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# Ancient interactions: east and west in Eurasia

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Marsha Levine

## Chapter 7

# Between the Steppe and the Sown: Cultural Developments on the Caspian Littoral Plain of Southern Daghestan, Russia, c. 3600–1900 BC

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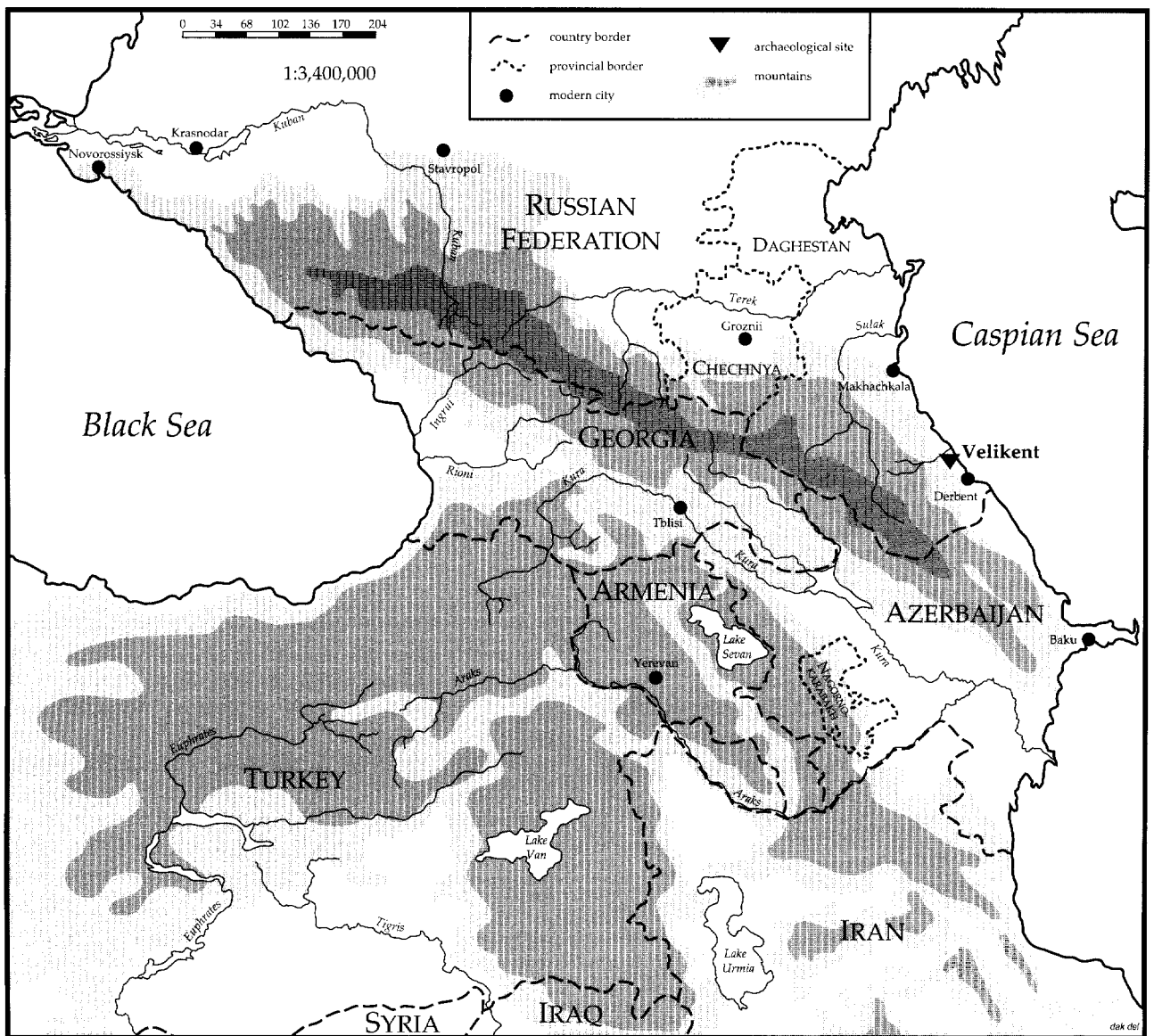
The Copper Age of the Caucasus or, more precisely, the immediately pre-Maikop and pre-Kura-Araks horizons of, respectively, the northern and southern Caucasus appears remarkably impoverished relative to the spectacular Eneolithic developments occurring initially in the Balkans and culminating in the famous Cucuteni-Tripolye culture with its gigantic proto-urban settlements in western Ukraine (Videiko 1995). Nothing comparable exists in the Caucasus during the fifth and first half of the fourth millennia BC; even more striking is the underdevelopment of the northern Caucasus before the emergence of the famous Maikop culture which most specialists (Munchaev 1994, 169–70) now date as beginning at least during the second half of the fourth millennium. Such underdevelopment, of course, contrasts sharply with what occurs during the Early Bronze Age when the Caucasus becomes one of the main suppliers of arsenical bronzes to the peoples of the steppes, particularly to the pit and catacomb grave communities. As E.N. Chernykh (1992, 159–62) has so strikingly demonstrated, the northern Caucasus from Maikop times through the Middle Bronze period functioned as *the* critical intermediary for receiving metals which originated in Transcaucasia and producing and shipping bronze artefacts to the steppes. Clearly a major shift in interconnections occurred initially sometime during the middle of the fourth millennium BC that brought the Caucasus onto the main stage of developments encompassing both the steppes to the north and the settled agricultural regions of the ancient Near East to the south.

Specialists differ in their assessments of which regions contributed to the formation of the Maikop culture, some emphasizing its steppe components

(Nechitailo 1991) and others (Andreeva 1977; Trifonov 1994) its links with northern Mesopotamia. It is also well established that Mesopotamian elements, such as Halafian and Ubaid pottery, have occasionally been found on Eneolithic sites, such as Kyul-tepe and Leila-depe, in the southern Caucasus that push back some form of contact between the Caucasus and northern Mesopotamia at least into the fifth millennium BC. Nevertheless the redating of both well-established Caucasian Early Bronze horizons, the Maikop and Kura-Araks formations, which are based now not only on typological considerations, but also on calibrated radiocarbon determinations (for Transcaucasia, cf. Kavtaradze 1983; 1999) suggest that both began to emerge towards the middle of the fourth millennium or, perhaps not coincidentally, at roughly the same time that the so-called Uruk colonies have been documented in Anatolia on the middle to upper reaches of the Euphrates (e.g. at Hacinebi: Stein *et al.* 1996). Similarly now, the initial settlement at Velikent in southeastern Daghestan exhibits clear relations with Kura-Araks sites to the south and also begins around the middle of the fourth millennium BC. This paper presents recently excavated evidence from the site of Velikent in Daghestan which illustrates this new role that the Caucasus assumed from the middle of the fourth to the early second millennium BC.

### **Preliminary reconnaissances to the west and south of Velikent and excavations of the Velikent settlement**

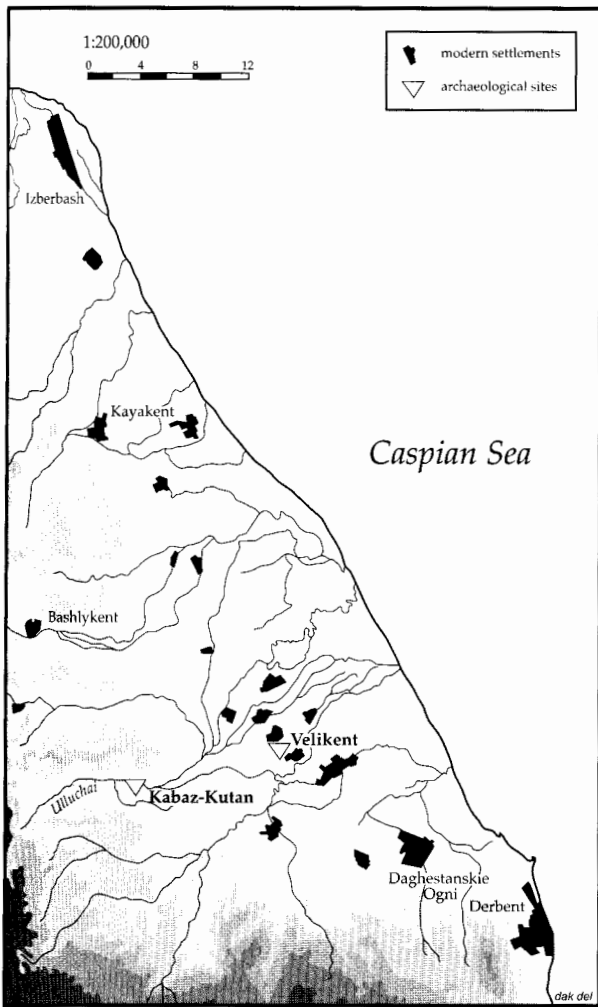
The Early Bronze Age site of Velikent was occupied from c. 3600–1900 BC as based on a series of twenty-one calibrated radiocarbon determinations (for previously published dates cf. Gadzhiev *et al.* 1997,



