

In The Steps Of James Harvey Gaul  
Volume 1

# JAMES HARVEY GAUL

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I N M E M O R I A M

Edited by  
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# Kamenska Čuka 1993-1995

Preliminary report

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It is especially appropriate that this preliminary report of Kamenska Čuka be dedicated to the memory of James Harvey Gaul. Not only does the site of Kamenska Čuka illustrate the presence in southwest Bulgaria of Late Neolithic and Eneolithic elements that Gaul pioneered, but it also reveals for the first time Later Bronze Age<sup>2</sup> architecture in the middle Struma river valley. Moreover, students from Brooklyn College of the City University of New York, at which Gaul taught at the beginning of his teaching career in the fall of 1940, joined students from the American University in Bulgaria at the Kamenska Čuka excavations.

## Introduction

The excavations at Kamenska Čuka, five kilometers south of Blagoevgrad in southwestern Bulgaria, began in 1993 and are projected for completion in 1998 (Figs. 1; 2). These excavations comprise the first phase of the Struma Valley Project, a larger program of archaeological survey, excavations, and analysis designed to fill an informational gap about the most important north-south route in western Bulgaria (Fig. 2). Over the long term, the goal of the project is to study human occupation along the middle Struma through time. Today's rapid growth of urban centers, the expansion of mechanized farming and extensive illicit digging threaten to eradicate existing sites and make survey and excavation in the region particularly urgent (Figs. 3; 38; 39).

This report documents the first three seasons of the Kamenska Čuka excavations<sup>3</sup>, conducted by the Archaeological Field School of the American University in Bulgaria and Brooklyn College, City University of New York in association with the Archaeological Institute of the Bulgarian Academy of Sciences and the Historical Museum of Blagoevgrad. In addition, a geological survey in conjunction with the University of Mining and Geology in Sofia,<sup>4</sup> and a five kilometer radius archaeological survey of the microregion surrounding Kamenska Čuka are underway. At the regional scale, the Struma Valley Project is bringing together specialists in archaeology, geology, archaeozoology, palaeobotany and palaeoecology<sup>5</sup> with the explicit goal of contextualizing the region and exploring its connections with the contemporaneous neighboring cultures. Thus far, at the microregional scale, specific emphasis has been given to understanding the relationship between the site of Kamenska Čuka and its surroundings.

Kamenska Čuka was selected by the authors for investigation after consultations with the local museum and colleagues.<sup>6</sup> Previous illicit digging at the site prompted fears for its continued existence, although it provided a diminutive glimpse of the mound profile (Fig. 39). A limited surface survey and archival research indicated probable Bronze Age - Iron Age occupation. Logistical and locational considerations argued strongly for its choice for investigation (Figs. 4; 5).

## Location

Two main north-south routes through the Balkans link the Aegean with temperate Europe: the Morava-Vardar (Axios) river valley and the Struma

river valley (Figs. 1; 2) (Sivignon 1983; Rodden 1964; Ehrich and Bankoff 1992:380; Matley 1990:10-12; Lichardus-Itten 1993). Preliminary results from Kamenska Čuka show that the northern periphery of the Aegean world extended at least to the middle Struma basin<sup>7</sup>. The Blagoevgrad basin, largest of the five Struma (Strymon) valley basins south of Sofia, encompasses approximately 150 square kilometers along the middle Struma and the lower Bistrica rivers between the Vlahina Planina and the Rila range,<sup>8</sup> essentially from Dupnica (formerly Stanke Dimitrov) to Blagoevgrad (Dremsizova- Nelčinova 1987).

The site consists of a settlement and a mound<sup>9</sup> occupying a commanding height (elevation 404 meters above sea level, about 76 meters above the road Sofia - Blagoevgrad - Kulata, see Fig. 9, location approximately 41° 59'N; 23° 06'E) above the middle course of the Struma River. Geologically, the basin is composed of low-lying alluvium surrounded by colluvial slopes and older eroded metamorphic hills (Fig.13).<sup>10</sup> The neighboring mountains rise to over 2000 meters. The site itself rests on an outcrop of metamorphic micaceous gneiss and schist.<sup>11</sup> The settlement encompasses an area of approximately 200 x 150 meters on the highest point of the hill, and is definable by the extent of heavy sherd, daub, and rock deposit on the surface (Figs. 13; 14 A, B). An abrupt drop of some two meters (Perničeva 1993), sharply delineates this site area from the surrounding hill slope on the north and east. The south and west sides of the hill are at a much steeper angle, making approach from those directions nearly impossible. From the top of the site, one may see the entire southern part of the Blagoevgrad basin (Fig. 8). To the northwest is the housing development of Strumsko (Fig. 3), and to the north lies the city of Blagoevgrad. Blagoevgrad is near the probable location of the town of Scaptopara, famed in antiquity for its hot springs, which was a market center for goods brought up the river and local goods shipped down the river (Filov 1993:76; Hoddinott 1975; Dimitrov 1984; 1988). To the south lies the defile marking the edge of the basin, through which the Struma river and the ancient and modern roads wind towards the Aegean (Fig. 9).

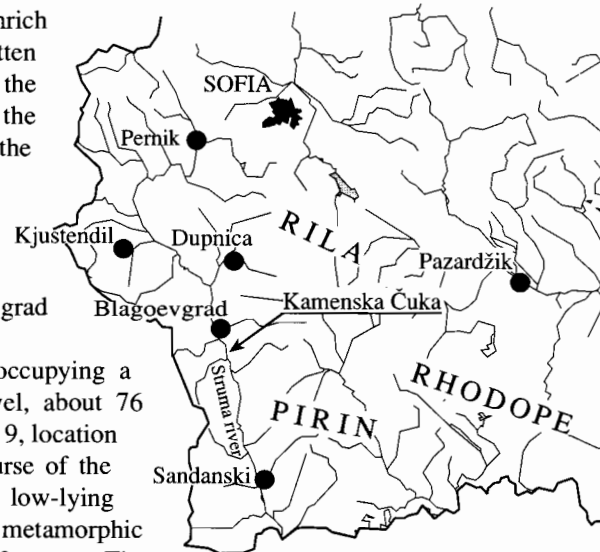


Fig. 2. Southwestern Bulgaria (after G. Knight)



Fig. 3. Kamenska Čuka (end of 1994 season). Aerial balloon view from the Southeast at 35 meters.

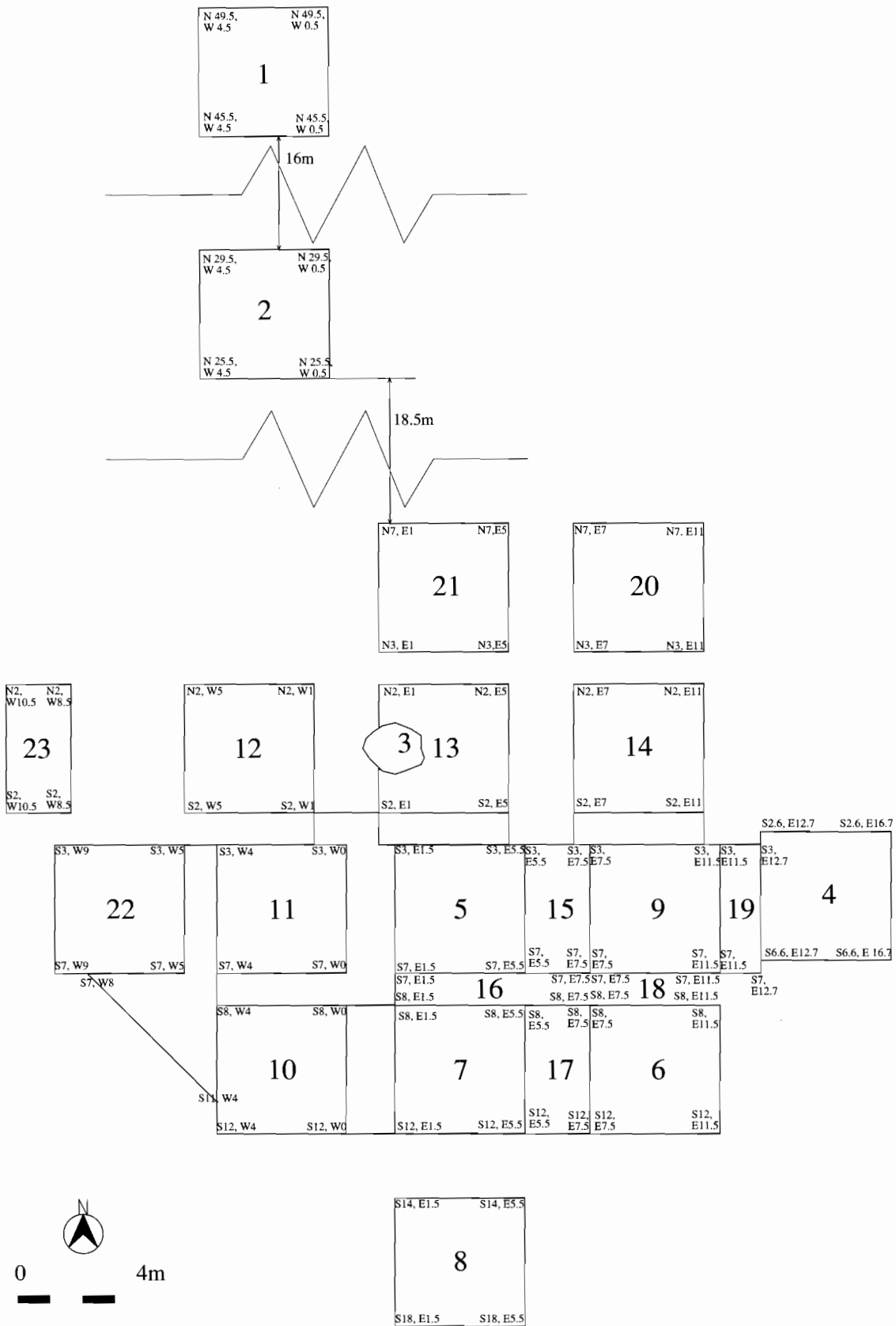


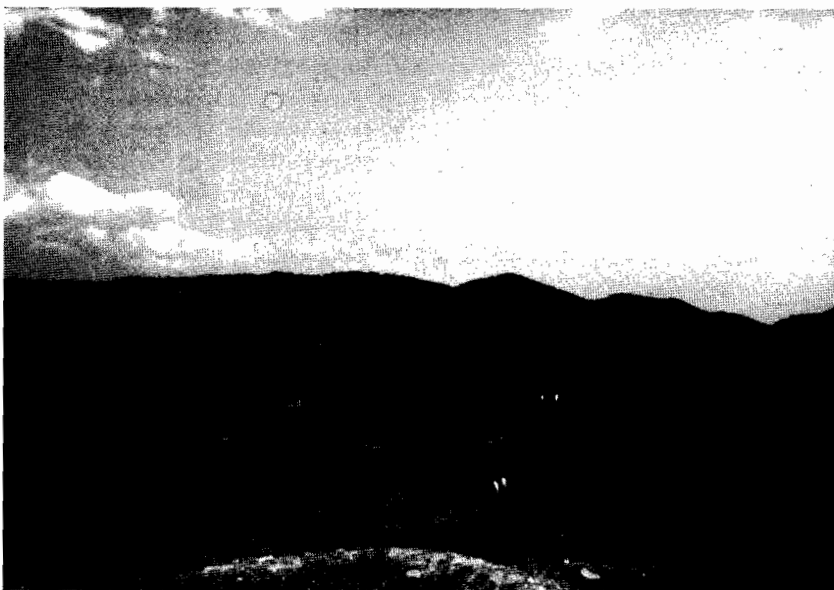
Fig. 5. Trench layout - through the end of the 1995 season.



*Fig. 7. Kamenska Čuka from the East in 1994.*

### **Research History of the Region**

The pioneering work carried out by W.A. Heurtley in the 1920s and 1930s (summarized in Heurtley 1939 and Hammond 1972) laid the foundation for research in the geographical region of Aegean Macedonia. The chronological and typological systems from the Neolithic through the Iron Ages derived from his excavations are still followed in broad outline today. Post World War II excavations have clarified, expanded and corrected this system (Milojčić 1949; Rodden 1962; Garašanin, M. 1979; 1982; 1982a; 1982b; Gimbutas 1976; Renfrew et al. 1986). Large scale excavations of prehistoric sites in northern Greece (cf. Aslanis 1985) include Sitagroi (Renfrew et al. 1986), Kastanas (Hänsel et al. 1980-89), Assiros (Wardle 1980; 1982; 1983; 1987) currently the reexcavation of Agios Mamas (Hänsel et al.) Dikili Tash (Deshayes 1973; Séfériades 1983) Thasos (Koukouli Chrysanthaki 1992) to name only a few (Wardle 1982). West of these, in former Yugoslav



*Fig. 8. View to the South towards the Kresna defile from Kamenska Čuka.*

the Eneolithic period, the site continued to support human occupation into the Iron Age.

