ENEOLITHIC CULTURES OF CENTRAL AND WEST BALKANS

Nikola Tasić

ДРАГАНИЋ

I dedicate this book to my friends
and teachers:

Academician VASA ČUBRILOVIĆ
Academician ALOJZ BENAC
Professor STOJAN DIMITRIJEVIĆ

INSTITUTE FOR BALKAN STUDIES
Serbian Academy of Sciences and Arts - Special edition No. 61

in association with

Publishing House DRAGANIĆ -The Heritage Series

Editor
Academician Milutin Garašanin

General editor of the series
Dragoslav Antonijević
Corresponding member of the SASA

BELGRADE 1995

NIKOLA TASIĆ

ENEOLITHIC CULTURES OF CENTRAL AND WEST BALKANS

BELGRADE 1995

Reviewer
Academician Milutin Garašanin

English translation
Ivana Đorđević (pp. 9-93)
Nenad Tasić (pp. 103-175)

Proof-readers
Marina Adamović
Nenad Tasić

Layout
Nenad Tasić

Drawings
Plates I-XLIII Sead Čerkez (from PJZ III, 1979)
Figs. in the chapter Register... Snežana Bekrić

Published by
The "DRAGANIĆ" Co.

The publication of this book has been financially supported by
the Ministry for Sciences and Technology of the Republic of Serbia,
The Research Funds of the SERBIAN ACADEMY of SCIENCES and ARTS
and
"MADLENA JANKOVIĆ FOUNDATION"

CONTENTS

PREFACE

The noble wish of Alojz Benac, the originator of the five-volume Serbo-Croat version of the Prehistory of the Yugoslav Lands (Sarajevo 1979; 1983; 1987) was to produce a book which would give a synthetic account of that subject not only in Serbo-Croat, but also in English and German. This wish, we are sorry to say, has not been fulfilled. A. Benac's death and, later, the disintegration of former Yugoslavia have prevented the completion of that project. By that time, some authors had already finished their manuscripts, and some others were still working on their portions of the text. According to the editor's arrangement, the texts for the English edition were to be written by Mitja Brodar ("The Palaeolithic"), Alojz Benac ("The Neolithic"), Nikola Tasić ("The Eneolithic"); Borivoje Čović ("The Bronze Age", apart from the Pannonian region, which was to be discussed by Nikola Tasić); and Milutin Garašanin ("The Iron Age"). The Editorial Board made certain general guide-lines for the authors. They were mostly based on the methodology used in the original Serbo-Croat edition of the Prehistory of the Yugoslav Lands. The illustrative material was reduced, but it was also updated with new drawings, plans and charts. Unfortunately, this part of the work seems to have been lost in the tragic developments which have afflicted parts of the former Yugoslavia, especially Sarajevo and the Centre for Balkanological Research, in which the documentation was kept.

The author of this book on the Eneolithic of Yugoslavia submitted his text to the Editorial Board as early as 1987. He was given valuable comments and suggestions by A. Benac, B. Čović and M. Garašanin. In the meantime, the unfortunate events mentioned above have shown that the projected English edition is not likely to be produced in the near future, and therefore he has decided to update his text and publish it as a separate monograph.

What are the most notable changes and additions in the present text? First of all, the former administrative entity (the Socialist Federative Republic of Yugosla-

via) exists no longer, and therefore the earlier title has been replaced by the term "The Central and Western Balkan", which is not fully adequate, but which does cover approximately the territory of former Yugoslavia. The book discusses four regional wholes as in the original Prehistory of the Yugoslav Lands (Vol. III): the south Pannonian region, the central Balkan region, the Alpine region and the Adriatic region. The two former regions belong to the central Balkans, and the two latter ones to the western part of the Balkan region. In view of the character and the development of the individual Eneolithic culture (the Kostolac culture, and particularly, the Vučedol culture), which extended over more than one region, this approach seemed appropriate. In order to avoid long descriptive expressions, the text uses terms such as "former", or "previous" Yugoslavia, and it is hoped that the well-meaning reader will accept them in the sense in which they are used.

Another important modification of the original text is the addition of the second part, which contains a list of the fifty most important Eneolithic sites in the regions. It includes those that have been used by the author for the synthetic part of his text, those are archaeological material from which is well known to the author. Since 1990, which may be considered the upper chronological limit of the greater portion of the text, a number of major Eneolithic sites have been explored, especially in the western parts of the Balkan Peninsula, but they have not been discussed here either because they have not been fully published of because of evidence on their chronology and cultural traits is still not available. It may be observed that the list of sites shows considerable regional variations as regards their distribution. It should be added, besides, that these regions have not been explored equally thoroughly: for example, the sites in Slavonia, Srem or Pelagonia are considerably better known than those in Istria, on the Adriatic coastline or Herzegovina.

The illustrations used in the book are of various origin, and that is specified in the appropriate place. The tables are mostly those used in Vol. III of the Prehistory of the Yugoslav Lands, and they were made by Sead Čerkez after the instructions of N. Tasić, S. Dimitrijević and B. Jovanović. They have been complemented by a few drawings made for the English edition by Elma Bučo from the Centre for Balkanological Research of the Academy of Science and Arts of Bosnia and Herzegovina. The drawings in the chapter on the sites have been made by Snežana Bekrić.

INTRODUCTION

The study of Eneolithic sites and cultures, and of the Eneolithic in general, does not have a long tradition in former Yugoslavia. If we take as its starting point the systematic excavations of Ig (Ljubljansko Barje) carried out by K. Deschman in 1875[1] we are left with a period of some 120 years. Extensive material has been collected during that time, relating to Eneolithic settlements and necropolises, the material and non-material culture of the period, the relative and absolute dating of the cultures, cultural groups, and their variants, as well as the period as a whole, so that it is now possible to offer a fairly accurate synthetic survey of the development of the cultures, their stylistic and typological features.

Deschman's research was followed by the investigation of other Eneolithic sites, most notably by F. Fiala at Debelo Brdo (1893), J. Brunschmidt at Sarvaš (1897) and Vučedol (1898), Vohalski at Gomolava (1904), M. Vasić at Kostolac (1906) and Vinča (1908), F. Milleker's many smaller-scale excavations in southern Banat in the late nineteenth century and the first decades of the twentieth, and many others.[2] Ljubljansko Barje, Vučedol, Vinča, and Bubanj excepted, the first large-scale and systematic excavations were to take place only after World War II: at Gomolava, Hrustovača, Vinkovci, Zecovi, Ravlića Pećina, Grapčeva Špilja, Gudnja, Vela Luka, Odmut, several sites in Pelagonia, Hisar and Lipljan in Kosovo, Ajdovska jama in Slovenia, and elsewhere. This survey of the Eneolithic in the Yugoslav Danube Basin, and the central and western Balkans is based on material gathered at these sites.

In addition to archaeological excavations and the collecting of archaeological data, the nineteen-thirties saw the first attempts at systematizing the material from the Eneolithic sites and drawing up a periodization of the Eneolithic cultures. These attempts are to be found in the first volumes of what

was then a ground-breaking series, the "Corpus vasorum antiquorum", chiefly the 1937 volumes by N. Vulić and M. Grbić dealing with the material contained in Belgrade's Prince Paul Museum (Muzej Kneza Pavla)[3] and, to a lesser extent, V. Hoffiller's volumes of 1933, devoted to Vučedol, and 1938, publishing the results of excavations at Sarvaš, Dalj, and Velika Gorica.[4] A more thorough systematization of the Eneolithic cultures and their relative chronology became available only with the works of V. Milojčić (1949), M. Garašanin (1959), A. Benac (1962), S. Dimitrijević (1961), N. Tasić (1967) and, of course, comprehensive monographs such as *The Prehistory of Serbia* by M. Garašanin and *The Prehistory of Vojvodina* by B. Brukner, B. Jovanović, and N. Tasić.[5] These synthetic works, numerous studies, articles and papers, excavation reports, and unpublished material, served as a basis for the five volumes of *The Prehistory of Yugoslavia,* whose third volume (by N. Tasić, S. Dimitrijević, and B. Jovanović) is devoted to the Eneolithic cultures of former Yugoslavia.[6] The present text is, in a sense, a summary of that volume, which have been updated with the information on recent excavations and recent insights of domestic and foreign scholars relating to the Eneolithic in Central and Southeast Europe.

***

The terms *Eneolithic*, *Copper Age* and *The Period of Transition Between the Neolithic and the Bronze Age* are all used in archaeological literature;[7] we have opted for the term Eneolithic, not so much because it was the most appropriate to the period under consideration but because it best suits the general outline of the book and is the most frequently used in recent literature. Of course, we could very well have used the term Copper Age, but not The Period of Transition for it implies shorter duration of the epoch and a transitional nature of cultures, which is by no means true of the Eneolithic cultures, especially Baden, Kostolac, Vučedol, and least of all the Culture of Tumuli (Pit-grave culture) in the Danubian region. The main reason for singling out the Eneolithic as a period in its own right is provided by the new categories that emerged during that period, characterized by changes in the economy of prehistoric society (advanced development of stock-breeding), the emergence and development of mining and primary metallurgy (the extraction and use of copper ores), the appearance of crafts in connection with the manufacture of copper artefacts, the stratification of Neolithic society, the emergence of new populations, especially in the northeastern parts of the Balkan Peninsula, etc. However, the transition from the Neolithic Age to the Eneolithic was not in itself abrupt, with cultures and their bearers succeeding each other in a clear-cut way. It was a gradual and long-lasting process, which started midway through the development of the Neolithic agrarian cultures of the Vinča, Lengyel, Butmir and Theiss (Tisza) types, and lasted as long as the cultures themselves. These were superseded by the first true Copper-Age (Eneolithic) cultures, in which the extraction and processing of copper, the manufacture of artefacts and their exchange (initial trade) assumed the nature of economic categories. In the Balkans the "Eneolithicization" of the Neolithic cultures was

not a uniform process, either chronologically or geographically. Depending on the strength of the indigenous base, the geographic features of the land, and the intensity of outside influences (from the Carpathian Basin, the north Pontus, or the Aegean), some regions were quicker to accept innovation, especially in the field of prehistoric economy. Two factors particularly promoted the "Eneolithicization" of the cultures in eastern and central parts: the swift development of the mining and processing of copper and gold in the "circum-Pontic zone", especially in the eastern Balkans (the mines of Ruk Bair and Rudna Glava, the horizon of gold finds of the Varna type, etc.) on the one hand and, on the other, Indo-European nomadic migrations from the steppes. This is why the beginnings of the nomadic settlements of the Bubanj-Salcuta-Krivodol type in eastern Serbia coincided with the continued existence of the Late Vinča culture (Vinča D horizon) in the Sava, Danube and lower Morava basins and of the even later Lengyel (Sopot) culture in Srem and Slavonia.

As regards the cultural-historical processes in the central and western Balkans, the mapping of the sites and the delimitation of the various Eneolithic cultures have revealed specific features in the continuous development in particular geographic entities or, to be more precise, four main zones: southern Pannonia, the central Balkans, the Adriatic, and the Alpine slopes. With some minor oscillations, the cultures and styles there succeed each other in a continuum, thus laying the foundations for future palaeoethnic entities which were to develop their distinctive features in the first millenium B.C. Of course, the boundaries of these zones did not remain static throughout the Eneolithic. Some cultures would occasionally encroach on others but, with time, integrative processes grew stronger and were most apparent at the time of the Vučedol culture. Nevertheless, regional development remains one of the main determinants of the continuity of the existence of autochthonous cultures and their successors over a lengthy period of time (e.g. Baden-Kostolac-Vučedol in southern Pannonia). The cultural-geographic zones would thus be the following:

a) *The south Pannonian zone* includes the Yugoslav Danube Basin and, in the words of J.Cvijić,[8] the hinterland gravitating to it: lower courses of the Drava, the Sava, the Velika Morava, the Tisza, and the Timok rivers. During the Eneolithic this was mostly a zone of transmission between the cultures of the Pannonian Plain and the central Balkans, and vice versa. By its cultural-historical development it is related to the Tiszapolgár-Bodrogkeresztúr complex (the central and eastern parts) and, to a lesser extent, to Lengyel and post-Lengyel developments (the western parts), with the possible addition of the Lasinja (Balaton-Lasinja I) culture. In the second half of the Eneolithic period, from the establishment of the Cernavoda III-Boleráz culture to the Baden, Kostolac, and Vučedol cultures, the region became integrated into a wider Pannonian-Balkan area which also attracted the Alpine and Adriatic zones during the final stages of the Vučedol culture.

Map I

b) *The central Balkan zone* consists of the mountainous parts of former

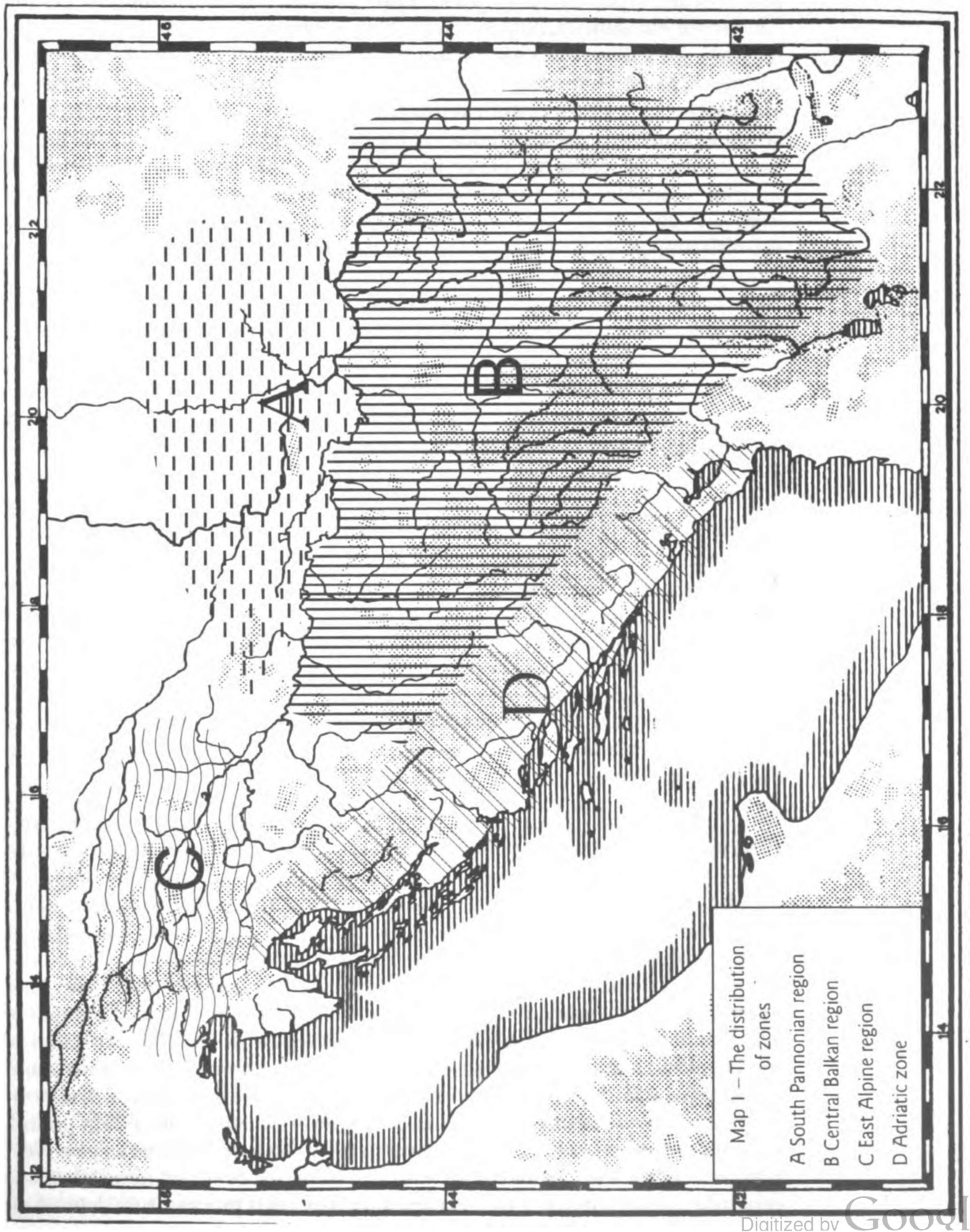
Yugoslavia, with Bosnia, most of Serbia, and Kosovo forming its nucleus. Here the continuity of cultural development is not as clear as in, say, southern Pannonia, as the region had frequently been exposed to encroachment by already formed cultures, most often from the north or northeast. In the Early Eneolithic the Bubanj-Salcuta-Krivodol complex developed in the eastern reaches of the region (sites in eastern Serbia and Kosovo), while Kostolac and, afterwards, Vučedol cultures predominated in the late phase. Owing to the mountainous nature of the region, there was intensive movement of nomadic stock-breeders, especially along the line stretching from the Carpathians to Homolje, Mts. Kopaonik and Šara, and the Pindus.[9] The northern parts of this zone were also, no doubt, characterized by transhumance between the Sava valley and the mountainous parts of northern Bosnia, as testified to by Pivnica-type Kostolac sites or Vis-type Lasinja sites near Modran (Derventa). [10] The same relationships are to be observed in the southern part of the zone, between the Adriatic coast and its hinterland (Ravlića pećina, Hatveljska pećina, etc.), especially since the recent excavation work in Herzegovina.[11]

c) *The Alpine slopes zone* or, to be more precise, the southeast Alpine region, include Slovenia and most of northwest Croatia. In the Early Eneolithic the cultures of the region lay under a strong west-Pannonian influence, especially that of the Lengyel and Balaton-Lasinja cultures. In the latter half of the Eneolithic the Vučedol culture exerted a powerful influence, most particularly on the formation of the Ljubljansko Barje (Ig I) culture and, less decisively, on the emergence of the Ljubljana culture.[12] The continuity of development and the more specific nature of the different cultures are more pronounced in the latter part of the Eneolithic rather than in its early stages, when the Lengyel culture and the "Alpine facies of Lengyel" were merely regional variants of their parental cultures: Lengyel, Balaton-Lasinja I. One of the factors to have influenced this was the strong development of copper metallurgy, testified to by the many finds of both copper tools and moulds used in their casting (Ljubljansko Barje).

d) *The Adriatic zone* encompasses a long and narrow strip of land along the Adriatic sea, from Istria in the north to the Skadarsko Lake in the south. Recent excavations in the hinterland (Herzegovina) have shown that some areas north of the Dinaric range also gravitate to it. The cultures of the region display greater independence and point to a continuity of development from the Hvar culture to the proto-Nakovana and the Nakovana cultures. As elsewhere, this continuity was disrupted by the expansion of the Vučedol style, i.e. the Ljubljana culture, as evidenced by sites such as Tivat and Rubež, pottery of the kind found at Grapčeva špilja, from the early phase of the Cetina culture, or the Istrian sites, including the caves in the Gulf of Trieste (Grotta dei Ciclami, etc.).

*

The chronological framework for the study of the emergence and development of Eneolithic cultures in this book is something of a problem, especially in dealing with the beginning of the period under consideration. In



recent years, especially since the discovery of the prehistoric mine at Rudna Glava near Majdanpek, but also on the basis of the presence of copper artefacts at Vinča sites (Pločnik, Vinča, Fafos near Kosovska Mitrovica, Gornja Tuzla) and necropolises (grave no. 12 at Gomolava), there has been a tendency to include the later Vinča culture in the Eneolithic period,[13] i.e. to shift the upper chronological limit to the middle of the fourth millennium B.C. Vinča-type pottery from the platforms of the Rudna Glava mine dates from the period of transition between the earlier and later Vinča cultures; the copper bracelet from the grave no. 12 at Gomolava and the copper beads found at the same site also support such a dating. These and many other copper finds of a similar kind have placed the present writer in a quandary: should the Eneolithic period begin with the much later Vinča culture or, as is usual, with Tiszapolgár, Bubanj-Salcuta, Lasinja, or proto-Nakovana? We have opted for the latter approach, even though quite a few "Neolithic agrarian cultures" of the Lengyel, Vinča, Theiss, and Hvar types partly belong to the Eneolithic period.

Pl. I, 4-7

The upper chronological limit of the Eneolithic in the central and western Balkans is more clearly drawn, although some problems remain there, especially as regards the post-Vučedol cultures of the Adriatic or Ljubljansko Barje. In most cases the "disintegration of the Vučedol cultural complex" and the formation of new post-Vučedol cultures such as Kosihy, Čaka, Makó, Ljubljana, the early Cetina, etc., marks the end of the Eneolithic and the beginning of the Early Bronze Age. This phase was not included in P. Reinecke's periodization, but it is to be found in most of the more recent publications dealing the subject (cf. *Kulturen Der Frühbronzezeit des Karpatenbeckens und Nordbalkans*). In terms of absolute chronology, the end of the third and beginning of the second millennium B.C. can be taken as the end of the Eneolithic in the central and western Balkans. We have thus established a chronological framework of some 1,000 years for the Eneolithic cultures, from the late fourth to the late third millennium B.C.

There have been several attempts to systematize the phases of development of the Eneolithic in the Balkans on the basis of either the cultural-historical picture of the period or the economic features of individual cultures. The Eneolithic could thus be divided into: Early and Late Eneolithic; Early, Middle, and Late Eneolithic; there is (or was) also a view of the Eneolithic as a brief period of transition between the Neolithic and the Metal Age.[14] In recent literature the Eneolithic is usually divided into the Early, Middle, and Late phases, and this ternary division has also been applied in the third volume of *The Prehistory of Yugoslavia*. The *Early Eneolithic* saw the further evolution of the Neolithic cultures which were familiar with copper and its processing and produced copper jewellery, weapons, and tools, but whose material and non-material culture preserved the chief characteristics of the preceding period. Owing to these characteristics we tend to refer to these cultures as *post-Neolithic*, i.e. cultures whose evolution from the Neolithic to other, new styles, was generally smooth. In the Yugoslav Danube Basin this process is evidenced on

the one hand in the emergence of Tiszapolgár on the foundations laid by the Theiss, the Gorzsa and the Herpály cultures and, on the other, in the evolution of the Bubanj-Salcuta complex south of the Danube which includes, among others, a Vinča component. In the west, the transformation of Neolithic cultures into Eneolithic ones can be traced in the replacement of Lengyel (Sopot-Lengyel) by Early Lasinja-Balaton, whereas the Alpine region offers the "Alpine facies of Lengyel", i.e. the Lasinja culture. Finally, in the Adriatic region, the Nakovana (proto-Nakovana) horizon was formed on the basis of the Hvar-Lisičići group, and it largely preserved the preceding culture's features. These changes almost always took place smoothly, as a gradual evolution spurred on by the availability of new discoveries in the field of material production, primarily that of early copper metallurgy.

The end of the Early Eneolithic witnessed major changes in material and non-material culture, and probably in ethnic structure too, throughout Southeast Europe. The changes were more marked in the Danube Basin and the eastern and northern parts of the Balkan Peninsula; elsewhere they were essentially echoes of larger-scale population movements, especially by nomads, wave after wave of whom left the steppes of southern Russia and took the northern and southern Carpathian road towards the Pannonian Plain and thence to the Balkan Peninsula. This cultural change marked the beginning of the *Middle Eneolithic*, which saw the definite end of the agrarian Neolithic cultures and their descendants. It was a sharp break, signalled by the emergence of flexible nomadic cultures integrating vast areas from the Carpathians to the Alps and from southern Poland in the north to the central Balkans in the south. The first culture of the new style and the new economics was Boleráz-Cernavoda III, soon to be followed by Baden. Their development in the Yugoslav Danube Basin must be viewed within a broader process whereby the autochthonous Neolithic population was replaced by new populations, believed to have been Indo-European. In those regions which had not experienced direct migrational processes (Pelagonia, the Adriatic coast, and, to a certain extent, the Alpine zone), the development of Early Eneolithic cultures went on, though modifications to their stylistic features are apparent (in Pelagonia, for instance, the Crnobuki-Bakarno Gumno group is succeeded by Šuplevec-type settlements, while in the Alpine zone pottery of the Retz-Gajary type followed Early Lasinja pottery).

In the east, especially in the Danube region, the *Late Eneolithic* was inaugurated by an onrush of steppe peoples, bearers of the Pit-grave culture. It was the third and last wave of cultural and ethnic shifts which helped lay the foundations for the subsequent constitution of the palaeo-Balkan tribes in the Bronze and Iron Ages. Stratigraphically reliable evidence for the delimitation of the Middle and Late Eneolithic is offered by the Jabuka tumulus near Pančevo, where a steppe-type grave of the late Pit-grave culture was dug into a layer containing a Kostolac house.[15] It is to be concluded, therefore, that the Kostolac culture in this part of the Danube Basin belonged to the terminal

phase of the Middle Eneolithic, as is the case with the Cotofeni culture in western Romania. In areas left untouched by the direct migration of the bearers of steppe cultures (Bosnia, most of Slavonia), the Kostolac culture went on developing, evolving towards the "carving" style of the Vučedol culture. Contacts between the Pit-grave and Vučedol cultures during the Late Eneolithic are reflected in the adoption by the Vučedol culture of the custom of burials under tumuli and the ochre staining of grave goods (Batajnica, Vojka, Moldova Veche), the appearance of "catacomb graves" in Vučedol, and the like.[16] The expansion of the Vučedol culture westwards and southwards was to be the hallmark of the Late Eneolithic in the central and western Balkans, too. The pressure exerted by the steppe peoples can be taken as the cause of these shifts. The Alpine region witnessed the emergence of the Ljubljansko Barje culture, while a local variety of the Tivat-Rubež type of late Vučedol appeared on the Adriatic coast and in its hinterland. As stated above, the end of the Late Eneolithic, and of the Eneolithic as a whole, is marked by the disintegration of the Vučedol complex and the formation of numerous regional groups and cultures, which inaugurated the Early Bronze Age in the Pannonian, cantral Balkan, Danubian, and Adriatic zones.

Besides the nomadic component, one of the main features of the Eneolithic cultures' economy was the early, or primary, copper metallurgy - ore mining, processing, and the manufacture of copper artefacts - i.e. initial mining, metallurgy, and manufacturing technology. These new activities speeded up the stratification of Neolithic society, the emergence of specialized economic activities, and the differentiation between settlements within the same culture or between various cultures. The Eneolithic sites in the Yugoslav Danube Basin played a crucial part in these processes, characteristic of a broad area of Central and Southeast Europe. These sites were both important mining and metallurgical centres and major links in the transmission of new discoveries in material culture between the Aegean and the Near East on the one hand and the Pannonian cultures on the other. The importance of the sites and findings from the region is amply illustrated by the prehistorical mine at Rudna Glava, the processing centre in Zlotska pećina, the remains of metal-casting workshops at Debelo Brdo, Alihodže, Sarvaš, Ljubljansko Barje, or the copper hoards found at Pločnik, Bečmen and Deč in Srem, Vranovići and Kozarac in Bosnia, Stabanj and Split-Gripe in Dalmatia, etc. Several extensive studies of copper finds (by B. Jovanović, A. Durman, M. Kuna - to mention but the more recent ones)[17] have emphasized the richness and diversity of artefacts of this kind. Regrettably, most of them have been found outside an archaeological context, which has rather restricted the possibility of interpretation. Only a few come from systematically excavated sites (Zlotska pećina, Vučedol, Sarvaš, Ljubljansko Barje)[18] and these, together with copper-moulds (Sarvaš, Ljubljansko Barje, Alihodže, Debelo brdo, Zecovi, etc.),[19] allow us to connect the forms of certain copper artefacts with particular Eneolithic cultures (this issue will be payed particular attention to later in the book).

Extensive study of early mining and metallurgy in the central and eastern Balkans has foregrounded two basic assumptions about their origins. According to some (S. Junghans, E. Sangmeister, M. Schröder, J. Deshayes, G. Clark, S. Piggott, and others),[20] the use of copper had been imported from the Aegean and Asia Minor; more recently, its autochthonous origin has been claimed for (B. Jovanović).[21] Considering the greater concentration of copper artefacts in the Early Eneolithic cultures of the eastern Balkans (Gumelnita, Salcuta, Marica) as compared with western regions, it would seem that the view which places the eastern Balkans within the "circum-Pontic zone of the Early Eneolithic" and gives it precedence in time is the correct one (N. Černih).[22] The necropolis near Varna and the mines of Ai Bunar and Rudna Glava might provide sufficient evidence to support such an opinion.

The importance of migratory trends for the periodization of Eneolithic cultures in former Yugoslavia has already been stressed. A few words need to be said about their mechanism and their significance for the relative dating of the steppe cultures of southern Russia in their relation to those of the Balkan-Danubian zone. No doubt the movements of the "steppe pastoralists" towards the Pannonian Plain, the Yugoslav Danube region, and the central Balkans were of crucial importance for their entire subsequent development. The prevalent opinion in archaeological literature (P. Roman, A. Benac, M. Garašanin, B. Jovanović, N. Tasić, etc.)[23] is that the movements of the steppe peoples, i.e. the "Indo-European migration", took the form of successive migrations over a period of about a thousand years; at first it was merely a question of cultural contacts and influences (Decia Muresului, the Kladovo hoard of long flint daggers, etc.);[24] later, towards the middle of the Eneolithic, the steppe peoples actually arrived, first to the Danube region, and then to the regions south of the Sava and Danube. The emergence of the Cernavoda III-Boleráz culture, the appearance of "Scheibenhenkel" pottery in the Yugoslav parts of the Danube region, and the southward spread of the Bubanj-Salcuta culture (to Kosovo, and thence to Pelagonia) were results of strong pressure exerted by the newcomers on the autochthonous cultures of the Carpathian, Danubian, and Balkan regions.

