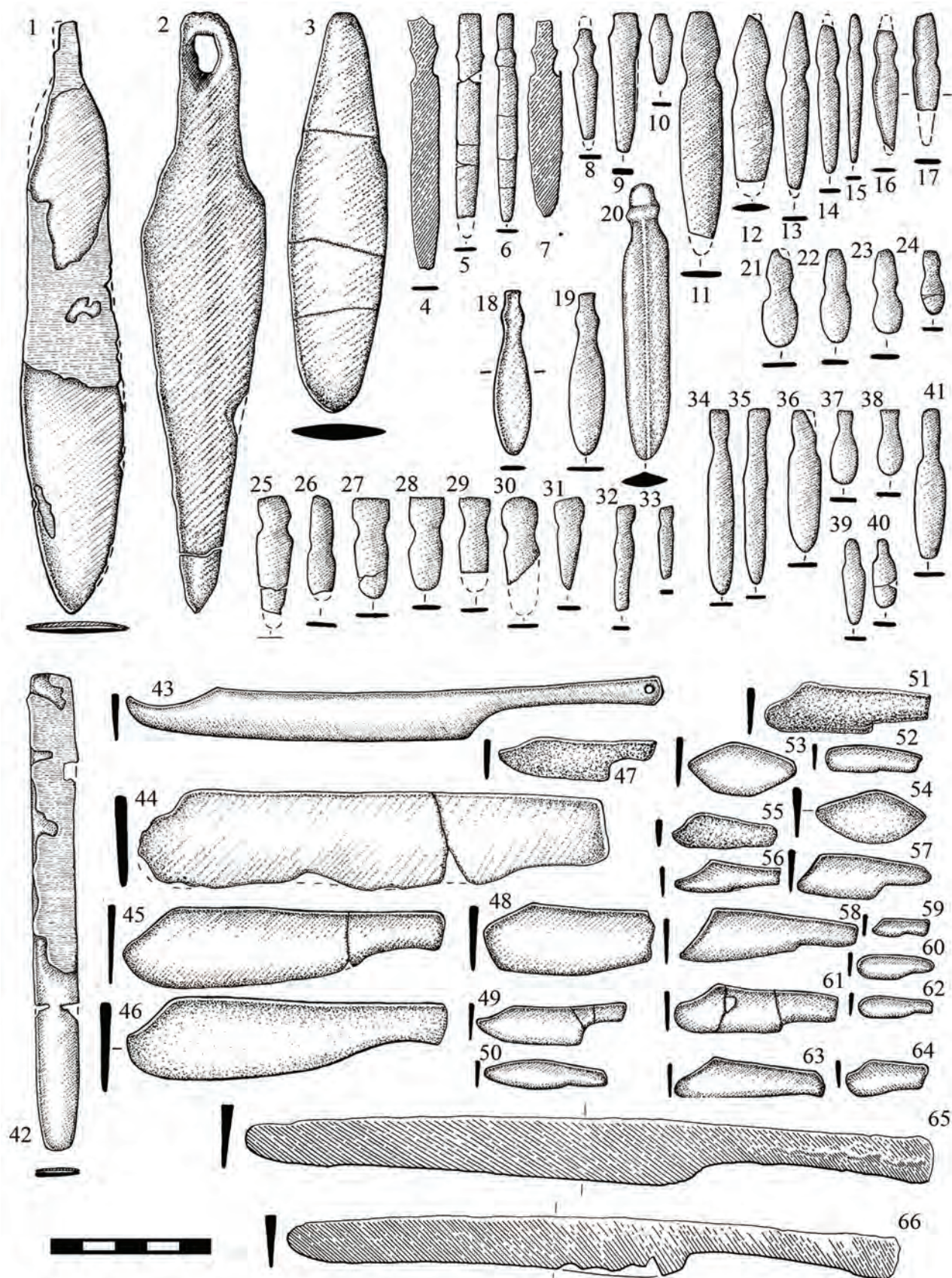


Fig. 4. Steppe-type metal knives and their imitations from the Sapalli culture site: 1.42 – Sapallitepa; 2, 3, 4, 7, 16, 42, 43, 44 – Jarkutan; 8, 18, 46, 47, 51, 54, 63 – Bustan VII; the rest – Bustan V



stan: Tandyryul, Kangurtut (Vinogradova 2004: Fig. 10–1–12; Vinogradova and others. 2008: Fig. 63, 64).

Among the prominent items from the general series of the Kuzaly assemblages, is a spear tip with an expanding socket of the post-Seima type (Fig. 5 'A': 2) and a short-slotted dart tip with a leaf-shaped feather as an ornament (Fig. 5 'A':1). Such finds within the Central Asian region are rare. Similar specimens are widely known in the sites from the second half of the 2nd millennium BCE steppe and forest-steppe in Eurasia (Bochkarev 2017; Bochkarev, Tutaeva 2019).

A significant part of the finds, demonstrating the variability and diversity of forms, continues to exist in the Mollalin phase, indicating the continuity of metalworking traditions. Noteworthy is a razor with a figured lamellar blade from a Mollalin grave (Fig. 5 'A':18). Important temporal and ethnic identifiers of steppe artifacts from the Bustan phase include the appearance of knife-daggers with an annular stop (Fig. 4: 4–6, 18–20) and a socketed arrowhead with a rounded rib (Fig. 5 'A': 5). Specific steppe comparisons include miniature copies of utilitarian items such as a hemispherical cooking pot with loop-shaped handles, a petiole hook (for extracting meat from the cooking pot), an altar on legs, and a dagger with an annular stop. These, undoubtedly, are the standard prototype set for nomadic cultic attributes for the Eurasian steppe region (Fig. 5 "B": 1–12).

Foreign cultural influence is also demonstrated by a jewelry collection (Fig. 6), known since the Kuzaly time, but widely represented in the two final stages of the Sapalli culture. The core of the jewelry collection includes earrings (including cast gold) with a bell, earrings with a spiral curl, pendants in full and a half turns; clips; a bracelet with spiral bangle; a round mirror with a loop-handle; conical decorative plating; pierced and biconical beads; and a bronze ring-shaped buckle imitating the form of its bone predecessors from the Eurasian steppe bronze cultures. Morphological features of the Srubna-Andronovo designs are easily recognizable (Avanesova 1991: Fig. 43, 48). The influence of their goldsmithing is reflected in some forms of earrings and pendants—with elements demonstrating the synthesis of the two traditions—which are made by binding a bronze core with gold foil (Fig. 6: 11, 14–16).