The first large scale trenching operations were carried out in 1978-79 by L. Perničeva and I. Kulov (Perničeva and Kulov 1979; 1980; Perničeva 1993) with the hope of definitely identifying the chronology and stratigraphy of the plateau area called "Strumsko". Digging on the western and northwestern edges of the settlement plateau, Perničeva proposed an "earlier Chalcolithic" date (Perničeva and Kulov 1980; Perničeva 1995:99-140, esp. 126; Perničeva 1993; Bojadžiev 1993:91; Boyadziev 1995:182). A 3.5-meter-wide ditch strengthened on its edge by a 2.5-meter-wide wall and on its interior by a palisade was interpreted as a "fortification system" (Dremsizova-Nelčinova 1987; Perničeva 1993) which could be followed for 35 meters. These excavations were reported in short notices (Perničeva and Kulov 1979; 1980; Dremsizova-Nelčinova 1987) and articles (Perničeva 1992; 1993).

## Kamenska Čuka mound. 1993-95 Excavations

### Site Survey

A surface survey (Figs 14a; 14b) begun in 1994 of the plateau surrounding Kamenska Čuka was conducted with the aim of placing the Late Bronze Age structure in its immediate cultural context. The goal was to completely survey the plateau at an appropriate intensity. For complete coverage, a systematic survey strategy was used, in which the survey team laid a 5 by 5 meter grid over the entire area of the triangular plateau, with the major exception of the mound itself. Areas where the slope of the land would occasion a great deal of erosion and the resultant confusion of provenance for cultural materials were excluded.

The resultant grid divided the plateau into three discrete areas. The southern section is 1825 m<sup>2</sup> in area and consists largely of uncultivated grasses growing on eroded soil. The eastern section covers 3275 m<sup>2</sup>, primarily covered by short to medium grasses on compacted soil. The western section covers an area of 4600 m<sup>2</sup> covered by highly variable ground vegetation.

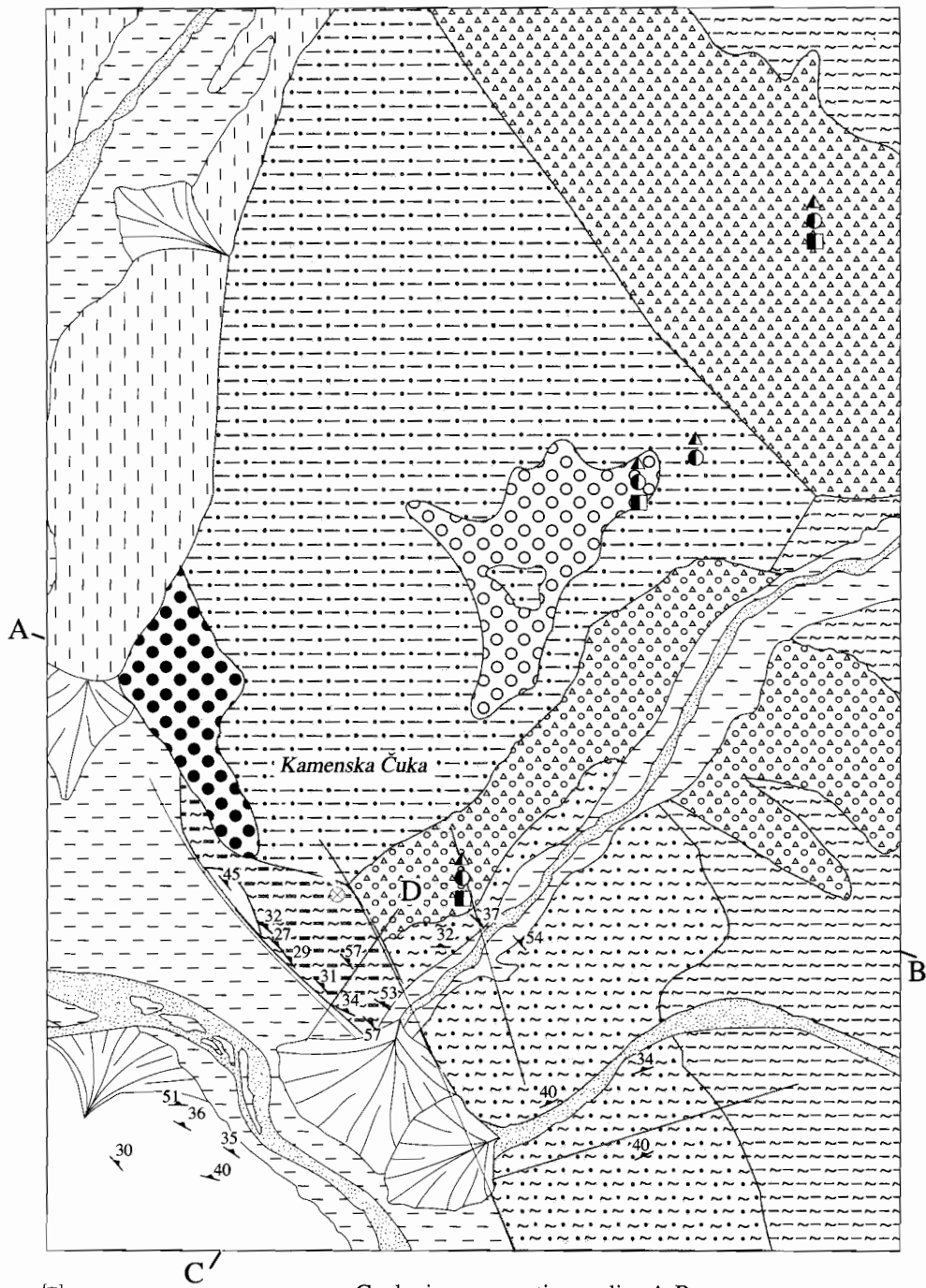
With the grid in place, the survey team proceeded to collect all of the cultural artifacts from 25% of the squares, resulting in a coverage of 2425m<sup>2</sup>. With a 5m<sup>2</sup> collection unit and 25% coverage, the largest distance between any two collection units is 15 linear meters. Very little pottery, none of which proved to be diagnostic of any period, was collected from the eastern and



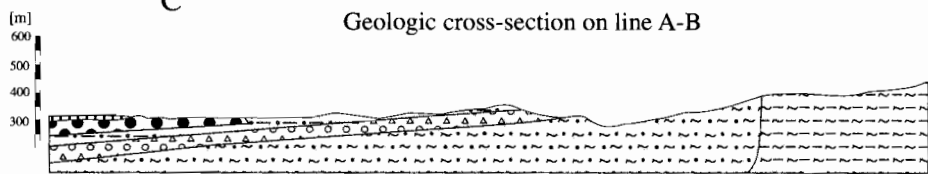
Fig. 10. Trench 2 in the foreground, Trench 1 in the background. View to the North.



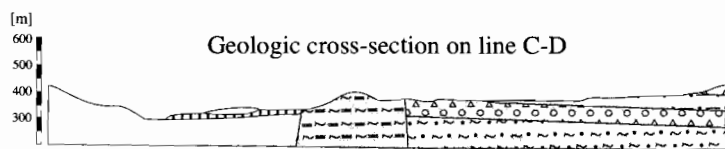
Fig. 12. Kamenska Čuka mound end of 1994 season - balloon photograph from approx. 35m. See Fig 3. (photo by J.D. Whitmire)



Geologic cross-section on line A-B



Geologic cross-section on line C-D





it tapered to about ten centimeters. The fill was composed of mostly sandy soil with small micaceous rock inclusions apparently derived from the earlier surrounding settlement as secondary deposit. The layering of the fill also indicates that the stratigraphy is reversed, i.e., the lowest fill layer is a dark brown humic layer representing the former humus which developed after the abandonment of the surrounding earlier settlement. This former humus is overlain by the sandy fill which represents the more sterile plateau sub-soil. Rocks from the collapsed structure which were lying on the surrounding surface were included within the fill (Figs. 17; 18; 56).

Thus, essentially, two periods of mound occupation or deliberate use-modification are represented at Kamenska Čuka: the occupation of the burnt structure during the Later Bronze Age, and the filling and shaping of its ruins into a mound used during Roman times. Stratigraphically, these two episodes are clearly distinct, differentiated by context, matrix and assemblage. No evidence has been found which points to continuous occupation or use of the site after the 3rd century A.D.

### The Later Bronze Age Architecture

The massive two-storey stone structure, whose exterior walls enclosed a total area of more than 320 square meters, was erected during the Later Bronze Age, long after the abandonment (4000-3500 B.C.) of the "Strumsko" Eneolithic settlement on the plateau. Quadrangular in shape, it had a ground-level layout of two unequally-sized rectangularly shaped "rooms" (Figs. 11; 16). This building dominated both the plateau and the surrounding river valley (Figs. 3; 9).

Examination of the bedrock and the stratigraphy of the walls and floor of the structure indicates that the uneven micaceous schist terrain was levelled prior to the wall construction (Fig. 59a). Most traces of earlier occupation were removed; only a few pits filled with Eneolithic material were left. A thin layer of grey ash material, possibly attributable to in situ burning, ran under the walls, which were thus placed on a level surface with no

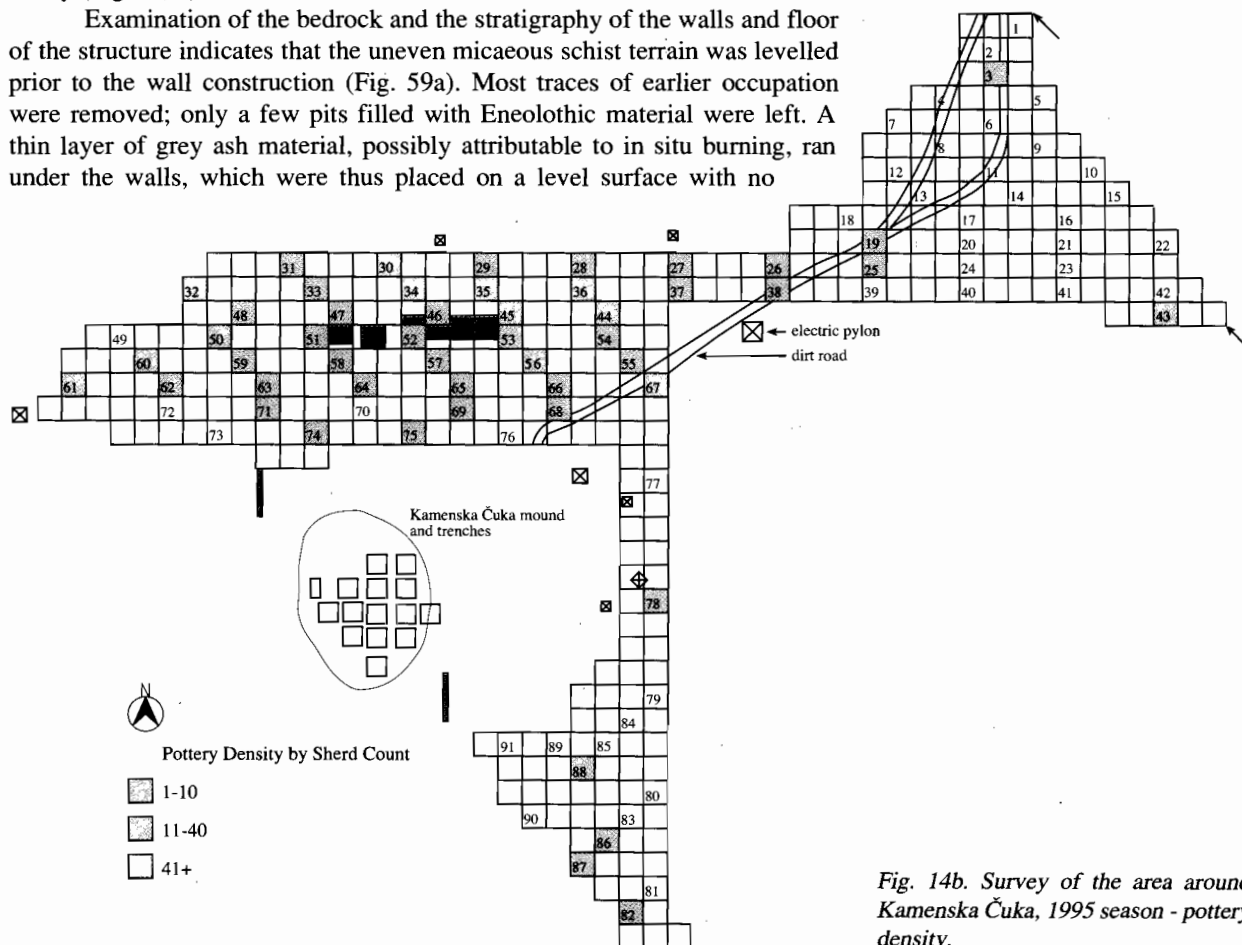


Fig. 14b. Survey of the area around Kamenska Čuka, 1995 season - pottery density.

substructure or foundation trench. They were constructed of flat partially worked and unworked stones with a mud seating which served to level the courses (Figs. 49b; 61; 78a). These roughly two-meter thick walls (Figs. 12; 17) thus presented sharply defined vertical exterior faces on both sides enclosing a space between them of approximately one meter which was filled with rubble taken from the surrounding plateau. In this wall rubble there are a number of broken grinding stones (e.g., Fig. 77; to date more than 31 have been recovered either in situ in the remaining wall-fill or as part of the wall-fall in the interior of the structure) and the remains of daub and pottery belonging to the Strumsko Eneolithic plateau settlement. Judging from the preserved walls and the fallen wall sections the massive construction originally stood as much as 5-6 meters high. Excavated portions of the remaining walls on the eastern side of the mound still reach to a height of 2.75 meters (Figs. 20; 45; 46; 48; 52c; 54; 55; 57; 62).