In addition to these large-scale movements of the bearers of the Eneolithic cultures, the end of the period also saw the expansion of the Vučedol culture. After a period of concentrated growth during the last third of the Eneolithic, the Vučedol style spread from its native Srem-Slavonian region in all directions: to the west, to form the Alpine nucleus of "carved" pottery (Ljubljansko Barje with its Ig I phase); to the south, all the way to the mountains of central Serbia and Bosnia; to the north and the Pannonian Plain (Zók); and to the east, to the southern spurs of the Carpathians (Moldova Veche). Somewhat later, towards the end of this major cultural complex, local variants of the Tivat-Rubež type appear on the Adriatic coast, or the Ljubljana culture in Slovenia, the northern Adriatic, and Istria, as well as a number of other "post-Vučedol groups" of the types Kosihy, Makó, and Čaka, inaugurating the Early Bronze Age.

Periodization		South Pannonian zone	Central Balkan zone	Alpine slopes zone	Adriatic zone
ENEOLITHIC	EARLY	Tizsapolgár Bodrogkeresztúr Balaton – Lasinja I Balaton – Lasinja II	Bubanj – Salcuta I Bubanj – Salcuta II	Lengyel final Lasinja I.	Proto–Nakovana Nakovana
		Cernavoda III – Boleráz	Cernavoda III	II Kevderc	
	MIDDLE	Baden I Baden II		?	?
		Kostolac I Kostolac II (Pitgrave)	Kostolac (Cotofeni)	Vučedol (Ig I) (Ig II)	
	LATE	Vučedol I Vučedol II	Vučedol		Adriatic facies of the Vučedol culture (Tivat–Rubež)

*Note: When pointing to the illustrative material in the margins, following system has been established: Pl. I-II is the reference to the table within the text; Pl. I-XLIII is the reference to the tables given at the end; Fig. 1-50 stands for the number of the site and the individual number for each drawing in the chapter "Registre of mahor Eneolithic sites in former Yugoslavia" (e.g. Fig. 1/1 stands for the figure number one in Ajdovska Jama).

EARLY ENEOLITHIC
Post– Neolithic cultures

As already noted, a clear line dividing the Neolithic and Eneolithic cultures cannot be drawn. We have opted, therefore, for the term *post-Neolithic* to refer to cultures which were familiar with copper and its technology, but which preserved Neolithic characteristics in the main features of their material and non-material culture. Continuity of development is the hallmark of these cultures, and it is reflected in the shape of their vessels, their material culture, the location of their settlements, their economy, and their burial practices. The pottery of Tiszapolgár or Bubanj-Salcuta preserved the basic shapes and similar fabric - refined clay and burnished grey or black surfaces, typical of the agrarian cultures of Central and Southeast Europe. A good example are the conical bowls with thickened, turned-in rims, known as "Gradac plates" and found both in the Vinča culture and in the Bubanj-Salcuta-Krivodol and Gumelnita complexes. The decoration of the inside is burnished in the Vinča culture, graphite burnished or red-painted in Bubanj-Salcuta or Gumelnita.[25] Then there is the influence of Neolithic figurines on Eneolithic ones found at early Eneolithic sites in eastern Serbia, Kosovo, and Pelagonia, which also belong to the widespread Bubanj-Salcuta-Krivodol complex and that of the "graphite burnished ware of the eastern Balkans". Numerous other examples point to close ties between the Early Eneolithic cultures and the autochthonous base. It is enough, for instance, to compare the graves of the Vinča culture necropolis at Gomolava with the later necropolises of Tiszapolgár or another Early Eneolithic culture to realize how strong the tradition was.[26] The crouched position of the body laid on the side, its orientation, the number and disposal of grave goods, are almost identical in the earlier and later cultures. All this, and the fact that the more recent period inherited its chief features - initial mining and early copper metallurgy - from the Neolithic cultures, allow us to treat the earliest cultures of the new epoch - the Age of Metal, i.e. of Copper - as post-Neolithic, or Early Eneolithic. In former Yugoslavia, these would

Fig. 8

include: in the east, Bubanj-Salcuta, its Pelagonian variant (Crnobuki-Bakarno Gumno), and Tiszapolgár-Bodrogkeresztúr; in the Sava valley and the Alpine zone, Balaton-Lasinja; on the Adriatic coast and the islands, the Nakovana culture.

a) The Southern Pannonian zone

In its cultural-historical development, the region north of the Danube and the lower Sava (Vojvodina) has been closely connected with the cultures of the eastern Pannonian Plain. The Neolithic tradition which produced Theiss in the east and Lengyel in the west of the Plain survived into the Early Eneolithic. Theiss and its descendants, Herpály-Csöszhalom-Gorzsa-Oborin, served as the base for the formation of Tiszapolgár, while Balaton I-Lasinja I evolved from Lengyel. The integration of the eastern and western areas would come about only later, with the emergence of Boleráz-Cernavoda III, i.e. the Baden culture. The area would preserve its unity throughout the Middle and Late Eneolithic, until the disintegration of the Vučedol complex and the advent of the early Bronze Age cultures.

The Tiszapolgár culture is the first genuine manifestation of the Copper Age (Eneolithic) in the South Pannonian zone. It was the product, as most authors agree,[27] of a long evolution of the Neolithic cultures in the Tisza valley, some of which, although familiar with copper and its use in the manufacture of weapons, tools, and jewellery, still belonged to the Neolithic civilization. This is especially true of Herpály-Csözshalom in Hungary, Oborin in Slovakia, and proto-Tiszapolgár in Vojvodina. Some authors have classified these cultures as transitional dating them into the Early Pannonian Eneolithic. The problem of the "proto-Tiszapolgár" group, noticed by B. Brukner in southern Bačka and Srem, remains open. The group is illustrated by material from Gospodjinci, Sirig, and the "Eneolithic humus" at Gomolava (Gomolava II), which might belong partly to the Lengyel style, and partly to Balaton I-Lasinja I. The question of the genesis of the Tiszapolgár culture may therefore be best resolved by recourse to stratified sites in Hungary and Slovakia (Herpály, Lúčky, Tibava) which, in our opinion, offer much more evidence. The Tiszapolgár culture was already well formed when it reached the southern areas of its expansion.

Another question concerns the stylistic and chronological differentiation between the Tiszapolgár and the Bodrogkeresztúr cultures. In Hungarian literature, they are treated as independent cultures.[28] However, the evidence of stratified sites, the fact that large necropolises belong, as a rule, to both cultures, and the characteristic features of their pottery indicate that the two cultures are part of the same line of development, with the later one displaying new pottery shapes and types of decoration (the "milk pot" shape, net patterns)

in addition to the shapes found in the earlier, Tiszapolgár, culture. In view of the specific features of Eneolithic development in the Yugoslav Danube Basin, *The Prehistory of Yugoslavia III* dealt with the two cultures as part of the same cultural complex, stressing only those stylistic traits that separated them. The same approach will be used in the treatment of Tiszapolgár and Bodrogkeresztúr in the present text. It has been used before, especially by S. Šiška in his works dealing with the Polgár complex in Slovakia, which he divided into four developmental stages and three sub-stages: Polgár I-Herpály; Polgár IIa-later Herpály-Polgár IIb-proto-Tiszapolgár; Polgár III-Tiszapolgár; Polgár IVa and b-Bodrogkeresztúr I and II; and finally Polgár IVc-Lažnany.[29] This classification best illustrates the *continuity* of development of the post-Neolithic (Early Eneolithic) cultures in Slovakia and the Upper Tisza valley. The same holds true, though to a lesser extent, of the entire South Pannonian region.

We have already noted that Tiszapolgár and Bodrogkeresztúr sites in Vojvodina belong to the southern periphery of this cultural complex. With the exception of the insufficiently clear find of a "milk pot" vessel from Višesava near Bajina Bašta (southwest Serbia),[30] which could only be an import, we can conclude with reasonable certainty that the Danube and the Sava were the southernmost limits of the expansion of these cultures, possibly even of their bearers as well. It must be said, however, that even these regions, considering their previous cultural development, were not affected by Tiszapolgár and Bodrogkeresztúr for the entire duration of these two cultures. Srem, for instance, had its own specific line of development, even though Tiszapolgár and Bodrogkeresztúr finds and sites have been registered there. In the east, the later Vinča culture of the Obrež-Jakovo type developed simultaneously with the early Tiszapolgár, while in the central and western parts we find Sopot-Lengyel sites first (Budjanovci, Laćarak, Gradina on the Bosut), and later Balaton-Lasinja I ones (Gradina on the Bosut). The Tiszapolgár and Bodrogkeresztúr sites in Srem and near the confluence of the Sava and the Danube (Belegiš, Progar, Surčin, the Vinča graves, etc.) can therefore be explained as a result of periodic excursions by the bearers of these cultures southwards and towards other cultural-historical milieus.

The situation in Banat is somewhat different. Its northern regions undoubtedly belong, broadly speaking, to the nuclear area of the Tiszapolgár-Bodrogkeresztúr complex, which is also true of northern Bačka. It is important to note, however, that numerous sites belonging to these cultures have been discovered in southern Banat in recent years. The catalogue of *The Eneolithic of Southern Banat* mentions 30 Tiszapolgár and 7 Bodrogkeresztúr sites, which is certainly an impressive figure.[31] Of particular importance are the footings of burnt-down houses and ceramic vessels found at Vršac (Andja Ranković Street), bearing the traits of a rather early phase of Tiszapolgár, which could certainly help establish a relative chronology of these finds on the one hand and, say, the later Vinča finds in Banat (e.g. Opovo) on the other.[32] Similarly complex chronological relations would crop up somewhat later, at the time of

Bodrogkeresztúr, when the same region was to witness the appearance of Salcuta IV-Scheibenhenkel pottery on the one hand (Baranda) and, on the other, of the Boleráz-Cernavoda III-type (Brza Vrba).[33]

We owe most of our knowledge about the Tiszapolgár and Bodrogkeresztúr cultures to finds from necropolises. The number of investigated settlements, especially in the south, is practically negligible. We dispose of some more data from the stratified site of Crna Bara near Kikinda and, to a lesser extent, Sirig, Gospodjinci, and Šančine (Belegiš).[34] A vertical stratigraphy of Crna Bara has been established on the basis of data provided by M. and D. Garašanin; the lowest levels (Crna Bara I) contain Theiss-Sakalhat pottery, level II the Tiszapolgár finds, and level III Bodrogkeresztúr ware. This is important because it can help both to establish a relative chronology and to resolve the problem of the genesis of Tiszapolgár pottery. Moreover, it would seem on the basis of published material that pottery from level I may belong to the very end of the Theiss development, i.e. to the Herpály culture. The geographic position of
Pl. V. 1-5 Crna Bara (northern Banat) allows us to assume that the settlement could have experienced the same development as neighbouring sites in the Hungarian part of the Tisza valley. Material found elsewhere offers scantier data: in Belegiš, a level was found containing Tiszapolgár pits similar to those of Batka near Senta, the selfsame site where a necropolis belonging to the same culture was also excavated.[35] B. Brukner mentions several footings of "proto-Tiszapolgár" houses in Sirig and Gospodjinci; as many as 15, with dimensions of 10 x 15 m, have been registered in Sirig on the basis of surface remains.[36] No systematic research has been carried out at these sites, however, nor has the material been published in its entirety, which is why the data should be used with caution, all the more so as the cultural attribution of the sites in question is also controversial: do they belong to proto-Tiszapolgár, Tiszapolgár, or a later phase of Lengyel?

Necropolises have provided more data on the Tiszapolgár and Bodrogkeresztúr cultures. A recent addition to the well-known sites near Subotica and Senta and to the regrettably incomplete evidence about the 40 graves in Srpski
Fig. 45 Krstur has been a smaller-scale necropolis from Belo brdo in Vinča which, together with two graves near Rospi Ćuprija (Belgrade), is the southernmost
Pl. VII. 7,8 find of this kind.[37] Most of the graves belong to Bodrogkeresztúr, though all the necropolises except Vinča contain Tiszapolgár burials too. Eight graves have been excavated at Biserna Obala near Subotica: numbers 1, 2, and 5 belong to an advanced stage in the development of Bodrogkeresztúr, while the others are somewhat earlier;[38] of the seven graves in Senta, six belong to
Pl. IX. 7 Bodrogkeresztúr and one to Tiszapolgár;[39] both graves from Rospi Ćuprija are Tiszapolgár graves. Finally, it is important to note that these necropolises (Senta, Rospi Ćuprija) often feature settlement remains as well (pits, pit-wellings), which indicates that burials took place in the immediate vicinity of the settlements. The sites in question have not been excavated on a large enough scale to yield more data for the reconstruction of burial practices and

the organization of the necropolises, nor have they provided sufficient anthropological evidence to establish a demographic picture of the necropolis as a reflection of life in the settlement. Instead we have the grave goods, whose typological features can be used to determine the position of the Vojvodina necropolises within the development of Tiszapolgár and Bodrogkeresztúr throughout the Pannonian Plain. They belong to the same cultural circle as the much more thoroughly investigated necropolises in Hungary and Slovakia, such as Tiszapolgár-Basatanya, Hödmezövásárhely-Kotacpart, Tápé, Deszk, Tibava, Lucska, and many others.[40] If our purpose is a more accurate location of our necropolises, we might place the earlier graves in the Deszk group according to the division by I. Bognár-Kutzián, while the others (Vinča, Subotica) would belong to a mature Bodrogkeresztúr (Pusztaistvanhaza-Bodrogkeresztúr II) culture.[41]

The material culture of the Tiszapolgár and Bodrogkeresztúr sites in our parts corresponds entirely to the finds from necropolises and settlements in neighbouring countries, especially the Hungarian part of the Tisza valley. Tiszapolgár pottery is generally of a good fabric, finely burnished, but plain. The only exception is the pottery from Vršac, which is of somewhat inferior workmanship.[42] A characteristic shape is that of the footed goblet, one of the main features of the Tiszapolgár style: the tall goblets have a hollow cylindrical or slightly profiled foot; the receptacle has the form of conical or biconical bowl. Lugs, at times very prominent, are a constant feature of most shapes of Tiszapolgár pottery - bowls, globular vessels, pots, etc. The difference between household pottery and grave goods is negligible and lies chiefly in the quality of workmanship (grave goods are finer) and diversity of shapes (household pottery is more varied, especially at Crna Bara or Vršac). The Bodrogkeresztúr culture saw two major changes in pottery-making: the appearance of decoration and of new shapes - the characteristic "milk pot" vessel and the calotte-shaped bowl. The footed goblets, so frequent in Tiszapolgár, were gradually abandoned. Bodrogkerezstúr decoration takes the form of incised lines, pricks, and circular appliqués. It is very rich, often covering the entire surface of a vessel (milk containers from Dubovac and Batajnica, Vinča bowls, etc.).

Pl. I
Pl. VI. 1
Pl. V. 1-9
Pl. VII. 1, 2, 8
Pl. VII. 7
Fig. 45/1-2

Besides pottery, which is no doubt the chief characteristic of the Tiszapolgár and Bodrogkeresztúr style, the settlements and necropolises have yielded other artefacts, most significantly long flint knives, copper and gold artefacts. The knives were found in a grave from the Biserna Obala necropolis near Subotica, in Čenta (Mali Alas site), and Kladovo, in a well-known hoard which might belong to another cultural complex (Bubanj-Salcuta, or the incursion of "steppe pastoralists" into the Yugoslav Danube region).[43] The importance of the knives lies in their connection with an early steppe cultures' inroad into the Carpathian Basin and the Danube region. Their presence in the necropolises of Decia Muresului horizon and Tiszapolgár and Bodrogkeresztúr graves (Kisvárda - grave 1; Deszk B - grave 8; Csongrád-Kettöshálom - grave 1; Basatanya - several graves)[44] is related to their frequency at Sredni

P. VI. 2
Pl. XI. 5, 9

Stog II necropolises (Oleksandriski and Novodanilovski mogilnik, etc.) and their reappearance later, within the Pit-grave culture.[45] M. Garašanin attaches particular significance to the Kladovo hoard, which contained 22 long flint knives and a cruciform copper axe.[46] They are probably connected with the steppe cultures, though when placed in the cultural context of the groups developing in the Yugoslav Danube Basin some reserve remains in M. Garašanin's article regarding their attribution. The Kladovo hoard was found in the border zone separating Tiszapolgár and Bodrogkeresztúr (the southern Banat sites) from Bubanj-Salcuta sites in their immediate vicinity (Salcuta grave at Lepenski Vir in eastern Serbia). Nevertheless, the Kladovo find is of major significance, both on account of its links with the steppe cultures and because it allows us to connect the copper finds (cruciform axes) with an important cultural horizon from the tail-end of the Early Eneolithic. Cruciform axes of the kind found in Kladovo belong to Bodrogkeresztúr rather than Tiszapolgár, and that is important in establishing the relative chronology of the Early Eneolithic cultures of the Carpathian-Balkan-Danubian zone.

Pl. XI. 5,9

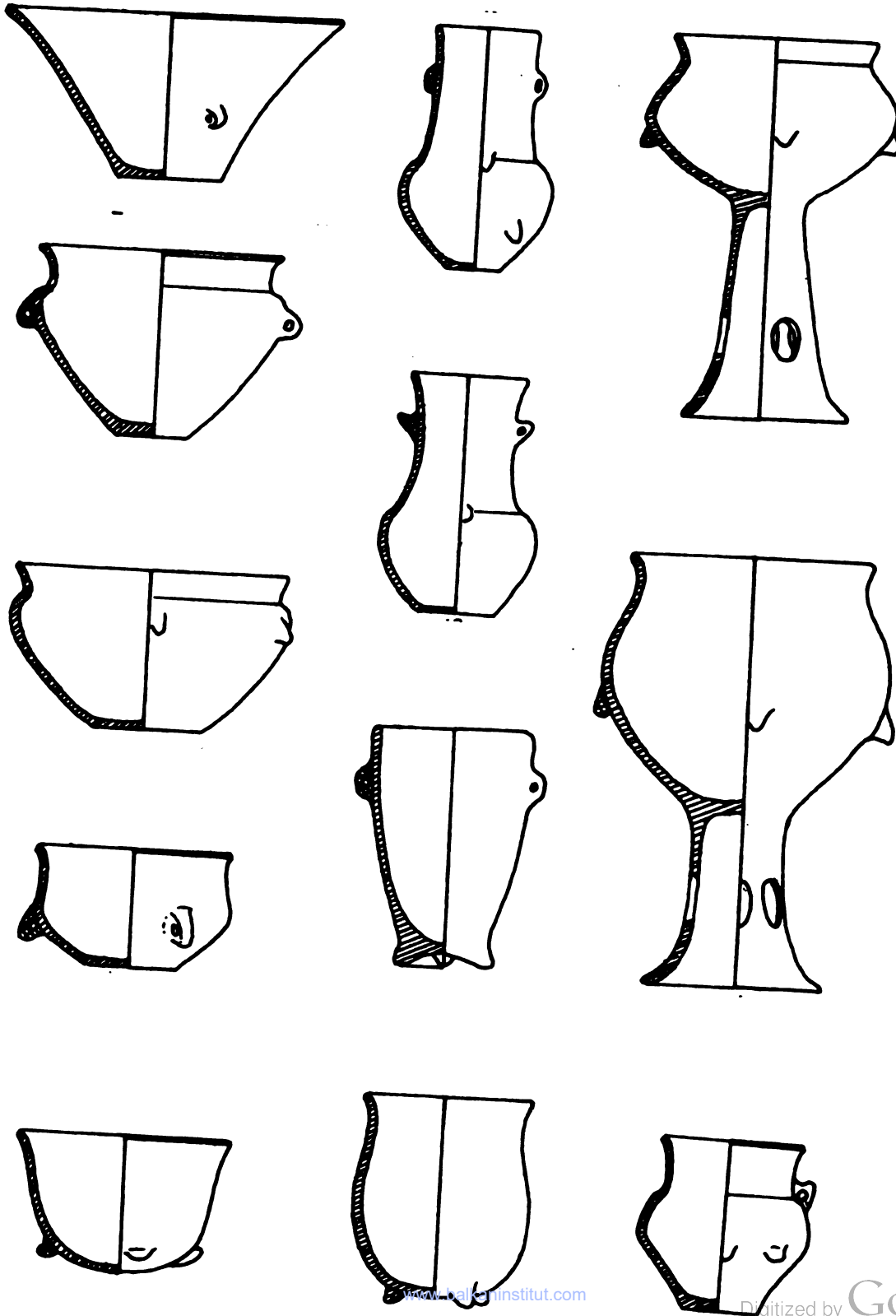
Unfortunately, the copper and gold artefacts which might belong to Tiszapolgár and Bodrogkeresztúr are most often chance finds. On the basis of analogues from Hungarian sites they could, for the most part, be regarded as belonging to this horizon. This is especially true of a smaller hoard of copper tools from Livade near Kikinda and the finds from Čoka, the Subotica region, etc.[47] The cultural attribution of the copper hoards and individual finds from Srem remains unclear. They encopmass both earlier forms of axes from Deč, which might well belong to the Tiszapolgár horizon, and numerous cruciform axes (the Bečmen and Dobanovci hoards)[48] dating from Bodrogkeresztúr's short-lived incursion into this and neighbouring areas (Surčin, the graves in Vinča) but also from the period of the Baden culture, which was very strong in this region (Dobanovci, Lice near Erdevik, Gomolava, etc.)[49] The same applies to the gold find from Progar, which some authors have attributed to Tiszapolgár and others to Bodrogkeresztúr.[50] The manufacturing technology, intricacy, and quality of the gold amulet from Progar are more advanced than, say, those of similar finds from Tibava or the Hencida hoard. It is typologically closer to the finds from Hotnica, grave no. 97 in Varna, and even Gumelnita (level A2a).[51]

Pl. III. 1, 2, 5

The gold pins from grave no. 2 of the Nosa necropolis near Subotica belong to the same horizon; on the basis of "milk pot" vessels and analogues with the Jászladány necropolis and grave no. 11 at Fényeslitke they are dated into the late Bodrogkeresztúr horizon.[52]

Pl. VII. 5-6

Pl. I -- Pottery types of the Tizsapolgár culture from sites in Vojvodina



***

The development of the post-Neolithic (Early Eneolithic) cultures ends with the emergence of the ***Hunyadi-Vajska*** sites in the Southern Pannonian zone. The problem of this culture, group, or variant is a complex one for a number of reasons. To begin with, opinions vary as to its independence, its place within the development of the Tiszapolgár-Bodrogkeresztúr complex, and its absolute dating. So far it has been described in literature as an independent culture, a phase of Bodrogkeresztúr, or part of a larger complex, the so-called Scheibenhenkel pottery.[53] The phenomenon has not been studied thoroughly enough for a definite stand to be taken. We shall here discuss the stylistic and chronological attribution of the finds from what is by now the only certain site - the Baba Sivačka necropolis near Vajska, south of Sombor.[54] Small-scale excavation work at the site has uncovered six graves with typical
Pl. VIII, 1-8 Hunyadihalom material. What is specific of the culture, and of Vajska in particular, is its plain ware with flaring handles, which is why some archaeologists have placed it within the Scheibenhenkel horizon and related it to Salcuta IV ware in western Romania, southern Banat (Opovo, Baranda), and Srem (Zemun-Prigrevica). Peculiar to Vajska are the gold pendants found in grave
Fig. 2/4-5 no. 5 of the necropolis. Their significance is more than typological: they are important in establishing the chronological framework of Hunyadi-Vajska ware and the Vajska necropolis. Analogues for these finds are to be encountered in Bodrogkeresztúr and other contemporary cultures, most particularly the Hencida hoard, grave 16 in Jászladány, grave no. 4 in Pusztaistvanhaza, and a house in Traian, Romania.[55] B. Brukner notes that the chemical composition of the Vajska pendants (Ag 4, Cu 0.09, As 0.04) is very similar to that of Tibava finds; he dates them somewhat later, to phase II of Bodrogkeresztúr.[56]

The profile of Hunyadi-Vajska, its material culture and chronology might become clearer with the publication of the results of large-scale systematic excavations at Tizsaluc near Miškolc, initiated as far back as 1974.[57] Preliminary reports say that it is a sizable settlement (29 houses have been registered) with plentiful ceramic, lithic, and copper material, and sound analyses of palaeozoological material. A report by P. Patay indicates that the culture in question is an independent one, whose position has been stratigraphically determined: it emerges near the end of Bodrogkeresztúr (the presence of Bodrogkeresztúr decoration on Hunyadi pottery) and outlives the earlier culture. It is replaced, at this particular site, by Boleráz. This allows us to establish more accurate chronological relations not only among the cultures of the upper Tisza valley but also among those of the broader area of the eastern Carpathian Basin, including southern Pannonia.

These data, as well as other comparative studies (e.g. of the relationships between Tiszapolgár, Vinča and Lengyel pottery on the one hand and

Bodrogkeresztúr-Hunyadi-Vajska and Salcuta IV on the other), allow us to establish relative chronology of the Early Eneolithic cultures in the South Pannonian zone and the cultures which developed in the region's immediate vicinity. Four chronological horizons can be distinguished:

I. Transitional horizon: Herpály-Csöszhalom-Oborin - final Lengyel - Vinča D1

II. Early Eneolithic I : Tiszapolgár - Sopot-Lengyel III - Vinča D2 - Salcuta II

III. Early Eneolithic II : Bodrogkeresztúr I - Balaton-Lasinja I - Salcuta III - Bubanj Ia

IV. Early Eneolithic III: Bodrogkeresztúr II, Hunyadi-Vajska, Balaton-Lasinja II - Salcuta IV - Scheibenhenkel horizon

This periodization of the Early Eneolithic (post-Neolithic) cultures is an elaboration of that provided in Volume III of *The Prehistory of Yugoslavia.* The end of the Early Eneolithic in the South Pannonian zone and further afield, all the way from southern Poland to the central Balkans and from the Carpathians to the Alps, was marked by the emergence of a fundamentally new culture, which inaugurated the Middle Eneolithic in these regions. It was Cernavoda III-Boleráz, the cornerstone of a new process of development, the continuity of which would remain unbroken till the very end of the Eneolithic and the beginning of the Early Bronze Age.

The western parts of South Pannonian zone experienced a slightly different cultural development. During the Middle and Late Neolithic, the area west and southwest of the Danube was dominated by Lengyel and its variants. Such an autochthonous foundation was bound to produce, in the Early Eneolithic, the cultures differing from the ones based on Theiss. South of the Danube, more precisely between the Sava, the Drava, and the Danube, numerous Lengyel, i.e. Sopot-Lengyel, settlements have been unearthed (Sopot, Bapska, Sarvaš, Vinkovci, Gradina on the Bosut near Šid, Budjanovci near Ruma, etc.). Quite a few belong to "Sopot III" according to S. Dimitrijević's classification;[58] by analogy with the situation in Vinča (synchronicity with Vinča D1-D2), this level already belongs to the Eneolithic, although it is essentially still a part of Neolithic civilization. In any case, the late phase of Sopot (Sopot-Lengyel) has served as a foundation for the new cultures of the Early Eneolithic in the region. There is not enough reliable stratigraphic data, although most of the sites enumerated are stratified. Reports on excavations in the late thirties and early forties (Bapska, Sarvaš) have not been published in full, which has made it difficult to reconstruct the gradual development from terminal Neolithic cultures to early Eneolithic ones. The more recently excavated Gradina on the Bosut (near Šid) has yielded more information, not so much because of the richness of its Neolithic and Eneolithic layers but because continuity of development has been established between late Sopot, Balaton-Lasinja I and Boleráz.[59] Level I belongs to the tail-end of Sopot-Lengyel; IIa

contains early Lasinja (Balaton-Lasinja I) material, while IIb belongs to a Boleráz settlement. The impression left by the site's stratigraphy and the typological analysis of its pottery is of continuous development unbroken by major population and other changes. Analysis of the material culture of the Lengyel and Lasinja styles from other sites has confirmed this, and some authors (J. and P. Korošec, for instance) refer to the new culture, founded on Lengyel in the Eneolithic period, as "the Alpine facies of Lengyel".[60] The same view is to be found, somewhat modified, in F. Leben's and S. Dimitrijević's explanation of the origins of Lasinja.[61] Since Lasinja (Balaton-Lasinja I) is only a peripheral phenomenon in the South Pannonian zone, having affected only its southwest parts, we shall discuss it in greater detail in a section devoted to the Early Eneolithic cultures of the Alpine region.

b) The central Balkan zone

The geographic features of the region, crisscrossed as it is by mountains, are a major obstacle to the study of the emergence and development of the Early Eneolithic cultures. Besides, they had helped create autarchic zones where cultures have lasted longer and assumed highly conservative traits. This is especially true of the very beginning of the Eneolithic, the time when Tiszapolgár and Bubanj-Salcuta emerged and developed in the Danube region and eastern Serbia, while Vinča still survived in the remote areas of western Serbia and in Kosovo. The question of their relationship, especially that of Vinča and the early Bubanj-Salcuta, is of special relevance in the Morava basin, Kosovo, and southwest Serbia, as regards both relative chronology and mutual influences in material and non-material culture. In the Morava basin, Bubanj sites have been registered towards the north, almost as far as Kruševac (Makrešani, Eneolithic layer);[62] in eastern Serbia, the border runs near Rudna Glava and Majdanpek; in Kosovo, Vinča settlements are to be found in the Ibar valley (Valač, Fafos), while Bubanj sites are encountered further south, near Lipljan and Suva Reka. The relationship between the two cultures, which must have been partly contemporaneous, is therefore very interesting to study. In areas which remained unaffected by the spread of Bubanj-Salcuta and the incursions of the Tiszapolgár-Bodrogkeresztúr complex (e.g. western Serbia) Vinča settlements lived on in isolation (Stapari, Radojnja).[63]

Pl. I. 1-7

A related problem is that of the Pločnik copper hoards. The four hoards unearthed at Pločnik contain copper axes, chisels, bracelets, pins with curving heads, and light white stone axes. Most authors believe that the hoards "probably belong to the terminal phase of this important settlement of the later Vinča group in the southern Morava basin" (B. Jovanović)[64] and are contemporaneous with Vinča-Pločnik II, Gumelnita-Karanovo VI B, and Tiszapolgár (M. Kuna).[65] If these views are accepted, the Pločnik hoards would have to be dated into a later period for, according to M. Garašanin, "Bubanj-Hum I directly succeeded Vinča-Pločnik I at Pločnik".[66] Bubanj material found at

Pl. III. 4-7
Fig. 36/1-4

Pl. III. 3, 4, 6, 7

Pločnik has less often been taken into account in attempts to attribute the copper hoards. Recent excavations at the site has established the existence of a Bubanj settlement destroyed for the most part by land cultivation; in view of B. Stalio's remark that hoard IV was *dug into the Vinča horizon*, the more logical conclusion would be that the hoards belonged to the time when the bearers of the Bubanj culture arrived at the site.[67] Such a solution obviates the illogicality of linking the latest Vinča horizon at Pločnik with Tiszapolgár, Karanovo VI, Gumelnita, and thereby Bubanj-Salcuta.