The main territorial comparisons for metal products cover a wide area in the Ural-Kazakhstan steppes. In general, the discussed inventory, which accompanied the Sapalli collections, fits into the framework of Srubno-Andronovo metalworking, and were centered around the Central Asian-Kazakhstan copper and tin deposits (Chernykh 2007: 95–97). Judging by the specialized nature of the artifacts, professionals were employed in metal production, specifically, the Andronovo (Fedorovo) blacksmiths and metal cast-

ers. There is reason to believe that from the middle of the 2nd millennium BCE they were integrated into Sapalli society, facilitated by their long and multilateral trade and economic relations which arose because of peaceful interactions and due to subsequent migrations. The specific reference is to the cultural complex of the Sazagansay burials in which the Poltavka substratum of the log-building community was discovered together with the early ceramics of the SK (Avanesova 2010: 334–364). The pastoralists' mobility undoubtedly contributed to activating migration processes and expanding the range of trade and economic ties, which, in turn, activated the process of the Bactrian cultural genesis.

**Stone products.** These artifacts are represented by expressively large-stalked arrowheads with utilitarian Sintashta-type retouching (Fig. 7: 6–8) and by the head of a spherical mace (Fig. 7:1–2), taken from the early Jarkutan layers. The arrowheads are heterogeneous, with a short-petiolate form containing spikes at the truncated base of the feather-shaped head (Fig. 7: 6, 7, 9; Fig. 7, 8). They are found widely throughout Sintashta sites (Gening et al. 1992: Fig. 58, 113, 161, 185). Of additional interest are the finds of buckles with two different-sized holes (Fig. 7:3–4) found in Mollalin burials and characteristic of the Late Bronze Age cultural material from the Eurasian steppe region. Material evidence of the presence of the steppe ethnicities in prehistoric Bactria includes the mold for casting a knife-shaped sickle (Gening et al. 1992: Fig. 159–6; Vinogradov 2011: Fig. 18–26), which was discovered together with early Jarkutan pottery (Fig. 7: 5). Functionally, its most likely purpose was as a reaping tool and are found in Sintashta sites (Gening et al. 1992: Fig. 41:18; Epimahov 2005: Fig. 42:2).

Cultural material items of steppe bronze are complemented by a ceratoid disc-shaped socketed cheek-piece with the spikes cast in one piece with the main item. This artifact provides possible evidence for the use of chariots (Fig. 8-6). It was discovered in the tower of the Jarkutan temple in a sealed layer with typical ceramics from that period (Huff, Shaydullaev 1999). Chest-piece replicas as an item of horse tack are widely represented at the sites of the Potapovo-Sintashta circle. The Jarkutan cheek-piece is a striking socio-cultural and chronological marker of the SC, known as the southernmost find. The cheek-pieces of Sazagansay and Zardcha-Khalifa belong to the same cultural circle (Avanesova 2010: Fig. 3–1, 2; Bobomulloev 1999: Fig. 2–5). The largest number of the most significant analogies comes from sites in the Volga region and the Urals (Avanesova 2005:7–25). Central Asian cheek-pieces (7 examples) are typologically synchronous with the Sintashta variants (Gening et al. 1992: Fig. 57-8, 126-1). They are distinguished by their significant originality and

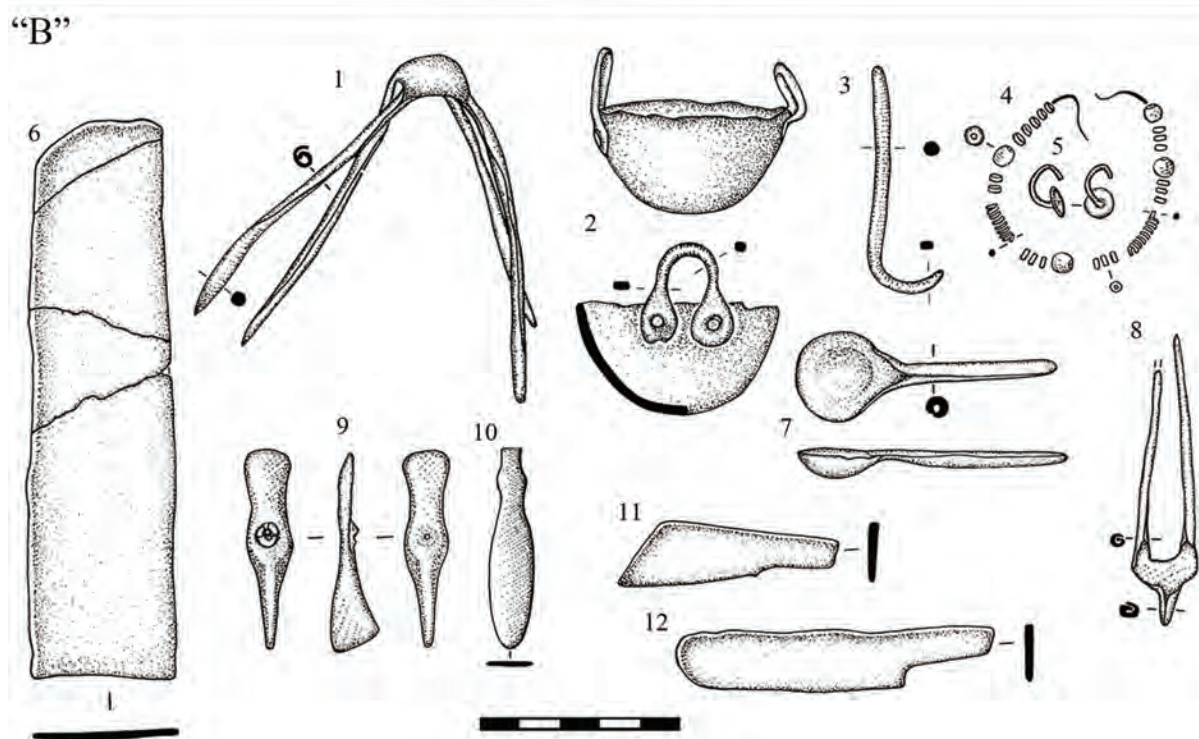
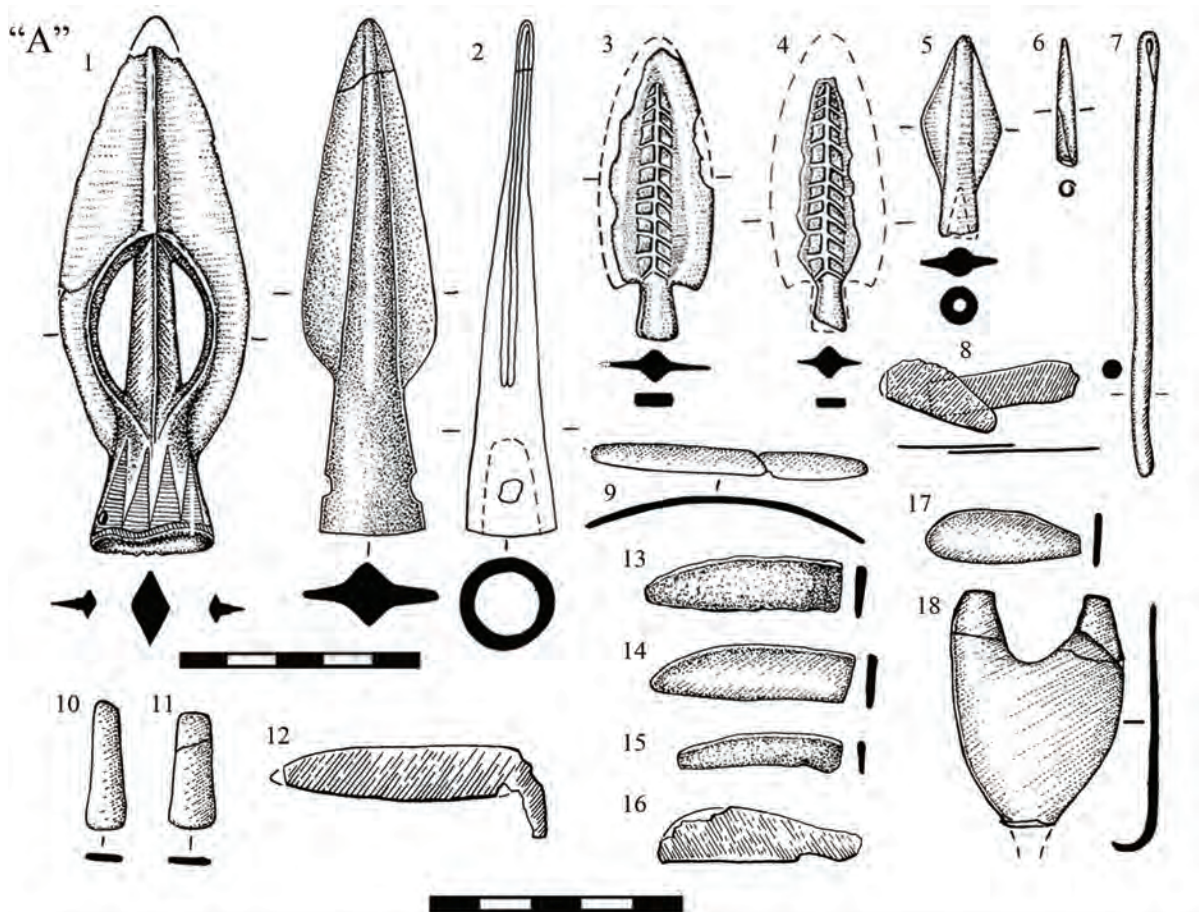