It is probable that the structure had more than one storey, since the stone wall that divides the interior of the structure into two unequal interior areas (approximately 18 x 10 meters and 18 x 3 meters) also forms the support for an integrated stone staircase in the larger area that leads to the second level. Entry to the smaller area is not evident as yet (Fig. 16). Although the

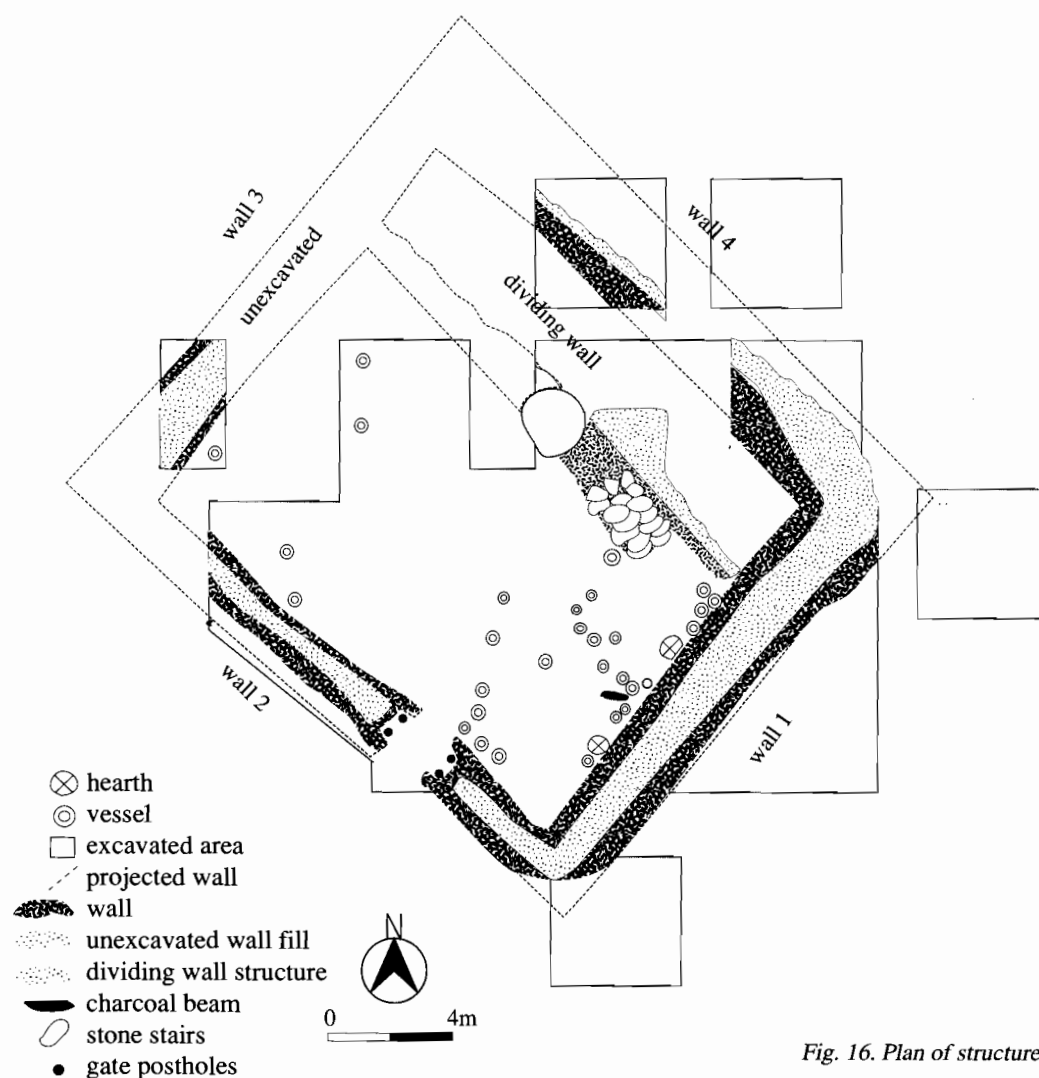


Fig. 16. Plan of structure - end of 1995 season.

supported a cantilevered wooden daubed superstructure or second storey judging from the heavy daub and charcoal concentrations found mixed with and under the fallen rocks from above the floor in the center of the structure (Figs. 50; 51).

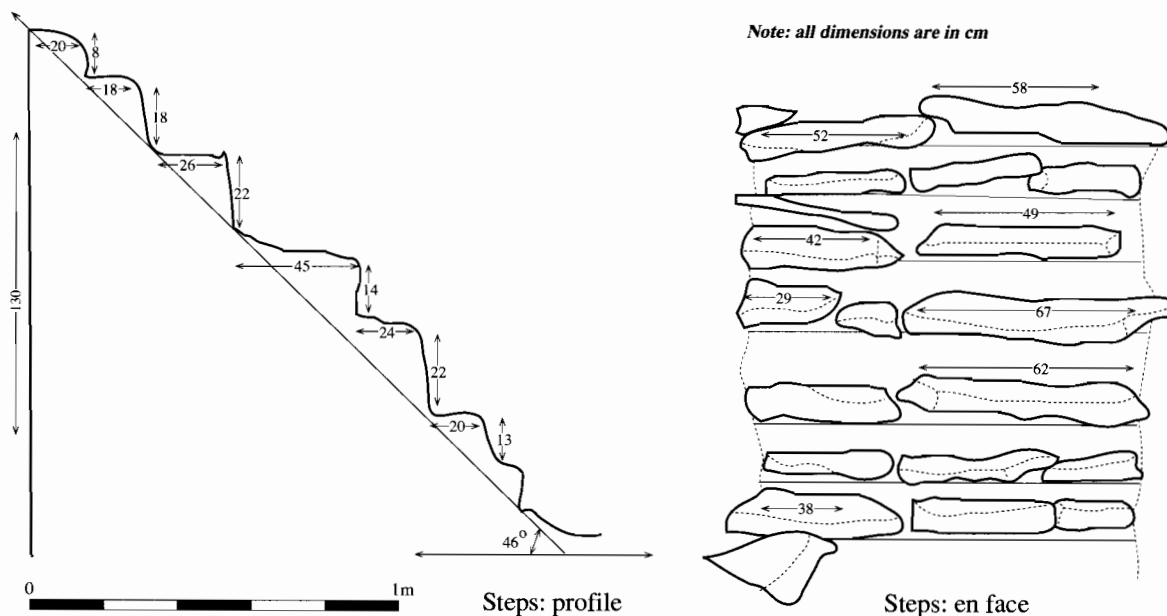
From the southwest, a two-meter-wide entrance leads into the interior of the larger room. Charred remains of door posts indicate the probability of double swinging wooden doors (Fig. 23). Inside to the right and left of the entry along the walls were found several rows of large storage vessels (pithoi) dug into the floor, or leaning up against the wall on floors which were of tamped fine gray earth (Figs. 22; 23; 50; 51; 57; 63). On the northeast side, the exterior wall was extensively damaged at the time of destruction. Above the first meter of height the wall leans outward (Fig. 56). The southern and western walls are preserved only to a height of less than a meter, possibly as a result of deliberate leveling in the course of later mound construction during Roman times. The upper courses of all of the walls were heavily burned, especially on the northeast side of the site. This may have been due to combustion of flammable materials contained in the numerous pithoi or of a daubed wooden superstructure, fanned by the high winds which scour the hilltop.<sup>17</sup> The entire structure was sealed beneath the debris that resulted from this intense conflagration probably in conjunction with an earthquake.

**Finds within the structure**

**Ceramics**

The finds from within the structure, with few exceptions, consist of ceramics. All wares are handmade. Within this assemblage both fine and coarse ware are present. All of the pottery is separated into the following groups after washing – whole vessels, reconstructables, diagnostic sherds, and bulk sherds. Rims, handles, bases and all decorated sherds or those illustrating some unique feature, e.g., vitrification, are all considered diagnostic sherds. The reconstructables are given to a ceramicist after washing to check the associated units for additional sherds. After the vessel is assembled it is inventoried. The diagnostic sherds are further sorted after washing according to matrix, coarse (rocky) and fine (sandy); thickness (0-0.5 cm), (0.5-1.0 cm)

Fig. 19. Steps that are part of the Dividing wall (see Figs. 17; 20; 52 a, b, c; 53; 54; 55)



equidistantly placed vertical handles on the shoulders are found. On the transition from the neck to the shoulder a distinctive flattened groove is invariably found (Fig. 29e). While somewhat coarse in fabric, the exterior of these vessels is burnished and for this reason is included in the fine ware. They range in size from 40-60 cms and were often found resting against the interior walls (Figs. 22; 23; 65; 66; 67; 68; 72; 79; 80; 81; 82). It is apparent that some of the vessels reconstructed as whole had fallen from some height, either from a shelf or from the second floor of the structure. In one case, a vessel (Inv. KC#315, Fig. 24 a-c) was found inside a large pithos (Fig. 81). On the bottom of the crushed pithos were the remains of fine soot that may have come from the thatching that covered the second floor, burning during the final destruction, and which acted as a cushion to the vessel when it fell. While some of the vessels were found intact, more often the vessel fragments were found strewn over interior of the structure. Reconstruction is often complicated by the sometimes wide area where fragments from a single vessel are found when it hit the earthen floor underneath the east and south walls (Wall 1 and Wall 2) (Figs. 74; 76; 78b; 86b). The distribution appears to be more concentrated next to the walls. Many of these fragments and vessels exhibited obvious secondary burning (Fig. 25e) after breakage, this is corroborated by the visible secondary firing that can be seen where the fragments join but have unnatural firing lines along the breaks (Fig. 28b).

### Coarse Ware

Dug into the floor of the southern corner of the western (larger) room of the structure at Kamenska Čuka were at least 30 pithoi (storage vessels) some fragmentary and some complete (Figs. 31 b, c; 32 b, c). One of the vessels had been repaired in situ (Fig. 73). Within and around these pithoi were smaller fine ware vessels (Figs. 69; 70; 71; 81; 82). The fabric of these coarse ware vessels consists of poorly levigated sand tempered clay often with pebble inclusions. The walls are thick, and smoothed. The color is reddish to reddish tan gray. They were fired in an oxidizing atmosphere. The decoration consists of applied plastic bands, sometimes with finger impressions or incisions. Vertical lug handles, pierced or unpierced, predominate (Figs. 31c; 32c). The coarse ware vessels can be divided into several shapes. Most common is the narrow necked torpedo shaped body with a small flat bottom (Figs. 31 a, b, c; 32c). Sizes range from 40 cms to about 1m tall (Figs. 31; 32). Another shape of similar size vessel is more biconical with sloping shoulders and rounded belly (Fig. 31b). Neither of these shapes could stand alone; thus they were usually buried up to three-quarters of their height.

### Botanical Finds

Seed and plant remains from the floor and within the pithoi of the Late Bronze Age structure were retrieved by flotation. Earth was taken from within the pithoi and from surrounding floor areas, as well as from selected other floor areas and sensitive contexts. This was floated through a SMAP flotation device at the field laboratory. The following is a brief summary of the preliminary results of the identification of macrofloral remains from more than a hundred samples from 1993 and 1994, prepared from information provided by Dr. Cvetana Popova and Mrs. Ksenija Borojević.

Cereals are represented by *Triticum monococcum* (einkorn), *Panicum miliaceum* (millet), and other grass seeds; legumes by *Lens culinaris* (lentil) and *Vicia sp.* (vetch); fruits by *Vitis sp.* (Grape), *Cornus mas* (cornelian cherry), and *Sambucus sp.* (danewort). There were also numerous weeds (*Polygonum spp.*, *Echinochloa sp.*, *Ajuga sp.*, *Chenopodium* type, and *Agrostema githago*).