The Bubanj culture, part of the extensive Bubanj-Salcuta-Krivodol complex, developed in the central and eastern parts of the central Balkan zone, whence it spread southwards to Skopsko Polje and Pelagonia. The area can be subdivided into three zones, each with specific local features in the style of its material culture: eastern Serbia with the Danubian region (from Golubac to Negotin); a part of Kosovo with southeast Metohija and the Skopje basin; and Pelagonia. Three types of settlements are current: the most frequent are built on elevated ground by a river, protected by the river's course and steep slopes; cave settlements make up the second group; the third type, typical of the southern zone, consists of lowland settlements of the "tumbe" (tell) type. The best examples of the first type are Bubanj near Niš, Kovilovo near Zaječar, Krivelj near Bor, Gadimlje and Hisar in Kosovo, and Skopsko kale.[68] A dominant position, naturally or artificially fortified, is characteristic of these settlements. The Krivelj settlement was protected by a wall of stacked stone, while Bubanj and Gadimlje were defended by a ditch and a palisade. The tendency to look for safe dwelling-places is reflected in the choice of caves as dwellings. A number of caves inhabited at the time of Bubanj-Salcuta have been registered in Romania and Bulgaria (Hotilor, Romanesti, Devetaška, Magura, etc.);[69] Zlotska and Bogovinska caves, as well as the caves in Knjaževac area, are examples from eastern Serbia. In Pelagonia and neighbouring Albania there are two groups of settlements belonging to the same cultural complex: the so-called "tumbe" are the most numerous and belong to the fairly widespread type of tell-settlement particularly frequent in Macedonia, Thrace, and Thessaly. Of special relevance for the study of the Pelagonian group of the Bubanj-Salcuta-Krivodol complex are the excavations of stratified settlements at Bakarno Gumno, Crnobuki, Karaman, etc.[70] Finally, there are also fortified settlements built on elevated ground, such as Šuplevec.[71]

Fig. 8/1-8

Fig. 50/1-5

Though many settlements belonging to Bubanj-Salcuta have been discovered south of the Danube, only one grave has been unearthed, providing minimal information about the culture's burial customs. A Bubanj-Salcuta grave has been found dug into the Early Eneolithic stratum of Lepenski Vir. The body was lying prone (!), in a crouched position. Grave goods consisted of four vessels; of great typological importance is a large, thick-rimmed bowl-dish

with a broad band of graphite-burnished decoration. Using analogues from Romanian sites (Ostrovul Corbului), Z. Letica placed the grave in the Salcuta II period according to D. Berciu.[72]

EASTERN SERBIA

Numerous Bubanj-Salcuta sites have been discovered in eastern Serbia, from the Nišava in the south to the Danube in the north. Their greatest concentration is in the region of Niš and, especially, Bor, Zaječar, and Negotin. Besides Bubanj and Humska Čuka, both excavated partly before and partly after World War II, the sites having provided most information about material culture include Kovilovo, Vajuga-Pesak near Korbovo, Krivelj, and Zlotska pećina, where systematic research has been carried out.[73] The best-preserved settlement remains (houses, hearths, remains of fortifications) have been found at Bubanj and, to a lesser extent, Krivelj and Kovilovo. They have enabled us to attempt at least a partial reconstruction of this type of settlement: smaller in scale, they were built on elevated ground by a river, with houses rather close to each other. Their shape has best been registered at Bubanj, where three houses of approximately square shape (6.40 x 5.50 m) have been excavated, all containing hearths (stoves).[74] The settlements have yielded an abundance of pottery, especially in houses that had been destroyed by fire (e.g. in Kovilovo and Bubanj). The most frequent shape is that of characteristic two-handled cups ("*kantaros*"); also numerous are bowls of various shapes and profiles (conical with a thickened rim, biconical with or without a neck, etc.), deep pots, amphorae, lids, etc. Decoration is typical of the entire culture: by fluting, pinching, pricking; graphite-burnished decoration is also found at some sites (Zlotska pećina, Bubanj, the Lepenski Vir grave). Analysis of the material has shown that two horizons of the culture can be distinguished: one containing graphite burnished ware and flaring handles (Bubanj, Zlotska pećina), and one which entirely lacks both these two elements and high-quality fabric (Krivelj, Smedovac, Kovilovo). The two horizons have not been confirmed by vertical stratigraphy, and it is hard to say which is the earlier one. Other finds worthy of mention include anthropomorphic and zoomorphic figurines, frequent bone tools and copper finds, in remarkable quantities for this culture. An especially good site in this respect is Zlotska pećina, where the Bubanj-Salcuta layer has yielded more than 50 copper artefacts: pins, awls, axes, daggers, etc.[75] The cave is supposed to have been an important processing centre, for pieces of amorphous copper have also been found there, as well as smaller vessels which could have been used in casting.

Pl. X. 2-4
Fig. 24/9
Fig. 8/5
Pl. XI. 1
Pl. XII. 1. 4. 7. 8
Pl. XI. 7.8

KOSOVO

Kosovo and Metohija was the second region affected by the southwards movement of Bubanj-Salcuta from the Danube Basin. Several sites have been registered in the mountain-encircled area, but major excavations have only been carried out at Hisar and Gadimlje near Lipljan.[76] Unfortunately, although it has been quite a while since the completion of excavation work (1963 in the case of Hisar), no results have been published, except for a preliminary report on Hisar. The present text will therefore have to be based on the author's own insight into the material, which is of great importance both because it presents a clear picture of the style of a local variety of Bubanj-Salcuta and because of the culture's relationship with Vinča, which was very strong and long-lived in this region (Predionica, Valač, Fafos, Žitkovac, etc.).

The position of Bubanj-Salcuta sites in Kosovo is similar to that of the sites in eastern Serbia. The settlements at Hisar and Gadimlje have been built on hills overlooking river valleys, and bear traces of fortification. The footings of the houses are well-preserved, and there is a considerable amount of ceramic material. The fact that both sites, especially Hisar, are stratified has made it possible to study the relationship between Bubanj-Salcuta and the later Eneolithic cultures of the region. The classification of Hisar's Eneolithic layer has not been sufficiently backed by archaeological material, and should be taken with some reserve. It is certain, however, that the lowest layers contain the remains of a Bubanj-Salcuta settlement, and that another settlement was formed above them, belonging to a variety of the Baden-Kostolac style where Kostolac elements predominated. The problem of the chronological continuity of the two settlements remains unresolved. Analogues from other regions (the Yugoslav part of the Danube Basin, Oltenia, north Bulgaria) suggest the possible existence between these two cultural phenomena of another phase in Eneolithic development, the phase contemporaneous with Boleráz-Cernavoda III and Baden.

Pl. IX. 1-4
Pl. X. 1, 7
Fig. 18/1-9

PELAGONIA

Bubanj-Salcuta sites in the Skople region form a transitional zone between the Kosovo sites and those in Pelagonia. There is very scant data about them. Apart from Skopsko kale, where some typical finds have been discovered (bowls, pieces of a lid, double weights), they are irrelevant to the problem of the Eneolithic cultures of the region.[77] Much more information is provided by the sites in Pelagonia, some of which have been systematically excavated (Crnobuki, Bakarno Gumno, Šuplevec).[78] Two basic types of settlement are to be found there; one is characterized by its defences (Šuplevec) while the other, much more frequent, developed overlying the Late Neolithic lowland settlements and belong to the tell type widespread in Thrace, Macedonia, Thessaly, and Albania at the time.

Fig. 3
Fig. 11
Fig. 41

Pl. X, 5-6
Pl. XII, 2, 3, 6

The stratigraphy of the sites (Bakarno Gumno, Crnobuki, Šuplevec) and the typological analysis of the pottery have allowed us to single out at least two stages in the development of the Pelagonian variety of Bubanj-Salcuta or Crnobuki and Bakarno Gumno-Šuplevec, as the culture is also referred to.[79] The situation is very much the same as in eastern Serbia: some sites have yielded thick-rimmed bowls, and graphite burnished and painted (with thick red or white paint) ware, which is entirely missing from other sites. This is why it is believed that the lowest layers of Crnobuki (strata I and II) and the lower ones at Bakarno Gumno belong to the very beginning of the Eneolithic, while sites such as Šuplevec (the later layers - Šuplevec II) belong to a later Eneolithic period, when "steppe elements" appeared, e.g. corded ware, the "corde tordue"

Pl. XIII, 1, 3, 5

technique, and the well-known sceptre whose steppe origin is undeniable.[80]

***

Throughout the eastern part of the central Balkan zone, Kosovo, and Pelagonia, the material culture of the Bubanj-Salcuta-Krivodol complex displays both a unity of style and some specific traits due to the influence of autochthonous cultures and their mingling with more recent phenomena (Kosovo, Pelagonia). Though not all the sites in this extensive area belong to the same chronological horizon, it is possible, especially in pottery, to single out certain ubiquitous shapes or types of decoration. Shallow, thick-rimmed plates, often decorated on the inside by painting, burnishing, or graphite burnishing (Bubanj, Zlotska pećina, Crnobuki), are one of the main features of the style, even of its earliest phase, as witnessed by the same form of plate found at later Vinča sites (Gradac, Predionica). Another very widespread shape is that of the two-handled goblet of the "kantaros" type encountered with the same frequency in eastern Serbia, the Nišava valley, Kosovo, and Pelagonia. Several varieties have been found. The presence of such goblets and of the same type of shallow plate as the one described above at sites in Romania, Bulgaria, and even northern Greece (Dikili Tash, Sitagroi) indicates that they all belong to the same complex of the east Balkan graphite burnished ware, located in the areas between the Carpathians to the north and the Aegean coast in the south, as the Gumelnita (Karanovo VI) culture.[81] Other pottery shapes include bowls with turned-in rims, biconical bowls, pots of various profiles, and amphorae decorated with pinchings, cuts or incised lines (Krivelj, Bubanj, Hisar). Finally, mention should be made of the fairly frequent truncated lids (Bubanj,

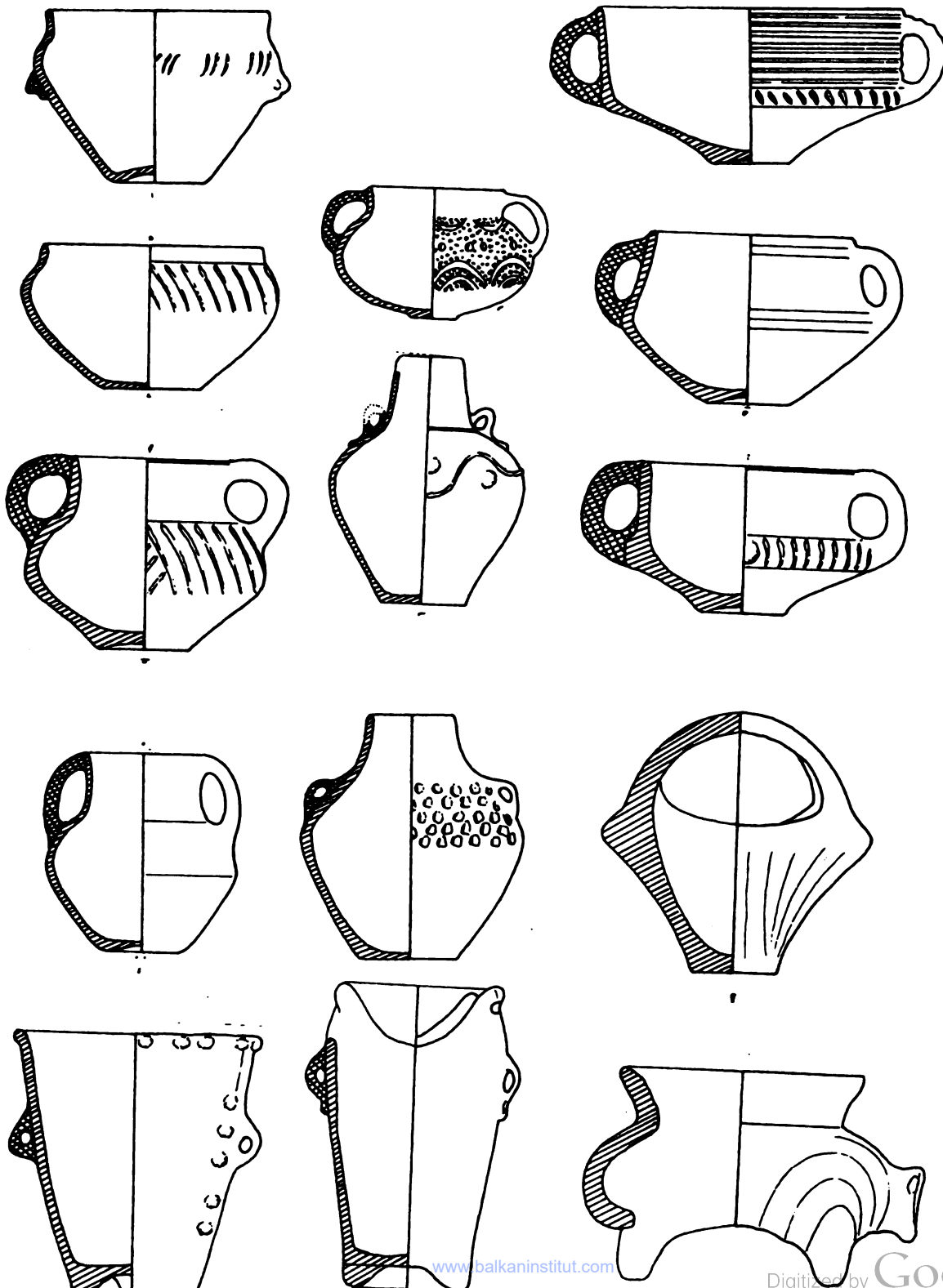
Fig. 41
Pl. X, 6

Hisar, Crnobuki) and double weights of the kind found in abundance in Salcuta, Romania[82] (Skopsko kale, Šuplevec).

Pl. XII, 1-8

Figurines are another important trait of the material culture of Bubanj-Salcuta. They are not as numerous as in, say, the Vinča culture, but

Pl. 2. – Pottery shapes of the Bubanj–Salcuta–Krivodol cluture from sites in Serbia and Macedonia



they are an important typological feature of a broad area of this cultural complex. There are some typological differences between the terra-cotta figurines of the Danube Basin and those of the southern sites, of Kosovo and Pelagonia. The group of anthropomorphic figurines in eastern Serbia consists of finds from Kovilovo, Krivelj, Zlotska pećina, and Bubanj. The style is closer to Vinča models, with the exception of a Krivelj find - a standing woman's
Pl. XII. 1 figure - whose prototypes are to be found to the east, within the Gumelnita complex and related cultures (decoration of the steatopygic part of the figurine with either fluted or painted spirals).[83] The southern group of figurines, best illustrated by finds from Gadimlje and Crnobuki, is represented by semi-seated figures with shortened legs and a stylized conical head. No details of the face are indicated. Such manner of modelling has its analogues at late Gumelnita sites (Karanovo VI).[84] Zoomorphic ones are less frequent. They include rather stylized figures of bovines or other four-legged animals, and animal-headed vessels.

The presence of copper finds has already been discussed. However, we should further stress the importance of certain elements for understanding the level of development of early mining and metallurgy within the Bubanj-Salcuta culture. Copper artefacts have been found, in varying quantities, at
Pl. XI. 7-8 nearly all the excavated sites. They usually include awls, pins, and chisels, produced by hammering (Zlotska pećina, Bubanj, Hisar); flat or cruciform axes made by casting are much rarer (Zlotska pećina, Smedovac). Copper finds are more numerous in eastern Serbia; understandably so, since the area is rich in copper ore and mining was developed there as early as the later Vinča culture
Pl. I. 1-7 (Rudna Glava). However, we must mention here the copper axe and axe mould
Fig. 38/2 found in a tell near the village of Kravari (Pelagonia). The axe is single-bladed, with a tubular shaft-hole.[85] They are very probably related to the Eneolithic cultures of the Bubanj-Salcuta complex, especially since the same site has produced Eneolithic pottery too.

The periodization of Bubanj-Salcuta, particularly the relative chronology of its various regions and the relations within each of them, is a complex problem. Recent excavations (M.Garašanin, P. Roman, N. Tasić)[86] have refuted D. Berciu's division of Salcuta into four stages on the basis of stratigraphic and typological evidence from the eponymous site. His division is of a regional nature and valid only for the settlement in question. A frequent question in recent years has been that of the IVb stage (pottery with flattened handle ends) which, according to some authors, goes beyond the Salcuta culture (Pecica-Satu Mare, the Scheibenhenkel horizon). Sites in Banat, and even Srem, where this type of ware has been found (Baranda, Opovo, Zemun-Prigrevica, etc.)[87] date from the time when Salcuta IVb was spreading westward. It is indicative that many elements typical of the Bubanj-Salcuta style (thick-rimmed bowls, graphite-burnished decoration, two-handled goblets, etc.) are missing at sites in Vojvodina; the inevitable conclusion is that Salcuta IVb pottery is closer to Hunyadi-Vajska than to the classical Bubanj-Salcuta

culture, i.e. that it belongs to a wider horizon, known as Scheibenhenkel.

A stylistic analysis of the available material, pottery in the first place, and, to a lesser extent, stratigraphic information (Bubanj, Hisar), have made it possible to define two phases of Bubanj-Salcuta in Yugoslavia: the first is characterized by shallow, thick-rimmed plates, graphite-burnished decoration, the use of white or red lean paint, etc (Bubanj Ia, Zlotska pećina, Hisar - the lowest level, Crnobuki, Bakarno Gumno I, etc.); the features of the second are a somewhat coarser fabric and the absence of the above elements (Krivelj, Kovilovo, Hisar Ib, Bakarno Gumno II, Šuplevec). So-called "steppe elements" are more frequent in the later phase; they include corded ware (Krivelj, Kovilovo) and "corde tordue" decoration (Šuplevec), anchor pendants, or stone sceptres (Šuplevec). The historical development of Bubanj-Salcuta south of the Danube could be deduced as follows: the culture's primary nucleus was in the Serbian, Romanian, and Bulgarian parts of the Danube Basin (sites like Salcuta, Herculana, Zlotska pećina, etc.). The pressure of the "steppe cultures" on the Early Eneolithic cultures of the lower Danube Basin resulted in a southward move. In a chain reaction, the cultures from Oltenia, eastern Serbia, and northwest Bulgaria moved towards Kosovo, Pelagonia, and as far as Albania (Maliq Ib).[88] In this phase, steppe elements appear at Early and Middle Eneolithic sites as far as Thessaly and the Greek Aegean coast.[89]

Fig. 8/1-8
Fig. 18/1-9
Pl. XIII, 1, 3-5

c) The Alpine slopes zone

The continental part of Slovenia and northwest Croatia belong to a broadly conceived southwest Alpine zone, which was a unified regional entity during the Eneolithic period. It is characterized by a huge hiatus between the terminal Neolithic cultures and the early Eneolithic ones, for which no data about life in this particular region is available. It is hard, therefore, to speak of "post-Neolithic development" here and of ties with autochthonous cultures. We should rather discuss "Lengyel colonization", the movement of the bearers of Lengyel from west Pannonia to the hilly areas of the Alpine region. They entered, so to speak, an empty space and, with time, created a new local culture in different geographic and climatic conditions. In archaeological literature it is encountered under various names, which reflect the individual authors' views of its origins and emergence. J. Korošec, who insisted on the Lengyel component in its style, named the new culture *the Alpine facies of Lengyel*.[90] R. Pittioni, one of the first to have defined this type of pottery in Austria, called it *Pölshals-Strappekogel* (or the Kanzianberg type).[91] S. Dimitrijević, who denied that its origin was exclusively Lengyel, referred to it as *the Lasinja culture*, very close to the Balaton culture in Hungary.[92] Other, compromise names are also to be found (Kanzianberg-Drulovka-Lasinja); they emphasize the local traits of the ceramic style and of the culture as a whole.[93] However, nearly all these authors have underlined the strong presence of Lengyel elements in Slovenia and northwest Croatia. Links with Baden, and even Vinča, are also

stressed (S. Dimitrijević),[94] and with the cultures of the Adriatic coast (T. Bregant, Š. Batović).[95]

Excavations in Slovenia in the past twenty-odd years have enabled a clearer view of the Early Eneolithic in the area. The stratigraphy of some sites (Resnikov prekop, Ajdovska jama pri Nemški Vasi, Drulovka, etc.) and a typological analysis of the material have shown that two phases can be demonstrated in the development of the "Alpine facies of Lengyel", a view supported by J. Korošec.[96] The first, characterized by the finds from Resnikov prekop, the lowest levels at Ptujski grad, Drulovka, and even Ajdovska jama, is closer to Lengyel models. It consists of fragments of coloured and painted vessels, tall-footed goblets, bowls of various shapes.[97] The later phase is that of ceramic vessels viewed as belonging to the Lasinja culture: bowls whose upper part is decorated with sloping incised lines (Jermanova jama, Drulovka), vessels with ribbon handles starting from the rim (Ptujski grad), goblets on a broad foot with linear decoration (Križevci), etc.[98] By this phase the painted ware, a key element of the style of most varieties of late Lengyel, has disappeared. The suggested division of the Early Eneolithic of the Alpine zone reflects the logical development of cultures in the area as the effect of the westward and southward shift of the nucleus of the Lengyel culture. At first, the early phase of the "Alpine facies" has all the features of the Lengyel style (e.g. Blatna Brezovica). It has not yet had time to emancipate itself from the cultural development of its original area. Only several generations later, under the influence of changed economic conditions and weakened ties with the lands of origin, does the creation of a new style and cultural group take place. This would seem to justify the opinions relating both to the name of the culture and to its origin. The earliest phenomena registered at Eneolithic sites in Slovenia, Styria, and Carinthia *belong to the Lengyel culture*; they are somewhat modified and bear local traits, but not to such an extent as to represent another culture altogether. On the other hand, as a result of further development, the Adriatic influence in Slovenia, and the central Balkan influences (Butmir, Vinča) in Croatia and north Bosnia, a new culture emerged. The former is best referred to as "the Alpine facies of Lengyel", which, stylistically, it is, while the latter might be termed *the Lasinja culture*, as S. Dimitrijević would have it, or Balaton-Lasinja; this, however, would encompass only the material attributed to Lasinja I and II (i.e. Balaton I and II), while pottery with Furchenstich decoration is not related to this cultural and stylistic phenomenon.[99]

Pl. XXXV, 4, 9
Fig. 1

The Lasinja culture in Slovenia and northwest Croatia is part of a large post-Lengyel complex which comprised all of Transdanubia, Carinthia, and a part of Styria. Having crossed the Sava in the south, it is to be found in north and central Bosnia (Ljupljanica and Vis near Derventa, Gornji Drugovići, Donji Klakar, Gornja Tuzla, and the site at Radosavska near Banja Luka), while its easternmost sites are Tržnica near Vinkovci and Gradina on the Bosut near Šid. F. Leben and S. Dimitrijević list some 50 sites oof the Lasinja

culture, most of them concentrated between the Drava and Sava rivers.[100] Most settlements are temporary ones, with pits and pit-dwellings. There are no remains of permanent architecture, which has led to the conclusion that they were, in fact, seasonal nomadic stations, built also at greater altitudes (Kevderc is at 810 m). Cave settlements, especially frequent in Slovenia (Ajdovska jama, Ljubniška jama, Krška jama, etc.) and northwest Croatia (Vindija cave), are of the same nature. However, settlements built in the Lengyel (Zengövárkony) tradition appear simultaneously; they are to be found in the lowlands and consist of exceptionally large houses partly dug into the soil (Draguševac near Cerje Novo). As a rule the cultural layer is thin (up to 0.80 m), as elsewhere at Lasinja sites, with one habitation horizon. This makes it difficult to periodize the culture with accuracy; judging by the typological features of the pottery, it went through several stages in its development. More evidence might, perhaps, be provided by the stratigraphy of Ajdovska jama, both the settlement and the necropolis; there a stratum containing Lengyel pottery is followed by two strata with Lasinja pottery, more precisely Lasinja I, IA, and IIB, according to S. Dimitrijević.[101] Working with these data, stratigraphic conclusions from Vis near Derventa and Gornja Tuzla, and typological analyses, S. Dimitrijević divided the Lasinja culture into three phases (four levels: I, IIA, IIB, III). This is close to N. Kalicz's division of Balaton, though the two differ in the contents of the individual phases.[102] As already noted, Lasinja III and Balaton III, which have not been stratigraphically confirmed, consist of pottery with Furchenstich decoration. Stylistically it differs considerably from Lasinja I and II pottery, and it seems that S. Dimitrijević's earlier opinion, as modified by Z. Marković, might be more correct, i.e. that Lasinja went through two stages of development, Lasinja A and Lasinja B.[103] The earlier phase is characterized by plain ware of Lengyel affiliations, while the later comprises pottery with linear motifs, dotted pricks, and new shapes (bowls with a ribbon handle starting from the rim, cups with a handle above the rim, etc.). Compared with the most recent division of Lasinja in Vol. III of *The Prehistory of Yugoslavia*, Lasinja A would be the equivalent of stage I, while Lasinja B would correspond to stages II and III.[104]

Pl. XXXV. 1-3. 7. 8
Pl. XXXVI. 7

Pl. 3

The chronological framework of the Lasinja culture has been established on the basis of two elements: a) its genesis and b) stratigraphic data in Ajdovska jama, Vis, and Gornja Tuzla. If we accept the conclusion that Lasinja is the result of the evolution of a Lengyel substratum, influenced also by later Vinča (Vinča D-1 and D-2) and Sopot (Sopot-Lengyel) in the south and east, then the end of these cultures would provide a *terminus post quem* for the emergence of early Lasinja settlements. In Ajdovska jama, the continuity of development has been confirmed by vertical stratigraphy. On the other hand, setting an upper chronological limit to the duration of Lasinja is a much more complex matter. According to some authors, it lasted until Vučedol, and even

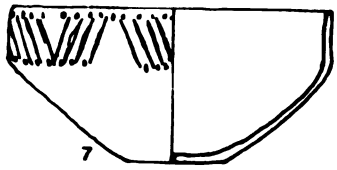
ran parallel with it (S. Dimitrijević).[105] If, however, we eliminate Furchenstich pottery as a constituent part of Lasinja-Balaton, then its end would be somewhat earlier. In the Alpine zone, that would mean before or at the beginning of Retz-Gajary. The stratigraphies of Gradina on the Bosut and partly of Vis near Derventa have established an approximate upper limit for the duration of Lasinja in these parts. At Gradina on the Bosut, a layer belonging to a Boleráz settlement was overlying a layer containing early Lasinja pottery.[106] We could conclude, therefore, that Lasinja survived in Slavonia and western Srem until the appearance of the bearers of Cernavoda III-Boleráz, i.e. that it covered the period of the Early Eneolithic in these regions. In the eastern Alpine zone it might have lasted slightly longer, but not much later than the appearance of Retz-Gajary pottery (Kevderc, Postojna) which some authors unjustifiably assign to Lasinja or Balaton (N. Kalicz, F. Leben).[107] If Retz-Gajary pottery is placed within the same Furchenstich horizon as Kostolac, it would mean that in Slovenia Lasinja was contemporaneous with Boleráz, and even Baden. On the basis of a fragment of a Kostolac vessel found in stratum III of Ajdovska jama, S. Dimitrijević drew his conclusion about the longevity of Lasinja.[108] However, even if this can be accepted in the case of the relatively isolated Alpine zone, the conclusion could not be applied to the regions of Srem and Slavonia, where Lasinja was succeeded first by Boleráz, and then by Baden.