Fig. 5. 'A' Steppe-type weapons and household equipment (3 – Sapallitepa. Arrowhead from mog. 82; 4 – the same tip after electrochemical cleaning). 'B' Bustan VI, M 331. Votive inventory of early nomads



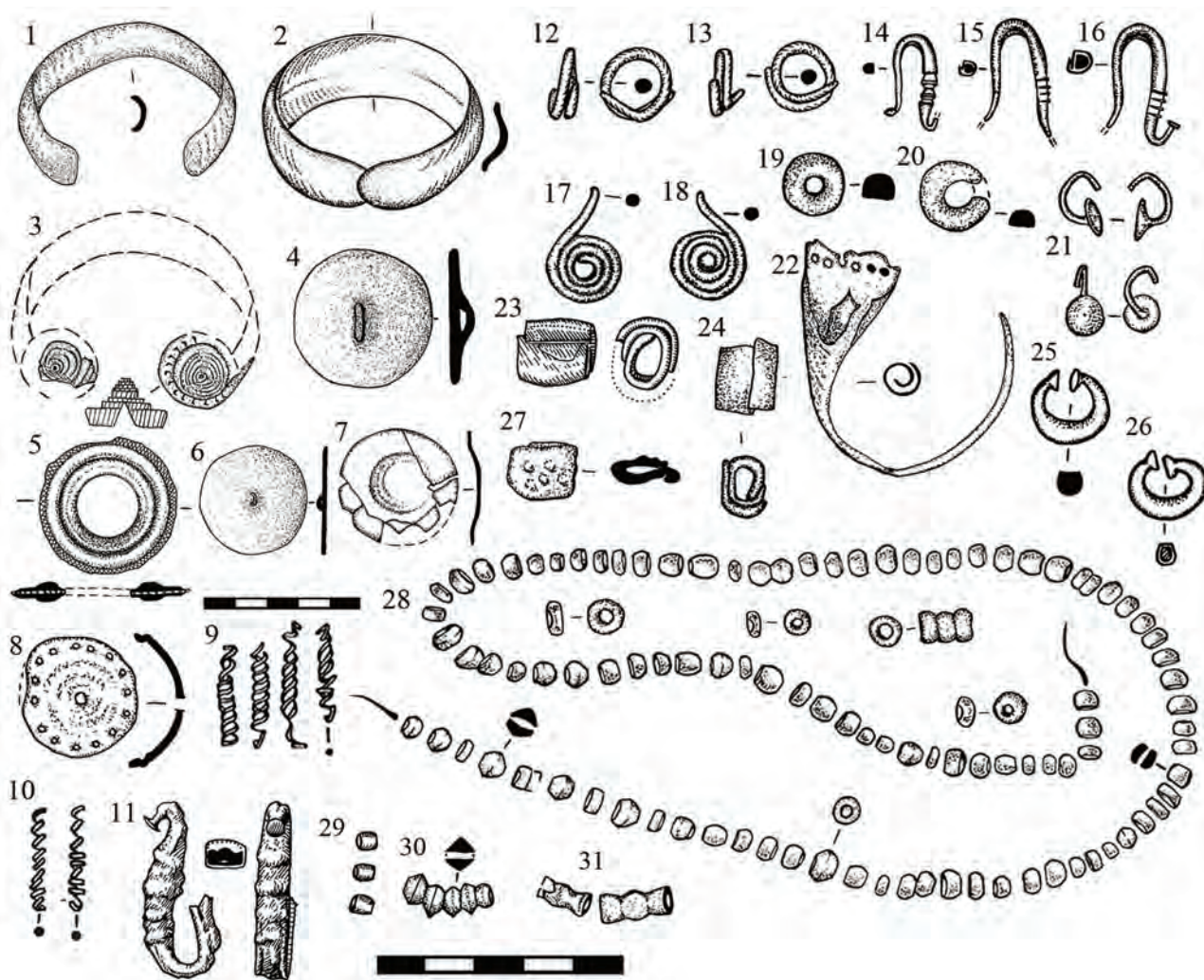


Fig. 6. Bustan VI, VII. Steppe-type decorations and toiletry items

considered the most archaic (Bochkarev, Kuznetsov 2019: 161–162). Foreign cultural artifacts provide evidence for a variety of steppe traditions in the SC beginning from the 2nd millennium BCE. The previously identified Sintashta complex (Fig. 8) reveals direct typological connections among the sites of the southern Urals.