### **Ceramics**

All pottery is hand-made, and both fine and coarse wares exist. The fine ware vessels are thin-walled, well-levitated, and dark-faced, often with highly burnished surfaces. They differ from the fine wares within the structure both in the shapes used and the occasional use of graphite paint as decoration. While no complete vessels have been found in the fill, fragments of carinated small bowls are not uncommon. Aside from the rare graphite painting, other decoration is absent from the fine wares. Secondary firing is also rare in the fill sherds.

Coarse ware sherds come from larger vessels than those made of fine fabric, although, again, none of these have been preserved to any extent. Most of the pottery consists of thick undecorated sherds with gravel inclusions within their red fabric and poorly-smoothed exteriors. Shapes appear to be essentially simple uncarinated large vessels with flat bases, and possibly large bowls. However, some decorated incised coarse ware sherds are found. These have curvilinear and rectilinear designs often with irregular incisions (Fig. 37a-e) (Todorova 1995; Todorova and Vajsov 1993).

Aside from the vessels, 11 fragmentary figurines (coming from the Eneolithic settlement) have been found in the fill. These vary from crude theriomorphic to highly stylized human figurines. Although most are undecorated, several have incised designs.

### **Chipped stone**

From preliminary analysis chipped stone is represented by the presence of sickle blades, varying in length up to 8-10 cms and debitage. The blades usually exhibit sickle gloss, generally made of good quality flint ranging in color from white to yellow to light brown.

### **Ground stone**

The only ground stone artifacts found in the fill are grindstones and whetstones. The grindstones consist of rectangular or ovoid-shaped querns and corresponding round or flattened grinders. These are all made of metamorphic stone, possibly derived from river cobbles. The querns are often broken (Fig. 77) and are never found with the grinders. Whetstones are flat-sided rectangular pieces of stone, showing obvious grinding action on one or more sides. They are usually finer-grained sandstone, and are also often found in damaged condition.

### **Bone**

Although no worked bone implements have been identified, fragmented and burnt animal bones are found and have as yet not been analyzed.

### **Description of graves**

Within the fill, at a depth of approximately 100-110 cm from the surface, four skeleton graves were found. No associated grave goods were found. Three were simple inhumations, the bodies extended in supine position, with a trace of a tile-lined grave pit in two cases (Figs. 88; 89). These included two adults and a child burial. The first, disturbed, adult burial (number 1), was fragmentary, with only the lower limbs remaining intact. The child burial (number 2) was probably that of a 7-9 year old, unerupted dentition visible. It was an extended inhumation burial, with the left arm across the chest, and the top of the head pointing southwest. The skeleton of the other simple adult burial (number 3) was extended on its back, arms folded across the chest (Fig. 89a). The deceased was probably a female in her 30-40s, based on the lack of osteoarthritis or any degenerative disease, combined with teeth wear estimate.

The torpedo shaped pithoi exist in two basic variants, one with a wide opening and one with a smaller mouth. This vessel type appears to be directly related to its storage function (wide mouth for dry goods and small mouth for liquids), and has its closest analogies in the Aegean world (Heurtley 1939).

## Dating

There is ample material for carbon dating in the destruction level of the structure. Three carbon samples from wood found on the floor of this sealed level have been processed by Beta Analytic Laboratories. When calibrated, the carbon dates are fully consonant with the ceramic assemblages dating to within the Later Bronze Age (Warren and Hankey 1989: 154, 169), approximately the 14th-12th centuries B.C. (see pp. 276-78). Archeomagnetic dating carried out under the direction of Dr. Mary Kovacheva from the Geophysical Institute BAN also indicates dates well positioned in the Later Bronze Age - 1230-1160 B.C. (see article in this volume).

## Discussion

We are struck by some obvious physical facts about the site. It sits on a propitious spot for monitoring traffic on the Struma, the latter a possible conduit for Mediterranean/Continental connections, or on a smaller scale, for a regional network that comprised present day northern Greece, Macedonia and Pirin/southwest Bulgaria. The structure sits approximately 100 meters above the flood plain, with steep slopes to three sides facilitating defense, perhaps also to accentuate its imposing architecture. Massive stone structures of this scale and type and the building technique of rubble-filled stone walls appear to have no analogies in southeastern Europe at this time.

The use-life of the structure during the Later Bronze Age was relatively short, probably less than a century, if we may judge by the typologically homogeneous ceramic assemblage which shows little sign of change. The occupational use does not appear to have been intense; no refuse dumps and no discrete activity areas have been found. The massivity of the structure with its second floor opens questions as to its use. Indications at this time point to the structure's use as an emporium storage/distribution facility perhaps by traders from the south and to the east and west. It is possible that this structure represented the holdings of a "big man" who controlled trade and other activities in the area.

If the Struma valley was a viable interregional route, Kamenska Čuka may have been a controlling node, trading station, and/or a storage-distribution center for an exchange network (cf. Haggatt 1966; Hodder and Orton 1976), perhaps linking more southern Macedonian sites, such as Assiros or Kastanas, or possibly resource-poor sites in southern Greece to the middle or lower Danube. Mycenaean ceramics have been found near Drama, in the lower Struma valley (Lichardus, pers. comm.) and at Assiros (Wardle 1980), an indication of Mycenaean interest and perhaps presence in the area.

Mycenaean ceramics have been found recently as far east as Drama, near Jambol in Bulgaria (Lichardus, J. A. Fol et al. 1996:113), if this is any indication of Mycenaean interest or presence, then it seems reasonable to expect to find Mycenaean influences in southwest Bulgaria in the Later Bronze Age - if this is so, then the middle Struma Valley surely played an important role in this coupling. Future research will show if Kamenska Čuka was also a part of that process.



**Notes:**

- 1 The authors' names do not reflect seniority of authorship. H. Arthur Bankoff is professor and chair of the Department of Anthropology, Brooklyn College, CUNY. Mark Stefanovich is Associate Professor of Anthropology and Director of Southeastern European Studies Center, American University in Bulgaria.
- 2 I.e., the time span from 1600-1000 B.C.
- 3 Project Directors: Professors H. Arthur Bankoff and Mark Stefanovich are responsible for overall organization, planning, and direction of the Struma Valley Project. Dr. Aleksandăr Bonev (1995), Secretary of the Archaeological Institute of the Bulgarian Academy of Sciences, Dr. Milena Tonkova (1993), Archaeological Institute of the Bulgarian Academy of Sciences and Mr. Ilija Kulov (1994, 1995), Curator of Prehistoric Collections, Historical Museum of Blagoevgrad, are officially responsible for general oversight of the work of the project. Mr. Nathan Meyer, University of California at Berkeley, is responsible for the planning and execution of the Blagoevgrad Basin Survey.  
Funding for the excavation has been provided by the following: The Institute for Aegean Prehistory (1994); The Samuel H. Kress Foundation (1994, 1995); The PSC-CUNY Faculty Research Awards Program (1993, 1994, 1995); the Brooklyn College Presidential Resource Grants Program (1994, 1995); Ms. Nan Frederick and Dr. Francis Wenger (1993, 1994, 1995) are major donors; Professor Janet Connolly (1993, 1994, 1995) also contributed. In-kind contributions were provided by the American University in Bulgaria and Brooklyn College CUNY.  
In 1993, 26 American and # AUBG undergraduate students worked together on the excavation project from July 12-August 20. In 1994, 26 American and 29 Bulgarian undergraduate and graduate students worked from July 12-August 22. In 1995, excavations lasted July 12-August 25, with crew of 57 American and AUBG undergraduate and graduate students.
- 4 Geology survey under the direction of Associate Professor Strašimir Strašimirov of University of Mining and Geology, Sofia.
- 5 Dr. C. Popova, Archaeological Institute of the Bulgarian Academy of Sciences, has been analyzing the pollen samples from Kamenska Čuka.
- 6 We wish to thank Dr. M. Domaradski, Ilija Kulov and Rumen Vassliev for their help in site selection.
- 7 N.G.L. Hammond refers to the Kresna Defile as a "block to movement by armies or groups of migrants down the Strymon valley" (1976:22). However, this would probably not hold true for muleteers and caravans. See M. Stefanovich "Hoards, Caravans and Illyrians: Wealth Accumulation in Antiquity" in *Sbornik posveten na prof. dr. Henrieta Todorova, Thracia Pontica*, in press, with relevant literature. Ethnographic examples from Hercegovina, Serbia and Epirus are given. See also John Griffith Postilla in "Proceedings of the Fourth International Congress of Thracology," in *Thracians and Mycenaean* (J. Best and N. De Vries, editors) E.J. Brill and in *Terra Antiqua Balcanica*, Leiden and Sofia 1989. pp. 241-45, discusses the role of transhumance in identifying the area inhabited by the Enienes and their chief Gouneus as mentioned in Homer in the Catalogue of Ships (p.243) in where "The Homeric Gouneus provides the first instance of transhumance to be documented in literature."
- 8 See Hammond (1976:6f.) for satellite photography of the area from Radomir to Serres.
- 9 In the literature, previous work on the plateau calls the site "Strumsko." To distinguish the mound from the plateau we refer to the mound as Kamenska Čuka, some locals also refer to it as Kajmenska Čuka. The name noted most recently on an official topographic map is Kamenska Čuka, although it appears in cadastral records as Kajmeska Čuka.
- 10 Geology of the Kamenska Čuka Area, project supervised by Prof. S. Strašimirov 1994-95.
- 11 Full treatment of geology investigations to appear in forthcoming publication.
- 12 A complete Bronze Age bibliography in Bulgaria to 1984 can be found in Blagova (1988). A comprehensive ongoing registration of sites under the direction of M.



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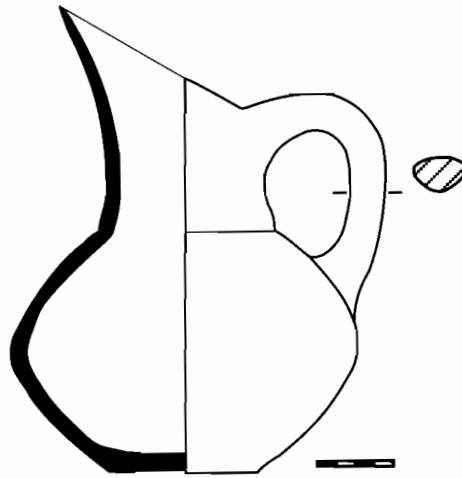
**Todorova, H., and I. Vajsov**

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A. Prototype of the cutback jug



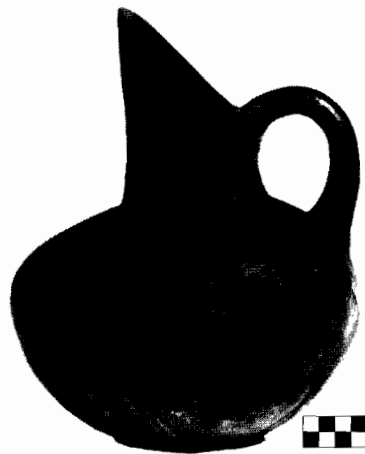
B. Inv. no. KC#315



C. Inv. no. KC#315 reverse side



D. Inv. no. KC#314



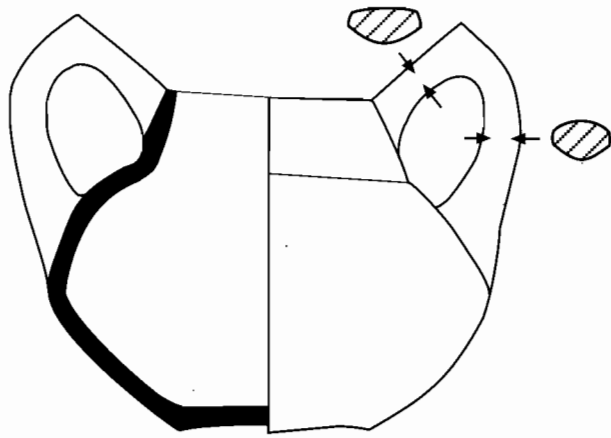
E. Inv. no. KC#331



F. Inv. no. KC#312

For Ceramic Inventory Descriptions see pp. 336-338.