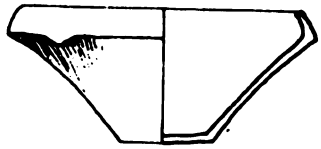
d) The Adriatic zone

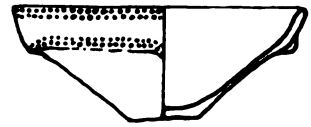
The long and narrow strip of the east coast of the Adriatic, from Istria in the north to the Skadarsko Lake in the south, followed a specific course of development. This was conditioned by the various cultural influences that were felt in the region: that of the "Alpine facies of Lengyel" on the Eneolithic cultures of Istria and the karst region; that of Lasinja, felt in the same areas but also, to a lesser extent, in central Dalmatia; and finally, the presence of a strong Vinča tradition and elements of Bubanj-Salcuta at sites in south Dalmatia and the Montenegrin littoral. The heterogeneous development of the cultures, insufficient research, especially in the hinterland, and the non-publication of results from some stratified sites (Gudnja, Vela Luka) make it very difficult to present a complete picture of the development of Eneolithic cultures in the region. Š. Batović has described two phases in the "Adriatic Eneolithic" of northern and central Dalmatia: the first is illustrated by finds from Brijuni (the Brijuni group) in the north and the central Dalmatian sites of Biskupija near Knin, Grapčeva špilja, Kašići, Cetina, and others; the other comprises pottery from the later strata of Gudnja, Grapčeva špilja, the Tradanj cave near Šibenik, Gradina Sveti Spas near Knin, etc.[109] This division has been harshly criticized,

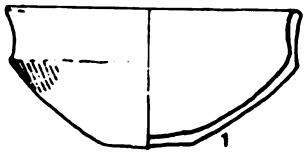
Fig. 17
Fig. 44

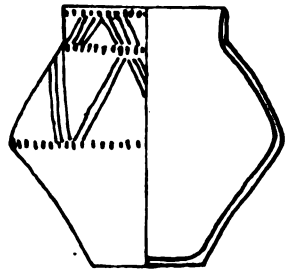
Pl. 3. -- Pottery shapes of the Lasinja culture from the sites in Croatia and Bosnia

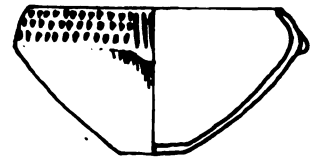


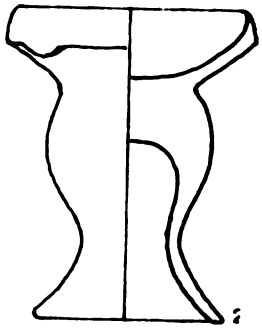


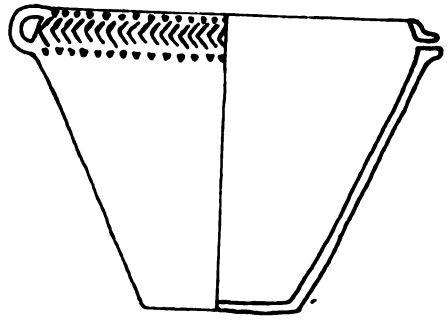


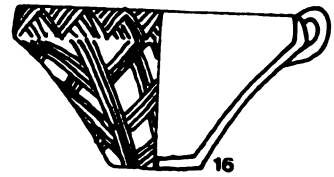


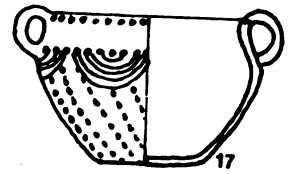


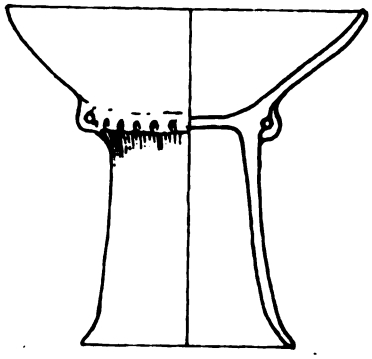


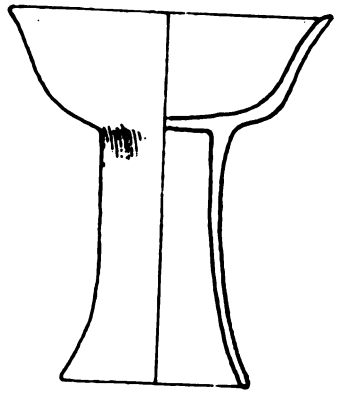


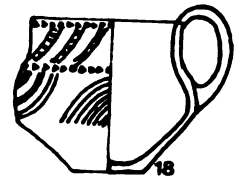


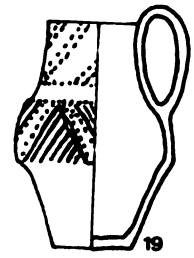












primarily because of its early dating of the Cetina group (placed in the first stage of the Eneolithic) but also because of a lack of clear stratigraphic evidence which would support it. A more realistic approach to the problem of the Adriatic Eneolithic is to be found in the works of N. Petrić, S. Dimitrijević and, more recently, B. Marijanović and Č. Marković, who dealt with the Eneolithic of Herzegovina and the Montenegrin littoral.[110] S. Dimitrijević suggested the existence of three cultural and chronological horizons, noting, however, that the scarcity of material was bound to make this division hypothetical. The first horizon would be marked by the appearance of proto-Nakovana and Nakovana
Pl. XLII, 1-9 pottery, the second by the penetration of the continental Eneolithic (Lasinja and steppe elements), and the third by the second impact of a post-Vučedol type of the continental Eneolithic, i.e. the Ljubljana culture. On the basis of these divisions and of issues raised in the works of A. Benac, N. Petrić, B. Čović, Č. Marković, Š. Batović, B. Marijanović, B. Govedarica, and others[111] it is possible to describe three stages in the development of the Eneolithic on the Adriatic coast and in the hinterland (Montenegro, Herzegovina): a) the horizon of fluted ware (Odmut IV, Gudnja IV, Spila IIa, Grapčeva špilja, Markova špilja, etc.); b) the horizon of the Nakovana culture (Odmut V, Vela Špilja near Vela Luka, Gudnja V, Spila in Nakovana), and c) a post-Vučedol culture of the Tivat-Rubež type, chronologically followed by a horizon of the Ljubljana culture (Grapčeva špilja, Tradanj, Gudnja VI and VII, Ravlića pećina IIIA, Gradina Sv. Spas near Knin). The horizon of the Cetina culture is set aside; although Š. Batović placed it in the first phase of the Adriatic Eneolithic, it actually belongs to the period of transition towards the Early Bronze Age.[112] The first two stages of the above division form an evolutionary unity, with the earlier based directly on Neolithic tradition and preserving many of its stylistic features, while the later gradually moves away from autochthonous models and introduces new stylistic elements characteristic of the Pelješac and Nakovana cultures. Viewed in this perspective, the development of the Eneolithic cultures of the central and southern Adriatic best illustrates the theory of their post-Neolithic nature. In this context fluted ware is of particular importance, especially in explaining the genesis of the Early Eneolithic on the Adriatic coast.
Pl. XLII, 1-3 The frequent presence of this kind of pottery at coastal and island sites has been linked with its appearance in the Hvar culture on the one hand and with a strong continental Vinča influence on the other. At Hvar, in Markova špilja
Fig. 16/1-3 and Grapčeva špilja, this kind of ware is found in the Neolithic stratum, whence it was taken over by the bearers of the Nakovana culture, along with some other elements ("crusted" painting), says N. Petrić.[113] S. Dimitrijević, on the other hand, gives priority to the Vinča culture as the source of fluted ware found eventually on the coast.[114] Recent excavations at Montenegrin sites, both on the coast (Spila cave near Perast) and inland (Beran krš), have helped trace the road taken by Vinča pottery on its way to central and south Dalmatia.[115] At Beran krš, for instance, stratum IIc contains plentiful pottery decorated on the shoulder with shallow vertical flutings. It is easily linked both to the almost

identical shapes of the Nakovana culture and with the Vinča culture in Kosovo and further north. Similar ware has been found in the Spila cave near Perast; it was located in strata IIa-c which, according to Č. Marković, belong to the Early and Middle Eneolithic.[116] At Montenegrin sites, it has to be noted, fluted ware is also found in earlier, Neolithic strata (Spila Ic, Beran krš I, Odmut III), whence it was obviously adopted by the Early Eneolithic. This could also apply to sites in Herzegovina (Ravlića pećina IIc, individual finds from Badanj), where fluted ware is also found in the lowest Eneolithic strata. This is why B. Marijanović considers them contemporaneous with the final phase of the Hvar culture,[117] thereby postulating a "Hvar origin of fluted ware" in the Adriatic hinterland (Badanj), in spite of the foregoing arguments, very convincing, about Vinča models for the fluted ware of central and south Dalmatia.

Fig. 30/1-4
Fig. 40

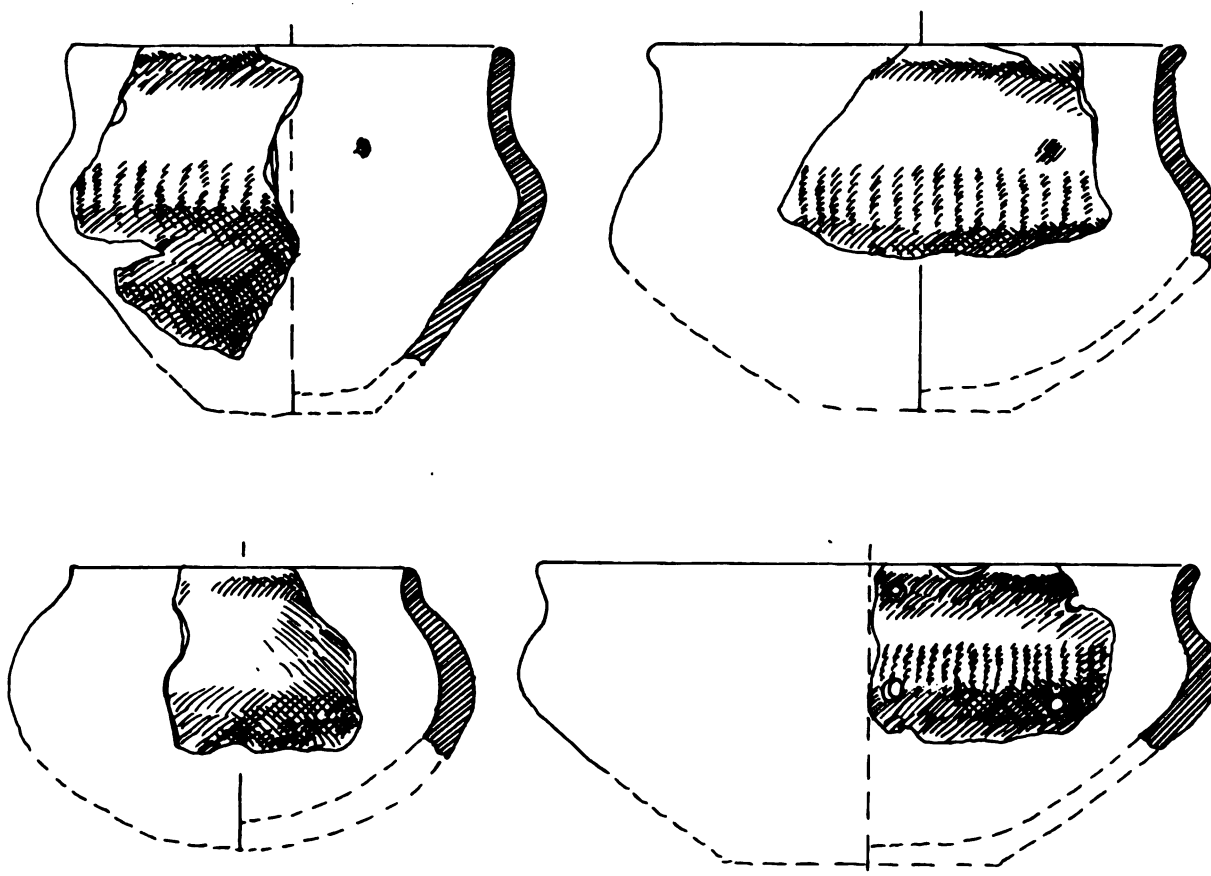
The scarcity of data on the cultural development of the Adriatic region, the restricted number of systematically excavated sites and the lack of published material make it impossible to present more than a summary picture of the post-Neolithic (Early Eneolithic) cultures of the region. It consists, as we have already noted, of three sub-regions: a) Istria and Kvarner, b) central and south Dalmatia, and c) the Montenegrin littoral with the hinterland. The Eneolithic cultures in these regions developed by a gradual evolution of a Neolithic basis. The Brijuni group (or culture) emerged in Istria and Kvarner, its development based on both the "Alpine facies of Lengyel" and the traditions of the Hvar culture. On the basis of these links and the appearance of fluted decoration, Š. Batović dated the group as transitional between the Neolithic and Eneolithic.[118] In its further development, the region was submitted to strong Lasinja influence from Slovenia. Central and south Dalmatia and their hinterland (the Neretva valley, Herzegovina) are characterized by the emergence of the Nakovana culture, a product, according to S. Dimitrijević, of a symbiosis of the Hvar and Vinča cultures.[119] A number of sites belonging to this culture have been registered (Spila in Nakovana, and Gudnja in Pelješac, Vela Špilja near Vela Luka on Korčula, Ravlića pećina, Badanj, etc.); most have been excavated but, unfortunately, there has been no extensive data, except in the case of Ravlića pećina. Better insight into the excavated material and appropriate documentation will no doubt allow us to distinguish between at least two stages in the early Eneolithic development of the regions. S. Dimitrijević's suggestion about the existence of the proto-Nakovana and Nakovana cultures is not sufficiently backed by material and stratigraphic evidence. Viewed in a broader context, this division fits in with the theory that there was an earlier, post-Neolithic horizon containing fluted ware, which would comprise the proto-Nakovana style, and a later one, where new stylistic elements appeared (under the influence of Lasinja, Bubanj-Salcuta, Maliq IIa, etc.) related with the Nakovana culture.

Pl. 4/a-d

On the Montenegrin coast and further inland (the Piva and Lim valleys), the Early Eneolithic was largely characterized by the development of the Nakovana culture, but also by strong influences of the Vinča culture. The

Fig. 30

stratigraphy of Spila near Perast allows the possibility of as many as three phases of Eneolithic development (Spila IIa-c), with IIa and IIb belonging to the region's Early Eneolithic. The stratigraphy of Odmut and Beran krš has added to our knowledge about the Eneolithic in these parts. It should be noted, however, that the habitation of Beran krš ceased as early as the beginning of the Eneolithic (Beran krš IIc), while at Odmut it ran parallel with the development of the Spila near Perast (Odmut IV, V, VI).[120] The end of the Early and Middle Eneolithic in these parts was marked by a powerful thrust of a post-Vučedol culture of the Tivat-Rubež type putting an end to the lengthy development of the post-Neolithic cultures, which endured much longer in this region than in the more turbulent areas of eastern and northern Yugoslavia.



Pl. 4 – The pottery of the Nakovana culture from Briuni - Istria (acc. to N. Petrić, 1979, 216)

MIDDLE ENEOLITHIC
Cultures of the period of Indo-European migration

The term "Indo-European migration" is here used conditionally. It is used to denote a lengthy period of migrations, of cultural shifts from east to west, from the steppes of southern Russia to the Pannonian Plain and the Balkans.[121] These movements were the cause of numerous changes in material and non-material culture, and especially in prehistoric economy, where nomadic pastoralism superseded the already worn out agrarian civilization of the Neolithic. The bearers of these changes were the tribes of steppe pastoralists, mobile, without fixed abode, and quickly spreading over the vast expanses of East, Central, and Southeast Europe. It is up to palaeolinguists and furhter studies to establish whether they are to be identified with the bearers of the great Indo-European migration. In any case, archaeological material shows that the Middle Eneolithic in the Danube Basin and further afield, in the Carpathian Basin and the Balkans, witnessed the demise of post-Neolithic cultures of the Tripolye, later Vinča, Theiss, Lengyel, Bubanj-Salcuta, and Gumelnita types and their varieties, and the emergence of the widespread cultural complex of Cernavoda III-Boleráz and the Baden culture, whose economy, way of life, and organization of settlements was entirely different. The cause of these changes, so important for the further development of prehistoric society in the Yugoslav Danube Basin and the Balkans, is to be sought in a wave of migrations, the shift of the steppe tribes from the Euro-Asian zone (the Orenburg steppes and the area north of the Caspian Sea) in the east towards Central and Southeast Europe in the west. This movement was spearheaded by the bearers of the Pit-grave culture with their specific material culture, economy, and burial customs. In dealing with the development of Eneolithic cultures in the central

and western Balkans it is important to establish the *model* of these migrations and explain the *process* of the "Indo-Europeanization" through the gradual assimilation of post-Neolithic cultures and modification of their stylistic and ethno-cultural traits. From the nucleus of the migratory wave (probably north of the Caspian Sea), the Pit-grave culture moved westward, formed a secondary centre between the Dnieper and Dniester, and assimilated the bearers of the Sredni Stog II culture. Moving further to the west, it created a third centre between the Dniester and the Danube, where the agrarian culture of Tripolye (Tripolye B1 and Usatovo) was developing at the time. Having reached the Danube, the "Indo-European" tribes were in an ideal position to move onwards to the Pannonian Plain and the Balkans. This was the beginning of the "Indo-Europeanization" of the post-Neolithic cultures in the Carpathian-Danubian-Balkan region, wherein the autochthonous cultures of the Danube Basin were forced to move westward and southward, and eventually confronted with the physical presence of the steppe tribes in these regions. For example, under pressure from Cernavoda III, itself a mixture of steppe and autochthonous cultures, post-Neolithic groups of the Gumelnita and Salcuta types had to move on. The former retreated to their strongholds in central Bulgaria and Thrace, while the latter sought a "modus vivendi" in the west and southwest, forming the Hunyadi-Vajska group on the one hand and, on the other, varieties of Bubanj-Salcuta in eastern Serbia, Kosovo, and as far as Pelagonia and Albania to the south.[122]

Map 2

The "Indo-Europeanization" of the Balkans was slowed down by the weakening of the migrational wave, its mingling with autochthonous cultures, and the greater cohesion of the post-Neolithic cultures of the Danube Basin. Direct migration was replaced by the gradual interaction between the already mixed cultures, at first through mutual contact, imports, and other forms of communication. The appearance, at this time, of numerous artefacts that can be explained as originating from the steppes - long flint knives (Decia Muresului, the hoard from Kladovo, the graves at Nosa near Subotica, Perlez, Ketegyhaza etc.), corded ware, anchor pendants (Govora-Sat, Zlotska pećina, Ezero),

Pl. XI, 5, 9

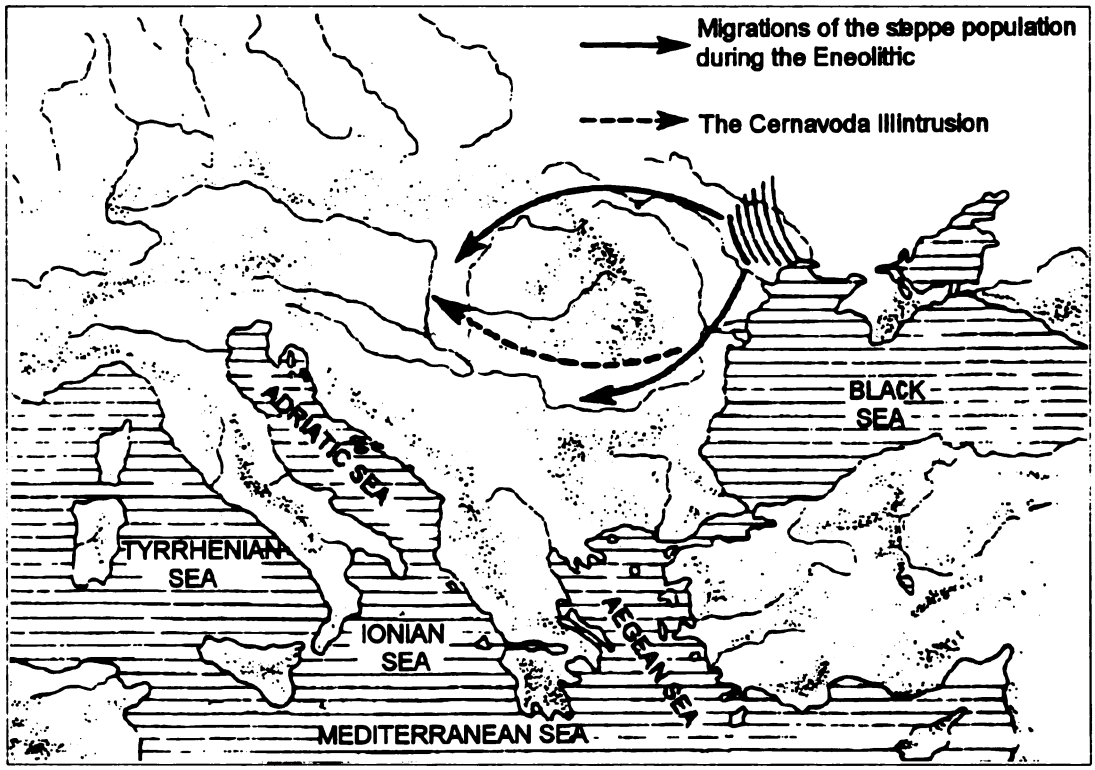
stone "sceptres" (Casimcea, Reževo, Šuplevec) is followed by the actual pres-

Pl. XIII, 1-6

ence of new populations in the regions (tumuli of the Pit-grave culture with ochre graves). The process was a lengthy one; it lasted some 500 years and affected the cultures of the terminal Middle and Late Copper Age. The appearance of tumuli with ochre graves marks the end of the process. It has been fairly accurately dated thanks to stratigraphic data from tumuli in the Romanian and Yugoslav Danube Basin. V. Zirra, E. Comsa and other authors have provided information about Romanian tumuli with ochre graves, filled in with earth containing Cotofeni pottery.[123] At the Jabuka tumulus near Pančevo, on the other hand, it has been established beyond doubt that the "steppe grave" had been dug into a Kostolac layer thus having disturbed the footings of a Kostolac house.[124] It has thus been established that the final stage of the Indo-European migrations coincided with the end of the Cotofeni and

Kostolac cultures, i.e. that it was contemporaneous with early Vučedol in the west and Ezero in the south.

The last echoes of the steppe cultures' thrust across the Danube and into the eastern and central Balkans, which were earlier marked by the



Map 2 – Migrations of the steppe cultures and the position of the Cernavoda III culture

appearance of Cernavoda III pottery (near Smederevska Palanka, at Gradina Likodra in Radjevina), corded ware, the Šuplevec stone sceptre and the anchor pendants, are the tumuli containing steppe burials.[125] Fifteen tumuli of the kind have been excavated in northern Bulgaria, notably Dobruja. The most important seems to be a tumulus from the Plačidol necropolis, where the body, lying on a mat (?) in a chariot, was sprinkled with ochre.[126] The grave best illustrates the mobility of the steppe tribes, whose princes lived, died, and were buried in chariots. There is a degree of analogy between this kind of burial and a tumulus in Herzegovina, where the body was laid onto a sled.[127] Other examples of steppe tumuli in these parts of the Balkans include those found near the village of Bare in Šumadija, whereas a somewhat later tumulus at Mala Gruda near Tivat exhibits some steppe features.[128] It might well be the southernmost witness of the steppe tribes' migrations from Euro-Asia to the Adriatic Sea.

The Cernavoda III - Boleráz culture

The first of a series of new cultures to have appeared in the Pannonian-Danubian-Balkan expanse was Cernavoda III or Boleráz, in recent literature often referred to as the Cernavoda III-Boleráz (Boleráz-Cernavoda III) culture or group. The different names are products of different approaches to the culture and its attribution: a) that is was an early phase of Baden (V. Nemejcová-Pavúková, S. Dimitrijević, E. Neustupny);[129] b) that these were two distinct cultural phenomena whose development was largely independent (S. Morintz, P. Roman)[130] or c) that the two constituted a single cultural, historical, and stylistic horizon of the Middle Eneolithic, from the lower Danube Basin (Dobruja) in the east to the Alps in the west, and from southern Poland in the north to the central Balkans in the south (N. Tasić).[131] Although the differences may appear considerable at first sight, they do not seem to be very important for the study of this new phenomenon in the Eneolithic development of the regions under consideration. The fact is that the "post-Neolithic cultures" of the Early Eneolithic in the Pannonian Plain and the central Balkans were succeeded by an *entirely novel* culture: novel in its material culture, its economy, even in its burial customs. In the development of the Eneolithic in these regions, it represents a boundary line between the agrarian post-Neolithic cultures and the new cultures of nomadic stock-breeders of the Middle and Late Eneolithic.

Research into this culture and its treatment as a stylistic phenomenon in its own right is of a relatively recent date. Some authors have long considered its pottery a part of the Baden culture. Arguments for treating it as a cultural group in its own right, if not a culture, were given us with the publication of the results obtained by the excavation of Cernavoda (D. Berciu),[132] several sites in Slovakia (Iža, Nitriansky Hrádok, Beladice, etc.),[133] Austria (Donnerskirchen, Schwechat),[134] Yugoslavia (Mostonga, Gradina on the Bosut, Vajuga-Korbovo, Brza Vrba),[135] and especially the necropolis Pilismarót-Basaharc north of Budapest.[136] All these sites have yielded stylistically unique pottery, mutually similar, or even identical, in shape and decoration. Volume III of *The Prehistory of Yugoslavia* treats it partly as an independent phenomenon: in the chapter on Baden, S. Dimitrijević includes it as the first phase, "stage A-1 of the early, or preclassical Baden", while the present author discusses it in the "Conclusion" as a culture in its own right.[137] Recent research cited above has confirmed this opinion.

Cernavoda III-Boleráz settlements and necropolises are to be found over a vast territory, vaster, it seems, than any previously covered by a single culture. Even the area covered by Baden, its genetic successor, is more restricted. The territory encompasses: the lower course of the Danube to the east and southeast (Dobruja, the Romanian and Bulgarian Danube Basin); in its central part, all of the Pannonian Plain, the Yugoslav Danube Basin, and the sites south of the Sava and Danube, as far as the central Balkan zone; to the west, the eastern parts of Austria (Niederösterreich and Burgenland); to the

north, Slovakia and areas towards southern Poland, where Polish archaeologists used to treat it as part of the fluted, i.e. Prominista culture.[138] Some local differences were inevitable over such a huge territory, regardless of the unity in the main features of the material culture. For example, in the zone covered by Cernavoda III and the related Ezero culture (horizons XIV and XIII of the eponymous site) coarse ware decorated with plastic bands or rough cuts is more frequent than in, say, Pannonia (Boleráz), where pottery is finer, often with fluted decoration.[139] The differences are due to the influence of autochthonous cultures on the newly-formed one.

To the south and southwest, Cernavoda III-Boleráz was widespread in the Danube Basin, with a high concentration of sites in southern Banat and western Bačka, between the Sava and the Danube, and, as recent excavations have revealed, south of the Danube - in Šumadija, western Serbia, and Bosnia. This last group is less prominent; with the exception of a single site near Smederevska Palanka, others are of the type where coarse Cernavoda III ware predominates. They are also characterized by a lack of fluted decoration and a profusion of plastic bands, impressions, and slanting cuts. The Gračanica site, erroneously dated into the Early Bronze Age, would partly belong to this cultural circle.[140]

There are some thirty registered Cernavoda III-Boleráz sites in the Yugoslav Danube Basin, but the only ones to have been excavated to any extent are Brza Vrba near Kovin, Vajuga near Korbovo, Mostonga near Odžaci, Pl. XIV Gradina on the Bosut and Gradina in Tolisavci in western Serbia. The partial Pl. XV publication of results from these sites has made it possible to sketch a rough picture of this culture in the Yugoslav Danube Basin and south of it, and define the characteristics of its material culture, type of dwellings and of settlements. In this respect, the most helpful sites have been Brza Vrba, Mostonga, and Gradina on the Bosut.[141] Topographical features make it possible to distinguish between two types of settlements: the first are built on river banks in the lowlands, and the second on higher ground, or even in hilly areas not typical of Cernavoda III-Boleráz settlements. Brza Vrba, Beljarica near Zemun, Mostonga, and a few settlements in Banat are, or used to be, located on the banks of the Danube and its arms. Gradina on the Bosut, though its present-day name would suggest a hillfort settlement (gradina = hillfort), is in fact a lowland settlement built on the river bank (Bosut). The Smederevska Palanka site was built by the Morava, and Gladnice near Gračanica on a bank of the eponymous river. On the other hand, Gradina Likodra in Tolisavci would belong to the other, hilltop type of settlement, typical of the culture's thrust towards the central Balkans.