**New rites and rituals.** The increase in material culture with steppe origin is accompanied by the emergence of associated cultic practice with the traditions from the Eurasian steppe cultures. The considered innovations include grave topography, which, according to its planographic features, formed a concentric structure, similar to the Srubna-Andronovo kurgans (Fig. 9). Additionally, is the emergence of separate children's cemeteries; the use of stone and wood in the grave construction and tomb structures; western and southwestern orientation of both the deceased and the burial chambers themselves which were elongated from east to west. Also, the tradition

of coloration of the bones with ocher was introduced, as well as adding traces of ocher, chalk, ash, and charcoal to the floor of the grave. Another feature was the cultic burial of animals and abundant sacrifice as evidenced by remains from ritual feasting. Burial methods also began to co-exist that were incongruent with each other involving cremation, secondary, partial, and other variants of inhumation. Individual signs reflecting the professional affiliation of the deceased along with an unprecedented variety of ritual and symbolic functions for fire, etc. were among other practices (Avanesova 2013; 2016).

Another cultural innovation was the construction of special sacral and ceremonial sites for non-funerary purposes (represented by 9 objects), which were normally an integral part of funerary practice. Regular ritualistic ceremonies concerning the calendar and production cycle were performed at these locations, including liturgical ceremonies, etc. In this capacity, temple functions were probably performed

in the open air, which were visited and used during the Bustan VI phase from the last quarter of the 2nd millennium BCE (Avanesova 2002) (there is no such source in the References). It should be noted that the Jarkutan temple as a religious center for the Sherabad oasis did not exist during the functioning of necropolis B VI. This contributes to more closely solving the acutely controversial issue pertaining to the absence of monumental temples among the Indo-Iranians during prehistoric times (Lelekov 1992; Steblin-Kamensky 1993; Grantovsky 1999). In the analyzed cultural complexes, the dominant steppe background can be traced (Avanesova 2013: 511–524). Ceremonial objects (3 sites) around semi-underground brick structures for human cremation are particularly significant. (Fig. 10). A characteristic feature for the compositional solution of these complexes is the obligatory presence of three hearths around mud chambers whose walls bear traces of prolonged fire exposure (in each chamber, the bodies of the dead were cremated at least 2 or 3 times); the presence of floor altars; cenotaphs (not to be confused with fictitious graves); and symbolic graves with mono-functional terracotta handicrafts. Of note is that the construction of these fireplaces and their location in relation to the chambers fully comply with the prescriptions of the Vedas concerning human cremation

(Rigveda 1972: X-18; Atharvaveda 1976: XVIII–2,7). Traces of steppe heritage are also demonstrated by the study of hill 5 at Jarkutan, where four chambers were found, made of thin stone slabs with the ash remains and burnt human bones. Fragments of steppe pottery were also found at this site (Askarov 2018: 155). Individual burials with cremation are known at Jarkutan (Askarov, Abdullaev 1983: 49) and at the Bustan 3 necropolis (Askarov 1977: 58). The previously mentioned ritual in the SC is a direct replica of the Fedorovo cultural tradition (Sorokin 1966; Salnikov 1967; Maksimenkov 1978; Potemkina 1985; Kuzmina 2008). A sharp increase in the proportion of cremations is observed at Bustan VI. Burial of the remains are attested in 36 cases in which the cremated remains were either placed in soil pits; ashes inserted into a “doll” or mannequin of the deceased (Fig. 12-2); wrapped in a cloth “package;” or placed in a vessel. Funerary worship practices can also be observed in the fiery-solar symbols on earthen altars for cult libations and fires (Fig. 12–3, 4).

An expressive manifestation of the funerary cult is reflected in the ceremonial platform, which included a row of three brick steles with clusters of vessels at their base that included remains from feasting. The site for funerary rituals (an area measuring about 82 m<sup>2</sup>) preserved traces of feasting in the remains of