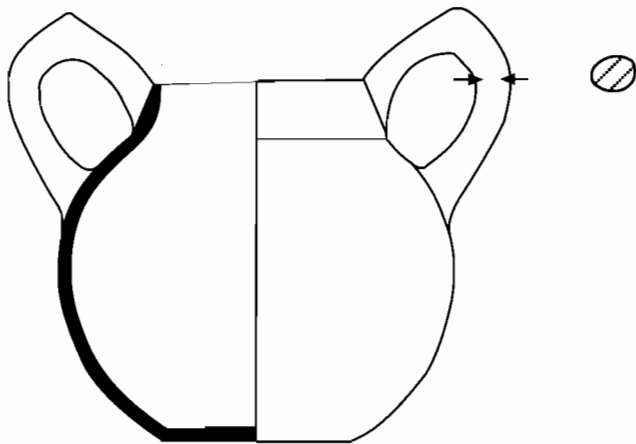
Fig. 26



A. Inv. no. KC#317



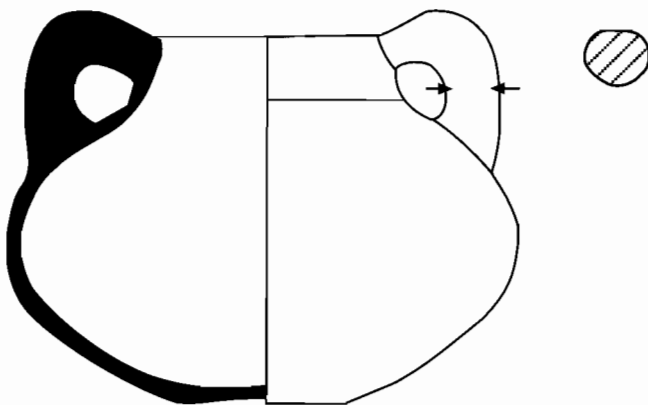
B. Inv. no. KC#317



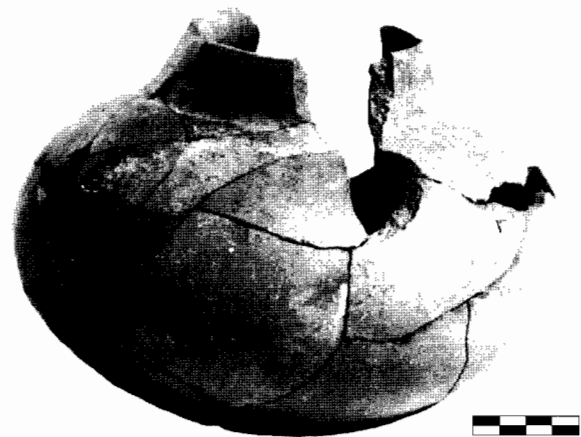
C. Inv. no. KC#303



D. Inv. no. KC#303



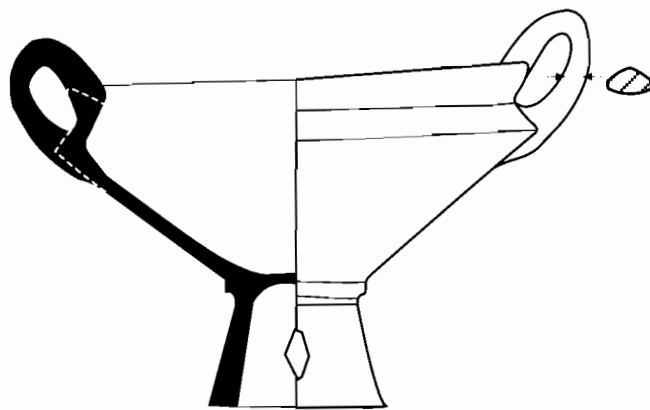
E. Inv. no. KC#305



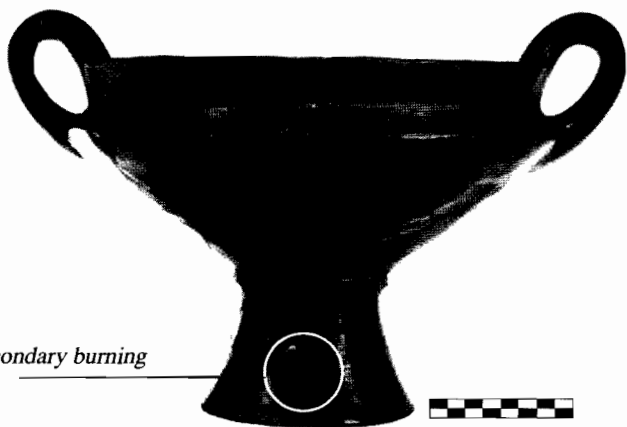
F. Inv. no. KC#305

For Ceramic Inventory Descriptions see pp.336-338.





A. Inv. no. KC#302

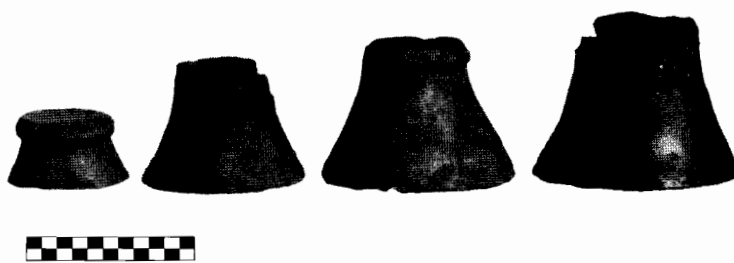


Secondary burning

B. Inv. no. KC#302



C.



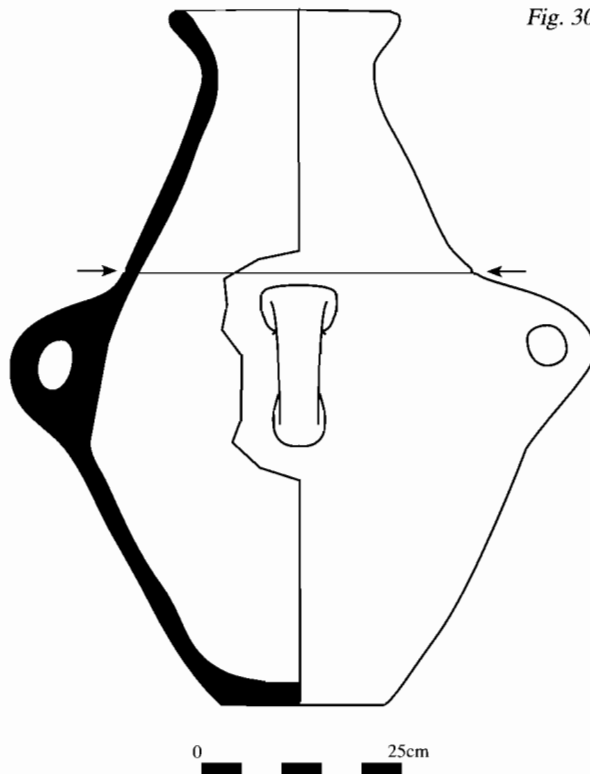
D. Kylix bases

For Ceramic Inventory Descriptions see pp.336-338.

Fig. 30



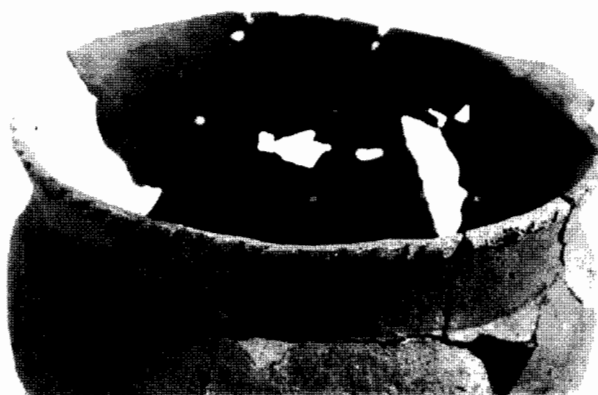
A. Type 2 amphora. Inv. no. KC#323



B. Type 2 amphora



C. Inv. no. KC#320



D. Inv. no. KC#320

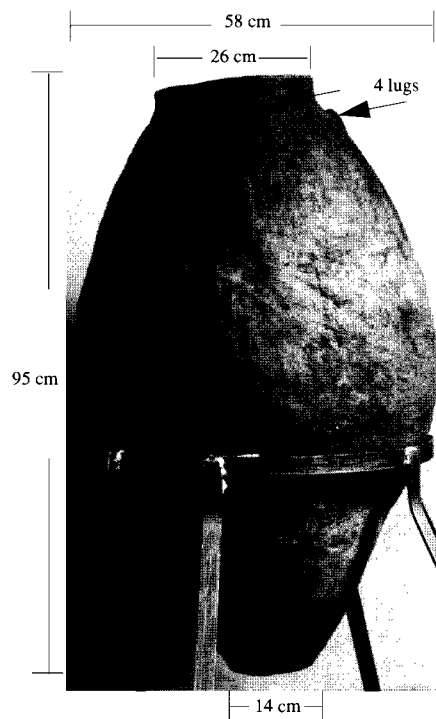
For Ceramic Inventory Descriptions see pp.336-338.



A. Pithos in situ prepared for numbering and later reconstruction. White tags are used to number joints.

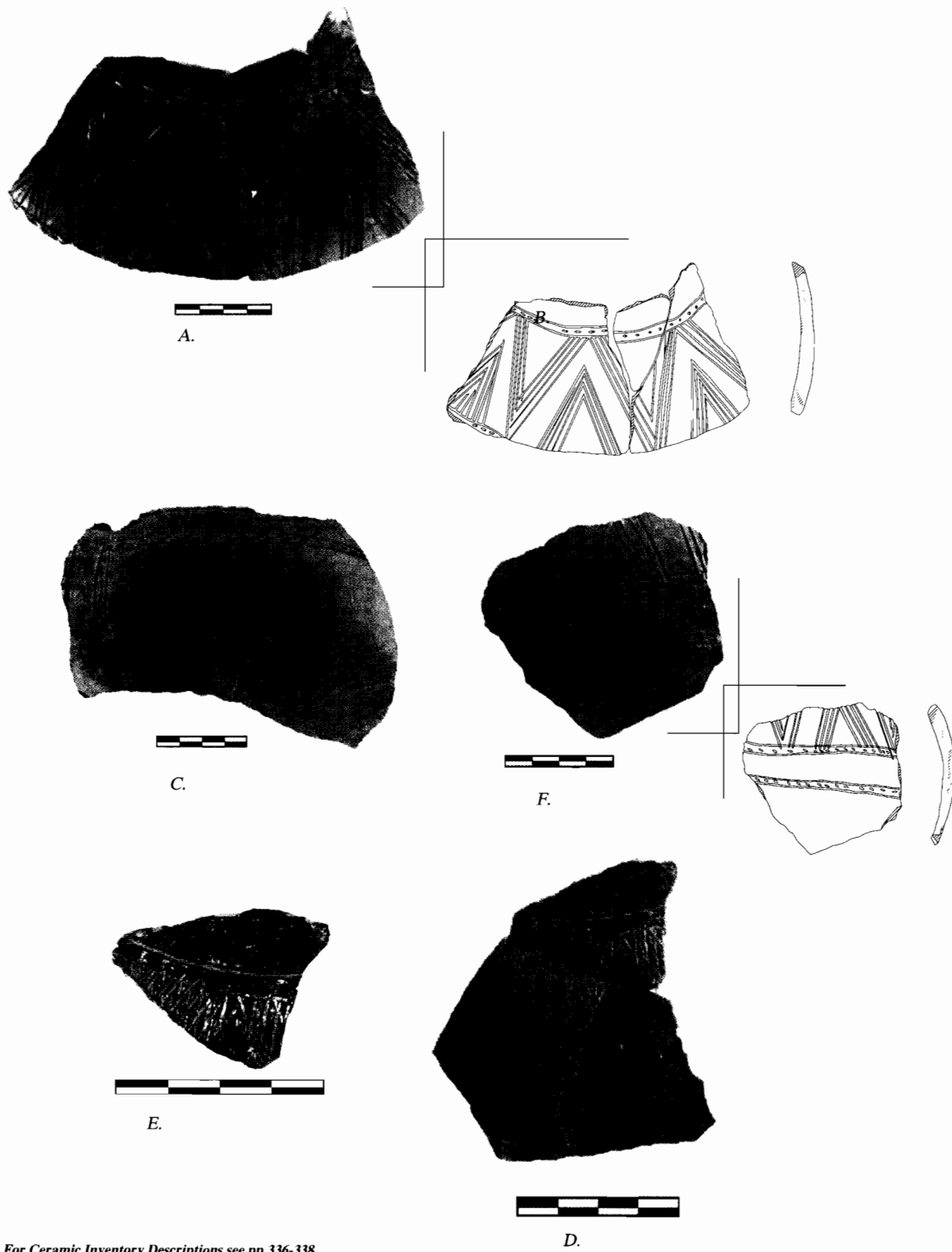


B. Pithos after removal (Also see Figs. 58; 90; 80).



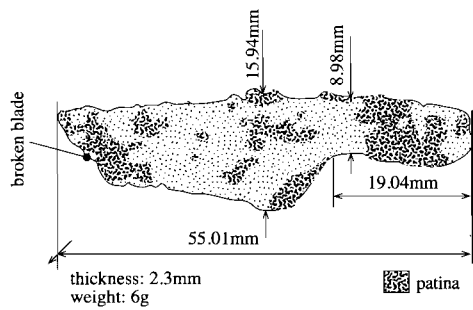
C. Pithos in museum exhibition (Historical Museum Blagoevgrad).  
Inv. no. 11.2899

Fig. 34



For Ceramic Inventory Descriptions see pp.336-338

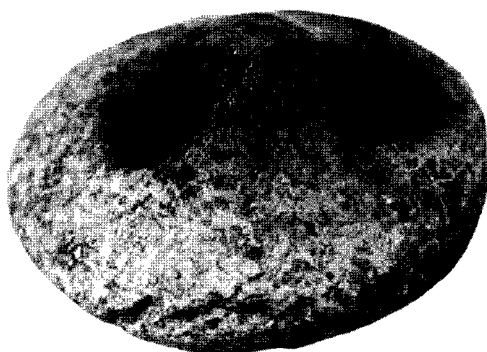
James Harvey Gaul - In memoriam



A.