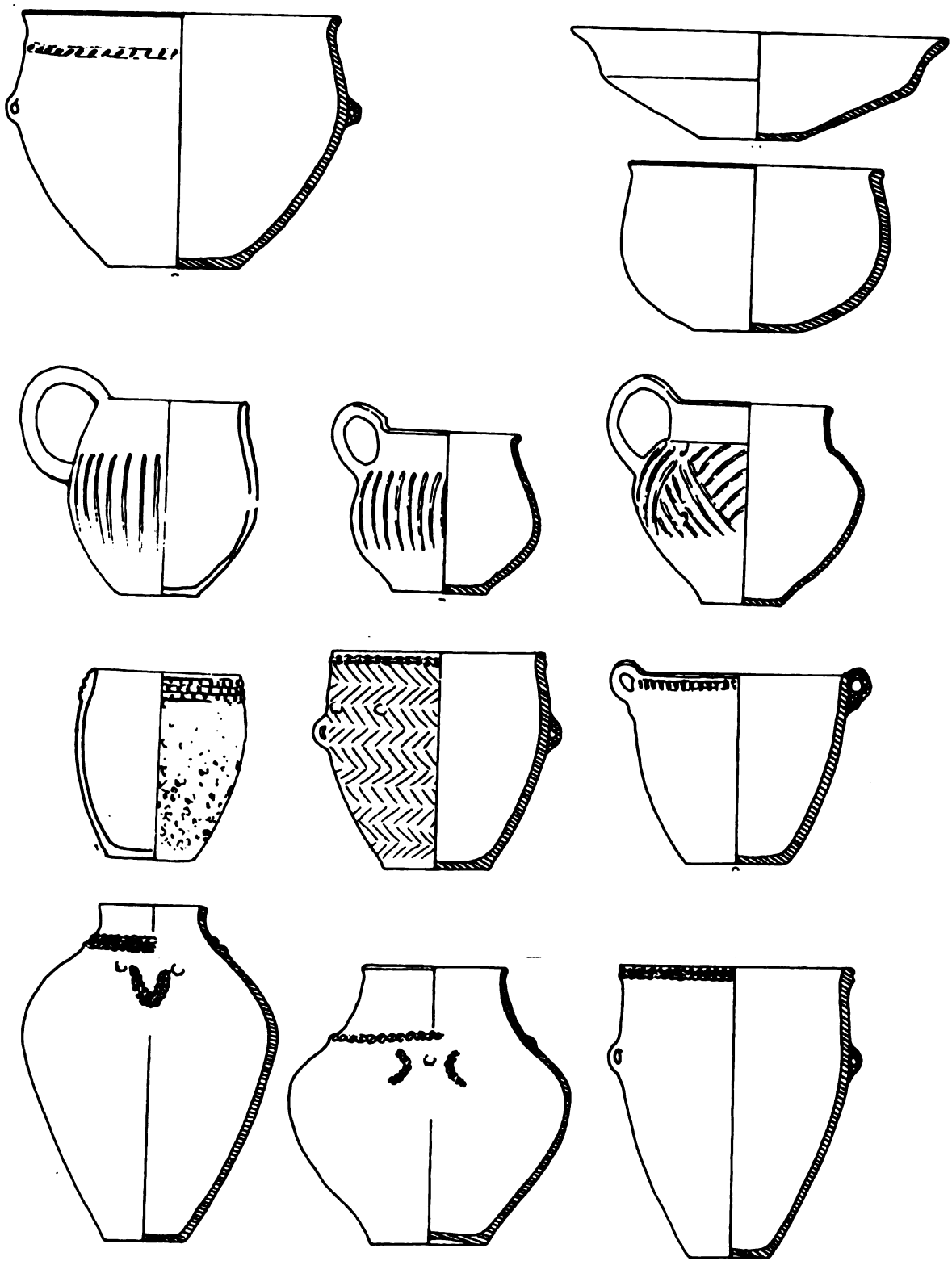
There is very little data about the types of dwellings and habitation practices in Cernavoda III-Boleráz. Excavations at Gradina on the Bosut near Šid and Brza Vrba have revealed the footings of several houses, built using practically the same technique: potsherds or pebbles (Bosut) were used to solidify the floor; this was coated with a layer of clay, which was then packed

and burnt. The upper part of the houses was executed in a widespread prehistoric technique of building: wattle-and-daub and round posts. Also frequent were pits and pit-dwellings (Mostonga, Brza Vrba), as well as open hearths and stoves built using the technique applied in the construction of above-ground dwellings (Brza Vrba).

Pl. 5 Pottery finds are quite frequent in Cernavoda III-Boleráz settlements, but not as varied as in the somewhat later Baden culture. We shall here describe only a few distinctive pottery types, which can help us explain the genesis of the culture and are equally important as evidence of the cultural and stylistic unity of the vast area that the culture covered. There are, first of all, deep pots with a plastic band around (or below) the rim, decorated all over with a coarse herringbone ornament. The shape is found at many sites from Dobruja to the Alps and from southern Poland to the central Balkans (Cernavoda, Brza Vrba, Gradina on the Bosut, Schwechat, Iža, Nitriansky Hrádok, etc.).[142] This and the other shapes to be discussed are placed by V. Nemejcová-Pavúková within the Baden Ib horizon of her chronology of the Baden culture.[143] Another characteristic shape is that of large pithoi, often with a roughened surface and Pl. XV. 4 decorated with plastic bands (Locusteni, Brza Vrba, Donnerskirchen, Nitriansky Hradok). Finer ware includes cups with a single handle above the rim and Pl.XV. 3 broad fluting on the belly and shoulder. Typical are their "subcutaneous", Pl. XIV. 2. 4 vertically perforated tunnel handles (Gradina on the Bosut, Mostonga, Donnerskirchen, Pilismarót-Basarhac).[144] Finally, there is a fairly widespread type Pl. XV. 2 of bowls with a turned-down rim whose inside (often the entire surface) is decorated with shallow parallel fluting. Sometimes they are exceptionally large, Fig. 29/1 over 50 cm in diameter (Gradina on the Bosut, Mostonga, Donnerskirchen, Pl. XV. 1 etc.).[145] The greater frequency of these bowls at Boleráz sites and the absence of the fluted cups described above have led V. Nemejcová-Pavúková to treat Cernavoda III and Boleráz as two distinct cultural groups. However, "transitional" sites such as Locusteni in Oltenia, Vajuga near Korbovo, or Brza Vrba in Banat, where both fluting and bowls with turned-down rims are present, show that these were merely local traits of a broader cultural complex. To this group of rare but characteristic vessel shapes should be added a specific kind of plate (or lid), richly decorated on both sides, with spiral or crosshatched motifs. It was found in Brza Vrba, Gladnica near Gračanica, Ezero, but also at sites in Slovakia (Jevišovice, Bratislava).[146]

The analysis of pottery found at Cernavoda III-Boleráz sites, including those in the Yugoslav Danube Basin, has provided a basis for resolving the problem of the genesis of this culture as a whole. Assuming that the primary nucleus of the Cernavoda III style was situated in the lower Danube Basin, along the border between the steppe cultures and the "post-Neolithic" cultures

Pl. 5 – Pottery shapes of the Cernavoda III-Boleráz culture from sites in Serbia (Brza Vrba, Gradina na Bosutu)



of the Balkans, its origins should be sought in that area. In the introductory part of this chapter we drew attention to the "successive" movements of the steppe tribes towards the lower Danube Basin, Central and Southeast Europe. Cernavoda III sites in Romania and nortwest Bulgaria (Dobruja) appear at the time when the Sredni Stog (II) culture was penetrating the area of Tripolye (B), which soon resulted in the disappearance of the latter. Elements of the Sredni Stog culture are found in Cernavoda III pottery: coarse ware decorated with oblique cuts on the upper half, the appearance of a rudimentary form of the herringbone motif, of a festoon below the rim, consisting of pricks or cuts, etc. This kind of pottery is most frequently found in the Dereivka II horizon, where terra-cotta figurines with flattened upper parts are also present (Dereivka);[147] the same were found at Cernavoda III sites and, somewhat later, in the early phase of the Baden culture (Vinča, Beladice, Šarovce, etc.).[148] Also to be noted are the close ties between Cernavoda III pottery and Ezero finds in Bulgaria, most particularly the coarse ware and decoration by means of plastic bands and oblique cuts (Dipsiska mogila-Ezero, horizons XIII-VII).[149] By correcting the synchronization of Ezero pottery with Baden, i.e. Cernavoda III and Boleráz, we are able to connect these finds with phenomena in the Yugoslav Danube Basin and the Carpathian Basin at large.

The Sredni Stog component and links with the Ezero culture are only one aspect of the genesis of Cernavoda III-Boleráz. Also of importance for Boleráz sites is the influence of autochthonous cultures on the emergence of the new style: that of the late Lengyel and of Balaton-Lasinja. The latter is especially prominent at Gradina on the Bosut, whose vertical stratigraphy
Fig. 14/1 shows a sequence of the Lengyel (Sopot-Lengyel), Balaton-Lasinja I/II, and Cernavoda III-Boleráz cultural layers.[150] The influence of Balaton-Lasinja on the Boleráz group is reflected in pottery of the same fabric and similar shapes, and in the direct stratigraphic continuity between the two cultures. This, of course, is a regional phenomenon, characteristic of the area between the Sava, Drava, and Danube rivers, although, in the words of E. Neustupny,[151] the theory of the "polygenetic origin" of the Baden culture (to whose early phase he attributes Boleráz) might be accepted.

It is not hard to establish the relative chronology of Cernavoda III-Boleráz. Most archaeologists agree that in the east it succeeded Cernavoda I (type Renie II), Salcuta IV, and Gumelnita (Karanovo VI); in the central parts, the Yugoslav Danube Basin, and most of the Pannonian Plain, it was later than Bodrogkeresztúr, Hunyadi-Vajska, and Balaton-Lasinja I-II; in the north, it followed the final stages of the Lengyel (Ludanice) culture. Throughout most of this area it was succeeded by the Baden culture, except in the east, where an early stage of Cotofeni (Cotofeni I) emerged. In absolute terms, and on the basis of uncalibrated C-14 dating, Cernavoda III-Boleráz would cover the period between 2850 and 2700 B.C. (data provided by the Berlin and Gröningen laboratories).[152]

The Baden culture

Among the first excavated prehistoric sites in the Yugoslav Danube Basin were those that yielded Baden pottery (Bogojevo, Gomolava, Vinča, Vučedol). However, it was only fifty years later that it was registered in domestic archaeological literature as a culture in its own right, having already won a place of its own in the literature of neighbouring countries (Austria, Hungary). In publishing his findings from Vučedol, R. R. Schmidt accepted the name of "Baden culture", introduced by O. Menghin (after the Baden-Königshöhle site in Niederösterreich,[153] and it is the only one encountered in domestic literature, though other names for the same culture abound in Central European archaeology (the Ossarn culture or type, the fluted ware culture, Prominista and Pécel culture, etc.). Since R. R. Schmidt had done his work several Baden sites were excavated (Beli Manastir, Ilok, Dobanovci, Erdevik, Vinča and Gomolava - additional research, etc.), and several more or less extensive studies have been published, most of them dealing with Baden in a regional context (A. Benac, M. Garašanin, B. Jovanović). There has also been a first attempt at its systematization within a Yugoslav framework (N. Tasić).[154] All this has allowed S. Dimitrijević to put forth a general review of the Baden culture in *The Prehistory of Yugoslavia*, classify all available data, and define the place of the culture and its relationship with other contemporaneous cultures of Central and Southeast Europe.[155] Baden sites and the Baden culture have thus been studied in a comprehensive and complete manner.

Territory, settlements, necropolises

Baden sites: settlements, individual graves, and chance finds, are located in the southern section of the vast Baden complex - practically on its periphery. In the south, the border runs along the lower course of the Sava and the Danube, spreading to the Romanian and Serbian Banat to the east, mainly in the lowlands. To the south, Baden settlements do not reach further than the narrow Danubian zone (Vinča). Certain sites in Serbia, for instance Gladnice near Gračanica (Kosovo), Bubanj, Hisar, and others, are typologically outside the framework of the Baden style, though some researchers hold contrary views. The finds from Gladnica, for instance, are closer to Cernavoda III, while "Baden" or "Baden-Kostolac" pottery from Hisar and Bubanj belong to the Kostolac culture. Djurdjevo, in Šumadija (Djurdjevačka glavica), however, belongs to Vučedol, not Baden, etc.[156] The apparent conclusion would be that Baden settlements belong chiefly to the Pannonian Plain, including Slavonia and Srem. In the mountainous regions south of the Sava and the Danube, in Bosnia, Serbia, Transylvania to the east, there are no Baden sites, as P. Roman has shown.[157] Their predilection for low ground proceeds from the "nomadic, steppe component" of the culture's economy.

Over 100 Baden sites have been registered in the region between the

Slavonski Brod-Valpovo line to the west and the Romanian-Yugoslav border to the east, but only a few have been investigated. The basis for a discussion of the material culture, type of settlements, stylistic traits, burial customs, and other features of the Baden culture in the southern zone of its expanse is provided by the sites of Beli Manastir, Odžaci, Bogojevo, Vučedol, Sarvaš, Dobanovci, Gomolava, Vinča, Erdevik, and a few others where small-scale sondage or systematic excavations have been carried out.[158] All these sites have one thing in common: they are single-layer, short-term settlements, even where the Baden habitation horizon is part of a vertically stratified site (Vučedol, Gomolava, Sarvaš, Bapska, Vinča). No site has yielded two or more habitation horizons in the vertical stratigraphy. This also has to do with the economic features of the culture as a whole.

By their topographic features, the Baden settlements in the middle Yugoslav Basin belong to the widespread type of lowland settlement known throughout the Pannonian Plain, in Slovakia, and as far as southern Poland in the north. These are the so-called pit-dwelling settlements, which developed horizontally and left no significant cultural layers. Most of the material is to be found in pits, less often in a cultural layer. Another characteristic of these settlements (e.g. Beli Manastir, Dobanovci) is the lack of surface dwellings, of houses which had been present in the area in the days of the Vinča, Lengyel, or Theiss cultures. The footings of (apsidal and rectangular) houses in Vučedol and Sarvaš are not of the Baden culture. The fact that R. R. Schmidt did not differentiate between Baden and Kostolac pottery might also account for the erroneous cultural attribution of the surface buildings at these sites.[159] Excavations at Gomolava have clearly shown that the Baden horizon contains only pits and semi-subterranean dwellings overlied by a settlement with early Kostolac houses.[160] This is why it is believed that the bearers of the Baden culture in the Yugoslav Danube Basin were using only temporary settlements with pits or semi-subterranean dwellings; longer-lasting dwellings were to be built only in the Kostolac culture. This is an effect of the nomadic way of life which characterized the Baden culture. Dobanovci and Beli Manastir are typical examples of this kind of settlement: numerous pits and semi-subterranean dwellings with quite a few remains of material culture, open hearths and hearths in pits, are the only mark of settled life at these sites.[161] They often cover an extensive area (several hectares) and are usually located on permeable loess ridges above rivers, streams, or marshes. In addition to Dobanovci and Beli Manastir, this group also includes the sites in Bačka near Odžaci and Mostonga, Bogojevo, Perlez, and a number of Baden sites listed in *The Eneolithic of Southern Banat*.[162]

Fig. 9/1-4
Fig. 10/1-3

A variant of the above, most widespread, type of Baden settlement is represented by the sites on the right bank of the Danube, built on elevated terraces, such as Sarvaš, Vučedol, or Ilok. Several sites on the top or slopes of Fruška Gora (Lice kod Erdevika) could also be included in this group. Due to the topographic features of the terrain they are more compact, but they are still

Fig. 26/1-3

temporary pit-dwelling settlements and, as we shall see, uniform in material culture and chronologically contemporaneous with the other lowland settlements.

While the number of Baden settlements is considerable, evidence about necropolises and burial customs is rather scanty. It consists chiefly of separate burials discovered either by chance or during the excavation of Baden settlements. This is the case of Dobanovci, where a grave containing a crouched body and grave goods was found within the settlement, of several graves in Bogojevo, a double burial at Vučedol, some graves lacking grave goods at Gomolava, etc.[163] The bodies were always buried in a crouched position and in accordance with the canons of the Baden culture. Exceptions are the double burials at Vučedol and Bogojevo, and the animal burials at the latter site. On the other hand, an important new phenomenon is the appearance of burials under tumuli, often, but not always with good reason, connected with "steppe influences". Two such sites are worthy of mention: Aradjanska humka (barrow) in northern Banat (near Kikinda) and a barrow near Perlez, in central Banat.[164] The former contained a single cremation burial with a larger cup containing the ashes of the deceased and a bowl typical of the Hódmezövásárhely horizon of the Baden culture. Several barrows have been discovered at Perlez, of which three have been excavated. Their cultural attribution is not absolutely reliable: elements found in some graves (the tomb dug into the centre of the tumulus, into the "urhumus", the use of ochre, remains of a wooden structure, etc.) would suggest their attribution to a later horizon of the Pit-grave culture while others, despite the lack of grave goods, might belong to an earlier horizon, to Baden. Such a conclusion might be furhter corroborated by the fact that the remains of a devastated Baden settlement were found nearby. The impression is that at the time of the Pit-grave culture the barrows were built with earth from the immediate vicinity, which would explain the presence of Baden pottery.

Fig. 10

Pl. XVIII, 1, 6

Fig. 34/1-4

Biritual burials have been registered at many Baden necropolises outside Yugoslavia. However, barrows with cremation burials are somewhat rarer and probably to be linked with Baden's inheritance from its Boleráz substratum (Pilismarót-Basaharc).[165] Most other necropolises containing cremation burials are of the flat type (Ózd, Viss, Szekszárd, etc.). Aradjanska humka is the only such find in the southern areas of the Baden culture, and is therefore of some chronological importance. In the north, the presence of cremation burials in tumuli has been registered in Slovakia, especially in the Slaná valley, where several such mounds have been discovered near Stránska, Včelince, and Gemer near Rimavská Sobota.[166] The material found there belongs to the early and classical stages of the Baden culture (Fonyód, Budakalász), which is also the probable chronological attribution of the grave at Aradjanska humka.

Material culture

Much has been written about the typological features of the Baden culture, especially its pottery, and we shall not dwell on them. We would only like to point to some specific characteristics relevant for the southern sites, and especially for the dating of the sites in the Yugoslav Danube Basin within the overall development of the Baden cultural complex. In the absence of stratigraphic data, it was from pottery that many authors (J. Banner, V. Nemejcová-Pavúková, E. Neustupny, S. Dimitrijević, M. Garašanin, N. Tasić)[167] have deduced internal periodization, following its stylistic development through several phases (3 to 5). It seems that an analysis of material from sites in the Yugoslav Danube Basin could significantly contribute to the solution of this problem, especially since the horizon in question is limited in time and likely to represent a separate phase in the development of the Baden culture.

Pl. 6/b

A general conclusion to be drawn from the analysis of pottery would be the stylistic unity of the material found almost throughout the southern zone of the Baden culture. Similar or identical shapes, the same ornamentation, and even the absence of certain characteristic features of the ceramics, present at some other sites in the Pannonian Plain, would be the first factor pointing to the synchronism of the Baden sites in the Danube Basin, Srem, and Slavonia. The most frequent shape, characteristic of the entire Baden cultural complex, is that of a cup with a bulbous receptacle and a ribbon handle above the rim. It was modelled, no doubt, after Boleráz-Cernavoda III prototypes, cups which still did not have a bulbous recipient, but in all the other details (ribbon handle, fluting) anticipated the new shape, which would reach its apex in the Baden culture. This development could be followed through an analysis of the pottery found in Baden settlement at Vučedol. Assuming that this pottery, published by R.R. Schmidt, is unique and that there is no Boleráz horizon at the site, we could interpret some purely Boleráz forms of cups and goblets as their continuation into the Baden culture.[168] The cup with a ribbon handle appears abundantly, in various forms, at all Baden sites, from those in Banat to Vinča, Dobanovci, Gomolava, Vučedol, and Beli Manastir. In terms of the usual divisions of the Baden culture, most of these forms would belong to phases B and C of its development, i.e. the classical phase of the Baden culture.

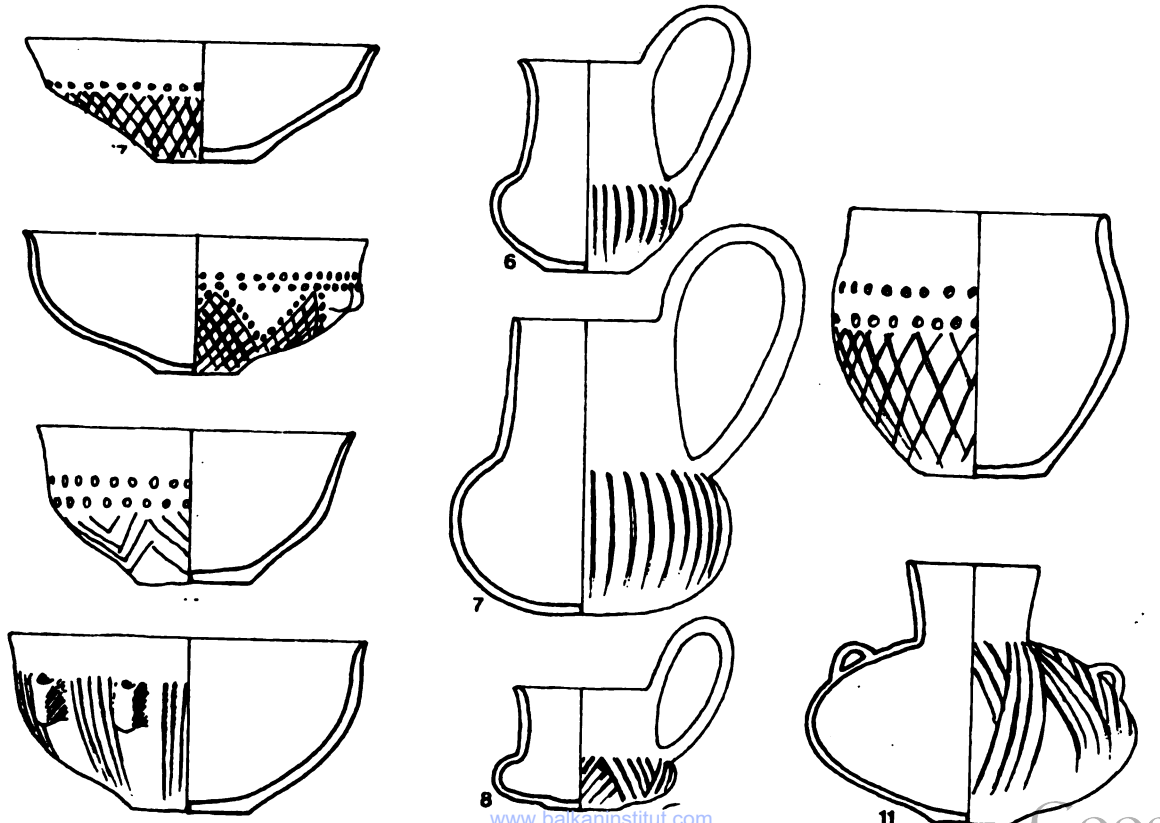
Pl. XVII, 1-7
Pl. XVIII, 1-9
Pl. XVI
Pl. XV, 3-5
Pl. 6/a

Another very widespread form at Baden sites in the southern reaches of this cultural complex is a bowl assuming different variant shapes. One of the variants, a somewhat biconical bowl with a turned-down rim, also evolved from Boleráz models. Bowls were often decorated with dotted pricks or zigzag lines. The two ornaments are often combined to form a complex multi-pointed star (Dobanovci, Vučedol, etc.).[169] Next among the widespread Baden shapes in the Danube Basin are the deep pots. Their shape varies from a simple deep pot, unprofiled and with or without a thickened rim to somewhat more

Pl. 6 – Pottery shapes of the Early (A) and 'classical' (B) phases of the Baden culture from sites in Croatia and Serbia

A

B



developed forms, some of which are reminiscent of Bell Beaker shapes (Vučedol). On the upper part of some vessels, just below the rim, which is at times thickened, an ornament is to be found consisting of oblique parallel or crossed cuts (Vučedol, Dobanovci, Vinča, Beli Manastir, etc.).[170] The best-developed example of this form is a vessel from Beli Manastir, decorated with incised pendant triangles framed with dotted pricks, in a way often encountered
Pl. XVIII, 5, 8 in bowls and amphorae throughout the Baden culture area. Finally, another shape worthy of mention, not all that frequent but very characteristic, is a vessel with ellipsoid section, known in archaeological literature as "Fischbutte". It is found chiefly in the southern zone of the Baden cultural complex and, which
Pl. XIX, 2 is important, survives as an element of stylistic continuity in later cultures, Kostolac and Vučedol. In the Baden culture it is a simple, short-necked vessel, sometimes with shallow fluting i.e. channelling as one of the main features of the Baden style (Dobanovci, Gomolava).[171] Kostolac vessels are not channelled, while Vučedol ones are decorated by carving (e.g. Batajnica).

Even a superficial analysis of the Baden pottery style shows that the sites in the Yugoslav Danube Basin (Vinča, Gomolava, Dobanovci, Vučedol, Ilok, Erdevik, the Banat sites) belong to the culture's early phase. Various traits have been inherited from Boleráz-Cernavoda III. To the above-mentioned
Pl. 6 shapes we should add elements of decoration such as the plastic band, a coarse ornament of broken lines (Vinča, Dobanovci), and another chronologically important element: figurines of a kind fairly seldom found within the Baden culture, but so characteristic that they might play a significant role in determining its periodization. According to archaeological literature, the "Baden flat idols" have been found in the Yugoslav Danube Basin - Vinča, Dobanovci, the
Pl.XIX, 4-7 Baden layer of Vučedol (?), in Romania (Salacea), Hungary (Tököl, Tápé, Ózd), and Slovakia (Šarovce, Levice, Branč), always together with pottery belonging to the early Baden culture.[172] Especially important are the finds from Vinča, where several fragments and an intact flat idol with a hole for the subsequent insertion of the head (Kopflosidole) have been found. The decoration of the idol's body shows early Baden characteristics with prominent Boleráz-Cernavoda III elements. Arguments for the early dating of this phenomenon at Baden sites include pottery on the one hand, and, on the other, the presence of the idols at other sites in Hungary, Slovakia, and Romania. N. Kalicz has dated the finds from Tököl, Tápé-Malajdok, and Ózd to "the early phase of the classical epoch of the Baden culture", while B. Novotny has placed the finds from Šarovce, Levice, and Branč in the early phase of channelled (Baden) pottery.[173] To this we might add a find from Cernavoda, where a terra-cotta figurine of the same type has been found and placed within the Cernavoda III culture of the lower Danube Basin.[174] No idols of this kind are known from the later Baden culture, which leads us to conclude that the sites where "flat headless idols" have been found belong to the early phase of the Baden culture, a conclusion supported by the style of its pottery too (Dobanovci, Vinča, Erdevik, Ilok, etc.).

On the other hand, it is important to note that some elements characteristic of the mature phase of Baden, i.e. of the Nevidzany-Viss-Ossarn (Baden III, according to V. Nemejcová-Pavukova) and Úny-Ózd (Baden IV) horizons are absent at Baden sites in the Yugoslav Danube Basin.[175] Chief among them are double vessels, often with knobbed rims, rectangular-footed goblets, hanging vessels (Hanggefäss), crested handles, etc. All this suggests that the Baden sites in southern Banat, Srem, Slavonia, and the Serbian Danube Basin (Tri Jabuke near Pančevo, Dobanovci, Erdevik, Ilok, Vinča, etc.) belong to the early phase of the Baden culture, that which was based directly on Boleráz-Cernavoda III. And so we reach the problem of the genesis of Baden and its internal periodization.

Several authors have attempted a division of the Baden culture into phases of development. We shall here cite the opinions of two foreign and two domestic experts, whose divisions have been accepted in archaeological literature. E. Neustupny dealt with the problem twice; his 1973 views represent a modification of his original periodization, published in 1959.[176] . His ternary division into an early, middle, and late phase, was then elaborated so as to include five phases (A-E). The earlier phase would include Ohrozim, Jevišovice C-1, Boleráz, Neusiedl, Fonyód; the middle - Drevenik, Ózd, Baden, Ossarn, Nitriansky Hrádok, Úny, Hódmezövásárhely, etc.; and the later - Bosáča and the Kostolac group. Also on the basis of Czech, Slovak and Hungarian material, V. Nemejcová-Pavúková divided the Baden group into four phases with several subdivisions: Baden I, with Stúrovo-Nitriansky Hrádok material; Baden II, with material of the Fonyód-Červeny Hrádok type; Baden III, with Nevidzany-Viss-Ossarn; and Baden IV with Úny-Ózd material.[177] Each of the four periods has been subdivided into two stages of development. Of the domestic archaeologists, S. Dimitrijević did most work on the problem of Baden, and the chronology he offered in Volume III of *The Prehistory* represents a synthesis of his earlier writings. He also proposes a quaternary division, with several substages: A. - the early, or preclassical phase, with two stages: Boleráz (Deronje-Mostonga I in Bačka) and Fonyód (Vučedol-Gradac, Zemun-Beljarica, Bapska, Vinča); B. - the early classical phase, with two stages: Vučedol-Gradac I (Vinkovci) and Vučedol-Gradac II (Gomolava, Odžaci III); C. - the classical phase, with several regional types: Budakalász, Beli Manastir, Úny, Viss, Hódmezövásárhely, Ossarn; D. - the post-classical phase, or the disintegration horizon, when pottery of the Kostolac and Bosáča types appears.[178]

The present author has also dealt with the problem of Baden periodization, and suggested a ternary division into an early, middle, and mature (late) phase.[179] When quoting the views of E. Neustupny, V. Nemejcová-Pavúková, and partly S. Dimitrijević, it is important to note that their divisions include both Boleráz-Cernavoda III material (Stúrovo, Ohrozim, Boleráz, Odžaci-Mostonga, etc.) and Kostolac and Bosáča pottery. If we exclude these stages and substages from the chronology of the Baden culture, which has recently been accepted even by the above authors themselves, we can conclude that the culture could not have

gone through more than three phases of development, defined by specific stylistic features of their material culture. Therefore:

The early phase of Baden would still be characterized by the presence of Boleráz-Cernavoda III elements and of characteristic "flat headless idols" (Vinča, Dobanovci, Vučedol - the lowest layer of the "Baden building horizon", Ilok and, in its central and northern zone, Fonyód, Tököl, Nitriansky Hrádok, etc.).