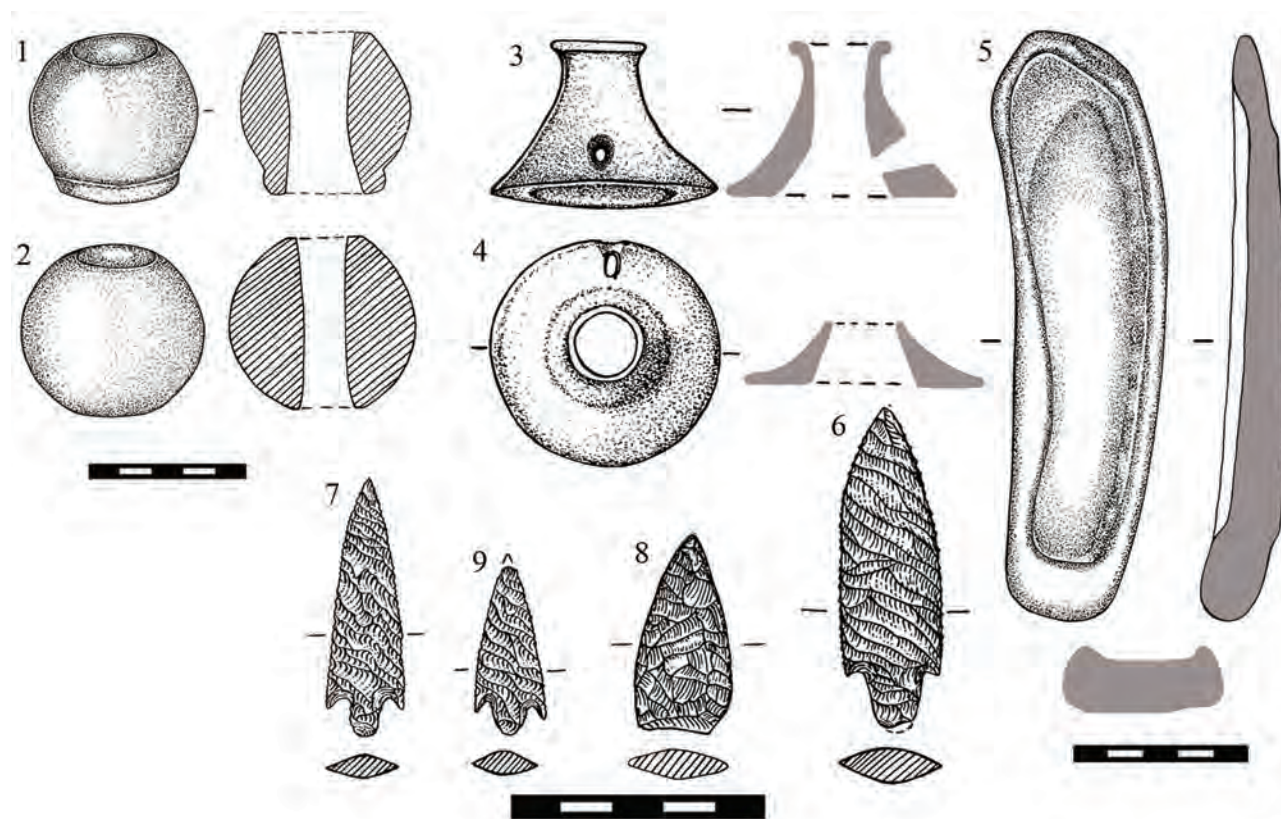


Fig. 7. Steppe-type stone inventory: Jarkutan – 2.4–9; Bustan VI – 1.3



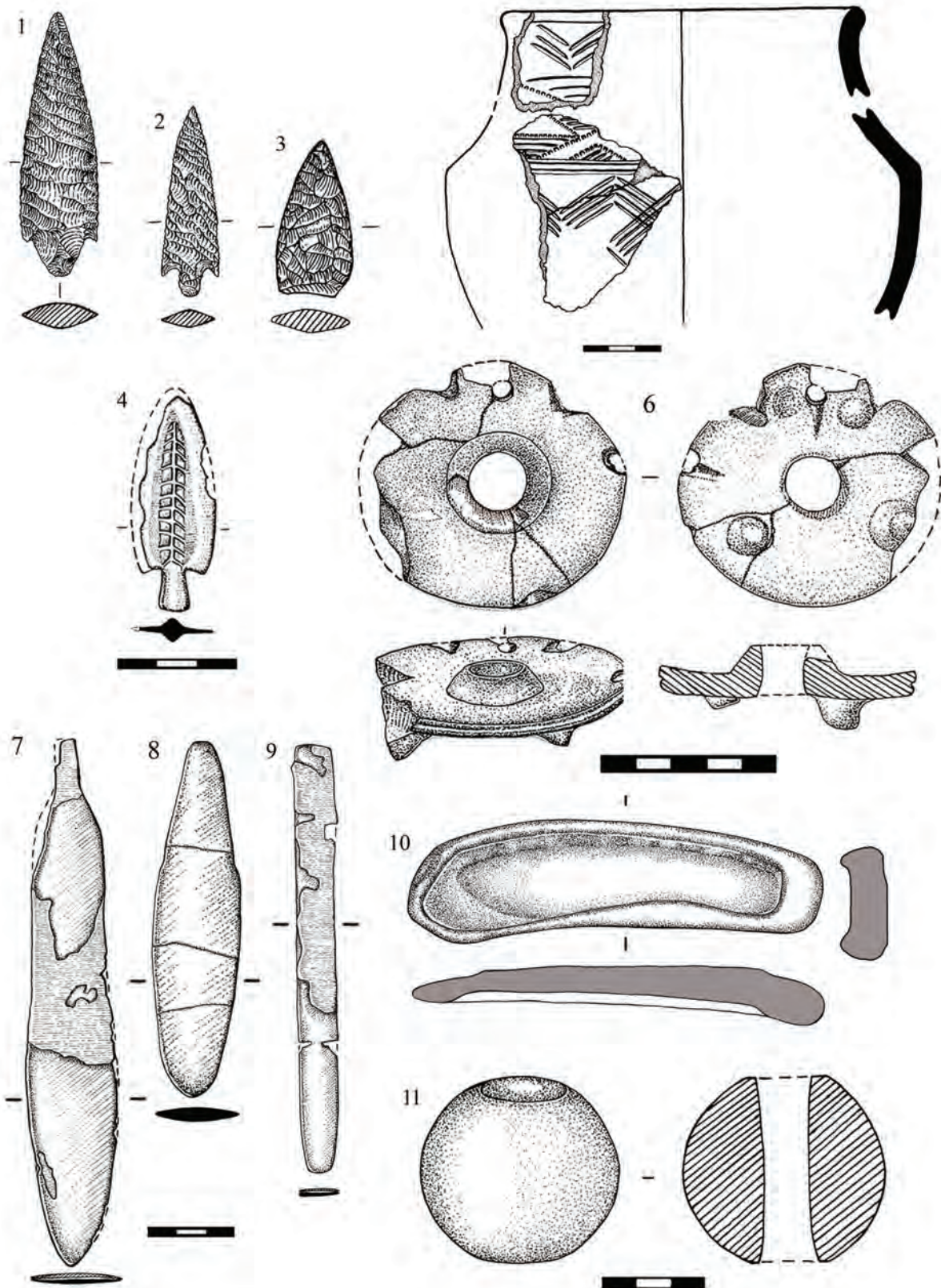


Fig. 8. Sintashta artifacts from the early layers of the Sapalli culture: 1 - Jarkutan - temple, outside northern wall; 2,3 - Jarkatan, hill 6, pre-temple building; 4 - Sapallitepa, M 82; 5 - Jarkutan - dry bed of the drainage canal; 6 - Jarkutan - temple, pre-tower room of the eastern wall; 7 - Sapallitepa - room 15; 8 - Jarkutan - citadel, room 4; 9 - Jarkutan - residential quarter, hill 5; 10 - Jarkutan - citadel, room 5; 11 - Jarkutan - citadel