**Figure 7.1.** General map of the Caucasus showing location of Velikent.

218–19). This site is located *c.* 25 km northwest of the town of Derbent on the Caspian plain of southeastern Daghestan along the southern edge of the contemporary village of Velikent (Figs. 7.1 & 7.2). Its cultural remains, which consist of five separate burial (Mounds III, IV & V) and settlement areas (Mounds I & II), sit on the top of natural clay terraces that extend over *c.* 28 ha (Fig. 7.3). Since the northwestern Caucasus mountains form a formidably high barrier which begins almost directly on the Black Sea, the Caspian littoral plain represents the only natural unbroken corridor on the western side of the Caspian linking the south Russian steppes to the

north with Transcaucasia and the eastern Anatolian and northwest Iranian plateaus to the south. This coastal corridor actually consists of a series of plains or bays successively interrupted by rivers and streams flowing down from the mountains and by the mountains themselves extending eastwards to ‘pinch’ the plain at several narrow critical points. The section of the plain on which Velikent sits forms a natural physiographic unit extending from where the mountains encroach on the plain at Izberbash in the north to where they nearly reach the Caspian at Derbent in the south (Fig. 7.2). It is at Derbent, of course, where the Sasanian ruler Khosrow I in the



**Figure 7.2.** *The Caspian Plain from Izberbash to Derbent and adjacent mountains to the west.*

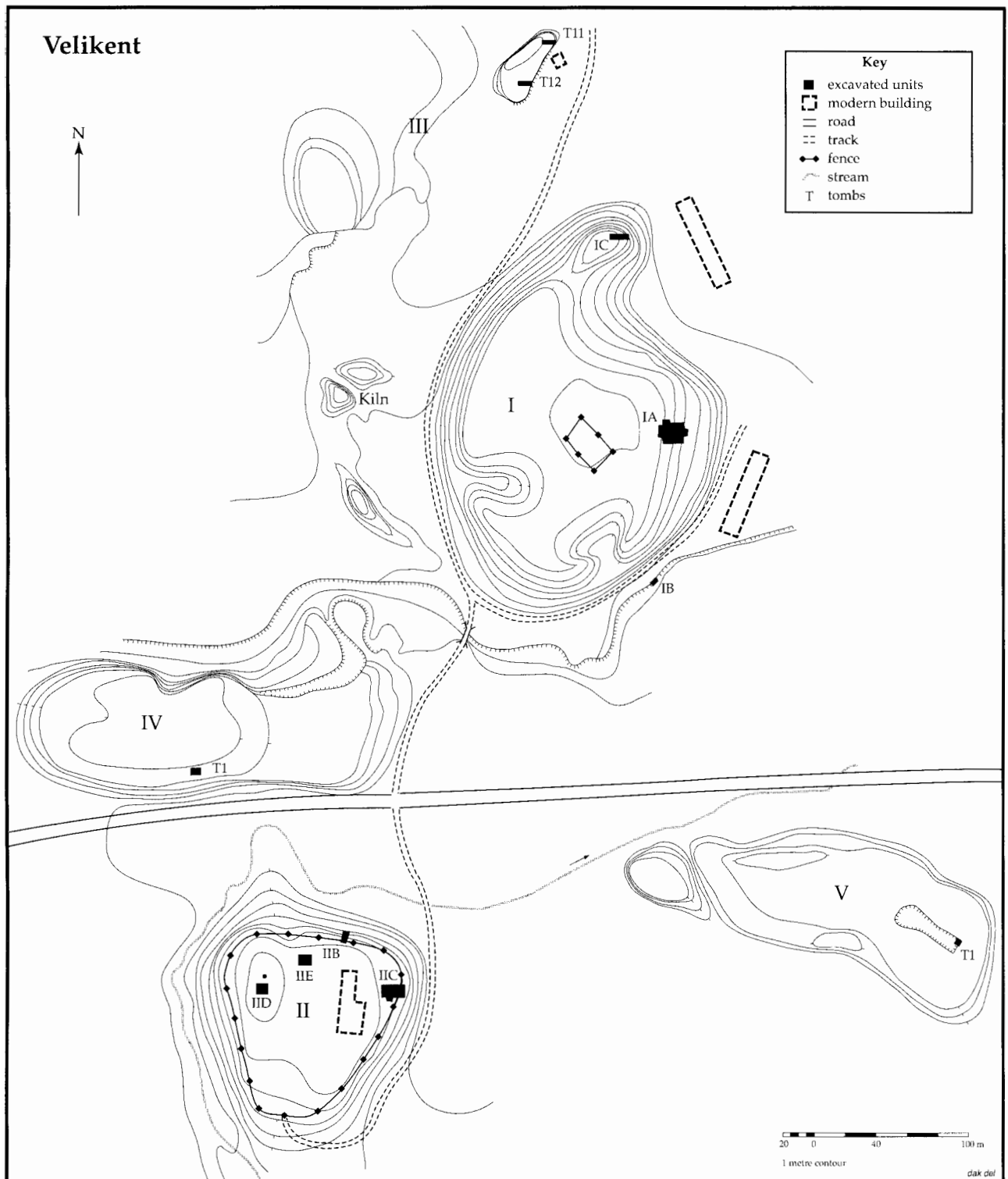
early sixth century AD erected a fortress and a long fortification wall which stretches along the ridge of mountains directly west of the town, attempting unsuccessfully to stop the periodic nomadic incursions from the steppes to the north. One of the main goals of the excavations at Velikent has been to document the nature of sedentary life on this plain and to record evidence for the initial stages of contact with the steppe cultures to the north.

This paper will only summarize the results of preliminary reconnaissances conducted on the Caspian plain south and west of Velikent and briefly describe the excavations on the two settlement mounds at Velikent, particularly as they relate to tracing connections with the western Eurasian steppes. It will discuss in more detail the materials excavated in 1997 from a collective catacomb tomb, materials which have close typological and techno-

logical parallels with Early and Middle Bronze Age materials well-known on the steppes.

The 1997/98 investigations began to examine the settlement history of the Caspian plain and briefly conducted reconnaissances west of Velikent along the Ulluchai valley into the beginnings of the piedmont near the town of Madzhalis and also south of Derbent nearly to the Azeri border. A cluster of seven mounds was located immediately southeast of the village of Rodnikova and south of the Ulluchai at the edge of the plain and the beginning of the piedmont, c. 7 km west of Velikent. From their surface remains, some of the mounds appeared to represent separate settlement areas, dating to the Early Bronze period and also to much later medieval times, and others, lacking surface cultural materials, may represent, like at Velikent, distinct burial or cemetery areas. A small sounding (2.5 × 2 m) was placed along the southern slope of the mound of Kabaz-Kutan, c. 1.6 m beneath the mound's summit. Cultural materials retrieved from this sounding closely resembled those from the earlier settlement mound II at Velikent, and two radiocarbon determinations (3015–2703 BC, 2 sigma, sample AA 27354; 2884–2500 BC, 2 sigma, sample AA 31774) from this sounding confirmed that this site was occupied at the end of the fourth and into the first half of the third millennium BC. Kura-Araks-like wares, including fragments with characteristic Nakhichevan lug handles, and the highly-fired, wheel-turned 'high-quality wares', which have also been found in the earliest levels at Velikent Mound II (below), were recovered, as well as bone points, terracotta figurines, and grooved hammerstones and shaft-hole ground-stone axes. In addition, fragments of a fired ceramic crucible and of a mould for casting metal objects were recovered from this small sounding, suggesting metal-working activities took place directly on the site. Nine stratigraphic levels were recorded, and the total cultural deposit at Kabaz-Kutan was nearly 5 m or greater than at Velikent Mound II.

A brief two-day reconnaissance on the Caspian plain south of Derbent also was conducted at the end of the 1997 season. A dozen sites were visited, most of which were quite small, typically less than one hectare in extent and rising c. 7–10 m above the surface of the plain; several consisted of two mounds, one of which contained abundant materials on its surface and the other scarcely anything (again possibly representing a burial area or a kurgan?). Early Bronze materials recovered from these sites were very similar to those from Velikent and Kabaz-Kutan and included characteristic Kura-Araks-like wares



**Figure 7.3.** *Velikent topographic plan with excavation units indicated.*

(lug-handled fragments, lids, etc.) and small finds similar to those recovered on Mound II at Velikent, such as clay wheels with pronounced hubs. Typi-

cally, two periods of occupation were evident: at the base these Early Bronze remains; and these then were capped by a later medieval deposit with surface ma-

terials similar to those found on one of the mounds in the Rodnikova cluster of mounds west of Velikent, and in the final medieval occupation in trench IID at Velikent. This *very* preliminary survey work suggests that the southern Caspian plain of Daghestan — both the bay stretching from Izberbash in the north to Derbent in the south and that from Derbent to the Samur river — was principally occupied with settled villages during the late fourth and early third millennium BC and then again after the fortress at Derbent was constructed during the second half of the first millennium AD. That is, the current evidence, incomplete as it is, suggests a pattern of settlement discontinuity or a substantial break in a recognizable occupation of this part of the plain, which is far longer than the basic discontinuity — with few notable exceptions — evident in the southern Caucasus after the break-up of the Kura-Araks culture until the beginning of the Late Bronze Age (i.e. during the late third and first half of the second millennium BC). It is obvious that more rigorous systematic surveys need to be conducted in order to establish whether the longer pattern of a break in settlements on the Caspian plain is, in fact, real.