The classical phase would include most Pannonian sites, from Gomolava, Odžaci, Beli Manastir, and Hungarian sites such as Budakalász, Hódmezövásárhely, Úny, to those in Romania (Moldova Veche), Slovakia (Červeny Hrádok, Nevidzany), and Austria (Ossarn, Melk-Hirschkogel).

Finally, *the late phase* of the Baden culture comprises sites where elements of the Bosáča style appear (cone-ended cups, bowls with prominent knobs along the rim, the sauceboat shape, etc.), which E. Neustupny has placed in phase D of his division of Baden.[180] In the southern areas of the Baden cultural complex this phase is not to be found. Instead, the first settlements of a new culture, Kostolac, appear.

E. Neustupny	V. Nemejcová-Pavúková	S. Dimitrijević	N. Tasić
Boleráz-Ohrozim Jevisovice C-I	I Stúrnovo Nitriansky Hrádok	I Boleráz II Fonyód, Gradac-Vučedol, Vinča	Cernavoda III-Boleráz Early Baden Vinča
Nitriansky Hrádok Ossarn, Baden, Ózd	II Fonyód, Červeni Vrh III Nevidzany, Ossarn, Viss	B Vučedol-Gradac II Vinkovci, Gomolava C Budalakaz, Úny, Viss, Beli Manastir	Classical Baden Dobanovci
Bosáča, Kostolac	IV Úny-Ózd	D Bosáča	Early Kostolac Gomolava III, 2a

The periodization of the Baden (and Cernavoda III-Boleráz) cultures after:
E. Neustupny, V. Nemejcová-Pavúková, S. Dimitrijević, N. Tasić

The Kostolac culture

The stabilization of the nomadic Baden culture in the Yugoslav Danube Basin and the Pannonian Plain at large was paralled by changes in the Eneolithic economy, a return to farming and to the continuity of life in a single spot. This led to the construction of permanent surface buildings and their regular renovation. In other words, the nomadic way of life was replaced by a sedentary one. The new culture which appeared at the time was first registered at Kostolac (1943 and 1953) by V. Milojčić, who described it as an Eneolithic culture in its own right, stylistically and chronologically differentiated.[181] He was followed by others, who have revised the cultural attribution of some earlier finds, for instance from Gomolava, Vučedol, Sarvaš, Zók, Vinča, and other sites in the Yugoslav Danube Basin. Gradually, thanks to the work of A. Benac at Pivnica, of a group of archaeologists at Gomolava (M. Girić, R. Rašajski, B. Brukner, B. Jovanović, N. Tasić), R. Galović at Jelenac, S. Dimitrijević (revision work) at Vučedol, and the present author near Dobanovci and around Kragujevac,[182] we now have all the elements needed to define the style of the Kostolac material culture, its stages of development, the characteristics of its settlements and all the other features that combine to make Kostolac an independent phenomenon in the Eneolithic of Central and Southeast Europe. It is on the basis of these elements that the culture was treated in *The Prehistory of Yugoslavia* (III) as one of the most important Eneolithic cultures which had served as the basis for the further development of the terminal cultures of the period.

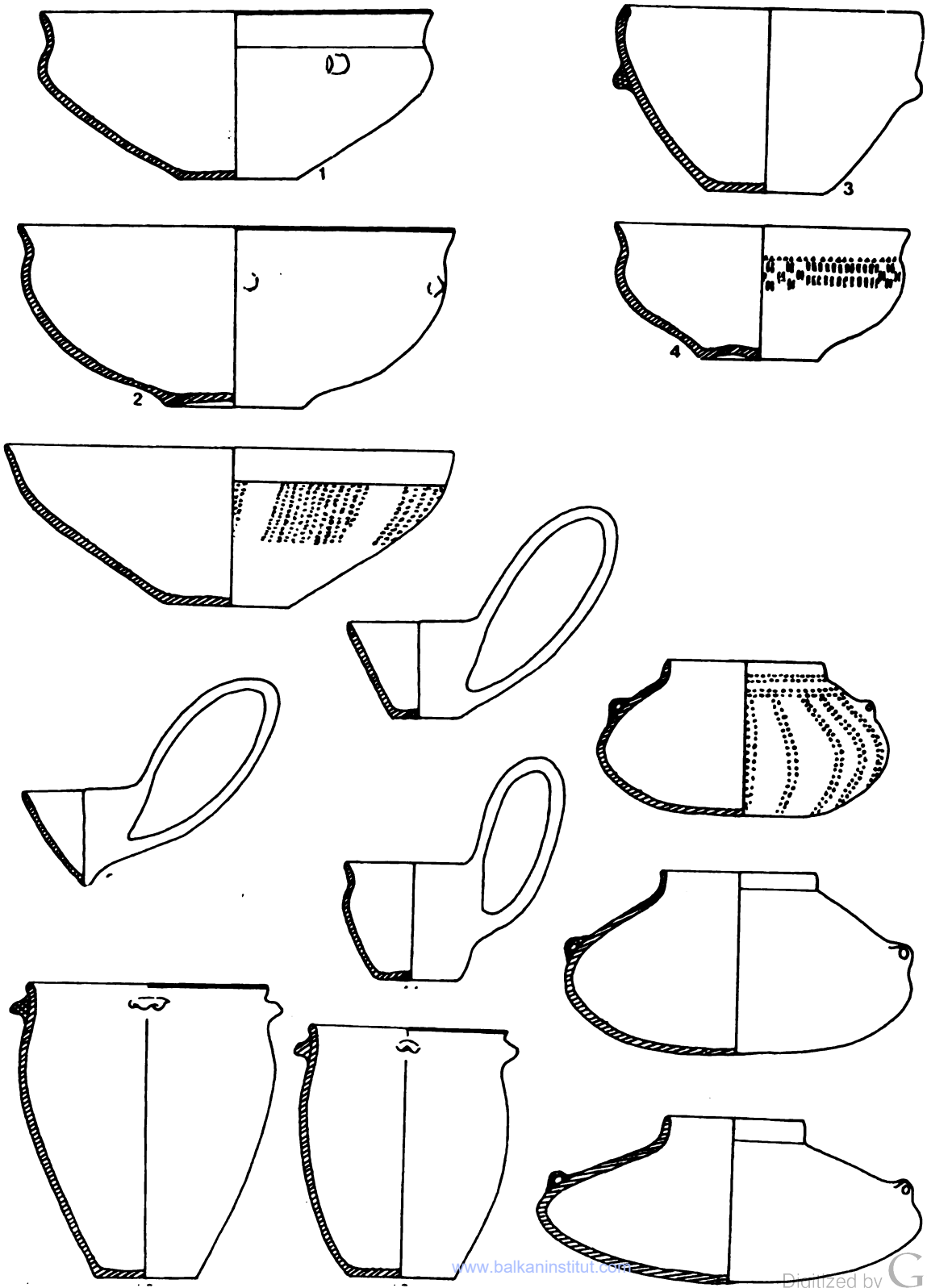
The territory and the sites (settlements and necropolises)

Though the Kostolac culture was at first thought of as limited to the Serbian Danube Basin, recent research has shown that it covered a much more extensive area, which partly coincided with that of the Baden culture, especially in the central and southern parts of the Pannonian Plain. Kostolac ware has been found as far south as central Serbia (Jelenac near Aleksinac, Makršane near Kruševac, and sites near Svetozarevo and Kragujevac) and northern Bosnia (Pivnica, Donja Mahala, Dvorovi near Bijeljina). Its elements are also to be found further south, at sites around Niš, in Kosovo, Metohija, and Bosnia (near Alihodže). The southernmost sites in Serbia belong to a somewhat modified form of the Kostolac culture, which M. Garašanin, J. Todorović, and J. Glišić have called Baden-Kostolac (Bubanj, Hisar, Gladnice near Gračanica).[183] To the east, sites with Kostolac ware are found in the Romanian part of Banat, Oltenia, and Transylvania, but very often within Cotofeni culture. According to recent research, the boundary line between the two cultures lies in eastern Serbia, somewhere between the Timok and Porečka reka. It should be noted, however, that the two cultures have mixed a lot in this area, so that some sites (Crnajka, Klokočevac) have yielded the two types

of pottery mixed in a 50 : 50 ratio.[184] In the area of Djerdap I and II, the Kostolac and Cotofeni cultures also mingled a lot: to the west are Kostolac sites (Gospodjin vir), while Cotofeni ones are to the east (Donje Butorke, Zbradila-Fund, Ljubičevac-obala, Herculana, etc.). In the west, the Kostolac culture covered all of Srem and a part of Slavonia, as far as the massif formed by Mts. Krndija, Dilj, Psunj, and Papuk (Ašikovci near Pleternica, Cerić-Plandište). In this area it was in close contact and mingled with the Retz-Gajary group (Hrnjevac near Kutjevo, Satnica near Djakovo, Vindija, Višnjevac).[185] In the north we can trace the spread of the Kostolac culture from a number of sites in the Hungarian Danube Basin (Dunaszekcsö-Várhegy, Palatoboszok) and the Danube Bend (Szentendre, Szentpetri-dülö, Békásmegyer, Szigetmonostor-Dunapart, etc.) to sites in southern Slovakia, especially Iža, a stratified site whose vertical stratigraphy has yielded typical Kostolac ware.[186] Further north, Kostolac pottery is found in a somewhat modified form at Bosáča type sites (Trenčin).[187] Considering the extent of the area, Kostolac sites in Serbia, Croatia and Bosnia belong to the culture's southern zone. They cross the Sava and the Danube and appear in the hilly areas of Serbia and Bosnia (Koričani, Čot near Rača Kragujevačka, Alihodže), a region untouched by the bearers of the Baden culture during the previous period.

Though a large number of Kostolac sites has been registered over an extensive area, only a few have been the subject of systematic research on any scale. Information about dwellings, habitation, the organization of life, and the settlements themselves is therefore extremely scarce. All we really know about is the shape and size of houses and pit-dwellings, and the inhabitants' predilections in the choice of building sites. In the Yugoslav Danube Basin and the Sava valley we can distinguish between two topographic types of settlements: settlements of the so-called "open" type, built on the banks of rivers in the lowlands, on dry loess terraces, and hill-type settlements built in the mountainous regions of Serbia and Bosnia. Individual finds of Kostolac pottery in caves (Zlotska pećina and Bogovinska pećina in eastern Serbia) are not sufficient proof of habitation by the bearers of the Kostolac culture. Typical Kostolac settlements of the former type were built in the lowlands along the Danube and Sava rivers and include Vučedol, Sarvaš, Gomolava, numerous sites in and around Zemun (Pravoslavno groblje/Orthodox cemetery, Gardoš, Govedji brod, etc.), Pivnice in Bosnia and, of course, most other sites in the Pannonian Plain, which have aroused interest by being concentrated along the Danube. Their profusion between Slovakia to the north and Djerdap area to the south suggests the routes of communication between different regions, and the directions taken by the culture in its expansion from its nucleus, which is righteously presumed to have been situated somewhere in Srem-Slavonia.

Pl. 7 -- The pottery shapes of the Kostolac culture from sites in Serbia



Two sites have been particularly helpful in providing us with evidence about Kostolac settlements and their architecture: Vučedol and Gomolava. At the former, after the suggested revision of the cultural attribution of certain habitation horizons (V. Milojčić, S. Dimitrijević, N. Tasić),[188] quite a few "Baden houses" should now be assigned to the Kostolac habitation horizons. One of the issues raised is the cultural attribution of the apsidal houses at this site and of similar houses at Sarvaš, which were considered as Baden. Due to a lack of closed finds, published material with ground plans of buildings, and the fact that R. Schmidt failed to distinguish between Baden and Kostolac pottery (both typologically and stratigraphically), the numerous settlement remains can be of limited use only. However, with recent research and excavations still underway at this important site,[189] we should get closer to a solution of the problem. Though not very extensive, initial reports suggest that the foundations of most of the houses found at the depth between 3.40 and 2.65 m at Vučedolski Gradac belong to the Kostolac culture. The situation is similar at the neighbouring location "kukuruzište (cornfield) Streim", where S. Dimitrijević has done excavation work. According to his results, the layer between 1.85 and 1.25 m contains a mixture of Baden and Kostolac material.

Fig. 13/1-3 Gomolava has provided more reliable data on building activity. B. Brukner has published the ground plans of several houses from the Kostolac level (Gomolava IIIb); some of them stand in an immediate vertical stratigraphic relationship (houses VI a and b).[190] Their construction is identical with that encountered in the late Neolithic and early Eneolithic cultures throughout Central and Southeast Europe. The floor is of packed earth coated with a clay paste, in places (probably were hearths or other work surfaces used to be) solidified with potsherds or pebbles. Walls were of wattle and daub. Fragmentary data (the floors have been considerably damaged by subsequent building) suggest that the houses were rectangular, of medium size (ca. 8 x 6 m), with indoor hearths. Pottery found on the floors and well-documented stratigraphic data have made it possible for the first time to trace the evolution of the material culture of Kostolac through several stylistic and chronological stages, which we shall discuss later on.

Important information about the Kostolac culture is also provided by a pottery hoard from Sremski Karlovci and several graves. The contents of the
Pl. XII, 1-10 hoard are not particularly important, consisting as they do chiefly of typical Kostolac cups, bowls, and deep vessels, but the graves are of considerable significance because they show that burial was biritual in the Kostolac culture: by cremation and by inhumation. Of all the sites, only the graves at Padina
Fig. 31/1-2 (Djerdap) may have belonged to a necropolis, as well as, possibly, the Kostolac graves at Vučedol, while the others appear so far to be individual phenomena. The group of skeleton graves includes finds from Gomolava and Vučedol. One of the several Eneolithic graves at Gomolava is certainly a Kostolac grave: it contained a crouched body with a finely ornamented bowl placed on the pelvis. Since there were no grave goods in the other graves, their cultural attribution

is uncertain. The same might be said of the Vučedol graves. The double grave attributed to the Baden culture by R. Schmidt contained no unquestionable grave goods (a bone awl and shards of a vessel which need not have belonged to the grave).[191] More reliable, though incomplete, are data given by T. Težak-Gregl about the recently excavated tombs in Vučedol. She mentions, without describing them in detail, five skeleton graves (crouched or extended burials), of which two belong to the Baden culture, two to Vučedol, and one to Kostolac.[192] As at Gomolava, burials took place within the settlement, often below the floors of houses, which might well be linked to the custom of "preserving the deceased's presence" in the settlement after his death, an exclusive privilege of the ranking members of the community.

The other group consists of graves containing cremated burials, a non-traditional and quite alien custom in Neolithic and Eneolithic cultures in Yugoslav these regions. One of the finds, so far isolated, is that of a grave from the Silajet site, in the village of Dvorovi near Bijeljina (northeast Bosnia), where a Bronze Age necropolis yielded a typical Kostolac bowl covering the calcined bones of an incinerated body.[193] The other site was discovered farther east, in the area of Djerdap region, more precisely at Padina, in the Danube gorge (Sector III). Systematic excavation at the site, known for much earlier finds (Mesolithic, Neolithic), has yielded the remains of a necropolis containing cremated burials: five bowls (four aligned Kostolac graves dug in to approximately the same depth). B. Jovanović believes that this was a smaller Kostolac cemetery with cremated burials, which would be both the earliest necropolis with cremated burials in the Yugoslav Danube Basin and the easternmost site of the pure Kostolac culture.[194] Cremation was not unknown in the Pannonian Plain in the Early and Middle Eneolithic (Ohrozim, Tibava, Lúčky, Pilismarot, etc.), but it was much less frequent than inhumation. This phenomenon, especially within the Kostolac culture, deserves more attention and we shall return to it in the concluding chapter.

Material culture and periodization

As is the case with most Eneolithic cultures, the contents of Kostolac settlements, too, consist basically of pottery, smaller quantities of flint and bone tools, and occasional copper finds. Pottery is particularly important in the Kostolac culture, being numerous and very typical, especially in ornamentation techniques and motifs. The wide repertoire of shapes includes many kinds of bowls, starting from those which represent an evolution of Baden forms - bowls with a turned-down rim, a short shoulder and a lower part ending in a small, sometimes convex base, conical bowls and deep bowls which gradually develop into pots. Another product of the evolution of Baden forms is the cup with a ribbon handle above the rim, whose receptacle is in the shape of a cylinder, cone, or sharp-ended funnel. These three types of vessels are all to be found in the Sremski Karlovci hoard. The well-modelled ribbon handle sometimes

Pl. 7

Pl. XXII exceeds the size of the receptacle several by times. Both this vessel and most of the others are made of well purified clay, burnished, and well baked. Other shapes worthy of mention include pots, some with a strengthened rim (Pivnica, Gomolava, Sremski Karlovci, etc.), amphorae (Pivnica, Gomolava), and another shape deriving from Baden models, the ellipsoid vessel (Fischbutte) often
Pl. XXIII found at Kostolac sites (Gomolava, Lepenska potkapina, Vučedol, Iža, etc.). However, though the shapes are many, varied, and often typical, ornamentation remains the most characteristic determinant of the Kostolac style, easily recognized regardless of whether the site is in Slovakia, Hungary, Romania, or Yugoslavia. The ornamentation of vessels from, say, Iža, Várhegy, Gomolava, Pivnica, or the sites in the Djerdap area (including Romanian ones, such as Cuina Turcului or Herculana)[195] is very similar, often even identical. It includes: various motifs made up of dotted pricks (bands, stars, chequers), crescent-shaped cuts, the herringbone motif, triangular pricks, etc.; sometimes
Pl. XX. 7 several motifs are combined on a single vessel (chequers with bands, or
Pl. XXI. 4 herringbone with a band made of pricks, etc.). Also characteristic, especially
Pl. XXV. 1-5. 8 in the later phase of Kostolac, is Furchenstich decoration. Most of these techniques have been adapted (by roughening) for the application of white encrusted paint. This favourite technique of pottery decoration in the Kostolac culture originated in Baden and was to reach its zenith in the Vučedol culture.

On the basis of an analysis of the pottery style, the stratigraphy of certain sites (Gomolava, Vučedol), the culture's northward and eastward spread and its contacts with other cultures, we can distinguish between two
Fig. 13a phases of development within the Kostolac culture. Of special importance in this connection are stratigraphic data, notably from layer IIIb at Gomolava. At this site, where we find three building horizons, two of them in superposition (houses VI a and b), we can distinguish (on the basis of pottery too) two chronological entities. The earlier horizon is characterized by an ornament of pricks and cuts, a modest range of motifs, and the complete absence of the Furchenstich technique. Even white encrusted paint is rather scarce in this horizon. In the later phase, on the other hand, Furchenstich decoration predominates, and the application of white paint to the ornament in negative is much more frequent too. If the formation and development of the Kostolac culture and its style are viewed comprehensively, *the first phase* would be that of the culture's emergence and its stabilization in Srem, Slavonia (Gomolava house VI a), and northern Bosnia (Pivnice), while *the second phase* would be that of the culture's movements toward the late Baden settlements of the Pannonian Plain and Slovakia on the one hand, and the Serbian and Romanian Danube Basin, where it came into contact with the already formed Cotofeni
Pl. XXV culture, on the other. In the north it entirely displaced the bearers of the late Baden culture, while in the east it entered into a symbiosis with Cotofeni; that is why it is often referred to as Kostolac-Cotofeni, when sites in the Djerdap
Fig. 23/1-3 gorge, eastern Serbia and the Romanian Danube Basin are discussed.[196] Its
Fig. 24/2. 4. 8 relationship with sites in the west has not been sufficiently investigated. There

were no direct contacts with the Eneolithic cultures of the Alpine zone, but an analysis of the material shows that the Kostolac culture might have been related to the development of the Retz-Gajary culture. We should here quote the opinion of Z. Marković, who believes that the early Retz-Gajary culture preceded Kostolac in Slavonia, while the later phase was contemporary with it.[197] The situation is particularly significant in northwest Croatia, where there are no Baden or Kostolac sites at all, but Retz-Gajary settlements of the Višnjica and Hrnjevac types are encountered instead. It is noteworthy that they all belong to the so-called Furchenstich complex of the Alpine zone, and Furchenstich decoration is, as we have shown, one of the basic traits of the later phase of the Kostolac culture. S. Dimitrijević is right in saying that Retz-Gajary and related groups (Bajč, Waltrahöhle-Jevišovice C-1, Mondsee, the Erdely type) trace an arc which extends from the Alps via the north of the Carpathian Basin to Transylvania, avoiding the area of Slavonia, Srem, northern Bosnia, Serbia, and the Romanian and Serbian Danube Basin, which belonged, in fact, to the Kostolac culture.[198] It is in this context that the relationship between the two cultures, which we believe to have been contemporaneous, should be viewed. Of course, the question is where the Furchenstich technique originated: within Retz-Gajary or Kostolac? S. Dimitrijević and Z. Marković favour Retz-Gajary, which is acceptable since the technique only appears in the later stage of Kostolac.[199] The technique was obviously widespread in Central and partly Southeast Europe. S. Dimitrijević may be right in suggesting that it came into being somewhere in the eastern Alpine region, on the basis of the pricked band (Stichband) ornament.[200] It then spread towards the east and southeast, to the Kostolac cultural area. This could be an explanation of why Furchenstich decoration does not appear in the earliest phase of the Kostolac culture and why its frequency steadily decreases south of the Sava and Danube rivers (Pivnice, Bubanj, Hisar).

The Cotofeni culture

Eastern Serbia has long been treated as a peripheral area of the Cotofeni culture, whose traces are to be found there sporadically. In recent years, excavations in the Timok valley, southeastern Homolje and, most especially, near the Djerdap I and Djerdap II reservoirs, have shown that the area was intensively occupied by the bearers of the Cotofeni culture.[201] Thirty-two sites have been discovered and partly investigated; the material found there is closely related to sites in neighbouring Romania. Viewed throughout its extent, the Cotofeni culture may be described as a phenomenon typical of the southern Carpathians and the Danube Basin. The culture affected the area of Transylvania, Marumures, the uplands of Banat, Oltenia, Muntenia, northwest Bulgaria along the Danube (Magura, Vidin, Vraca), and northeast Serbia. P. Roman, who studied the culture in great detail and whose monograph *Cultura Cotofeni* introduced it into archaeological literature, registered over 300 sites

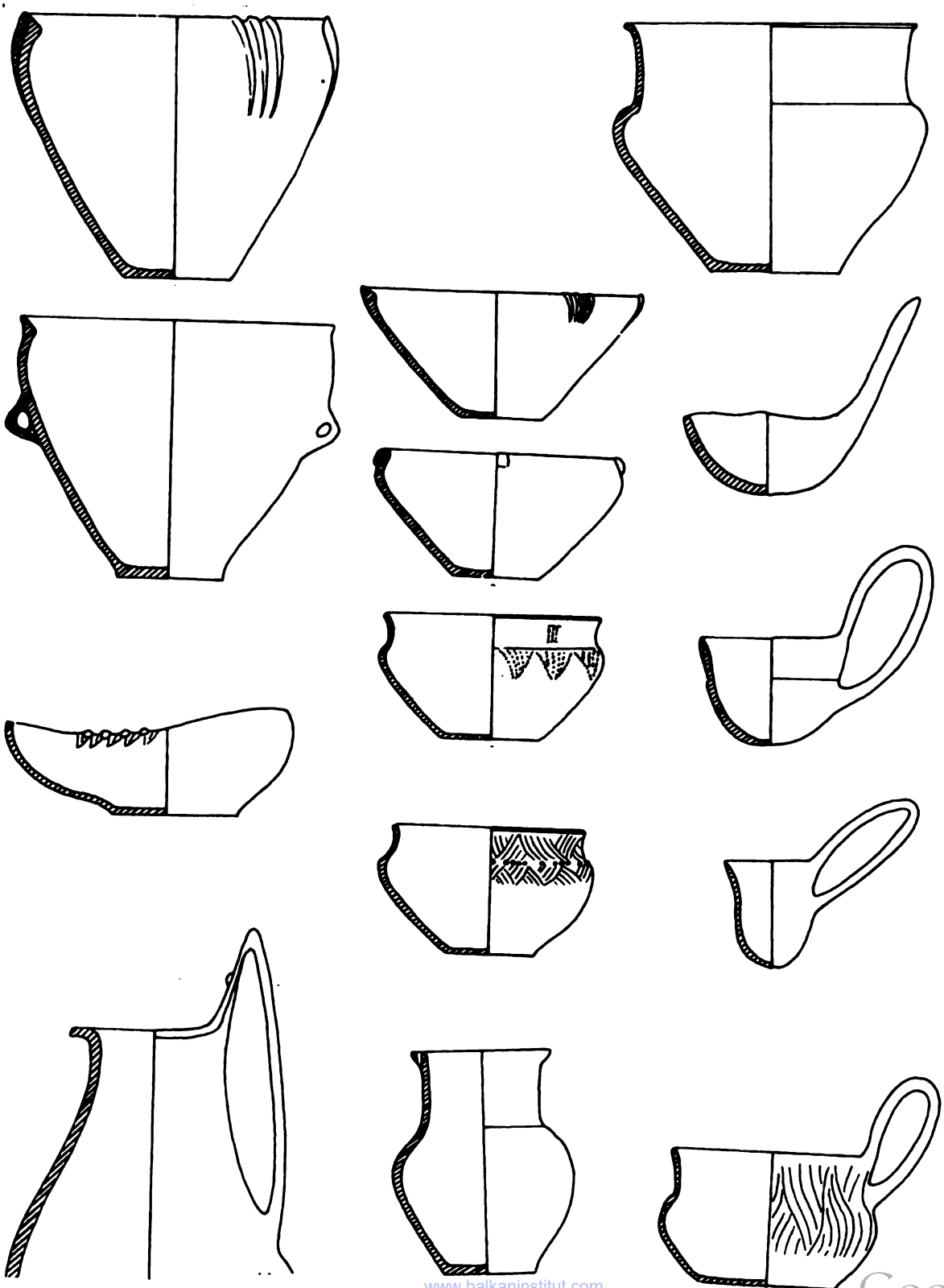
in southwest Romania, concentrated densely along the upper Mures, Olta and, especially, the Danubian part of Oltenia.[202] To his data we should add the considerable number of sites in the Serbian Danube Basin and the Timok valley. When the results of excavations in northwest Bulgaria are published we shall have a relatively accurate picture of the territory encompassed by the culture at the time of its greatest expansion.

In the Serbian Danube Basin and eastern Serbia, the Cotofeni culture extended along the Danube almost to Golubac, and along the Timok valley to the confluence of the Crna Reka with the Timok.[203] Individual finds west of Golubac (e.g. Jabuka near Pančevo) can be interpreted as no more than the presence of some elements or influence of the Cotofeni culture on its western neighbours. Of the thirty Eneolithic sites at Djerdap I and II cited by M. Jevtić, twenty-two belong partly or entirely to the Cotofeni culture.[204] At some, only Cotofeni pottery was found (Donje Butorke, Zbradila-Fund); elsewhere it was mixed with Kostolac ware (Vajuga-Pesak, Lepenska potkapina). A mixture of these two cultures is typical of many sites in eastern Serbia and southwest Romania. Important information for the study of the Cotofeni culture is also provided by two groups of sites in eastern Serbia: in the Timok valley (Grabar-Svračar near Smedovac, Ćetaće near Kovilovo, and Kapu Djaluluj near Veljkovo), and in the area between Bor and Majdanpek, where sites with Cotofeni ware have been registered near Krivelj, Zlotska pećina, Štubik, Crnajka, and Klokočevac.[205] Most of the sites have been more or less excavated; in addition to pottery they have yielded information on settlements and buildings, and on the stratigraphic position of Cotofeni in its relation to the Eneolithic cultures of the region.

The Cotofeni culture shows no preferences in the choice of settlement sites. The settlements are of various kinds: a) open lowland settlements characteristic of isles in the Danube (Ostrovul Corbului), the Oltenian Plain and the area along the Danube (Zbradila, Vajuga); b) settlements on elevated ground by rivers or streams (Krivelj, Kovilovo, Smedovac); c) settlements at almost inaccessible spots or steep hillsides, where houses were built on an artificial escarpment or close to the rocks (Klokočevac, Crnajka); cave sites, such as Zlotska pećina in our parts or Hotilor, Pestera cu apa, Romanesti, Cheile Turzii, and others in Romania. Most of the sites in eastern Serbia and the Serbian Danube Basin were herdsmen's temporary dwelling-places; habitations are, for the most part, badly preserved, and the Cotofeni cultural layer is thin and shows no signs of prolonged habitation in the same place.