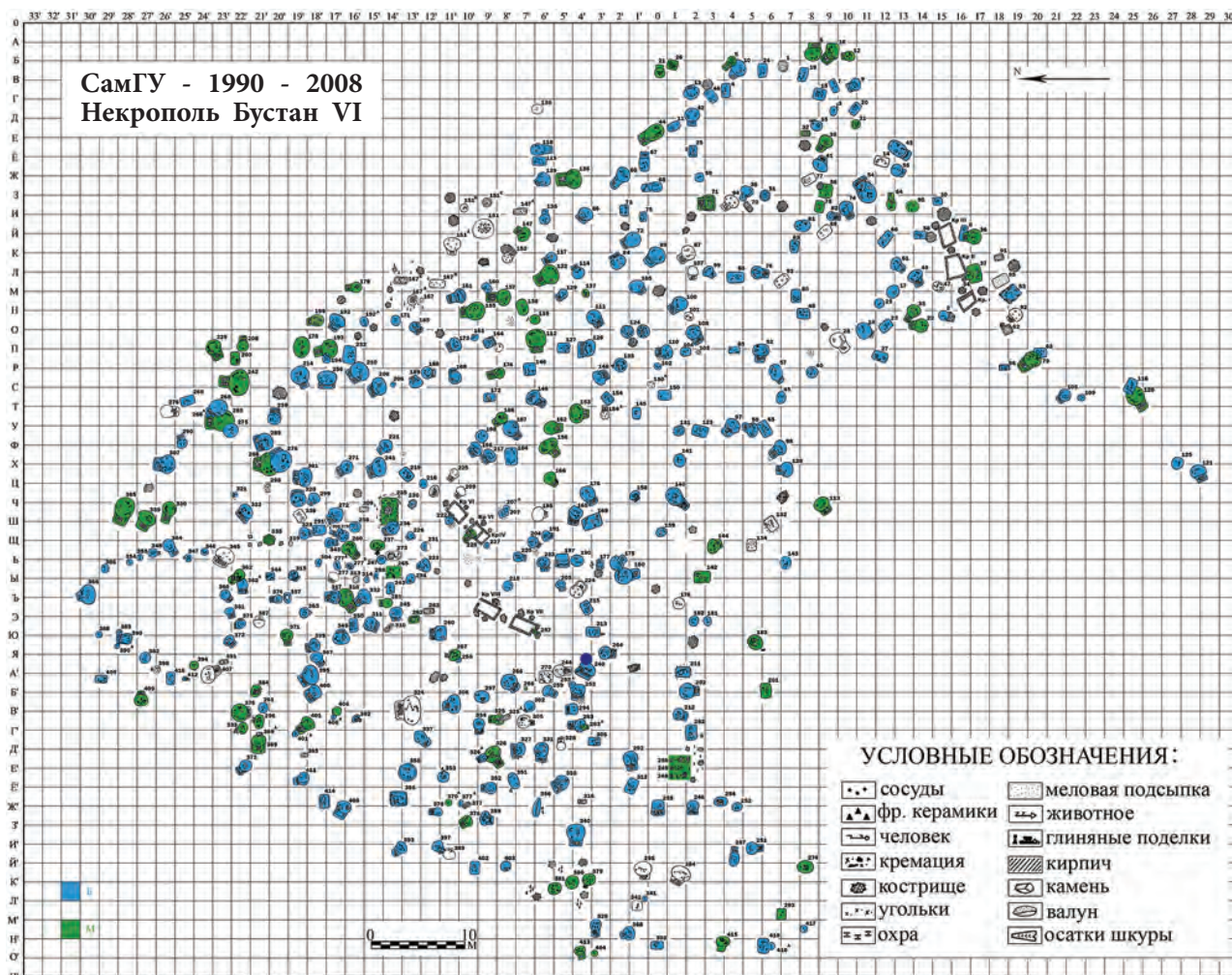


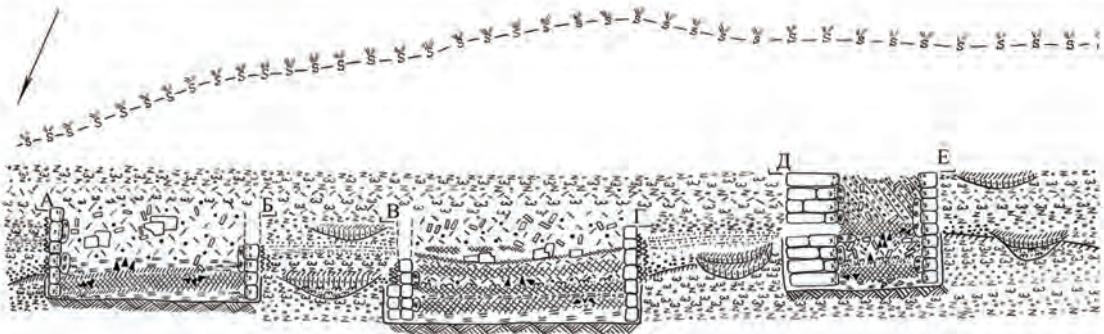
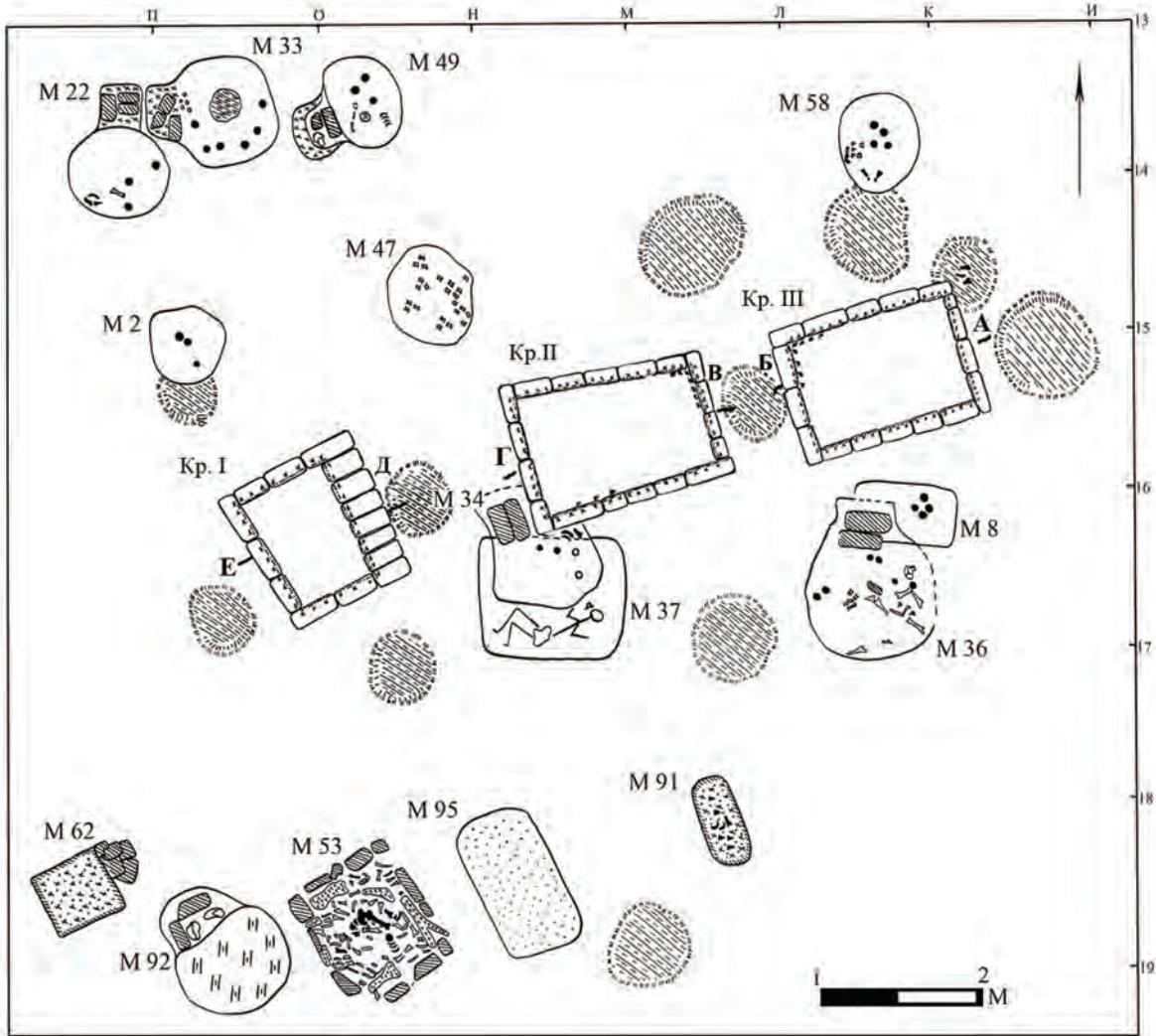
Fig. 9. Bustan VI. Consolidated plan of burials and cultic-ceremonial sites