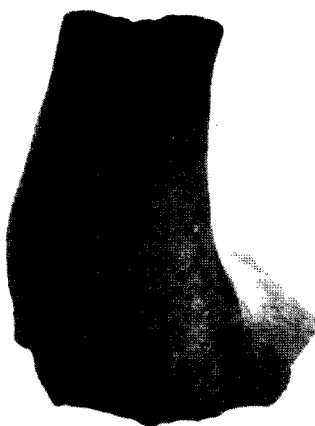
B. Copper knife.



C. Jug stopper.



D. Jug stopper.



E. Jug handle with incised decoration.



F. Jug handle with incised decoration.

Fig. 38. Remains of illicit digging in foreground, Trench 12 behind, view to the South.

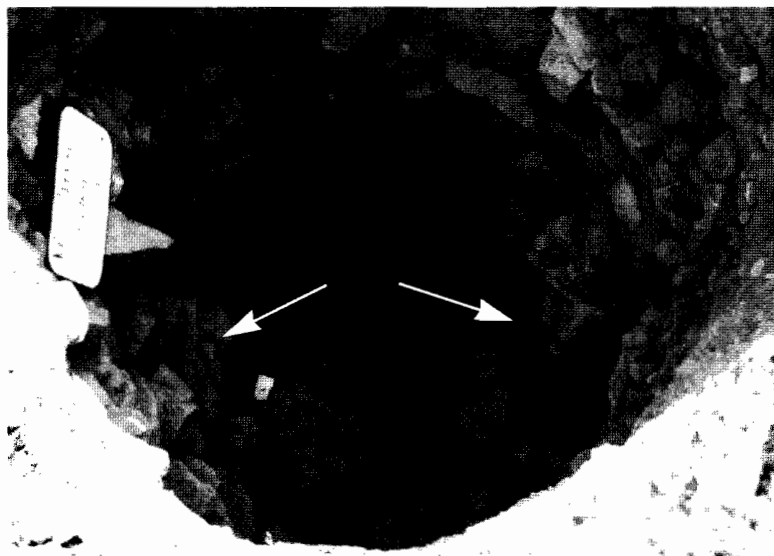
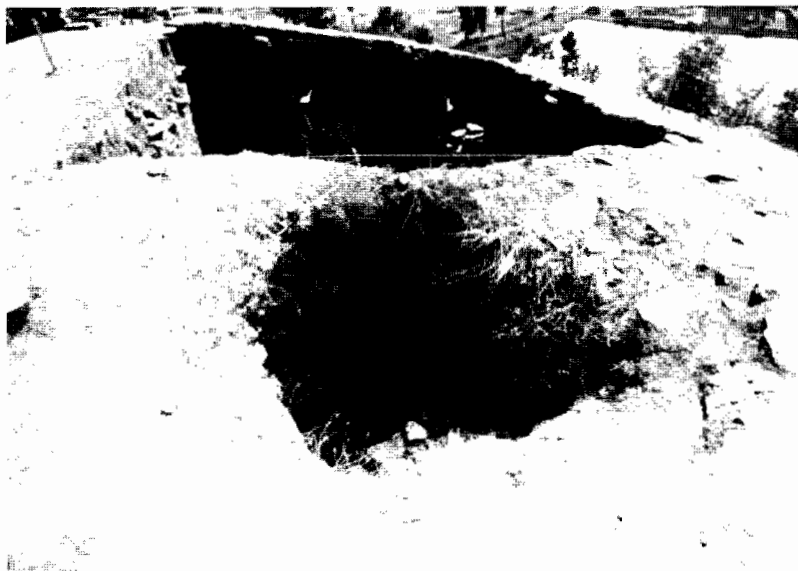


Fig. 39. Trench 3 - Robber's trench after cleaning, traces of Dividing Wall in profile.

Fig. 40. Kamenska Čuka mound in 1992 before excavation. View to the West.



Fig. 47. Trench 20 stone rubble from Wall 4 on the outside; view to the Southwest.

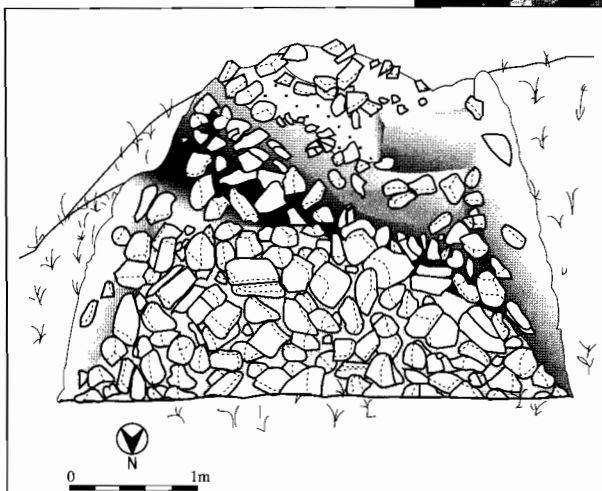
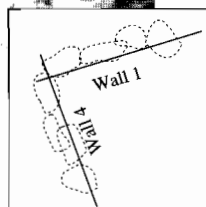


Fig. 48. Interior East corner - wall construction from individual courses of stones separated by a mud seating - Trench 14, Trench 9.



Line drawing thumbnails represent picture perspective and information.



Fig. 50. Interior of structure (Trench 22, 11, 9, 10, 7) - destruction level (Trench 10, 11) before removal of pottery sherds, daub, stones, and river boulders. View to the Southeast.

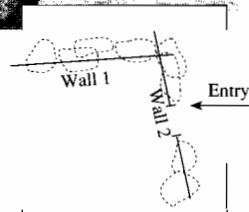
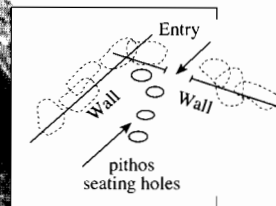


Fig. 51. Interior of structure - destruction level (Trench 10, 11) before removal of pottery sherds, daub, stones, and river boulders; view to the South. End of 1995 season.



*Line drawing thumbnails represent picture perspective and information.*

James Harvey Gaul - In memoriam





Fig. 52c. View to the Northeast of dividing wall with steps leading to second level. End of 1995 season.

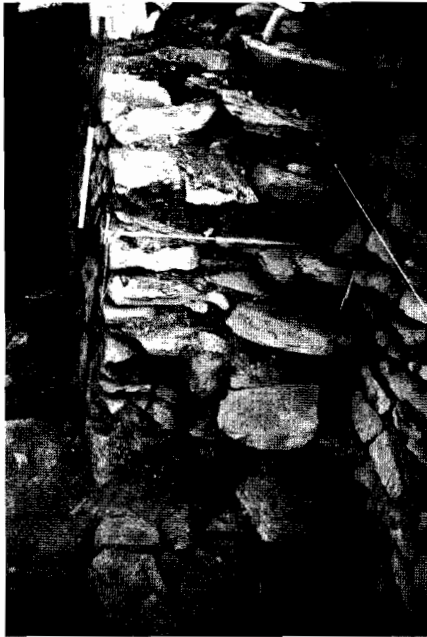


Fig. 53. View to the North - dividing wall with steps preserved to over 160 cm. See also Fig. 19.



Fig. 54. Dividing Wall with steps - view to the North; foreground pits from pithoi.

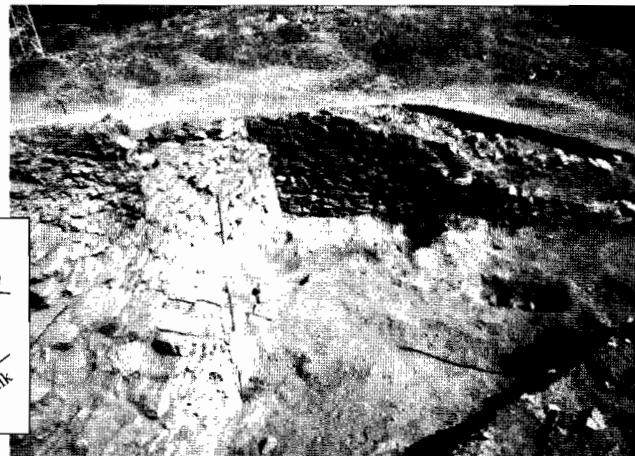
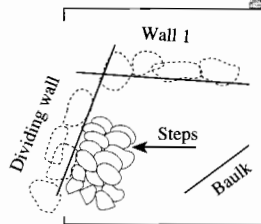


Fig. 55. Dividing Wall with steps and wall 1 - interior. - View to the Southeast.

Line drawing thumbnails represent picture perspective and information.

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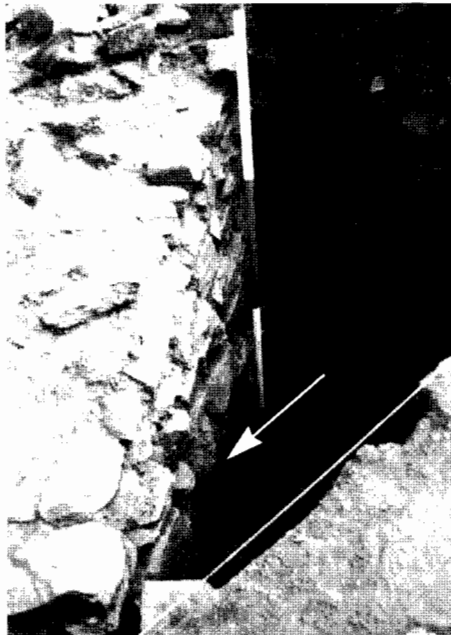


Fig. 59a. Trench 23 Wall 3. Indication of original site leveling visible below first stone course. View to the North.



Fig. 59b Trench 23 Wall 3. View to North.



Fig. 61. Trench 23 Wall 4. View to Northeast.



Fig. 60. First indications of Wall 1 outside face - Trench 6, end of 1993 season.

Line drawing thumbnails represent picture perspective and information.

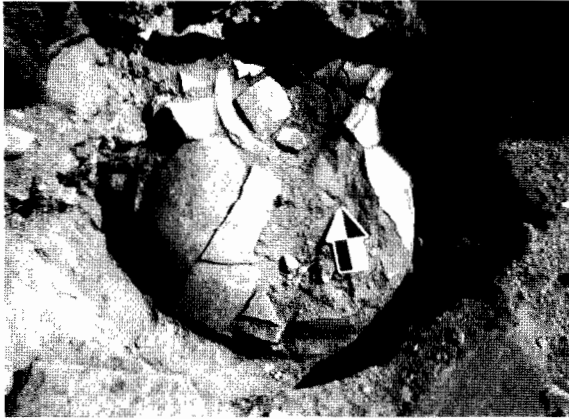


Fig. 65. Pithos in situ. Trench 10 next to Wall 2.

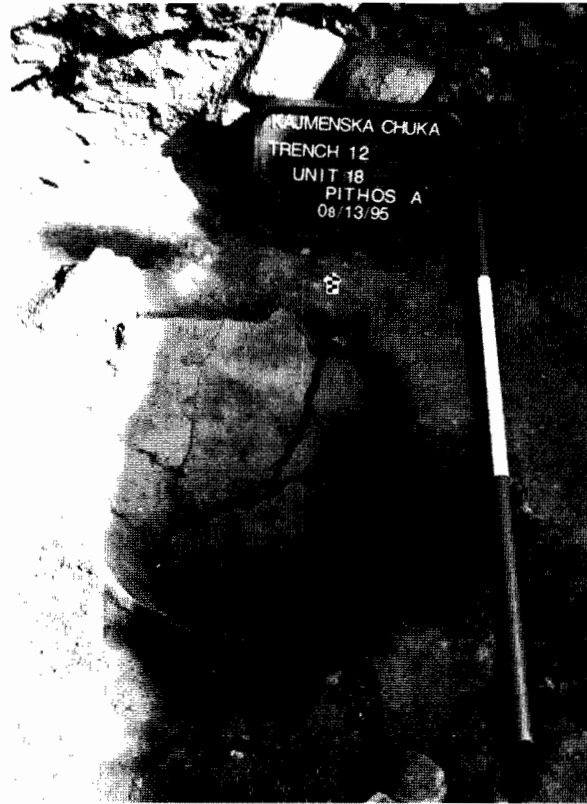


Fig. 67. Pithos in situ in Trench 12.