Excavations on the two settlement mounds at Velikent were conducted during the 1994, 1995, and 1997–99 seasons. Very briefly, excavations on the earlier Mound II, which sits on top of a natural clay terrace left by an earlier transgression of the Caspian Sea, uncovered nine stratigraphic levels, extending down from the surface c. 2.8 m and included three distinct burnt construction or building levels consisting of thick lenses of reddish-brown earth. Six storage pits, which were bell-shaped in profile, were dug down an additional 2.2 m, making the total cultural deposit within such pits c. 5 m thick. Most of the features (small hearths, bread ovens, etc.) encountered and the lack of domestic architecture in the uppermost levels suggested that this part of the site later functioned as an open courtyard-like area where certain domestic activities, such as cooking, bread-making, flint-knapping and dumping took place. In 1995 a small section of a large circular mud-brick structure was uncovered in the southeastern corner of the trench which was related to the initial occupation of the settlement of the mound (c. the middle of the fourth millennium BC), suggesting that initially this area had been used for domestic habitation; this structure (c. 6.3 m in diameter) was completely exposed in subsequent seasons and was made principally of sun-dried bricks. Two major construction levels lay above this horizon, the latter of which cut through it with its deeply sunken pits (Fig. 7.4).

A thick level of red-fired clay was found in the centre of the early circular dwelling and probably represented the remains of a central hearth; a clay bench, which rose above the floor of the dwelling was attached to the interior southwestern wall of the structure and a straight supporting wall abutted the exterior western wall of this structure. This circular dwelling is unique for this time period in the northern Caucasus and finds its closest parallels in Eneolithic and Early Bronze houses found farther south in Transcaucasia, attesting possibly to early contacts with the south and to a sophisticated architectural tradition present at the very beginning of the occupation of the site. It is also significant and noteworthy that this earliest structure at Velikent is built up on the natural clay terrace and not dug into it as is characteristic of the later settlement architecture and the burial construction practices.

Numerous stone and bone tools were recovered from excavations on the earlier settlement mound. Flint artefacts included prismatic blades with edged retouch, small leaf-shaped arrowheads, asymmetrical points, bifacially worked sickle blades, worked nuclei, and occasional accumulations of worked and unworked flakes and debitage. Other stone tools included large grinding stones — some fashioned from locally available river cobbles, spherical hammerstones, so-called grooved arrow straighteners, and heavy blunt ground-stone axes/pounding stones which characteristically were encircled near one end by a deep groove for the attachment of a handle and which may have been used for crushing materials, such as metal ores. Bone tools included sharpened piercers or awls made from the proximal ends of the ulnas or the distal metatarsals of sheep/goats; sharpened pointed tools made from deer antlers; flattened conical bone spindle whorls; perforated astragali or gaming pieces; and a hollow tubular bone with a banded incised design. Similarly decorated hollow bone handles (?) have been found on Early Bronze sites in Syria and Palestine and are most often associated with 'Khirbet Kerak' pottery; the discovery of this handle in Operation IIC seemingly strengthens the long-recognized association between Kura-Araks and 'Khirbet Kerak' sites (cf. Zarecki-Peleg 1993). Besides thousands of potsherds, ceramic artefacts included biconical spindle whorls; model toy wheels with projecting hubs, identical to those suggested as evidence for early wheeled vehicles (Bakker *et al.* 1999); possible cone-shaped clay tokens; and two anthropomorphic figurines.

A few metal (copper or bronze) artefacts were found in the excavations on Mound II, primarily

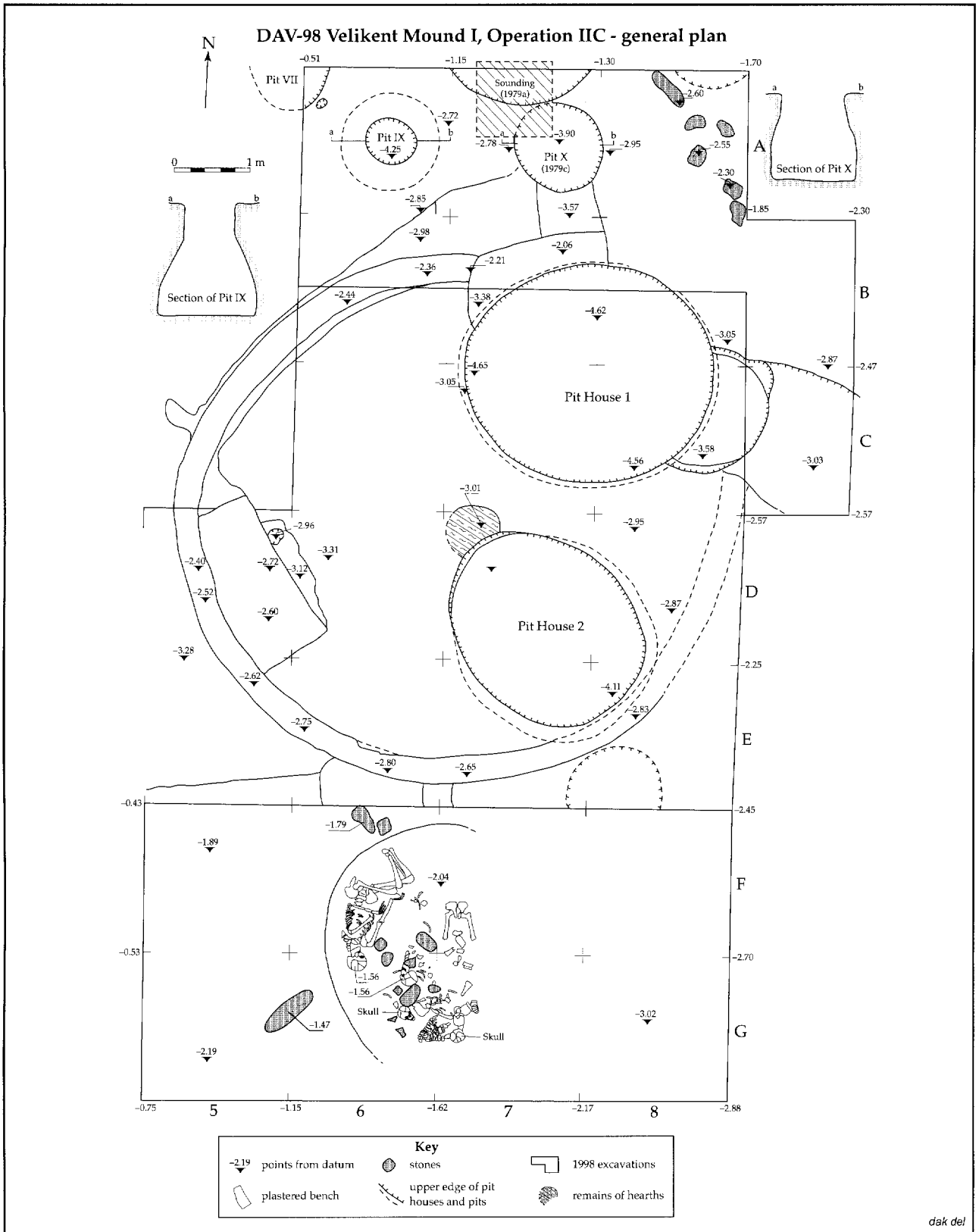


Figure 7.4. Plan of Velikent, Mound II, Trench C, 1997-99.

fragmentary blades and points, though a long straight chisel or gouge with a bevelled end is noteworthy. The direct evidence for metal-working activities on the earlier settlement mound was strengthened with the discovery of one part of a two-part clay mould for casting a shaft-hole axe in 1999 in Trench IIE immediately west of IIC. Finds of such moulds for casting shaft-hole axes from secure archaeological contexts are relatively rare in the Caucasus — only four had been previously recovered from Early Bronze settlements in the Caucasus: Shengavit and Garni in Armenia; Kyul-tepe in Nakhichevan; and Galgalatli in mountainous Daghestan. This discovery strongly suggests that axes were locally produced at Velikent, particularly given the fact that eight shaft-hole axes have been recovered to date from the collective catacomb tombs at the site.