three fires, one earthen altar, and deliberately broken vessels (Fig. 11). A similar practice was discovered in post-Andronovo sites from southern Siberia which included cultic sites with funerary commemorations (Gryaznov 1979:134–140).

**Results summary.** From the analyzed cultural material (inventory, funerary rites), it is difficult not to see evidence of a newly emerging culture in prehistoric northern Bactria. The steppe layer in the Bactrian complex is heterogeneous. Penetration and, possibly, resettlement of certain groups from the northern population was not a one-time event. Integration was a long and extended period. The activation of the pastoral population on the Andronovo periphery is detectable starting from the Sintashta period, as evidenced by the finds of the cheek-pieces, thin leaf knives, the sickle casting mold, decorated arrowheads, some pottery items, etc. (Fig. 8). This shift was due to the search for new ore sources in connection with a crisis for strategic raw materials in metal pro-

duction and the increased needs of the chariot elite. One of the reasons for the southeastern migration of the pastoral communities was the crisis of the Carpathian metallurgical center which previously had supplied the population of the Eurasian steppe with metal at the turn of the 3rd-2nd millennium BCE. Another factor could be an ecological crisis precipitated by a maximum of subboreal aridization in the steppe (Chernykh 2007: 71–75). The Andronovo culture’s chariots during the early 2nd millennium BCE extended from the Volga-Ural steppes deep into the Asian oases and further through the Trans-Zerfashan corridor—as evidenced by the helmet cheek-pieces of Zarchakhalif and Old River Sazagansay — into urban Bactria. At the same time, however, for the Sapalli and Jarkutan phases, one cannot speak of a mass penetration of pastoral societies. The increasing trend towards the share of steppe artifacts and foreign worship and cultic activities are revealed starting from the Kuzalin-Mollalin phase, which chronologically coincides with the assimilation of the Andronovo





- 1 - сосуды; 2 - сосуд с к/ж.; 3 - кирпичная кладка; 4 - галька; 5 - глиняные поделки; 6 - обожженные кости человека с пеплом; 7 - пепел с угольками; 8 - кости животных; 9 - речной валун; 10 - фр. керамики; 11, 11a - кострище; 12 - шкура; 13 - охра; 14 - мел; 15 - современная поверхность; 16 - древний горизонт; 17 - обожженная глина; 18 - древесный уголь; 19 - кирпичный лом; 20 - ошлакованная часть кирпича; 21 - обожженный кирпич; 22 - штукатурка; 23 - угольная прослойка; 24 - пельно-золяная прослойка; 25 - дерн

Fig. 10. Bustan VI. General plan and section of the cultic-ceremonial site around the crates for cremation I-III