Fig. 66. Group of three pithoi next to Wall 1. Trench 16, view to Southeast

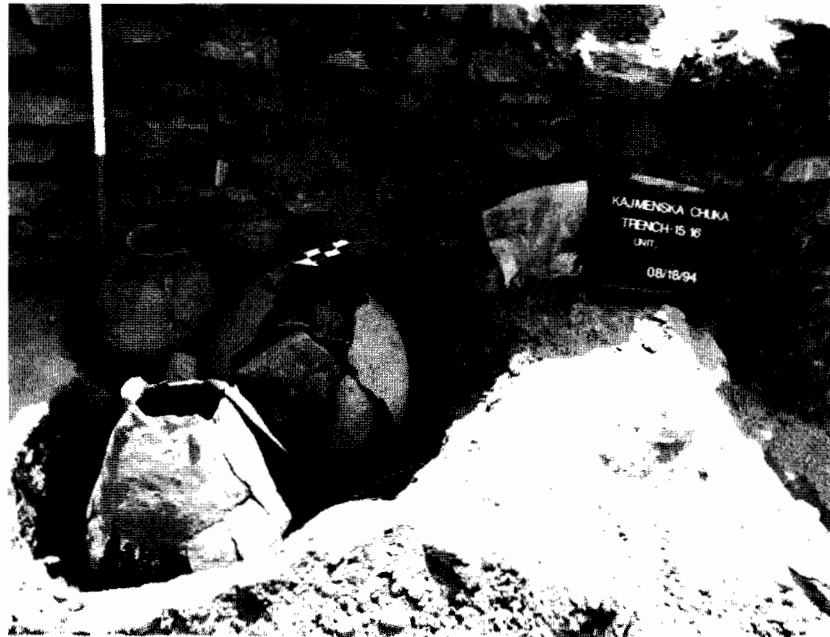


Fig. 68. Pithos group Trench 15-16 next to Wall 1. See Fig. 31 C for complete pithos.

Fig. 72. Pithos next to Wall 1, Trench 7.

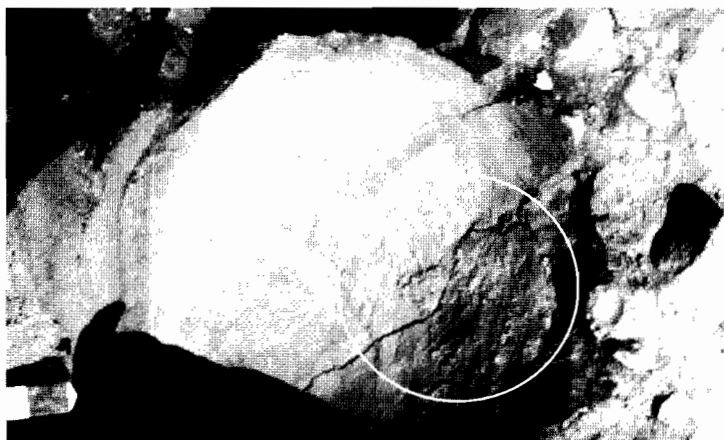


Fig. 73. Interior of damaged pithos showing traces of vessel repair. Trench 7.

Fig. 74. Destruction level with vessels, sherds, river boulders next to Wall 1, Trench 7.



Fig. 78a. Trench 9, Wall 1, wall construction with fill excavated, showing two parallel walls that were later infilled.

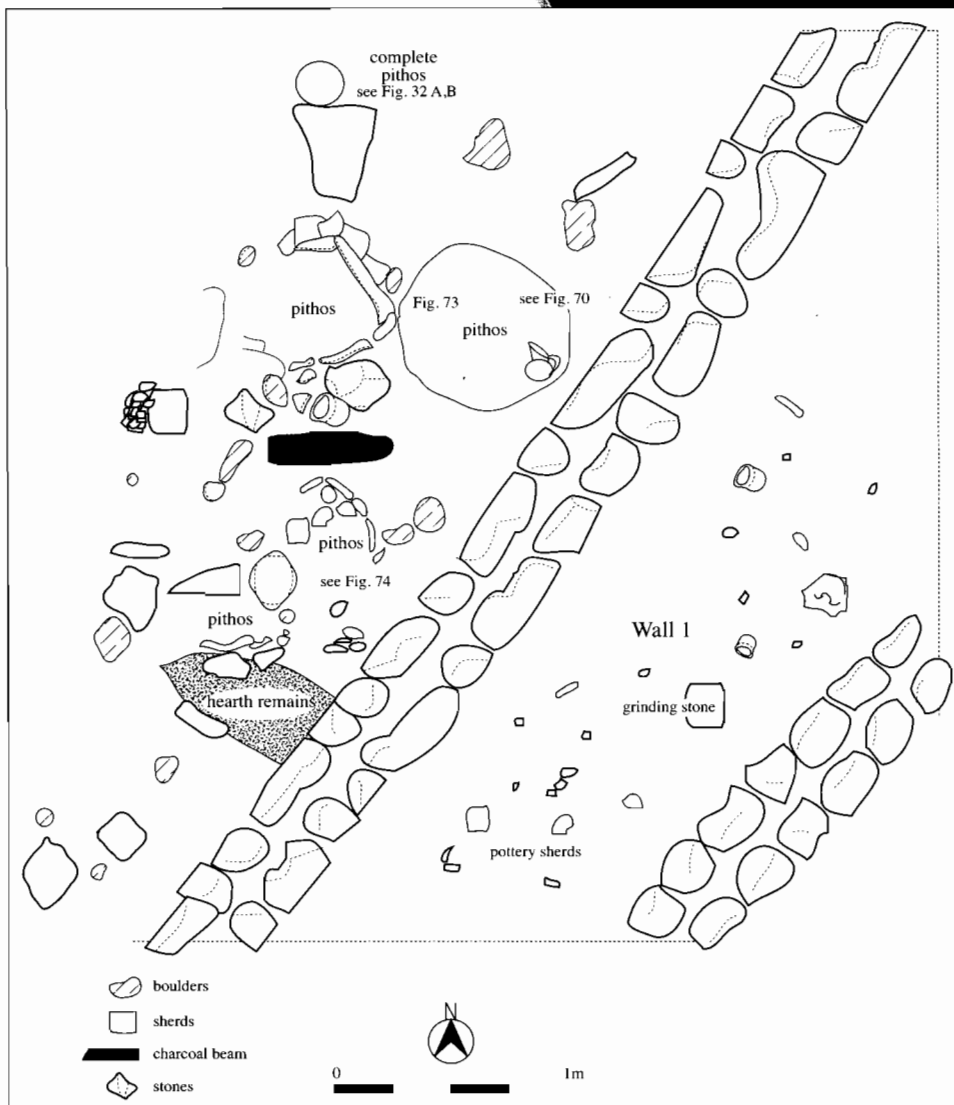


Fig. 78b. Trench 7 Unit 22-24.

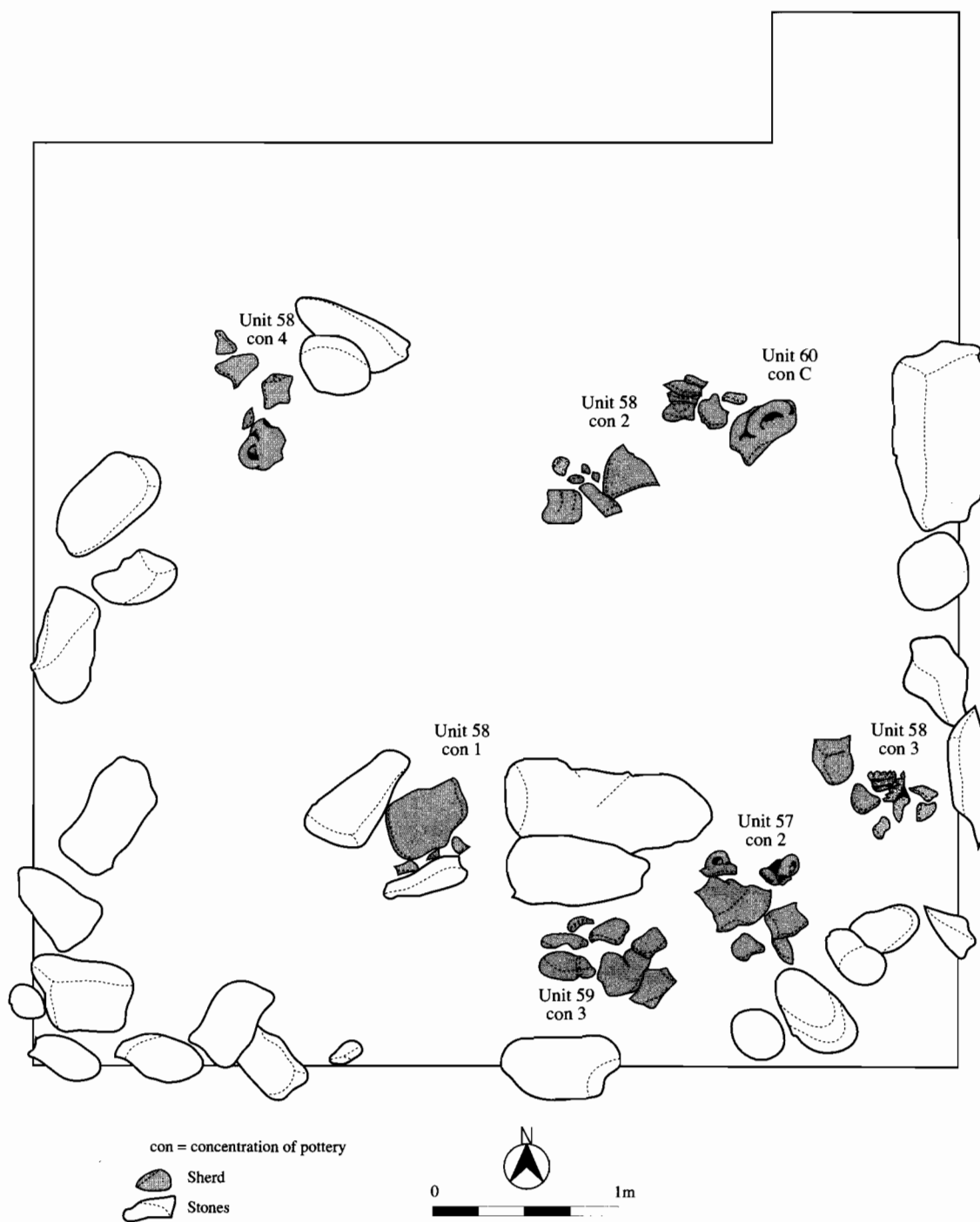


Fig. 83. Trench 11 Unit 57-60 1995 after removal of debris; first layer of destruction.

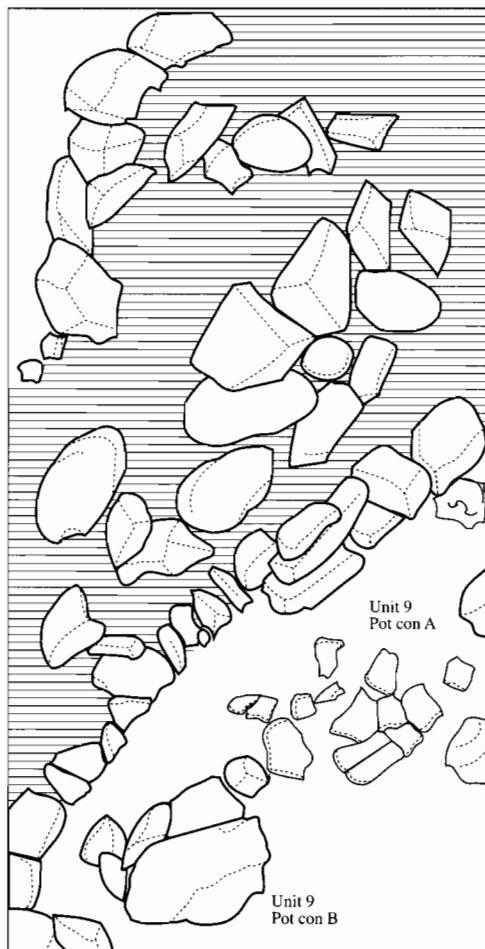


Fig. 85a. Trench 23 Unit 9, 1995 season. Pottery concentrations, isometric view, Wall 3.