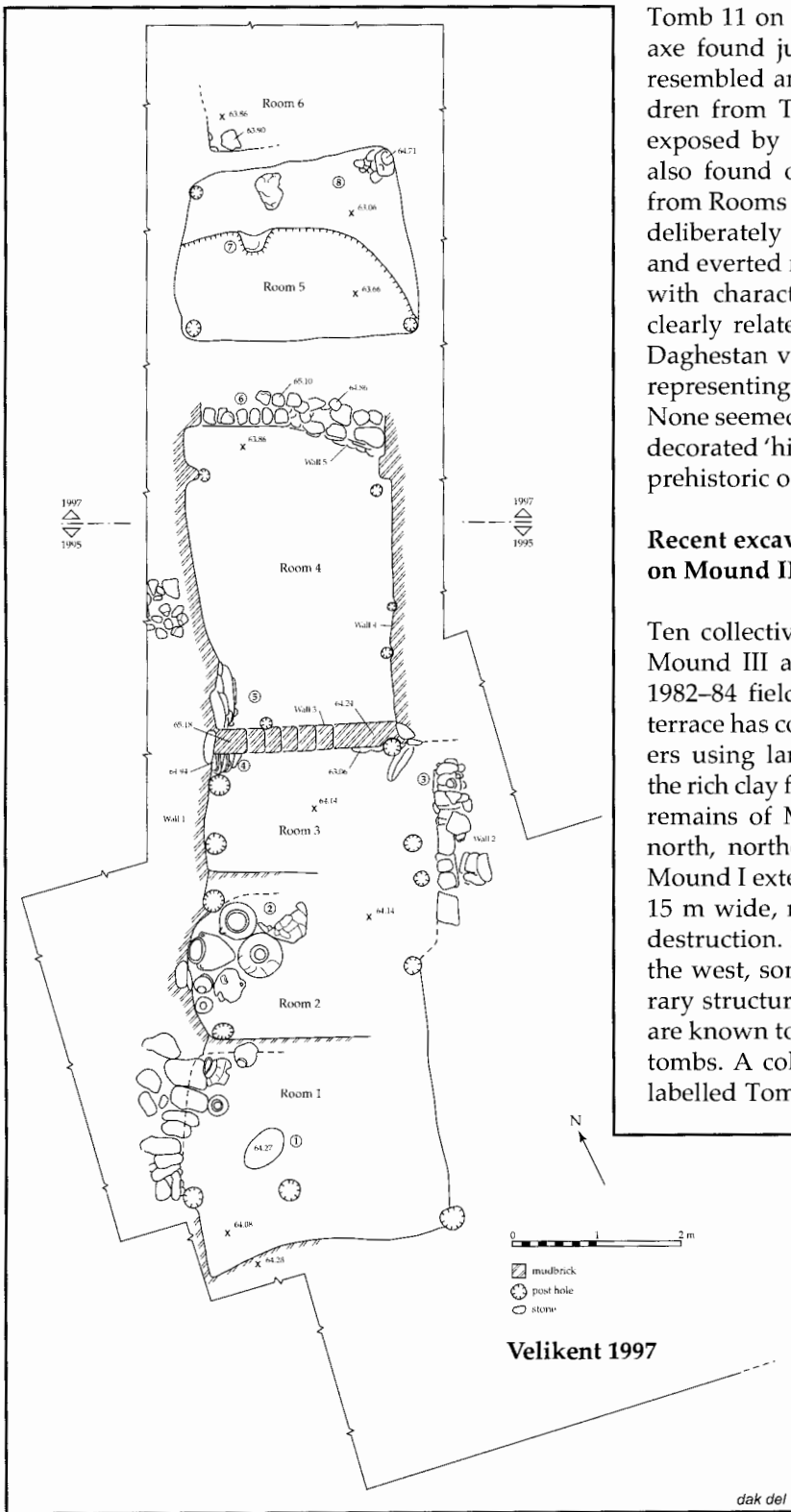
Most of the ceramics consisted of simple, hand-made fragments, representing fairly typical clay and chaff-tempered cooking and table wares. These included forms, such as lids, flat frying pans, braziers, and variously shaped ceramic hearth supports or andirons — all of which are obviously related to the Kura-Araks cultural tradition of the southern Caucasus. The relations between Velikent and Transcaucasia long have been recognized and have led to the classification of its early culture there as representative of the northeastern or Daghestani variant of the Kura-Araks culture; such a designation may, however, be misleading because of the eminently distinctive and mixed character of the materials, including the ceramics, from the site. For example, surprisingly, more than 10 per cent (642 fragments) of the sherds recovered in one excavation unit on Mound II had a much finer quality; they were tempered with small inclusions of sand and highly-fired and had an almost metallic hardness and resonance. They appeared to be wheel-thrown, and many were decorated with impressed or stamped zigzags, wavy lines, and herringbone and tiny wedge-shaped or nail-like impressions which sometimes encircled the body of the vessel beneath the neck; in terms of their decoration, but *not* in terms of their manufacture, these wares resemble earlier steppe wares found in the northern Pontic area (e.g. Videiko 1994, fig. 5) and illustrate the mixed character of the Velikent remains. First recognized during the 1995 season and compared with sherds also found on Kura-Araks-related sites, such as Serzhen Yurt, in Chechnya to the northwest (Munchaev 1975, 337–44, fig. 76; cf. also Gadzhiev *et al.* 2000, fig. 19), these ‘high-quality wares’ were present throughout the prehistoric occupational sequence on Mound II; i.e. they occur in the very earli-

est building level. In fact, ‘high-quality ware’ fragments were found resting near a burnt hearth in Trench IID to the west, a hearth which yielded the earliest radiocarbon determination (3693–3380 BC, 2 sigma, sample AA 27351) currently available for the beginnings of the occupation at Velikent. The earliest settlers at Velikent arrived already possessing an unexpectedly sophisticated ceramic technology, reflective of a high level of craft specialization, which had previously been known only for sites dating to the mid-fourth millennium located much farther south; paradoxically, the most highly fired, apparently wheel-thrown ceramics that were produced find their closest typological parallels to the northwest and north. It is unclear how to interpret the significance of these wares or what the possession of such a sophisticated ceramic and, by extension, pyrotechnology meant in terms of the broader historical processes responsible for the initial settlement at Velikent.

The later and larger settlement, Mound I, also sits atop a clay terrace originally formed by the Caspian Sea. M.G. Gadzhiev conducted excavations here in 1977 and 1979, opening up an area of c. 143 sq.m on the central eastern edge of the mound. Two basic building levels were established: an earlier horizon consisting of several pithouses dug deep into the clay terrace; and a later horizon, set immediately above the filled-in pit houses and defined by a large multi-roomed building (Fig. 7.5) which had been heavily burnt and which seems to have been associated with pottery production and possibly public storage since it contained over-fired ceramic wasters and ceramic slag, as well as several large storage jars. This later building, or Burned Building 1, which also had been dug into the mound with its walls supported by quarried stones and river cobbles and its roof by wooden posts, was further investigated during the 1994, 1995 and 1997 seasons; the excavations were extended to the northeast, exposing an additional four contiguous rooms (Rooms 3–6).

Unfortunately we cannot review here the distinctive architectural features of this public building which was dug into the dense clay terrace (cf. the description in Gadzhiev *et al.* 1997, 185–93), but just wish to emphasize that the materials from Mound I, particularly the metals, excavated in this burned building closely resembled those found in the collective catacomb tombs excavated on Mounds III–V (cf. below), suggesting their basic contemporaneity. Thus, for example, a bronze medallion, which was found in the northwestern corner of Room 6 just above its floor, was identical to an ornament excavated from





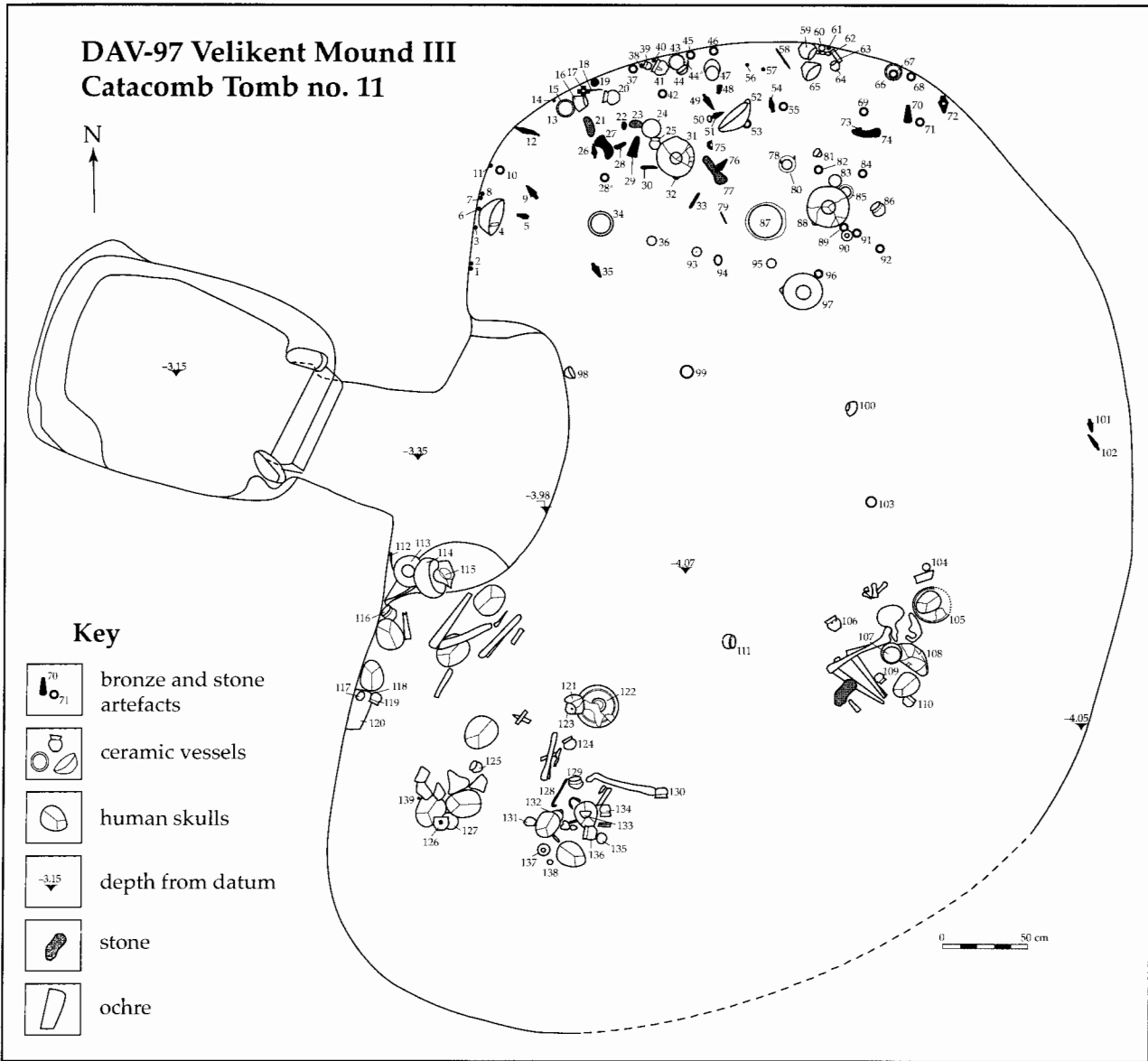
**Figure 7.5.** Plan of Burned Building 1, Velikent, Mound I, Trench A, 1997. (Original plan drawn by C. Bullock and J. Edmondson.)