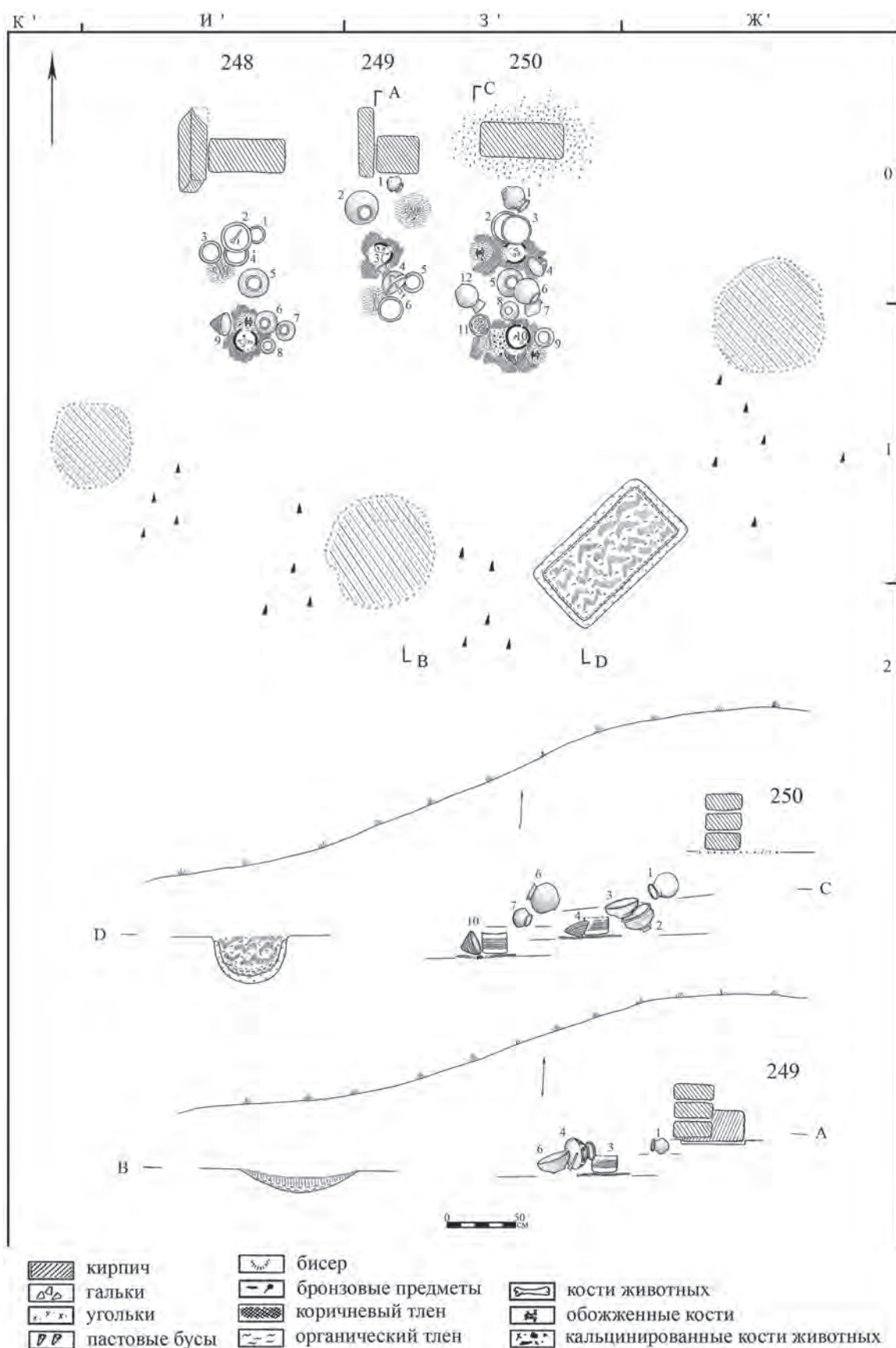


Fig. 11. Bustan VI. General plan and section of the cultic-ceremonial site around the memorial steles 248–250



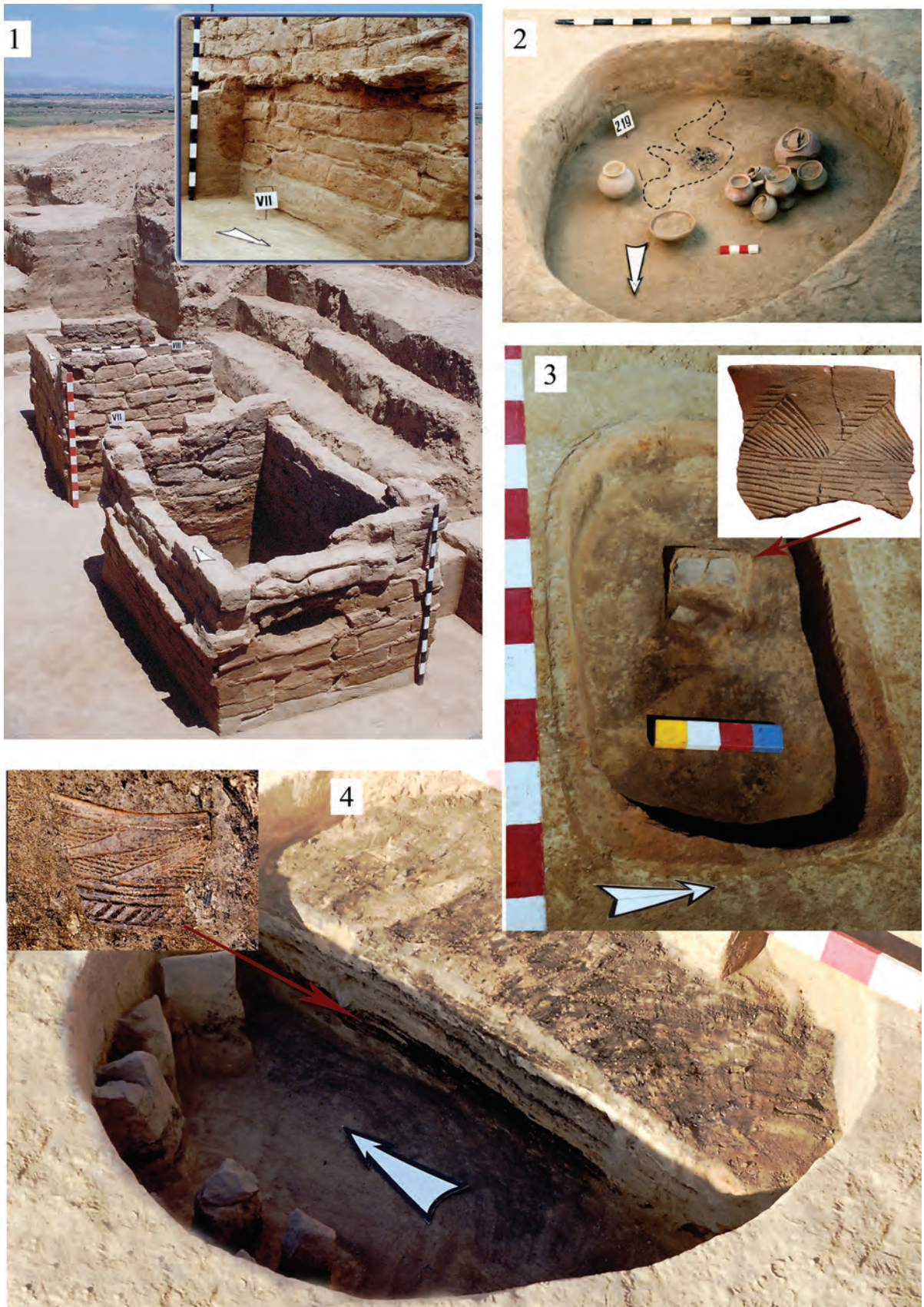


Fig. 12. Bustan VI. Features of the fire cult: 1) crates for cremation of the deceased; 2) burial involving cremation; 3) the ground altar for cult libations; 4) fire pit



(Fedorovo) population, as clearly evidenced by the paleoanthropological material of the Bustan VI–VII necropolises (Mustafokulov 1997:28–33; Avanesova et al. 2010). It is highly probable that the appearance of the horse at the Jarkutan phase is associated with the migratory wave of the early pastoral tribes (as evidenced in the Sintashta antiquities). Horse bones rank third after small and large cattle, while they are absent during the culture's earlier stages (Batyrov 1974; 1990). Unfortunately, archeozoological materials do not yet allow one to infer that the horse was widely used as a transport animal. The Fedorovo wave was more mobile and powerful in that it covered the entirety of prehistoric Bactria (Northwestern Afghanistan, Southern Uzbekistan, Southwestern Tajikistan).

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