Though only temporary, the settlements are usually rich in ceramic material. Vessel shapes fit in with a broader complex of Eneolithic cultures of
Pl. 8 the Carpathian-Danubian-Balkan zone. They are related to Boleráz-Cernavoda III and Baden backgrounds, and similar to Kostolac. The most frequent

Pl. 8 – Pottery shapes of the Cotofeni culture from sites in eastern Serbia



shapes are those of various bowls (conical, biconical), cups with ribbon handles, deep pots, sauceboat shapes, etc. The ornamentation, however is quite specific, and it is the most characteristic trait of the Cotofeni style. Incision is the most frequent technique, as well as pricks, cuts, and plastic bands. Peculiar to the culture are the lentiform (Linsen) appliqués, usually combined with incised motifs. Other techniques and motifs were also used (Furchenstich, crescent-shaped cuts or stamped motifs combined into a chequered pattern), but we are inclined to treat them as a phenomenon alien to Cotofeni: most of them have been taken from Kostolac, while some decorative elements (plastic bands, channelling) originated with Cernavoda III or Baden. Corded ware is usually taken to be of steppe origin.[206] On the whole, the Cotofeni style of decoration developed under the influence of other styles: from the inherited traditions of Boleráz-Cernavoda III, through Baden and Kostolac styles, to influences from the steppes of south Russia.

Pl. XXIV
Pl. XXV. 8
Fig. 24/2. 4
Fig. 50/4

The question of *the stratigraphic position of the Cotofeni culture, its origin and development* seems to have been more or less satisfactorily resolved, thanks to the fact that its place at stratified sites has been identified and to analyses of its pottery and its relations with other contemporary cultures. Cotofeni ware is found at sites in eastern Serbia above the Bubanj-Salcuta-Krivodol layer (Zlotska pećina, Krivelj, Kovilovo, etc.). P. Roman believes there was a hiatus between the two cultures in Romania, presumably to be filled by the incursions of Cernavoda III.[207] It follows that the Cotofeni culture spread towards the south and southwest after it had been stabilized, i.e. in phase II according to its ternary division. This seems an acceptable view, all the more so as no material belonging to phase I of Cotofeni has been found at sites in the Serbian Danube Basin and eastern Serbia. The earliest settlements in the region could be those at Donje Butorke or Zbradila, where there is a complete absence of Furchenstich decoration. Serbian sites would belong to phases II and III of the Cotofeni culture; sites where Furchenstich decoration is prominent, or even predominant (Klokočevac, Crnajka) would thus belong to the final phase.[208] In view of the symbiosis of the two techniques of ornamentation and styles at a single site we are inclined to describe this phase as the Kostolac-Cotofeni culture.

The question of the origin of the Cotofeni culture should be viewed within the framework of the emergence and expansion of Boleráz-Cernavoda III and, for a somewhat later period, of Baden, as well. Numerous elements of Cotofeni pottery, especially as found at Romanian sites, derive from the style of Cernavoda III: the use of plastic bands, a rather coarse version of the herringbone motif, and broad channelling. This kind of pottery from Romanian sites (Petresti, Brateiu-Nišiparie, the earlier layers of Locusteni)[209] is dated by P. Roman to phase I of the Cotofeni culture. This phase is also characterized by the complete absence of Furchenstich decoration and of the motif of cuts organized into chequer patterns in Kostolac manner (Herculana-Pestera-Hotilor, Girbova de Sus).[210] The presence of Boleráz-Cernavoda III elements

in the early phase of Cotofeni does not indicate, however, a direct evolution. The Cotofeni culture probably came into being as a result of the very same process which gave rise to Baden in the Pannonian Plain. Only their autochthonous bases were different: in the case of Baden, the line followed was Balaton-Boleráz-Baden, while the basis of Cotofeni was a combination of Cernavoda III and Salcuta.

In the context of the other contemporaneous phenomena in the Carpathian-Danubian-Balkan region, the relative chronology of the Cotofeni culture would be as follows: phase I of P. Roman's coincides with the emergence of the Baden culture in the Pannonian Plain (in the Serbian Danube Basin at the time, Boleráz-Cernavoda III settlements were still in existence here and there: Vajuga near Korbovo, Brza Vrba near Kovin); Cotofeni II would be parallel with the further development of Baden (classical phase) and the appearance of Kostolac elements; Cotofeni III was contemporaneous with the mature Kostolac culture and the first Vučedol settlements in Srem and Slavonia.[211] It is hard to say what exactly happened in the Serbian Danube Basin and eastern Serbia after the Cotofeni culture. The next settlements there belong to the Verbicioara and Vatin cultures, but this does not exclude the possibility of a temporal hiatus between the two cultures.

The Retz-Gajary horizon

While Boleráz-Cernavoda III, Baden, and Kostolac were developing in southern Pannonia and the central Balkans, the west of the Balkan Peninsula, especially the southern Alps and northwest Croatia, developed along entirely different lines. As noted above, the Lasinja culture lasted for quite a long time, throughout the Early Eneolithic and the beginning of the Middle Eneolithic. It was succeeded, over an extensive territory (northern and eastern Slovenia, the region west of Krndija and Dilj in Croatia) by the Retz-Gajary culture with its varieties Kevderc-Hrnjevac and Višnjica. In addition to Slovenia and western Croatia, the culture also encompassed the eastern parts of Austria, southwest Slovakia, and Erdely in Romania, tracing, in the words of S. Dimitrijević, an arc above the Carpathian Basin (the Pannonian Plain).[212] The sites in Croatia and Slovenia belong to the southernmost, western arm of this huge arc which spanned the regions of the Baden and Kostolac cultures in the Pannonian Plain. This can be explained by a fact which many authors have noted, namely that the bearers of Retz-Gajary were hillmen, stock-breeders who held to the lower parts of the Carpathians, Alps, and their branches.[213] To use more up-to-date terminology, it was a kind of transhumance with seasonal migrations from mountains to lowlands and back as well as larger-scale movements, depending on climatic conditions. This is why Eneolithic sites with very similar pottery are found over a vast area stretching from Slovenia and Austria to Slovakia and Erdely. Bearing in mind chronological factors as well, S. Dimitrijević has distinguished between eight regional types: the Kevderc-

Hrnjevac and Višnjica types in Slovenia and Croatia; Retz and Waltrahöhle-Jevišovice C1 in Austria and Moravia; Mondsee in Upper Austria; Gajary-Bajč in Slovakia; Retz-Gajary in the upper Tisza valley, and the Erdely or Transylvanian type in Romania.[214] Pottery is the most characteristic feature of the material found over this extensive area (cups with ribbon handles, bowls, and deep pots). The decoration was by Furchenstich, rusticating, carving, roughening, and impression before firing in order to prepare the surface for the application of white encrusted paint.

Comparatively few Retz-Gajary sites have been discovered in northwest Croatia and Slovenia. S. Dimitrijević listed seven, to which Z. Marković has added another four, so that we can count with eleven sites at present.[215] Characteristically, they are all cave settlements located at higher altitudes: Kevderc and Ljubiška jama at 810 m, Predjama near Postojna at 410 m, Velika pećina at 428, and Mačkova pećina near Vindija at no more than 275 m. The other sites are situated either in the hilly area of Hrvatsko zagorje or they belong to the hillfort type (Hrnjevac, at 405 m). The topography of Retz-Gajary sites in Croatia and Slovenia has confirmed the presumption that their inhabitants were stock-breeders, showing also the importance of hunting in their economy. The analysis of osteologic material from Velika pećina near Višnjica has demonstrated the presence in the cultural layer of both domesticated animals and big game, such as deer, wild boar, wild bovines, or small, such as fox.[216] The position of the caves at Kevderc, Ljubiška jama, and even Predjama, also suggests that they could have been high-altitude hunting stations too. Cave settlements were found beyond this area as well (Waltrahöhle, Austria) although, according to data from other regions, including Austria itself, pit-dwelling settlements on loess elevations (Retz in Austria, Bajč-Vlakanovo in Slovakia, Pécsbagota-Cseralya in west Hungary, etc.) and pile-settlements (in the Mondsee and Altersee regions of Austria) were more frequent.

On the basis of typological features, of pottery in the first place, S. Dimitrijević has distinguished between two different types of this culture in former Yugoslavia; in our view, they may also be of chronological importance.[217] The first is *the Višnjica type*, found near the eponymous settlement, at Vindija and Predjama, and at localities in Hrvatsko zagorje listed by Z. Marković.[218] This type is characterized by coarse ware (rounded vessels, often with a very narrow neck, big-bellied pots, globular receptacles, etc.), sometimes with a lightly barbotined surface or with a plastic band bearing finger impressions. Finer ware includes small bowls, cups with handles above the neck, deeper conical vessels, smaller terrines, etc. Fine ware is decorated with grooved incisions (a kind of Furchenstich) or the ground is prepared for the laying on of white encrusted paint. The motifs are arranged in zones, as in other Eneolithic cultures (Kostolac, Vučedol, Bell Beaker, etc.). Globular vessels, closed receptacles, and carved decoration are typical of stock-rearing cultures whose bearers dwelt in hilly and mountainous regions (proper woodcarving).

Pl. XXXVII. 2-10

Pl. XXXVII. 1. 10

The Kevderc-Hrnjevac type has been named after a site in Slovenia (Kevderc) and another in Slavonia (Hrnjevac), the culture's easternmost site. At first, Kevderc-Hrnjevac pottery was treated as late Lasinja or Balaton III. Fig. 22/1
This has subsequently been rectified by S. Dimitrijević, who described it as a type of Retz-Gajary.[219] In addition to the two eponymous sites the type would include, though this is to be treated with some reserve, some pottery finds from Predjama and two caves near Krško (Ajdovska jama and Jermanova jama). These sites have produced comparatively modest remains of material culture: pottery, stone and bone material. The fine pottery consists of amphorae of Pl. XXXVIII, 1-6
various types, cups with a handle above the rim, and smaller one-handled pots. There is considerable difference in shape and ornamentation in comparison with Višnjica-type pottery. Kevderc-Hrnjevac ware is more open (slightly biconical bowls). The Furchenstich technique is not used at all; instead, decoration is exclusively incised and carved (excision of square or triangular shapes), combined with the use of white encrusted paint. The difference between the two types of pottery is of some chronological importance: Kevderc-Hrnjevac is closer to the autochthonous Balaton-Lasinja base, unlike Višnjica, which fostered a specific kind of Furchenstich, series of pricks, and excision.

It follows that in the Eneolithic development of the Alpine region and northwest Croatia Kevderc-Hrnjevac was earlier than Višnjica. The Retz-Gajary culture is thus seen as a phenomenon of considerable duration, which covered the period of the Middle and early Late Eneolithic in these parts. There have been several attempts to resolve the problem of its relative dating. Some have dated it fairly early, as contemporary with Hunyadi-Vajska and Salcuta IV (Z.Marković) or as the third phase of Balaton-Lasinja (N. Kalicz, F. Leben),[220] while others believed that it had run parallel with Vučedol and traced its development all the way to the Early Bronze Age (S. Dimitrijević and, earlier, Z. Marković).[221] If we take into consideration the entire area of the Retz-Gajary culture and the emergence of the Furchenstich technique as a new decorative fashion in a number of Eneolithic cultures of Central and Southeast Europe, we might resolve the problem of relative dating as follows: the early phase of the culture, represented by the Kevderc-Hrnjevac type, appeared in western Croatia and continental Slovenia after the Lasinja culture (Balaton-Lasinja I-II). At the same time, early Baden was emerging in Slavonia and Srem in the east, but it spread no further west than Stari Mikanovci and Donja Bebrina, as demonstrated above. The second phase, that of the Višnjica type, chronologically succeeded the Kevderc-Hrnjevac settlements and belonged to the period of the formation of early Kostolac settlements in Srem, Slavonia, and northern Bosnia. It is possible that the Furchenstich decoration, a new fashion typical of more than one Eneolithic culture, found its way to the Kostolac and Cotofeni cultures from the Retz-Gajary complex.

The Pit-grave culture and the tumuli

Map 2

In the Middle and Late Eneolithic a considerable number of tumuli appear in the Serbian, Bulgarian and Romanian Danube Basin. They have been mechanically linked with the "steppe cultures", "steppe influences", "Pit-grave culture", "ochre graves", "Indo-Europeans". Obviously, their cultural and chronological determination is a highly controversial issue. One of the first questions to be answered is whether all Eneolithic barrows should be seen as belonging to the steppe cultures, i.e. whether they all belong to the Pit-grave culture or the culture of the ochre graves. Clearly not, for some tumuli in the Yugoslav Danube Basin and the lower Tisza valley preceded the Pit-grave culture. Aradjanska humka, smaller barrows within the Boleráz-Cernavoda III culture, tumuli with Cotofeni material in Romania, Baden tumuli in Slovakia,

Fig. 42

etc., are all earlier than mounds such as Jabuka near Pančevo or Vojlovica, which are clearly attributable, both culturally and chronologically, to the Pit-grave culture. Barrows and crouched burials with the use of ochre staining could be connected with early influences that had reached the Carpathian Basin and the Yugoslav Danube Basin even before the ethnic migration of the bearers of the Pit-grave culture.

Pl. XIII, 6

The systematic study of the tumuli in Yugoslavia is of a relatively recent date. This kind of find was first mentioned by F. Milleker, along with individual items of minor importance (Srpski Krstur),[222] but only the excava-

Fig. 34

tions at Batajnica (1959), Vojlovica (1965), those near Kikinda, Perlez, Pančevo, and around Kragujevac marked the beginning of systematic work.[223] To this we should add the extensive registration and mapping of barrows in Vojvodina carried out in the past ten years as part of a project of the Serbian Academy of Sciences and Arts. We now have information about nearly 600 mounds registered in Vojvodina (Banat ca. 360, Srem 130, Bačka 50), Šumadija, and the lower Morava valley, which all might belong to the Eneolithic period. The Banat tumuli are usually of considerable size, with a diametre of 30 to 70 m, and a height of up to 4 m, rarely more. (Aradjanska humka: d. 50 m, H. 3 m; Padej: d. 60 m, H. 4.5 m; Vojlovica: d. 35 m, H. 1.5 m; Perlez: d. 30-40 m, H. 0.80-3.00 m; Vlajkovac: d. 40 m, H. 3.5 m, etc.) In Srem and central Serbia, the barrows are somewhat smaller, with a diametre of 10 to 20 m and a height of 1 - 2 m. The exceptions to this are Vučedol tumuli near Batajnica and Vojka, which were slightly bigger (d. 35 m, H. 2 m). Though a number of tumuli have been registered, archaeological research has been carried out at only fifteen, including the ones excavated by F. Milleker early in this century and, a little later, L. Nadlački.[224] Our knowledge of this complex problem is therefore rather modest. In order to arrive at more accurate conclusions we shall have to use data from neighbouring regions, especially Romania, Hungary, and northern Bulgaria, where a considerable number of tumuli have been investigated in a past few years.[225]

If we leave out the above-mentioned tumuli near Mokrin (Aradjanska humka), Batajnica, Vojka and Srpski Krstur, as well as some unreliable data about Perlez and Skorenovac, it is on the basis of burial customs that the others may be classified into the same cultural and, it seems, chronological horizon, which could be linked to the phenomena of the Pit-grave culture. The barrows in question are those near Pančevo (Vojlovica and Jabuka), Vršac (Uljma, Vlajkovac, Vatin), Perlez (Batka), and Kikinda (Padej). They are characterized by the presence of crouched burials within a rectangular grave covered by a barrow. A wooden structure, especially prominent at Vojlovica, the use of ochre staining, and rare but characteristic grave goods (the silver hair ornament from Vojlovica or the gold locks-ring from Vršac and Vlajkovac) are other features linking these tumuli with the steppes of southern Russia. The best-documented is the Vojlovica grave, where the burial chamber was surmounted by a wooden structure, a lid set on pillars. The body was laid on a mat and sprinkled with ochre. On the basis of the burial rite and the silver lock-rings, B. Jovanović decided that the grave belonged to the steppe Pit-grave culture.[226] The grave no. 6 from Pašića humka (barrow) near Perlez is important in this context; its "burial chamber" contained a crouched burial on a wooden plank.[227] Fig. 34 Fig. 42 Fig. 34

The tumuli discovered south of the Danube, near Kragujevac and Kostolac, are not typical of the Pit-grave culture, although there should be no doubt about their steppe nature.[228] The barrow near Rogojevac (d. 13.5 m, H. 1.50 m) contained at its centre two graves built of stone slabs (two burial chambers). The body was buried in a crouched position. The burial rite had included animal sacrifices (remains of the charred bones of dog, steer, horse, deer, and wild boar). The tumul contained no "pit graves", but the presence of ochre might be connected with customs encountered in the Danube Basin, Transylvania, and as far as the steppes of southern Russia. For lack of sufficient elements the barrows at Bare near Kragujevac and several newly-excavated tumuli near Kostolac cannot be ascribed to the Pit-grave culture. Specific forms of burial (a scorched platform at Bare, a stone cornice, etc.) and gold grave goods from tumul I have analogues in other regions, including the Aegean and Anatolia (Troy and Tepe Hissar).[229] Care is therefore necessary in attempting a cultural attribution of these finds, all the more so as analogues with the Cotofeni culture, which was also familiar with inhumation burials under barrows (Cheile Aiudului) are not to be ruled out either.[230]

The dating of Pit-grave culture burials in the Yugoslav Danube Basin is based on some stratigraphic evidence and a C-14 date. The appearance of barrows whose deposit contains Baden, Kostolac, or Cotofeni pottery is a *terminus post quem* for the Pit-grave culture at sites in Romania, Hungary, and Serbia. The tumulus near Perlez was built of earth containing shards of vessels from the classical phase of Baden. The same is true of the Padej mound, while the Bare tumulus was covered with earth containing Cotofeni pottery shards.[231] The same phenomenon has been noted at several sites in Romania. The stratigraphy of Jabuka near Pančevo provides much more accurate data.

The tumul was erected over a stratified prehistoric settlement with Baden and Kostolac pottery. Lj. Bukvić's documentation from this site is perfectly clear: a Pit-grave culture grave was dug into earlier layers and and thus disturbed the footings of a Kostolac house.[232] This can be taken as a more accurate *terminus post quem* for the Pit-grave culture in the Yugoslav Danube Basin.

Finally, C-14 dating has also been instrumental in providing an accurate date for these graves. An analysis of the remains of the wooden lid from Padej by the Berlin Laboratory has yielded the following result: Bln-2219 - 4320±50 B.P. (2370±50 B.C.).[233] The laboratory's data for some Pit-grave culture burials from Kétegyháza are almost identical: grave no. 4 from tumulus 3: 2315±80.[234] When we know that the mature phase of the Pit-grave culture between the Dnieper and Dniester is dated to between 2500 and 1900 B.C.,[235] it is clear that the Berlin data are in absolute accordance with the situation as it was when the bearers of the Pit-grave culture or, shall we say, the Indo-European wave, arrived. The tumuli subsequently appearing in the Yugoslav and Romanian Danube Basin as part of the Vučedol culture (Batajnica, Vojka, Moldova Veche) belong to a somewhat later period, that of the terminal Pit-grave culture, and may have been somehow (ochre-painted vessels) related to it.

LATE ENEOLITHIC
(The Vučedol cultural complex)

Thanks to its attractive pottery, the Vučedol culture was among the first prehistoric cultures registered by archaeological science. Incidentally, it is with the excavation, towards the end of the 19-th century, of Vučedol sites, mostly on the territory of the ex-Austro-Hungarian Monarchy, that the work on prehistoric archaeology has begun. The first site to be investigated were the pile-dwellings in Ljubljansko Barje, which K. Deschmann started excavating in 1875.[236] Though interrupted from time to time, this work has continued to the present day. In another area, at Debelo Brdo near Sarajevo, F. Fiala began his own work in 1896.[237] Their findings were soon described in the first publications devoted to prehistory. Besides Deschmann's reports on his Barje work, these findings, in the first place incrusted pottery, were also the subject of writings by M. Hoernes (1898) and, in a now classical work *The Inlaid Pottery of the Stone and Bronze Ages* (1904), by M. Wosinsky.[238] In the first phase of research, Vučedol sites were also excavated by J. Brunschmidt, whose exceptionally ramified activity covered sites in Srem and Slavonia too, most notably Vučedol, where he started excavating in 1897.[239] The second phase of research comprises the interwar years, when research was largely concentrated on already excavated sites (Ljubljansko Barje, Vučedol, Sarvaš). The material from these, and from Zók in the Hungarian part of Baranja (Dj. Karapandžić in 1919 and 1920), was published by Yugoslav and foreign archaeologists (N. Vulić, M. Grbić, V. Hoffiller, R. Ložar, R.R. Schmidt, etc.).[240] The third phase started as soon as World War II was over: at Hrustovača (1947) and Zecovi (1954), at Ptujski grad (1946) and Gomolava (1953); our picture of the culture was further added to by the investigation of sites near Vinkovci, Belegiš, Rudina I, or the ones in central Serbia (Jasik and Djurdjevo).[241] Excavation was accompanied by publication of excavation reports, articles and studies (A.

Benac, J. and P. Korošec, M. Garašanin, S. Dimitrijević, N. Tasić, A. Durman, etc.). In Volume III of *The Prehistory of Yugoslavia* (1979) S. Dimitrijević provided a major synthetic account of the Vučedol culture.

The term "Vučedol cultural complex" is here used in order to underline the cultural and stylistic unity of a broad area from Central Europe in the north (Slovakia, Austria) via the Alpine zone (Ljubljansko Barje), Srem and Slavonia, to central Serbia (Sumadija), Bosnia, and the Adriatic coast. This unity is reflected in the shapes and ornamentation of pottery rather than in the economy, way of life (choice of settlement locations), and burial customs (inhumation, incineration, tumuli, etc.). In the central and western Balkans we can distinguish between three regional varieties of Vučedol: Srem and Slavonia, with sites in Bosnia and central Serbia gravitating towards them; Ljubljansko Barje and the Alpine zone at large (with sites in Austria); the insufficiently homogeneous, or rather, insufficiently investigated, Adriatic zone. The differences in their material culture could be a result of differences in cultural-historical, or geo-climatic conditions, or of chronological differences which are not to be ruled out over such a large expanse. Outside this area, cultures belonging to the Vučedol complex and their varieties are to be found in southeast Romania (the tumuli near Moldova Veche), southern Hungary, especially Baranja (which may be treated as an integral part of the Srem-Slavonia region), northern Hungary, Slovakia, and between the Danube and the Tisza, where specific groups emerge, such as Makó, Kosihy, Nyirség and even, in a certain way, Čaka; they are all described by S. Dimitrijević as special types within "the late phase - that of the regional division of the Vučedol culture, the C stage" or, as we have defined them, "peripheral cultures produced by the disintegration of the Vučedol complex".[242] The region of Srem and Slavonia is here central, not only geographically but also as the primary nucleus where the Vučedol style was formed and from which it subsequently spread to other areas.

The Vučedol culture

The term "Vučedol culture" refers to the regional phenomenon within the Vučedol complex which has all the characteristic traits of the Vučedol style in pottery and the main features of Vučedol settlements, in other words the phase which archaeological literature calls classical or true Vučedol culture. It comprises the central area of the Vučedol complex, the territory of Baranja (south of Lake Balaton), Srem, and Slavonia, including northwest Croatia, central Serbia, and Bosnia south of the Sava. A number of sites have been registered and partly investigated in the area. Their concentration is especially high between the Sava, Drava, and Danube rivers: from the Hungarian part of Baranja (Zók, Dunaszekcsö-Várhegyröl, Szava, etc.) and the stratified sites on the left bank of the Danube (Sarvaš, Vučedol, Belegiš) to those in the Sava valley and the lowlands of Slavonia (Gomolava, several localities near Vink-

ovci, Marić gradina in Mikleuška near Kutina, and sites in the Bjelovar and Koprivnica areas).

The position of the settlements indicates that their inhabitants preferred commanding sites. They built their dwellings on elevated ground by the banks of rivers or in their hinterland. The settlements were additionally fortified by ditches or palisades. Characteristic are the many settlements on the high loess bank of the Danube between Zemun and the confluence of the Drava and Danube rivers, which always have a deep ditch or other forms of artificial fortification. Similar settlements were built on the slopes of Mt. Fruška Gora, especially the north side, which slopes down to the Danube (Neštin, Sot, Vizić) and the south, where the hilly terrain meets the lowlands of Srem (Pećine near Vrdnik, Gradac in Bapska, in a way even Gomolava near Hrtkovci). The best examples of Vučedol fortified settlements are Gradac in Vučedol, Šančine in Belegiš, or Prisonjača in Vodjinci near Vinkovci. The present-day toponyms "Gradac", "Grad", "Šančine", or, in Hungary, "Varad", "Varhegy", best illustrate the hillfort nature of the Vučedol settlements. Thanks to the fact that it has been investigated in its entirety, the Vučedol Gradac is to be taken as the paradigm of Vučedol fortified settlements. The deep ditch that ran round the high loess plateau separated Gradac from other settlements in the immediate vicinity and made it a fairly safe place for those times. At Šančine in Belegiš, elements of fortification were strengthened: the plateau was surrounded by two ditches with a wooden palisade between them.

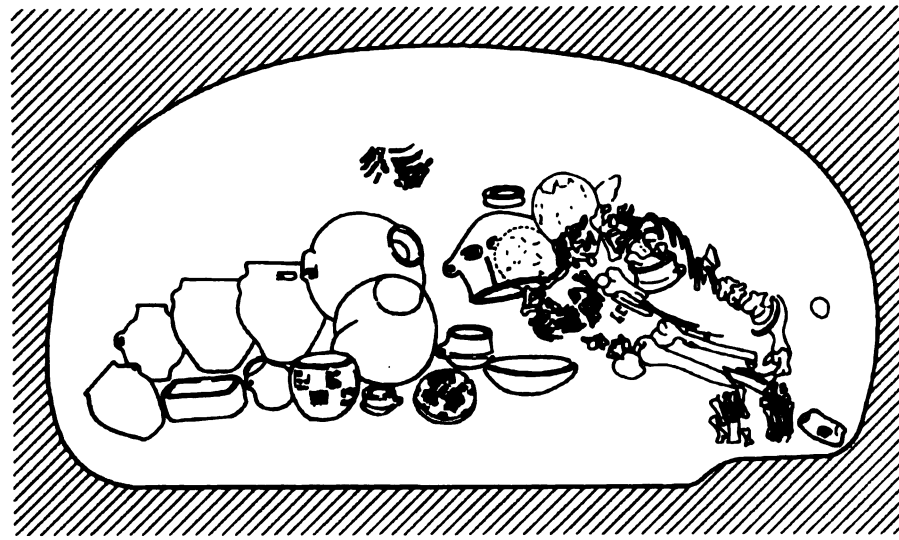
In Bosnia and central Serbia another type of settlement is widespread, but it also features the elements so important for Vučedol settlements - safety and security. The position of the hillfort villages in Šumadija (Djurdjevo, Jasik near Kragujevac)[243] is similar to that of the Fruška Gora settlements (Pećine near Vrdnik) and the Vučedol settlements in Bosnia (Zecovi, Debelo Brdo).[244] An exception to the rule is the only cave settlement, Hrustovača in western Bosnia; nevertheless, it too belongs to the type of safe settlement favoured by the Vučedol culture.[245]

Excavation has shown that there was a busy building activity at Vučedol sites. One of its aspects was the erection of fortifications, another concerned the construction of dwellings, and even sacred structures. Good sources of information on this aspect of the culture are Gradac in Vučedol, Tržnica in Vinkovci and, to a lesser extent, Šančine in Belegiš and Rudine near Koprivnica. On the levelled surface of Gradac there was a "megaron"-shaped house of some size (15.40 x 9.50 m) which belonged to the early phase of the Vučedol settlement. Because of the five "smelting" furnaces (three in the house and two just outside), R. Schmidt described the building as the "copper-smelters' megaron" ("Megaron des Kupfergiessers").[246] A later Vučedol building at the same spot, and of roughly the same size, contained a potter's kiln. Gradac, however, is not a typical Vučedol settlement. It was built for a special purpose, possibly as a seat for dignitaries or, in Schmidt's opinion, a place where copper was smelted and processed. Much more information is provided by a site near

Vinkovci (Tržnica-Hotel) where several medium- and large-sized rectangular houses (between 14 and 16 m in length) have been discovered in an area of 2,000 square metres. As a rule they contain a horseshoe- or oval-shaped hearth; in one of the houses there was also a sacrificial structure in the shape of horns of consecration, a symbol often encountered in the Vučedol culture.[247] The settlement was not organized; buildings were erected without a definite plan or orientation. Characteristic are the renovation of buildings, the levelling of the ground in preparation for further construction work, all of which indicates a lengthy stay by a considerable population in a single place, undoubtedly conditioned by its economy too. Most Vučedol settlements in Srem and Slavonia are characterized by the existence of several building phases. This is especially true of sites on the high loess bank (Sarvaš, Lovas, Erdut, etc.).