Tomb 11 on Mound III to the west. Similarly, a flat axe found just above the floor of Room 4 closely resembled an axe collected by the local school children from Tomb 11 when this tomb was initially exposed by the local villagers. A bronze awl was also found on the floor of Room 4. The ceramics from Rooms 3–6 included wheel-thrown wares with deliberately roughened or thickly slipped surfaces and everted rims and raised collars, including many with characteristic large lug handles. They were clearly related to the earlier Kura-Araks-like — or Daghestan variant — ceramics found on Mound II, representing a later development of this tradition. None seemed as highly fired or well produced as the decorated ‘high-quality wares’ found throughout the prehistoric occupation of Mound II.

#### Recent excavations of collective catacomb tombs on Mound III

Ten collective catacomb tombs were excavated on Mound III at Velikent during the initial 1979 and 1982–84 field seasons. Since then this natural clay terrace has continued to be destroyed by local villagers using large mechanized excavators to procure the rich clay for construction purposes. The c. 4 m high remains of Mound III, which are situated c. 70 m north, northeast of the northernmost extension of Mound I extend for c. 45 m and today are only c. 10–15 m wide, reflecting their gradual but continuous destruction. More natural terraces extend farther to the west, some of which are covered by contemporary structures, and to the south (Mound IV) which are known to contain additional collective catacomb tombs. A collective tomb, which was subsequently labelled Tomb 11, had been accidentally discovered

and partially destroyed by local villagers just prior to the beginning of the 1997 season. Another tomb, Tomb 12, also was accidentally exposed and then excavated during the 1997 season. This paper will not present the results of the excavation of this latter smaller tomb, though, interestingly, it appeared to contain only the remains of immature and juvenile skeletons (possibly as many as 45 children were interred in Tomb 12) and yielded a total of 340 complete ceramic vessels. The richer bronze and polished stone materials from Tomb 11 exhibit more relevant parallels with materials from the northwestern Cau-

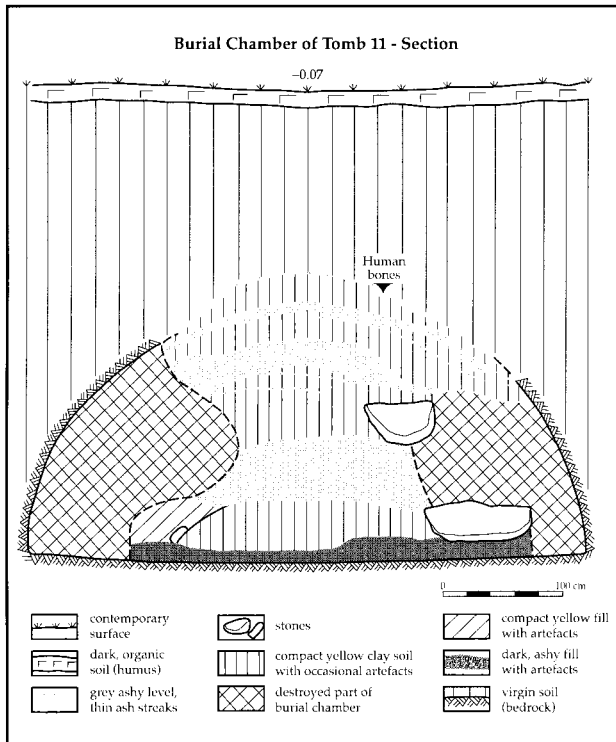


**Figure 7.6.** Plan of Velikent, Tomb 11, Mound III, showing artefacts and skeletal remains resting on the burial chamber's floor.

casus and northern Pontic areas and will be discussed in more detail here.

The burial chamber of Tomb 11 was distinguished by its kidney-shaped form oriented northeast to southwest along its long axis and by its considerable size (4.3 × 6.2 m; Fig. 7.6). The chamber was connected to the entrance pit set to the northwest by a short T-shaped corridor or dromos which took the form of a sharply descending ramp or incline from the large stone door slab blocking the entrance to the floor of the chamber; several large limestone slabs were found on and beyond this ramp

as if they had fallen from it or from the adjacent walls of the chamber. Since the roof or vault of the burial chamber had collapsed, it was impossible to establish the exact height of the chamber, though it is unlikely that it could have exceeded 2.75 m. Another distinguishing feature of Tomb 11 was its secondary utilization. The section of the fill of the chamber above the floor and above an initial compact yellow clay 'pillow' (up to 40 cm thick) in the centre of the chamber, which probably represented the collapsed vaulted central part of the roof, consisted of alternating soft ashy and compact yellow



**Figure 7.7.** Section of burial chamber of Tomb 11, Mound III, showing its secondary utilization.

clay levels containing bits of ceramics and human and animal bones (Fig. 7.7).

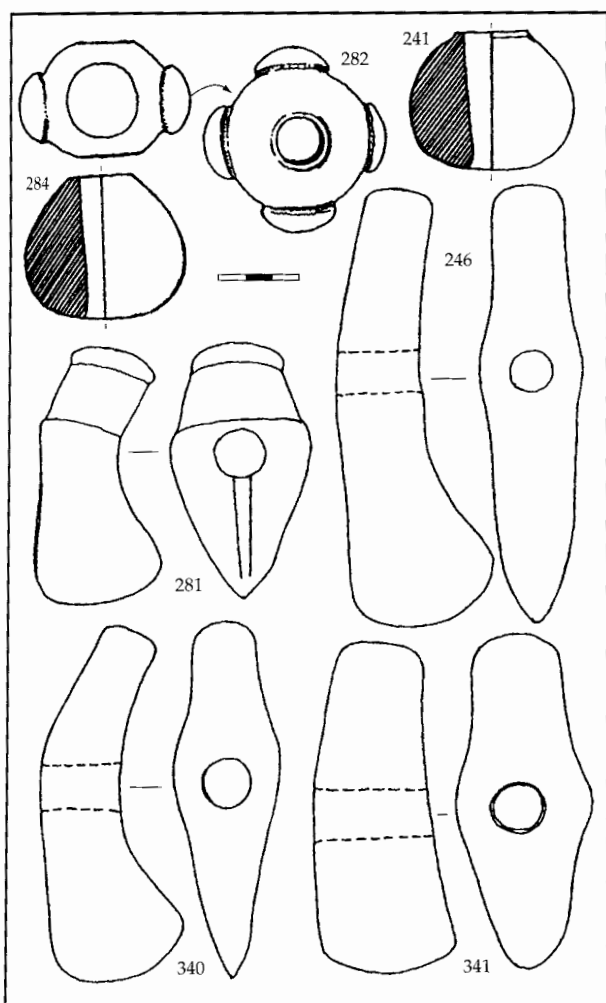
In order to find the entrance pit and dromos into the tomb, a small sounding ( $2 \times 2$  m) was opened on the top of the mound slightly to the northwest of the collapsed burial. A nearly complete skeleton of a 7- to 8-year-old child was encountered in the loose fill of this initial sounding. The head of the child was twisted back unnaturally, though there was no indication that the neck had been broken or the head removed prior to burial; possibly the skeleton had been bound or constricted in a tight sack. A radiocarbon date taken from the phalanges of this skeleton yielded a date of 2194–1780 BC (two sigma, sample AA 27348) which provides a *terminus ante quem* for the initial utilization of Tomb 11 (i.e. prior to the collapse of its roof).

The entrance pit and dromos into the burial chamber were located, and the stone entry door was found *in situ* fully closed and had probably not been opened since the collapse of the central vaulted roof. Separate clusters of artefacts and skeletal remains were located and excavated south and east of the entrance and its ramp, though the densest concentration of undisturbed artefacts and bones lay along the northern wall of the burial chamber or area far-

thest removed from the initial disturbance and subsequent plundering. The central floor of the burial chamber, which was overlaid with the yellowish clay 'pillow' of roof collapse, was essentially empty, and most remains clearly had been initially set or subsequently shoved along the sides of the chamber. The dark ashy fill, which contained most artefacts and skeletal remains, lay immediately above the floor and was thickest along the chamber's perimeter where it had not been crushed by the roof's collapse. Most bones were very poorly preserved and lay strewn chaotically throughout the fill above the floor; nevertheless, several partially preserved skeletons, consisting of long bones with accompanying pelvic or pectoral girdles, as well as skulls were recovered particularly along the walls of the chamber. Apparently, these remains had been pushed to the sides of the chamber when the tomb had been opened and a new burial placed within it. Tomb 11 had functioned as a final resting place, presumably for related individuals, for some considerable period of time before the collapse of its roof, though, unfortunately, it is unclear exactly how long it so functioned and precisely how many individuals had been buried within it.