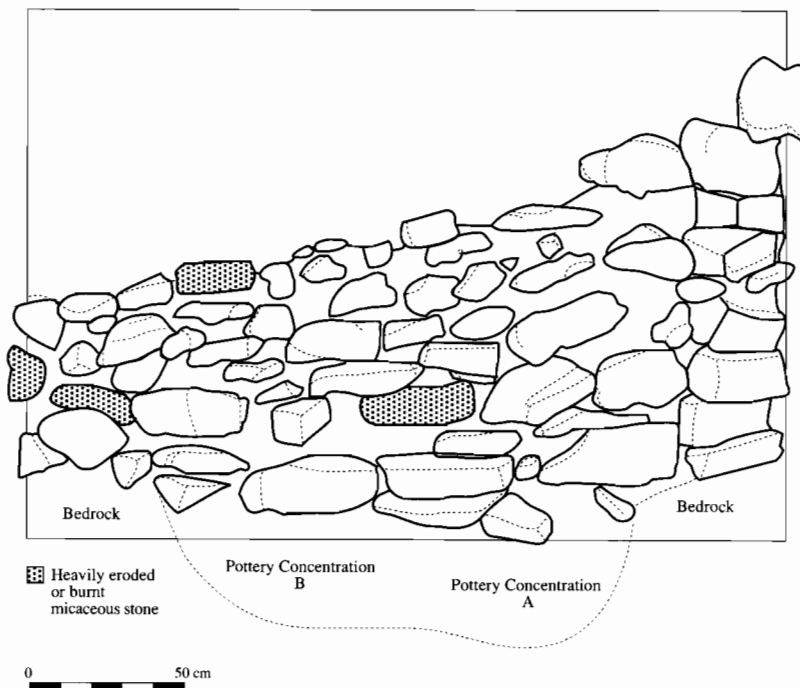
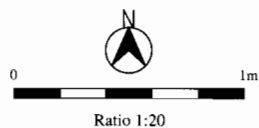


Fig. 85b. Trench 23, Wall 2. Interior face, see Figs 59a, b.

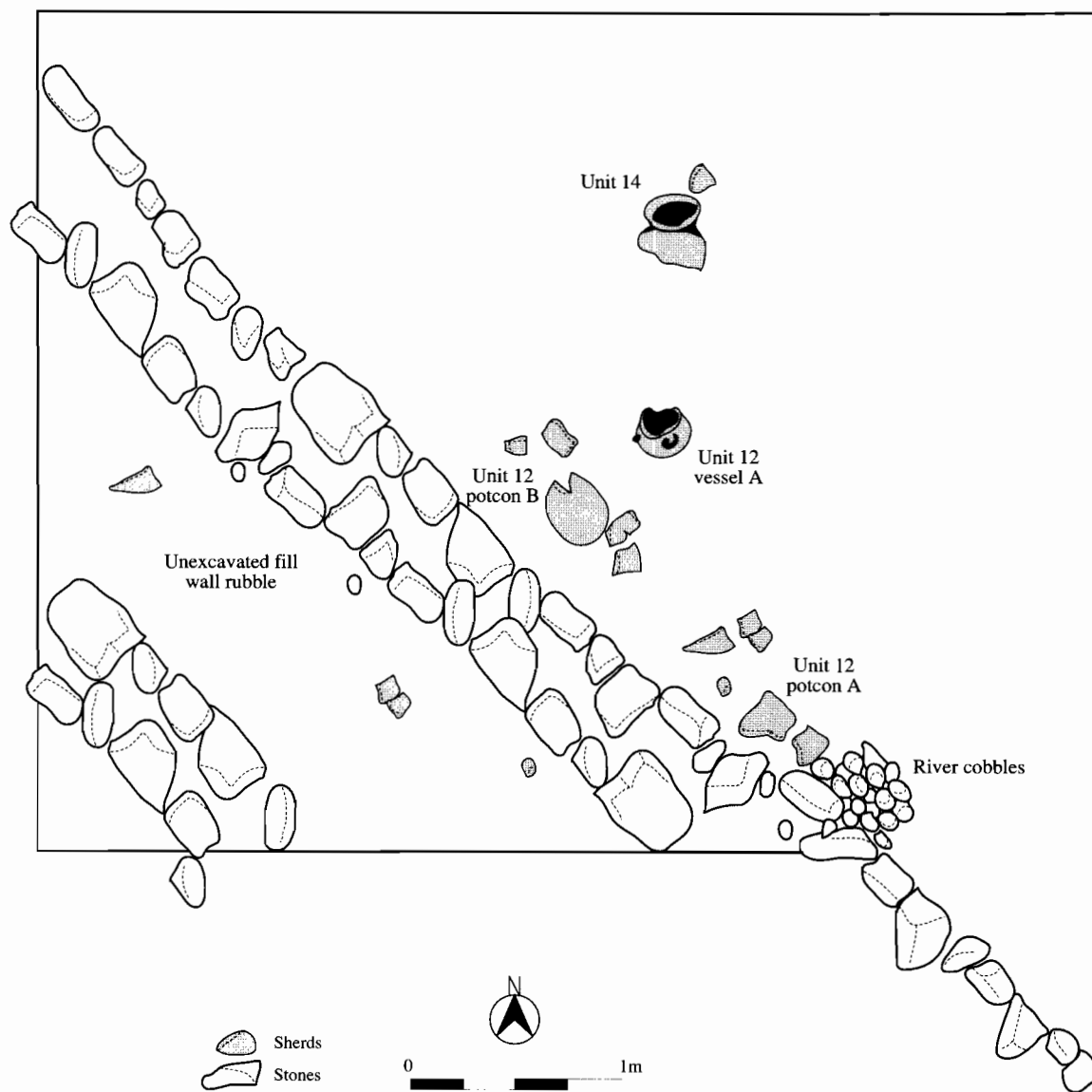
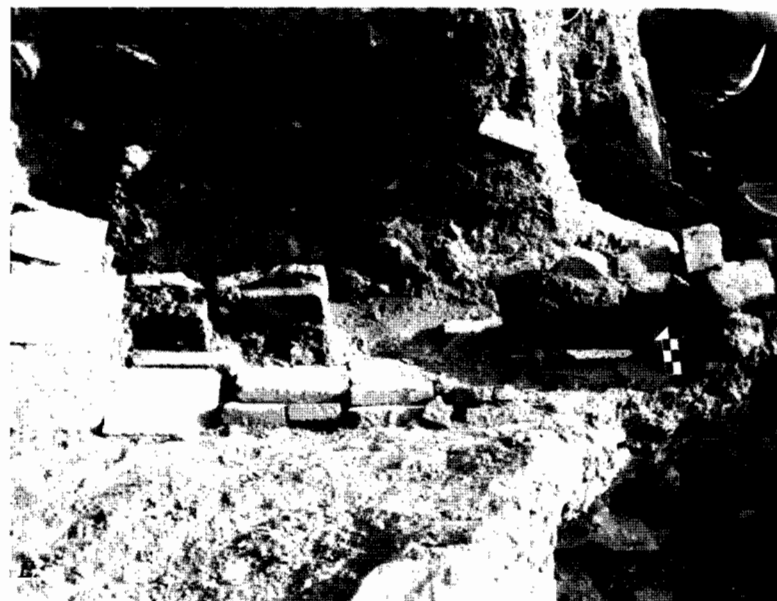
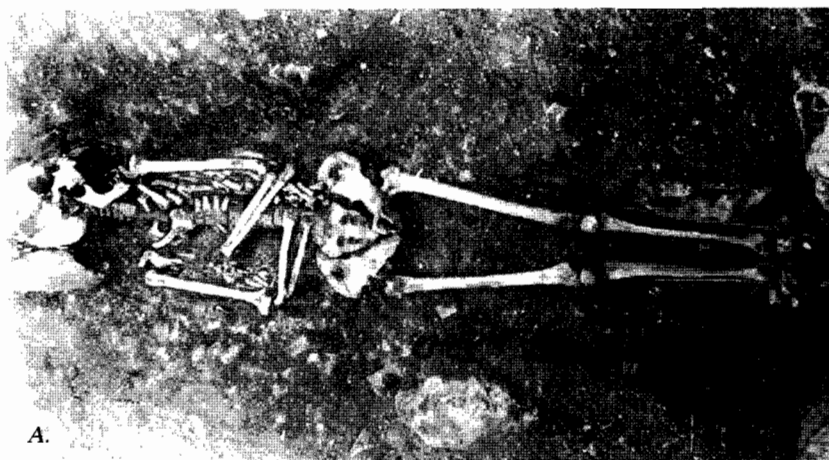


Fig. 86b. Trench 22 Wall 2 and interior after removal of collapsed wall debris.





*Fig. 89.*  
*A. Skeleton.*  
*B. After removal of skeleton.*  
*C. Bottom tiles from Roman grave.*  
*D. Upright tiles indicating tomb construction.*



*human tibia in situ from a III  
century A.D. Roman skeleton.*

*Fig.91. Trench 5, West Profile, 1993 season.*

diameter: 10.589 cm; base diameter: 6.766 cm. Description: vertical rim, slopes slightly towards handle, with rounded top; vertical handle 12.58 mm thick 19.82 mm wide with lens cross-section and round profile, starts at the rim and rises above it, ends at the shoulder; straight neck; curved shoulder; curved body; flat angular base. Surface burnished.

**Fig. 25 E.** Inv. no. KC#318 (11-2882) 2-handled pot; color: gray brown (10YR5/2); height: 21 cm; width: 12.3 cm; wall thickness: .749 cm; 2 handles; rim diameter: 8.78 cm; base diameter: 9.592 cm. Description: vertical rim with flat top; horizontal handle 22.27 mm thick 95.55 mm wide, starts at the shoulder; curved shoulder; curved body; angular base; shows deformation from secondary firing. Surface originally well burnished, but slightly rough due to secondary firing.

**Fig. 26 A-B.** Inv. no. KC#317 (11-2881) 2-handled pot; color: black (2.5Y2.5/1); height: 14.4 cm; width: 15.8 cm; wall thickness: .5 cm; 2 handles; rim diameter: 8 cm; base diameter: 7 cm. Description: sloped in rim with rounded top; vertical handle 14.24 mm thick 20.46 mm wide with D-shaped cross-section and angular profile, starts at the rim and rises above it, ends at the shoulder; curved in neck; curved shoulder; spherical body; slightly rounded base.

**Fig. 26 C-D.** Inv. no. KC#303 (11-2867) 2-handled pot; color: light brown (10YR6/3); height: 14.813 cm; width: 1.4244 cm; wall thickness: .491 cm; 2 handles; rim diameter: 7.444 cm; base diameter: 6.369 cm. Description: sloped in rim with rounded top; 15.28 mm vertical handle with D-shaped cross-section and angular profile, starts at the rim and rises above it, ends at the shoulder; straight neck; curved shoulder; spherical body; flat base. Surface burnished.

**Fig. 26 E-F.** Inv. no. KC#305 (11-2869) 2-handled pot; color: dark brown (10YR3/3); height: 13.861 cm; width: 19.7 cm; wall thickness: .601 cm; 2 handles; rim diameter: 8.895 cm; base diameter: 6.582 cm. Description: vertical rim with rounded top; straight neck; curved shoulder; spherical body; flat base; 2 broken handle connection points - reconstructed. Surface well burnished. Vessel is whole.

**Fig. 27 A-B.** Inv. no. KC#306 (11-2870) pot with 4 suspension lugs; color: reddish brown (7.5YR); height: 13.2 cm; width: 16.1 cm; wall thickness: .526 cm rim diameter: 7.7 cm; base diameter: 7.1 cm. Description: vertical rim with rounded top; lug 7.68 mm thick 22.74 mm wide with tongue-like cross-section, vertically perforated, located on shoulder and pointing up; straight neck; curved shoulder; spherical body; slightly rounded base. Cover disk with two perforations for suspension. Partial crack in body due to secondary firing. Surface well burnished. Vessel is whole.

**Fig. 27 C-D.** Inv. no. KC#304 (11-2868) pot; color: refired red (5YR6/8); height: 10.525 cm; width: 14.988 cm; wall thickness: .735 cm; 4 lugs; rim diameter: 12.895 cm; base diameter: 5.923 cm. Description: braced in vertical rim with beveled in top; vertical lugs 18.07 mm wide with triangular cross-section, located on shoulder and level; straight neck; biconical shoulder; curved body; slightly flanged base. Vessel is whole.

**Fig. 28 A-B.** Inv. no. KC#302 (11-2866) kylix; color: light brown (10YR6/3); height: 21.1 cm; width: 26.2 cm; wall thickness: .756 cm; 2 handles; rim diameter: 25.62 cm; base diameter: 12.81 cm. Description: sloped out rim with beveled out top; vertical handle with D-shaped cross-section and round profile, starts at the rim and rises above it, ends at the