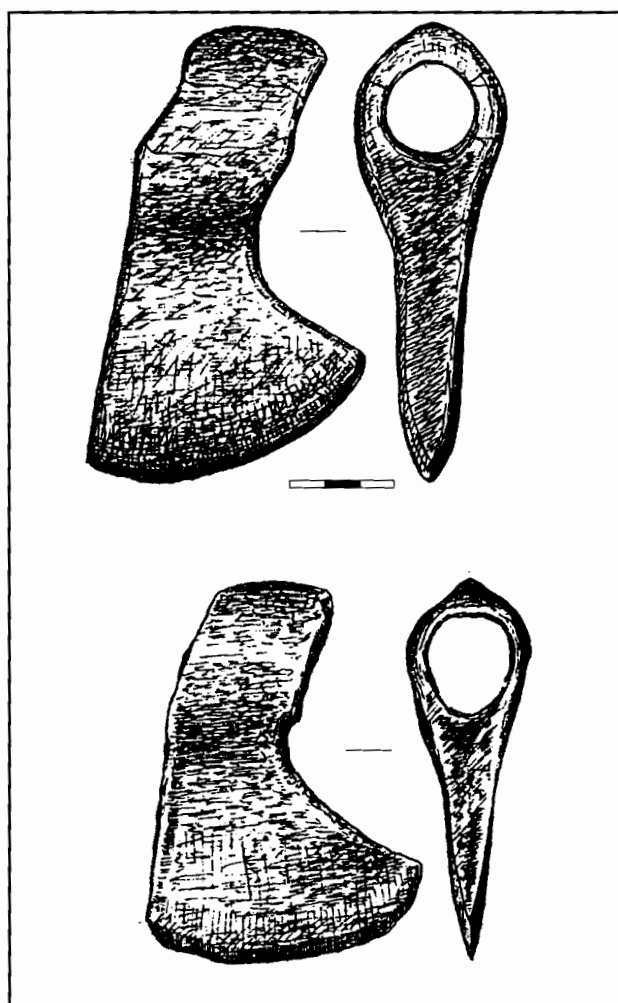
Sixty-nine complete vessels were registered from the tomb, as well as a great quantity of vessel fragments, many of which apparently were broken at the time of the roof's collapse. Some of the vessels were quite small and poorly fired, including some which were unfired. Most consisted of bowls, small pots, and cups often with a single handle for support; in general their forms were similar to those excavated from the previously salvaged collective catacomb tombs, though a few, including spouted vessels, were distinctively shaped or original in their ornamentation. A highly black-burnished, single-handled carinated cup with incised decoration is particularly noteworthy; it closely resembles vessels of the so-called Alazano-Bedeni type which are found in large kurgans in eastern and central Georgia. A few other 'Bedeni' pots had previously been found in the collective catacomb tombs from Velikent and been considered imports from the south, useful for dating purposes (i.e. late third millennium BC); an alternative explanation would have some of the peoples from Velikent ultimately move to the south, where they produced more of this distinctive type of pottery and buried it with their now evident social élite.

Numerous tools and weapons were found in Tomb 11, particularly in the loose ashy level immediately above the floor along the northern perimeter of the burial chamber. These included four extremely



**Figure 7.8.** Polished ground-stone axes and mace heads, Tomb 11, Mound III.

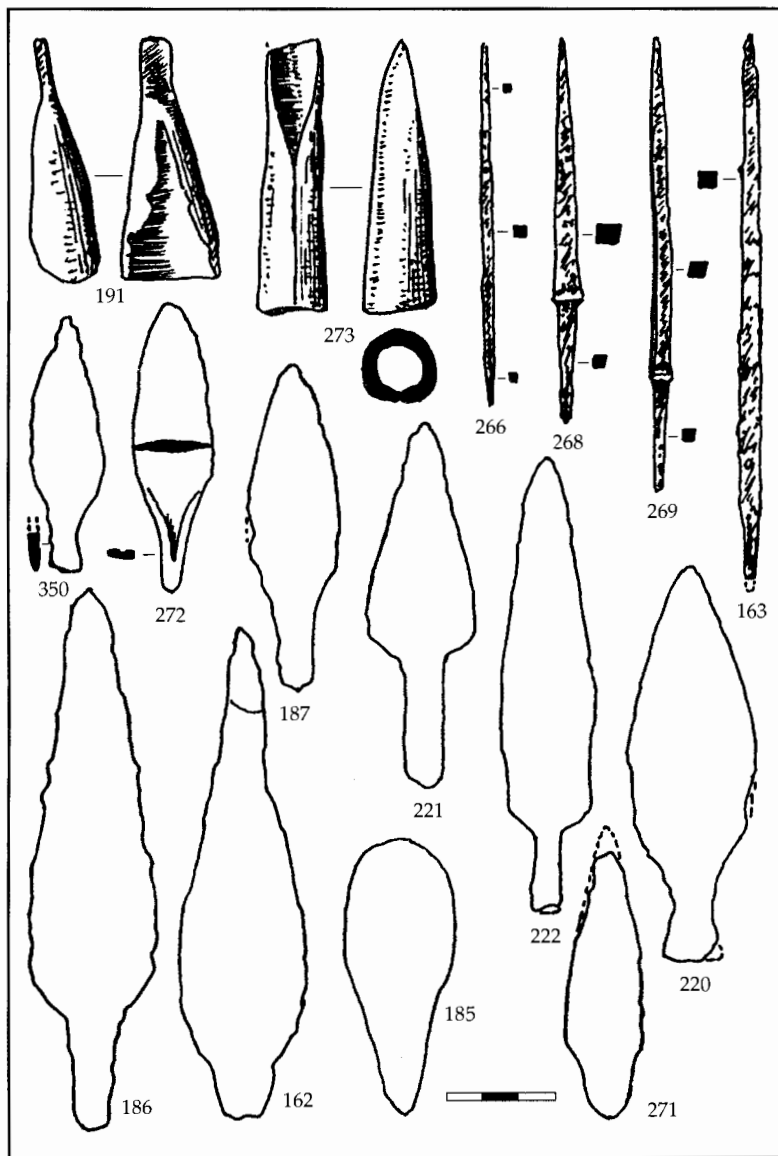
well-ground and polished shaft-hole stone axe-hammers, made of marbled limestone (?), and more than 30 circular and pear-shaped mace heads, some of which had a slightly raised lip encircling their drilled hole (Fig. 7.8). One mace head had four raised knobs, so far the only example from Velikent of this later, broadly distributed type (Fig. 7.8:282). Metal weapons included two shaft-hole axes with their blades extended downwards (Fig. 7.9), two flat axes or adzes, and twenty-two dagger or knife blades with simple tangs (cf. Fig. 7.10). Bronze tools included awls (Fig. 7.10:163, 266, 268 & 269) and chisels (no. 273) of well-known types. Part of the wooden handle of one of the shaft-hole axes was preserved and yielded a radiocarbon date of 2851–2367 BC (2 sigma, sample AA 27353), which closely resembled another date obtained from the skeletal remains in another collective tomb (Tomb 1, Mound V) excavated during the



**Figure 7.9.** Two bronze shaft-hole axes from Tomb 11, Mound III.

1994 season: 2879–2474 BC (2 sigma, sample AA 15104; cf. Gadzhiev *et al.* 1995, 147). Although we do not know how long either of these tombs were utilized, the two congruent radiocarbon dates would suggest that the tombs date primarily to the early to middle third millennium and not to the end of the third or beginning of the second millennium BC, as estimated in the earlier literature.

Bronze ornaments included disks or medallions — some elaborately decorated, and anchor-shaped pendants — also decorated with spiral and circle designs (Fig. 7.11:352–4); 8 triangular-sectioned tubes or piercers and 13 twisted hollow elongated spirals and fragments which may have functioned to separate the suspended anchor-like pendants; 2 coiled and 14 complete heavy bracelets and several fragments with thickened middle and flattened ends (Fig. 7.11:346); 1 circular-headed, 8 straight, and 9 crook-



**Figure 7.10.** Bronze awls, daggers, handle (?) and chisel, Tomb 11, Mound III.

shaped and decorated toggle pins, characteristically perforated and flattened just above their middle (Fig. 7.12); and rings and triangular-shaped pendants. More than 80 complete and c. 135 fragments of ringlets, twisted 1.5 times and possibly worn in the hair, also were recovered from Tomb 11, as was a similarly twisted ringlet made of thick gold leaf, which closely resembled a golden ringlet found in Tomb 1, Mound IV in the 1995 season; these two ringlets are the only gold objects yet found at Velikent. Finally, numerous small rectangular, disk-shaped, biconical, and cylindrical beads were recovered which were made of a variety of materials: agate, mountain crys-

tal and chalcedony, white and, more rarely, blue paste and ceramic, carnelian, amber and Caspian shell. A fragment of a bone toggle-pin with a paddle-shaped aperture, a very pointed hollow-based flint arrowhead, an obsidian flake and a flint flake with traces of bitumen adhering, and bone astragali gaming pieces were also found in Tomb 11.

The metal and ground-stone tools and weapons found in Tomb 11 can be paralleled to similar Early and Middle Bronze weapons from the northwestern Caucasus and the Eurasian steppes, in general; the metal ornaments from Velikent, such as the anchor-shaped pendants and the bent-headed toggle pins perforated and flattened in the middle are more distinctively Velikent or found across a smaller North Caucasian area, suggesting that they did not diffuse as widely as the tools and weapons; the circular bronze medallions with a characteristic bent loop for suspension, on the other hand, have been found repeatedly on the steppes, suggesting contact with that area (cf. Nechitailo 1991, cover ill. & 86–7). Most of the materials from Velikent Tomb 11 closely resemble materials earlier excavated in the collective tombs at Velikent. This new work with the calibrated dates suggests all this material may date more towards the first half and middle rather than the end of the third millennium; if correct, such an early dating suggests the diffusion of metal tools and weapons or even a population movement from the northeastern Caucasus onto the steppes in the third millennium and not the reverse.

One hundred and ninety-five artefacts from the earlier excavated catacomb Tomb 1, Mound III at Velikent that contained c. 1500 metal artefacts were subjected to compositional analyses, and 15 of them or c. 8 per cent — one toggle pin, five rings, and nine bracelets — proved to be deliberately alloyed tin-bronzes (Gadzhiev & Korenevskii 1984, 24). The vast majority of the analyzed metal artefacts were arsenical bronzes, apparently utilizing known local metal sources in the northeastern Caucasus. It is interesting that none of the analyzed tools and weapons were tin-bronzes, but just some of the ornaments, particularly the bracelets, leading the investigators

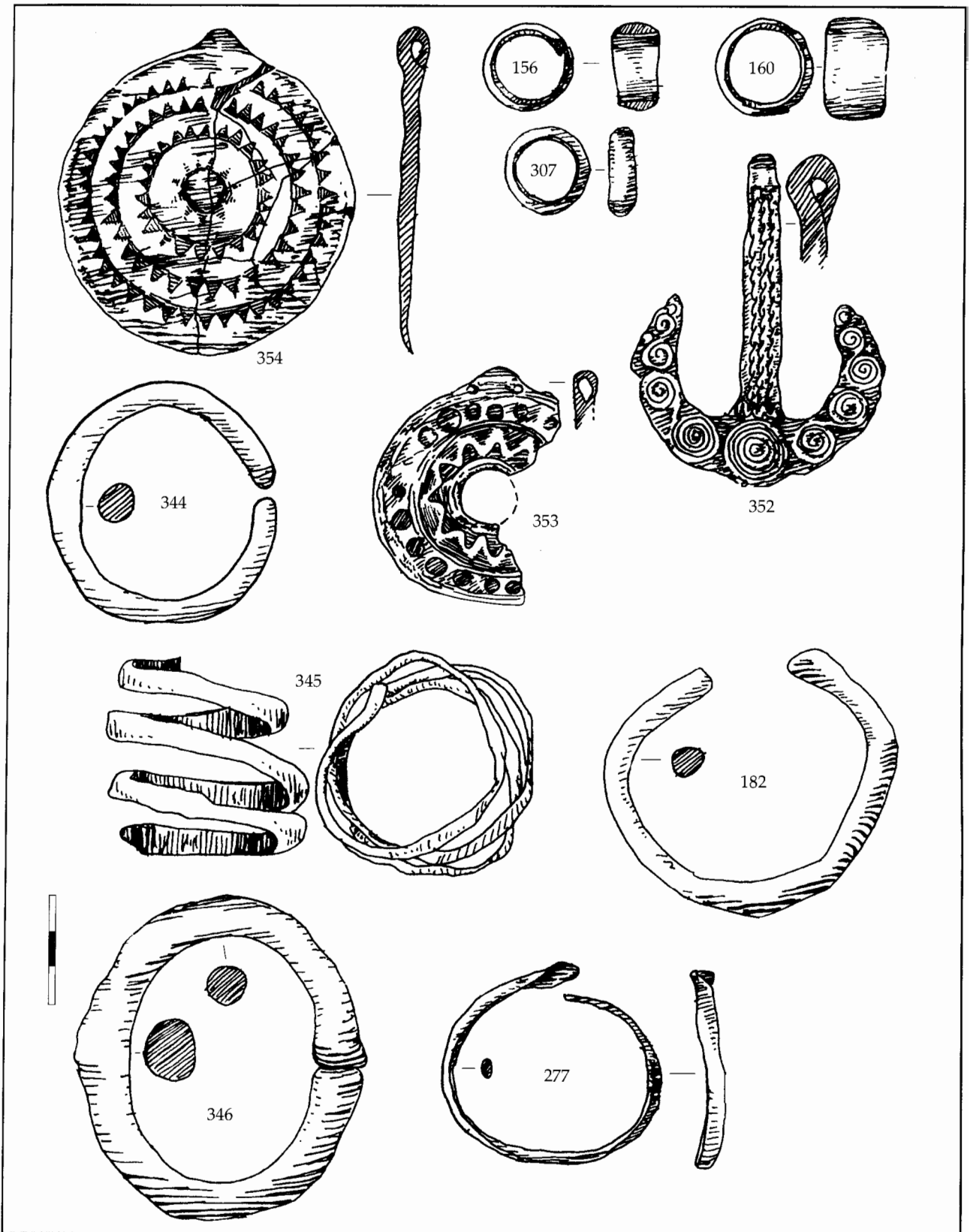
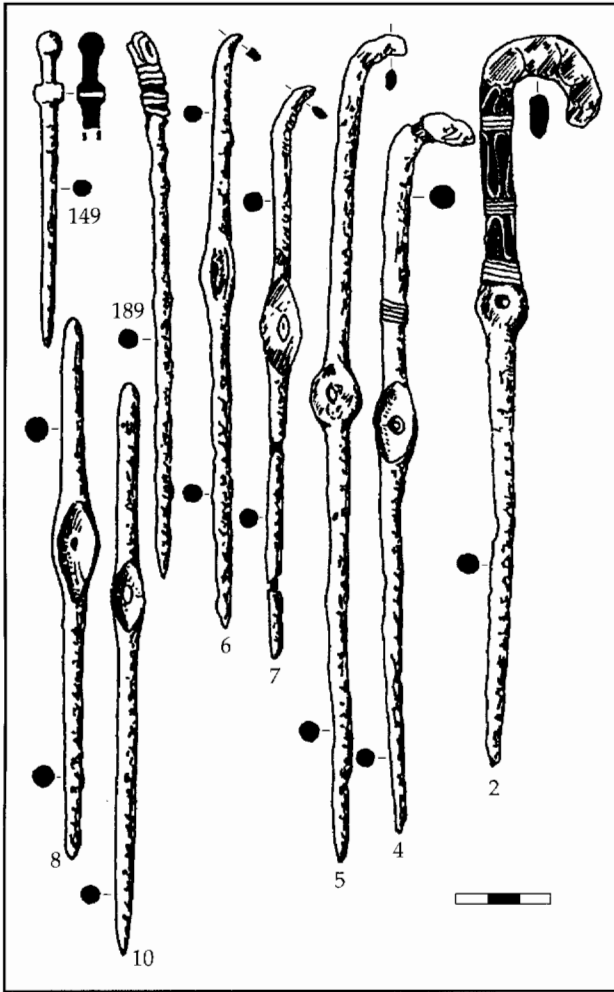


Figure 7.11. Selection of bronze bracelets, medallions, pendants, and rings, Tomb 11, Mound III.



**Figure 7.12.** Selection of bronze toggle pins, Tomb 11, Mound III.

to comment that 'possibly the ancient inhabitants of Velikent were attracted to the golden colour of the copper-tin alloy' (Gadzhiev & Korenevskii 1984, 24). Moreover, the source of the copper for the tin-bronzes seems to have been distinctive from those used for the production of the other bronzes, suggesting possibly that the tin-bronzes were not alloyed at Velikent but imported in the already alloyed state. While more dates need to be processed, the two consistent, already cited early to mid-third-millennium BC dates for the collective catacomb tombs at Velikent would make these tin-bronzes among the earliest recorded for the Caucasus.

In general for the Caucasus, tin-bronzes begin to appear in very small quantities in post-Kura-Araks culture times or at the end of the third millennium and then gradually increase in proportion to arsenical bronzes until Late Bronze times or the second

half of the second millennium BC when tin-bronzes become dominant. During the Late Bronze and Early Iron periods, the Caucasus — both Transcaucasia and Ciscaucasia — is one of the richest metal-working areas of the Old World with tens of thousands of bronze artefacts having been unearthed in clandestine and controlled excavations dating back to the last century. Chernykh's discussion (1992, 275–95) of this later 'Caucasian Metallurgical Province' which takes shape around the middle of the second millennium BC refers extensively to the highly distinctive and isolated character of the bronzes produced in the Caucasus at this later time and contrasts its paradoxically isolated character first with the range of metal products distributed across the contemporaneous vast 'Eurasian Metallurgical Province' centered far to the northeast (Chernykh 1992, 192), and then with the earlier role of Caucasian metallurgy in the late third and early second millennium for supplying metals over much of the western Eurasian steppes. Tin sources are not known from the Caucasus and geologically are not expected to be found there. Thus, paradoxically, by the second half of the second millennium BC, the Caucasus was one of the most prolific metal-producing areas of the Old World and what it was dominantly producing were tin-bronzes, the tin of which had to be imported from sources lying far to the east (cf. Chernykh 1992, 194).

Recently, Lloyd Weeks (1999) has reconsidered the West Asian 'tin problem' in light of the results of recent lead-isotope analyses of tin-bronzes from the site of Tell Abraç in the United Arab Emirates and their comparison with tin-bronzes from northwestern Anatolia and the Aegean. Over 500 copper and tin-bronze artefacts have been recovered from Tell Abraç which is located near the Gulf coast on the southeastern Arabian peninsula; tin-bronzes actually seem to decrease over time from over half (53 per cent) of the analyzed metals during the Umm an-Nar occupation at Tell Abraç in the late third millennium BC to the Late Iron Age when slightly less than 40 per cent of the analyzed artefacts were tin-bronzes. Exotic luxury items also found at Tell Abraç can be paralleled to materials from Iran, southern Central Asia, and the Indus Valley, and the excavator D. Potts (pers. comm.) believes that such goods are sort of pointers to or carry-overs from the extensive organized late third and early second millennium trade in tin/tin-bronzes from sources farther east, particularly western Afghanistan; that is, the trade in luxury exotica — interesting and significant in its own right — masks in a sense this more fundamental trade in tin-bronzes. We know that farther

south near the site of Maysar in Oman there is substantial evidence for the smelting of copper in the late third millennium, and this area is often identified as ancient Magan, which is known to have been one of the main sources of copper for southern Mesopotamia. Tin-bronzes are not found at Maysar, suggesting possibly that a maritime trade in tin or tin-bronzes from sources farther east only reached the part of the Arabian peninsula bordering the Gulf. Weeks believes that the source(s) for the copper in the tin-bronzes from Abraç was different from the local source(s) utilized for the production of copper artefacts at Tell Abraç, suggesting that at least some of the tin-bronzes from Abraç were traded in alloyed form, either as ingots or as finished items. This situation is similar to that for the tin-bronzes from Velikent; intriguingly, in both instances the tin-bronzes contain concentrations of lead, though it is unclear whether it is the tin or the copper that is contributing the lead. Even more intriguingly, Weeks notes a general ‘isotopic similarity’ between the tin-bronzes used at Kastri, Poliochni, Thermi, Troy and Tell Abraç and suggests that the bronzes from these sites were obtained from the same sources. Some of the previously analyzed tin-bronzes from Velikent have also been analyzed by Weeks and the preliminary results suggest that the Velikent tin-bronzes “fall on the same line” as the early tin-bronzes from the Aegean — Troy and Poliochni in particular (Weeks pers. comm.). These new analyses of materials from Velikent are limited and very preliminary, but they appear to bolster the existence of an early far-flung trade in exotic tin-bronze ornaments and/or ingots which proceeded east to west over both overland northern and maritime southern routes.

### Conclusion

Excavations at Velikent have revealed the existence of a surprisingly sophisticated community practising agriculture and raising livestock on the coastal plain of southern Daghestan from the middle of the fourth millennium to the beginning of the second millennium (c. 3600–1900 BC). The initial settlers arrived with an impressive ability to produce highly fired, wheel-turned pots and build free-standing mud-brick structures. They also had the knowledge of working metal and grinding and polishing hard stones. A community with similar technological skills simultaneously existed 7 km to the west at the site of Kabaz-Kutan at the very edge of the plain and the beginning of the piedmont. Similarly dated settlements have been documented on the broad plain

south of Derbent stretching to the Samur river and the border with Azerbaijan. Over time the inhabitants at Velikent learned to appreciate the physical features of the rich clay terraces on which they had located their settlement — a classic example of an adaptation to a unique local resource. They dug deep pit houses and storage pits and developed a unique architectural tradition for reinforcing the walls of the pits in which they lived and worked. They also realized that they could build their tombs in a manner similar to their houses and that large burial chambers could be dug into the hard-packed terraces and periodically reopened to inter large numbers of presumably related individuals. They continued to improve on their metal-working skills and produced numerous distinctive bronze tools, weapons and ornaments which they both used and buried with their dead; some of these metals may have been directly worked at the neighbouring site of Kabaz-Kutan.

It is critical that the subsistence economy at Velikent be more fully determined. We already know that they had draft animals and probably produced wool (see the appendices on the Velikent fauna by A. Morales *et al.*, in Gadzhiev *et al.* 1997, 209). They also exploited resources from the Caspian Sea, including its shells and sturgeon, and hunted animals indigenous to the plain and to the steppes to the north. We also know that they cultivated free-threshing wheats (*Triticum aestivo-compactum*) and six-row barley (*Hordeum vulgare*) and apparently practiced viticulture (cf. the preliminary analysis of A. Aranz, in Gadzhiev *et al.* 1997, 215–19). They also had to adapt to the periodic transgressions and regressions of the Caspian Sea and, in fact, they may have briefly abandoned the site due to climatic deterioration, as reflected in the settlement shifting from the southern Mound II to Mound I sometime during the early third millennium (Martín Sánchez *et al.* 1999).

Many questions, of course, remain to be solved. Was the site abandoned due to the environmental degradation associated with a pronounced regression of the Caspian Sea? Or were other factors at work including increased relations with their steppe nomadic neighbors to the north? Did they retreat into the environmentally more hospitable mountains to the west or move north, becoming nomads themselves and diffusing their metal- and stone-working skills and fundamentally influencing the development of the catacomb burial tradition spread widely across the steppes? One of the most intriguing problems associated with the discoveries at Velikent concerns the abandonment of the site and possibly much of the southern coastal plain for centuries, if not for



millennia. Something happened. Metal-working skills improve over time, but such evolution is less apparent with pottery. The later ceramics found on Mound I are cruder than the highly fired, wheel-turned 'high quality wares' present in the earliest levels on Mound II; this is even more apparent with the numerous vessels found in the collective catacomb tombs on Mound III. Devolution rather than evolution apparently characterizes this process. In short, Velikent is a settlement that just ends, leaving no noticeable legacy on the coastal plain itself, a site seemingly poised on the threshold of considerable social complexity which is then abandoned. Only continued excavations at Velikent and Kabaz-Kutan and systematic surveys of the plain can address these questions and resolve the enigmatic demise of this once thriving community and the substantial settled occupation of the plain which it represents.

## References

- Andreeva, M.V., 1977. K voprosu o yuzhnykh svyazyakh maikopskoi kulturi. *Sovetskaya Arkheologiya* 1, 39–56.
- Bakker, J.A., J. Kruk, A.E. Lanting & S. Milisauskas, 1999. The earliest evidence of wheeled vehicles in Europe and the Near East. *Antiquity* 73, 778–90.
- Chernykh, E.N., 1992. *Ancient Metallurgy in the USSR: the Early Metal Age*. Cambridge: Cambridge University Press.
- Gadzhiev, M.G. & S.N. Korenevskii, 1984. Metall Velikentskoi Katakomby, in *Drevnie Promysly, Remeslo i Torgovlya v Dagestane*, ed. M.M. Mammaev. Makhachkala: Daghestan Scientific Center, Academy of Sciences USSR, 7–27.
- Gadzhiev, M.G., P.L. Kohl, R.G. Magomedov & D. Stronach, 1995. The 1994 excavations of the Daghestan-American Archaeological expedition to Velikent in southern Daghestan, Russia. *Iran* 33, 139–47.
- Gadzhiev, M.G., P.L. Kohl, R.G. Magomedov & D. Stronach (with appendices by A. Morales and A.M. Arnanz), 1997. The 1995 Daghestan–American Velikent expedition: excavations in Daghestan, Russia. *Eurasia Antiqua* 3, 181–222.
- Gadzhiev, M.G., P.L. Kohl, R.G. Magomedov, D. Stronach, & S.M. Gadzhiev (with appendices by A. Morales, M. Martín Sánchez, P. López Garcia & J.A. López Sáez), 2000. Daghestan-American Archaeological investigations in Daghestan, Russia 1997–99. *Eurasia Antiqua* 6, 47–123.
- Kavtaradze, G.L., 1983. *K khronologii epokhi eneolita i bronzы v Gruzii*. Tbilisi: Metsniereba.
- Kavtaradze, G.L., 1999. Metallurgical data for a Central Transcaucasian chronology, in *The Beginnings of Metallurgy*, eds. A. Hauptmann, E. Pernicka, T. Rehren, & U. Yalcin. (Zeitschrift für Kunst und Kultur im Bergbau, Beiheft 9.) Bochum: Der Anschnitt, 67–102.
- Martín Sánchez, M., P. López Garcia & J.A. López Sáez, 1999. Aproximacion Palinologica a la evolucion de la vegetacion del Caucazo y del Nivel del Mar Caspio durante el Holoceno reciente. *Temas Geológico-Mineros ITGE* 26, 269–73.
- Munchaev, R.M., 1975. *Kavkaz na zare bronzovo veka*. Moscow: Nauka.
- Munchaev, R.M., 1994. Maikopskaya kultura, in *Epokha bronzы Kavkaza i Srednei Azii: Rannyyaya i Srednyaya Bronza Kavkaza*, eds. K.K. Kushnareva & V.I. Markovin. Moscow: Nauka, 158–225.
- Nechitailo, A.L., 1991. *Svyazi naseleniya stepnoi ukraini i severnovo Kavkaza v epokhu bronzы*. Kiev: Naukova Dumka.
- Stein, G.J., R. Bernbeck, C. Coursey, A. McMahon, N.F. Miller, A. Misir, J. Nicola, H. Pittman, S. Pollock & H. Wright, 1996. Uruk colonies and Anatolian communities: an interim report on the 1992–1993 excavations at Hacinebi, Turkey. *American Journal of Archaeology* 100(2), 205–60.
- Trifonov, V.A., 1994. The Caucasus and the Near East in the Early Bronze Age (fourth and third millennia BC. *Oxford Journal of Archaeology* 13(3), 157–60.
- Videiko, M.Y., 1994. Tripolye - 'pastoral' contacts: facts and character of the interactions: 480–3200 BC. *Baltic-Pontic Studies* 2, 5–28.
- Videiko, M.Y., 1995. Grosssiedlungen der Tripole kultur in der Ukraine. *Eurasia Antiqua* 1, 45–80.
- Weeks, L., 1999. Lead isotope analysis from Tell Abraq: new data regarding the tin problem. *Antiquity* 73, 49–64.
- Zarecki-Peleg, A., 1993. Decorated bones of the third millennium BCE from Palestine and Syria: stylistic analysis. *Israel Exploration Journal* 43(1), 1–22.