Necropolises in the classical sense are not known to the Vučedol culture. Individual burials have been discovered within settlements, beside
Pl. 9 houses or under their footings. Burial was by inhumation, in a crouched position and in pits of various shapes. Characteristic is the double grave in front of a later "megaron" house in Vučedol, with the L-shaped burial chamber resembling the catacomb graves of steppe origin. The large number of grave goods found there (21 whole vessels, 30 fragmented ones, and 800 potsherds) means that the grave was a special one; R. Schmidt called it "the couple's tomb", while S. Dimitrijević interpreted it as a "proto-princely grave".[248] Individual burials with or without grave goods have been found elsewhere too, for instance on the plateau of Streim's Vinograd (Vineyard), where a Vučedol pit has yielded 8 skeletons. S. Dimitrijević also mentions a small group tomb in Vinkovci, containing three skeleton graves.[249]

In the eastern parts of the Vučedol cultural area, burial under barrows was also practiced, probably under the influence of the steppe peoples' incursions into the Carpathian Basin and the Yugoslav Danube Basin. Two barrows



Pl. 9 – The Vučedol culture grave

containing a central cremation burial (an urn and grave goods) have been excavated at Batajnica and Vojka.[250] A similar phenomenon has been registered at Moldova Veche in Romania, where two tumuli holding Vučedol urns have been excavated in the immediate vicinity of a settlement containing two Vučedol horizons. It is characteristic, as P. Roman notes, that the urns and grave goods from these tumuli belong to a later Vučedol stratum and the final phase of the culture.[251] This is an important element in the dating of Vučedol tumuli near Batajnica and Vojka, whose material typologically corresponds to finds from the later stratum of the settlement and tumuli at Moldova Veche.

Animal burials in the Vučedol culture are to be understood as the manifestation of a phenomenon which was fairly widespread in the Carpathian Basin during the Eneolithic, most particularly in the Baden culture. This kind of find has already been discussed. We should only add another grave containing an excellently preserved deer skeleton, located in front of the Megaron II house at the Gradac site in Vučedol. In the life and beliefs of the inhabitants of this settlement, the deer obviously had an important place as a major quarry, found in abundance in this marshy lowland area, which explains its prominent role in the cult. Another find should be mentioned in this connexion, a terra-cotta figurine from Vučedol representing the head and neck of a deer bearing a conical vessel on its head.

The stratigraphic position of the Vučedol culture within the development of the prehistoric communities of Srem and Slavonia is well-known, chiefly owing to the systematic excavations at Vučedol, Sarvaš, Gomolava, and Vis near Derventa. Their results have been entered in archaeological literature on the basis of accurate data provided by R. R. Schmidt and the commentaries of S. Dimitrijević and N. Tasić.[252] More recent findings have added details to the picture, without, however, changing it essentially. At the Tržnica site in Vinkovci a relationship has been established between the late Vučedol culture (B-2 stage) and early Vinkovci, containing elements of the final phase of Vučedol (Vučedol C), which points to the existence of a transitional period between the two cultures.[253] On the other hand, some data (Vis near Derventa, Gomolava, Pećine near Vrdnik) indicate that there is stratigraphic, chronological, and cultural continuity between the Kostolac and early Vučedol (Vučedol A) cultures. Also important are P. Roman's remarks on the Vučedol site at Moldova Veche, where he distinguished between two Vučedol horizons: level I, where Vučedol pottery is mixed with Kostolac, and level II, containing exclusively Vučedol carved pottery. The latter is contemporaneous with the barrows in the immediate vicinity, which belong to the final phase of the Vučedol culture.[254] With these additional data, which are more relevant to the internal periodization of the culture, it is possible to place it accurately in relation to the cultures that preceded and succeeded it. It has been established, stratigraphically, genetically, and culturally, that the development of the Vučedol culture immediately followed that of Kostolac, and that the two may have been contemporaneous for a time, as S. Dimitrijević believes.[255] A similar

Fig. 13; 48; 49

Fig. 46

conclusion can be drawn regarding its end: Vučedol elements appear in the Vinkovci culture (e.g., Rudine I). In some isolated regions, especially south of the Sava, in Bosnia and Serbia, the Vučedol culture may have been partly contemporaneous with the emergence of the new Early Bronze Age cultures. This, however, is another problem, that of the genesis, duration, and periodization of the Vučedol culture and Early Bronze Age cultures, a problem we shall turn to later.

The material culture of Vučedol sites is rich and varied. As has often been noted, the style is best exemplified in pottery, richly decorated using
Pl. 10 various techniques. Technologically and artistically it is among the most advanced prehistoric cultures of the region, as evidenced by the quality of modelling, fabric, and ornamentation. The tables of pottery types and the illustrations provide an insight into the richness and variety of shapes. However, since R. Schmidt and his *Die Burg Vučedol* there has been no extensive survey of Vučedol pottery which would include recent finds from the region affected by the classical Vučedol culture. Nor would such an analysis be possible here, our space being limited. Instead we shall point to some basic forms, shapes, and decoration, of importance for the evolution of the Vučedol culture. In the early phase, bowls are the most frequent shape. An inheritance from the Kostolac culture, they are sometimes very shallow and with a small base. Their variants range from mildly biconical to fully articulated bowls (neck, shoulder, upper and lower cone). Nearly all are decorated with a carved or Furchenstich horizontal band. Footed goblets are rather scarce in the early phase. In the later stages, especially near the end of the Vučedol period, they become increasingly frequent bearing importance for the internal periodization of the Vučedol
Pl. XXVI, 1-5 culture. A shape inherited from the Kostolac culture is that of the "terrine", a deep bowl with a ribbon handle between the shoulder and lower cone or on the long neck. The "terrine" was widespread throughout the duration of the Vučedol culture. Often, but without much ground, it is thought of as exclusive to Vučedol, though it had been known to the Kostolac culture too. One of the most sumptuous, in both workmanship and decoration, was found in a Vučedol grave. Amphorae of various sizes, hanging vessels, pots and pithoi of different shapes complete to the list of the pottery forms of the Vučedol culture. Most vessels, of medium and smaller size, are richly decorated, chiefly by carving. It is the technique by which the Vučedol culture is defined in literature as the one where decoration by applying white paste onto the rusticated surface of a vessel reached its apex. The effect is that of a contrast between the burnished black surface of the vessel and the white paste. In addition to vessels used for practical purposes, cult and ritual objects were also often found at Vučedol sites. Frequent are the "altars" - rectangular or saddle-shaped (the shape of
Pl. XXVI, 7 horns of consecration) pedestals, present in all the stages of the Vučedol culture. Some altar shapes derive from the Kostolac culture, e.g. the one found at Plandište in Cerić;[256] similar forms have been found in Belegiš (Šančine) together with material belonging to the earliest phase of the Vučedol culture.

These data are of importance for the periodization of the culture and point to the existence of a transitional horizon between the Kostolac and Vučedol cultures. To this group of special-purpose artefacts also belong small tripodal vessels from Vučedol and Hrustovača and ring-based vessels, whose surface, even the parts not normally visible, is richly decorated all over (Vinkovci, Vučedol). Finally, there are anthropomorphic and zoomorphic figurines, not very frequent at Vučedol sites, but with characteristic, unusual shapes and ornamentation. The anthropomorphic terra-cotta figurines from Vučedol (Gradac) and Vinkovci (Tržnica) are roughly modelled, but richly decorated with incised lines. Female figures have the genital area covered with a kind of apron. Although different in shape from the well-known Ljubljansko Barje figurine, they display similar ornamental motifs.

Metal artefacts are comparatively rare at Vučedol sites, though there are indications, both direct and indirect, that the bearers of the culture were familiar with copper metallurgy (smelting, casting and the manufacturing of artefacts). In addition to the "copper-smelters' megaron", as R. Schmidt named the house with several smelting (?) furnaces at Gradac in Vučedol, the same site has yielded a few artefacts which could confirm that this, indeed, had been the inhabitants' occupation.[257] A flat-axe mould was found near one of the furnaces, and a copper axe of the same shape near another. Also, a number of ingots, whole or in fragments, have been found in a layer belonging to the Vučedol culture. A precious find of exceptional importance for the study of copper metallurgy in the Vučedol culture was the content of a pit in Vinkovci (Tržnica-Hotel, excavated in 1978) referred to as "*Jama-livača*" (foundry pit) by S. Dimitrijević.[258] Close to the bottom of the pit (of an upturned funnel shape) were three sets of moulds for casting "battle-axes" (single-bladed shaft-hole axes), a miniature set of the same kind and a mould for casting chisels. The same pit contained two smaller Vučedol vessels which made it possible to be very accurate in chronological and cultural attribution of the moulds. According to S. Dimitrijević, they belong to the B-2 phase of the Vučedol culture. More information for the study of the early copper metallurgy in the Vučedol culture was provided by finds from Debelo Brdo near Sarajevo and a well-known find from Sarvaš consisting of moulds for leaf-shaped daggers and a copper chisel. Though the Debelo Brdo finds are mentioned as early as the end of the 19th century, in the works of F. Fiala, they have been treated in greater detail only by B. Čović.[259] Three fragmented moulds for single-blade shaft-hole axes are also among the finds from this site, as well as three small fragments of a dagger mould, an awl mould and two fragments of a funnel-shaped vessel which was also used in casting. The finds from Debelo Brdo, Zecovi, and Alihodže testify to the high level of development that copper metallurgy had reached in Bosnia at the time of the Vučedol culture.[260]

Pl. XXXII, 1-3
Fig. 46/4

Fig. 12/1-3

The problem of the *origin and chronology* of the Vučedol culture seems to have been satisfactorily resolved by now, thanks largely to the extensive work carried out at sites in Srem and Slavonia and to more recent information

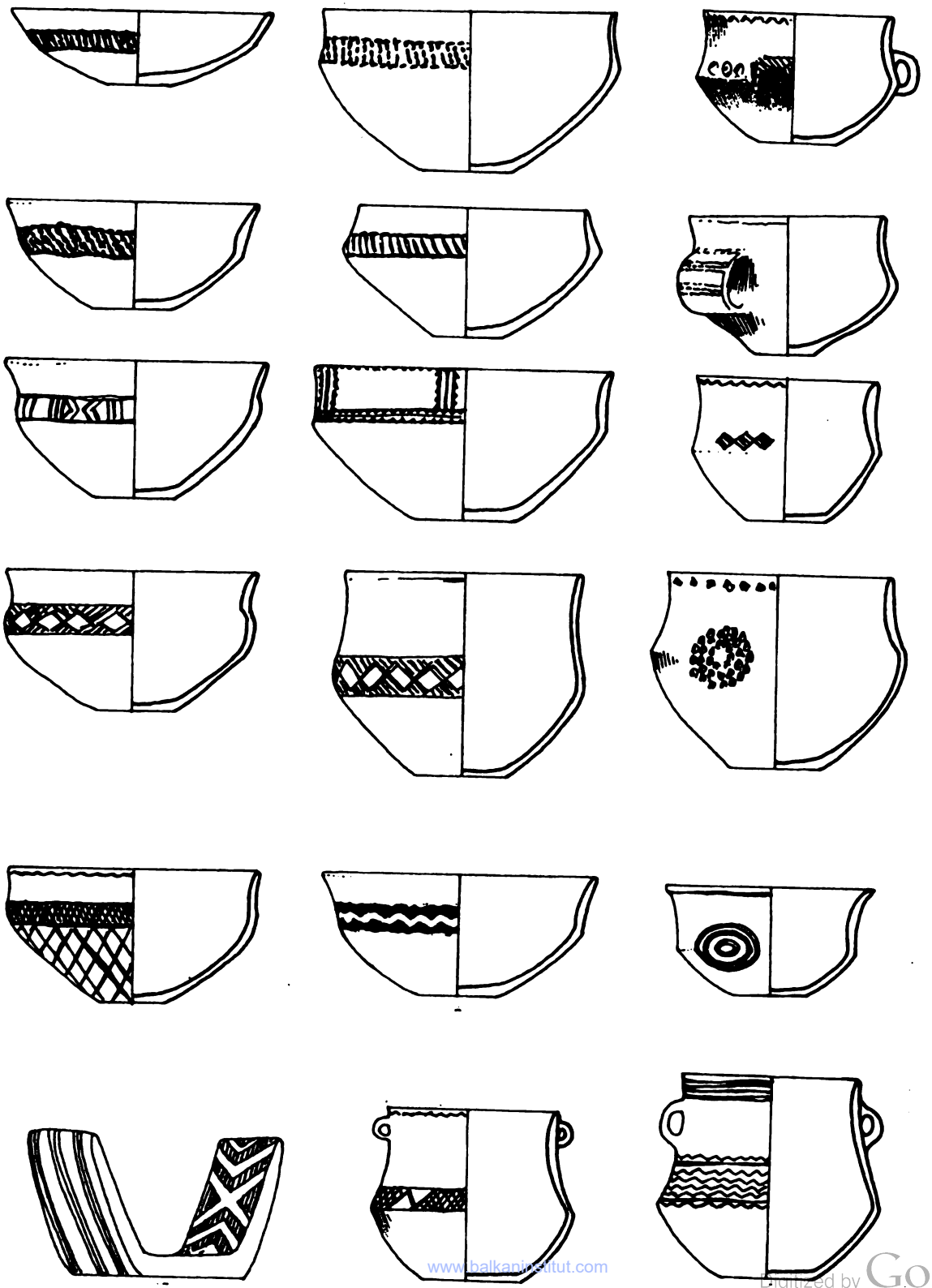
provided by sites in central Serbia, Bosnia, and Slovenia. Having adopted a historical approach, the present author is obliged to say a few words about the main theories of the origins of the Vučedol culture and style, though most of them have been almost entirely abandoned. A Nordic origin had been proposed first by C. Schuchart and subsequently by P. Reinecke, R. Schmidt, R. Pittioni, and others; F. Tompa, A. Benac (for a while), A. Mozsolics, and K. Willfonseder found a connection with the eastern Alps; a southern origin was assumed by M. Hoernes and G. Childe; the steppe component was underlined by M. Garašanin and N. Kalicz; most authors, however, have sought the origins of Vučedol in the autochthonous basis of the area where the culture flourished. This idea was first promoted by W. Buttler and subsequently advocated by B. Novotny, G. Childe, and A. Benac in his more recent work.[261] Their theory of autochthonous development has been reasonably confirmed by S. Dimitrijević and N. Tasić, whose conclusions were based on stratigraphic data and a stylistic analysis of Vučedol and Kostolac material.[262] We can now say with a great deal of certainty that the Vučedol culture and style were a product of further evolution of the fully developed Kostolac culture in Srem and Slavonia. Kostolac finds from Cerić, Pivnica, and Ašikovac and Vučedol pottery from Belegiš (Šančine), Lovas and Mitrovac clearly indicate that Vučedol had adopted pottery shapes and decoration (both motifs and their arrangment) from the earlier culture. Of course, it is impossible to rule out foreign elements (from the Alpine region, the Carpathian Basin, or the central Balkans) in dealing with the genesis of the Vučedol culture both in general and in its particular areas. These influences, however, were of secondary importance for the formation of the new culture.

According to what we know of it, the Vučedol culture was a long-lived one. This is why there have been several attempts at internal periodization. If we except the works of P. Korošec, who was chiefly interested in a chronology of the "Slavonian" culture on the basis of finds from Ljubljansko Barje, or rather Ig, and those of M. Garašanin, who treated the problem only in passing in *Prehistory in Serbia*,[263] we are left with the work of S. Dimitrijević (1956 and 1966) and N. Tasić (1967). The former wrote on several occasions about the division of the Vučedol culture, putting forward a number of suggestions; the most recent contribution, in Volume III of *The Prehistory of Yugoslavia*, is a synthesis of his views. The ternary division by the present author is essentially the same as Dimitrijević's, which we here quote as the most comprehensive.[264]

Pl. XXVI
Pl. XXVII, 1-3
Pl. 10

The early phase of the Vučedol culture (stage A according to Dimitrijević) is that of the formation of a new style which still contains elements inherited from Kostolac (Furchenstich decoration, forms of bowls, terrines). This phase lacks the carved decoration typical of Vučedol, the extensive use of white paste, and the excessive decoration characteristic of the classical phase. The best repre-

Pl 10 -- The pottery shapes or the Early Vučedol culture from sites in Serbia



sentatives of this phase in the development of the Vučedol culture are the sites at Belegiš (Šančine), Lovas, and Mitrovac; it seems that a detailed analysis of material from Vučedol (Gradac) and Sarvaš might point to the existence of a transitional or early phase still exhibiting some features of the Kostolac style. In Hungary, this phase is represented by the site Dunaszekcsö-Várhegyröl.[265]

Pl. XXVIII. 1-4
Pl. XXIX. 1-4
Pl. XXX. 1-4
Pl. XXXI. 1-7

The classical phase, or the early classical and classical phases (stages B-1 and B-2 according to Dimitrijević), is marked by the stabilization of the culture and its apex in building, metallurgy and pottery. Most of the finds from Vučedol, Vinkovci, Gomolava, Apatovac, Sarvaš, Hrustovača, Zók, and other sites belong to this phase of Vučedol. Pottery shapes are varied (an entire series of new ones appear), there is an abundance of ornamental motifs, especially carved ones combined with the application of white paste. The prosperity of the culture is best illustrated by the construction of permanent settlement structures (houses and hearths), which were combined with fortification systems to give the inhabitants of Vučedol settlements increased safety. At the tail-end of this phase cremation burials under barrows appear alongside inhumation; this can be interpreted as the beginning of the crisis provoked by the arrival of new populations into the Carpathian Basin and the Balkans, a crisis that would eventually bring about the disintegration of the culture. These phenomena ushered in the third, *late phase* (the phase of regional diversification

Pl. XXXII. 1-6
Pl. XXXIII. 1-9

- stage C according to S. Dimitrijević) of the Vučedol culture, marked by the emergence of regional types. In their further development they kept drawing away from the original area of Vučedol and, somewhat later, formed new cultures that already belong to the Early Bronze Age. These regional phenomena, according to S. Dimitrijević, include the south and west Bosnian types (Debelo Brdo), the Šumadija type with sites around Kragujevac (Jasik, Djurdjevo), and sites outside our country, such as Moldova Veche or Makó and Nyirség in Hungary and Slovakia.

The chronological position of the Vučedol culture and its relationship with other phenomena in neighbouring areas (Alpine, Adriatic, Carpathian, etc.) have been established on the basis of the stratigraphy of stratified sites (Vučedol, Vis near Derventa, Gomolava), the presence of similar shapes and decoration, the typology of metal finds, and the presence of imported material. Kostolac and its neighbour, Cotofeni to the east and Retz-Gajary to the west, chronologically preceded the Vučedol culture; in absolute terms, that would be ca. 2200/2100 B.C. The end of the C stage of Vučedol is seen as connected with the disintegration of this cultural complex and the emergence of the first cultures of the Early Bronze Age. It is the time of local groups such as Makó, Nyirség, and Kosihy-Čaka in the north, Ljubljana in the west, Glina III-Schneckenberg in the north, and Tivat-Rubež in the south. In Srem, Slavonia, and the Hungarian part of Baranja, the end of Vučedol was marked by the appearance of Vinkovci-Somogyvár ware, approximately around 1900/1800 B.C., when the Early Bronze Age began in Central and Southeast Europe (the Aegean excepted).

The terminal Eneolithic of the Alpine zone

At the end of the classical phase of Vučedol (stage B-2) the bearers of the culture began to spread to the south (central Serbia, Bosnia), east (the Romanian parts of Banat), and west (Ljubljansko Barje and the area gravitating towards it). To the west, their penetration was only gradual, and of a "gradational nature". The first stage of their expansion is exemplified by sites in northwest Croatia,[266] whence the culture spread further west, forming a new secondary centre at Ljubljansko Barje. The latter went on developing independently, without closer contacts with the zone of origin, Srem and Slavonia. The differences in style, which would subsequently become more pronounced, resulted from the presence of a strong tradition and influences from northern Italy (the Polada culture) and the Alpine region (the Mödling group). The term "Slavonian type of Vučedol" might be accepted for the first phase, but in the second, when ties with the area of origin are broken, the culture went on developing independently, both in style and in other characteristic traits. It seems correct, therefore, to treat Ljubljansko Barje (phase I or Ig I) as a regional phenomenon within the Vučedol culture and phase II (Ig II) as a culture of the post-Vučedol complex, i.e. the Ljubljana culture, as S. Dimitrijević has named it.[267]

In order to understand how terminal Eneolithic groups, most particularly Ljubljansko Barje - as centrally located and best investigated - were formed in the southeastern Alpine zone (from Vienna in the north to Križevci in the south) we need to examine the long period of continuous development in the region. A general survey of Eneolithic development in the area of Ljubljansko Barje (as discussed earlier in the book) shows that we can distinguish between five phases of the Early, Middle, and Late Eneolithic; their relative chronology with regard to Slavonia, Srem, and northwest Croatia would be as follows: Fig. 27

The above table clearly shows that the Vučedol culture reached the area of Ljubljansko Barje after a long period of continuous development of the "Alpine facies of Lengyel", i.e. a variant form of the Lasinja culture. The Kevderc-Hrnjevac group had already disturbed the homogeneity of the region, preparing it for assimilation by the oncoming Vučedol population.

The above division of Ljubljansko Barje by H. Parzinger[268] might also be presented in a synthetic way, as in the works of P. Korošec, S. Dimitrijević, F. Leben, and others.[269] P. Korošec distinguishes between three different phases in the development of the Eneolithic of the region; the first would comprise final Lengyel and the emergence of the "Slavonian" (Vučedol) culture; the second is that of Ig I (Slavonian, according to P. Korošec), and the third corresponds to Ig II (S. Dimitrijević's Ljubljana culture).[270] Most authors agree about the relative dating of the Vučedol culture: it appears after the "Alpine facies of Lengyel", more precisely after the Lasinja and Retz-Gajary cultures, and corresponds to the Ig I horizon in the periodization of Ljubljansko Barje, which is characterized over a more extensive area by Vučedol style pottery decorated either by incision or by carving combined with white encrusted paint.

	Ljubljansko Barje (H. Parzinger)	Srem, Slavonia, NW Croatia (S. Dimitrijević, N. Tasić)
LB I	(Resnikov prekop – a, Ajdovska jama) – terminal Lengyel	Sopot-Lengyel III
LB II	(Resnikov prekop – b)	Early Lasinja culture
LB III	(Maharski prekop – a) early phase of Maharski prekop group	Late Lasinja culture
LB IV	(Maharski prekop – b) late phase of Maharski prekop group	Retz–Gajary group Kostolac culture I and II
LB V	(Ig – a) the Vučedol culture	Slavonian type of Vučedol B-1 and B-2 (early and classical)
LB VI	(Ig – b) Ljubljana culture	beginnings of the Vinkovci culture

Comparative table of the Ljubljansko Barje culture and cultures of Srem, Slavonia and NW Croatia

The area of the Slavonian type of Vučedol includes Niederösterreich, Burgenland, most of Slovenia with the Istrian karst, and the extreme northwest of Croatia.[271] Three basic types of settlements are to be found in the region: hilltop settlements (Ptujski grad, Kevderc, Apatovac near Križevci, Baden-Raucheneck and Mölding-Hirschkogel in Austria, etc.); cave settlements (Ajdovska jama near Krško, Jama pod Predjamskim gradom, and a number of caves near Trieste which, though not strictly belonging to Vučedol, can be seen as part of a more broadly conceived culture: Grotta dei Ciclami, Caverna del Pettiroso, Grotta della Tartaruga, etc.); finally, the most frequent type of settlement in Ljubljansko Barje is represented by pile-dwellings (Pfalbau-siedlung). This type has a long tradition in the region (Maharski prekop, Resnikov prekop, Studenec pri Igu). The best known pile-dwelling settlements in the Slovene variety of Vučedol are no doubt the ones around Ig, on the Parta canal, near Ižica, etc.[272] In addition to information about the construction of pile-dwellings, these sites have yielded a wealth of portable material too. Its

use, however, is often limited, due to a lack of accurate stratigraphic data and the fact that most finds have been produced by excavations carried out at the close of the nineteenth century, or by other earth works (the digging and expansion of the network of canals, etc.).

The material culture of the Alpine variety of Vučedol, most particularly that of the pile-dwelling settlements at Ljubljansko Barje, is well known thanks to regular publication. Several catalogues, numerous reports in "Poročila o raziskovanju neolita in eneolita v Sloveniji" and a number of other writings make up a very good survey of this type of material, especially pottery, lithic and bone material, and, to a lesser extent, copper finds.[273] The most frequent vessel shape at Ljubljansko Barje and other sites in Slovenia and northwestern Croatia is that of a jug, a single-handled, high-necked vessel with rich decoration on the globular or biconical receptacle, or on the broad ribbon handle. Other shapes include a two-handled amphora, also richly ornamented on the belly, bowls or conical vessels on a cruciform or cylindrical foot. There are also heavier vessels of crude workmanship, usually plain. In spite of obvious similarities in shapes and ornamentation between the Vučedol culture of Srem and Slavonia and its Slovene (Alpine) type, some features are peculiar to sites in the Ljubljansko Barje region: first of all, the use of carved decoration decreases, the same motifs being executed by incision. Furthermore, there appear vessels with one proper handle and a smaller tunnel one on the opposite side, fixed in a position that corresponds to the somewhat later Vinkovci ware. Finally, globular and big-bellied vessels appear, of a kind which would be frequent in the Ljubljana culture and whose analogues are to be found in other Central European cultures of the Early Bronze Age (Bell Beaker, Csepel, Corded ware, etc.).

PL. XXXIX. 1-7
Fig. 27/1-7
Pl. XL. 1-8

In addition to pottery, Ljubljansko Barje (Ig I) sites have also yielded copper finds and ceramic artefacts used in their casting. The finds include a mould for casting single-blade shaft-hole axes, several smaller vessels which might have been used in casting, and a number of copper artefacts, most notably a copper dagger of characteristic shape and a fragmented flat axe. Their analogues have been found in Srem and Slavonia at Sarvaš (daggers), Vinkovci, and Vučedol (single-blade and flat axes). Besides the well-known metallurgical centres such as Debelo Brdo near Sarajevo, Sarvaš, Tržnica-Vinkovci, or Gradac in Vučedol, the site of Ljubljansko Barje also appears as an important regional metallurgical centre of the Vučedol cultural complex.

Pl. XXXIX. 1-5
Fig. 27/1-3
Pl. II. 7
Pl. XL. 1-8

Bone and stone tools, with some all too rare wood artefacts, help to complete our picture of the material culture of the Ljubljansko Barje sites. Besides well-made bone artefacts used for practical purposes there is also a sizeable collection of fine bifacial stone tools struck in a broad retouch. Most of them are some sort of wedges and "daggers" that used to be fixed in a wooden or bone haft. They are exclusive to this area and have no analogues in Srem and Slavonia, where the culture originated.

Judging by available data (the typology of the material and stratigraphy of the sites), the Alpine variety of Vučedol was shorter-lived than the culture itself. It emerged simultaneously with the B2-C1 stage and ran parallel to it, surviving until the appearance of the Ljubljana culture in the area. Since the Ljubljana culture is rightly taken to be the first Early Bronze Age culture and dated to the same period as the Bell Beaker, Corded Ware, Somogyvár-Vinkovci, Csepel, Polada, and other cultures, the end of the Alpine type of Vučedol should be dated to about 1700 B.C. In view of its short duration, however, it may have first appeared around 1900/1800 B.C.

3. The terminal Eneolithic of the Adriatic zone

The long strip of the Adriatic coast from the Gulf of Trieste to northwestern Albania is a region where the Eneolithic had been a specific phenomenon, insufficiently explored so far. Geographic conditions determined its separate development, though there was some communication with other regions via the Krka, Cetina, and Neretva river valleys and Lake Scutari. The modest level of exploration of the area, especially of the late Eneolithic cultures, is not a very good basis for reliable conclusions. This is why there are many conflicting scholarly opinions on the subject (P. Korošec, S. Dimitrijević, Š. Batović, N. Petrić, B. Čović, B. Govedarica, etc.).[274] Different terms are used to refer to the same phenomena, interpretations of the material differ considerably, and there is no consensus on the dating and cultural attribution of individual finds, sites, or cultures in general. It is unclear, to begin with, whether we are dealing with a single whole, the "Adriatic culture" as P. Korošec would have it,[275] different regional phenomena, or chronologically distinct phases in the same line of cultural development. S. Dimitrijević has not been able to offer a satisfactory solution in Volume III of *The Prehistory of Yugoslavia*, nor can we produce anything conclusive here. The region has not been sufficiently investigated, published material is scant, and necessary stratigraphic and other data are often lacking. The main question to be answered is whether all the "Adriatic" pottery belongs to a single culture and period, or to two phases in the development of the single culture, or else to two different cultures. P. Korošec and Š. Batović believe that they all belong to the same horizon.[276] S. Dimitrijević distinguishes between two chronological and cultural entities, "the Vučedol culture of the Adriatic coast" and "the Adriatic type of the Ljubljana culture".[277] The former would be represented by finds from Vrpolje near Šibenik and some fragments from Markova špilja on the island of Hvar, while the latter would comprise a number of sites from the Gulf of Trieste and Istria in the north (Caverna del Pettiroso, Grotta dei Ciclami, Dančeva pećina) and central Dalmatia (Sveti Spas and Biskupija near Knin, Tradanj near Šibenik, tumulus no.2 at Cetina) to the Dalmatian islands (Markova špilja and Grapčeva špilja on Hvar, Vela špilja on Korčula) and the Dubrovnik and Montenegrin littoral (Gudnja near Ston, Mala Gruda near Tivat and, in the

Pl. XLIII, 1-8

Pl. XLIII, 6, 7

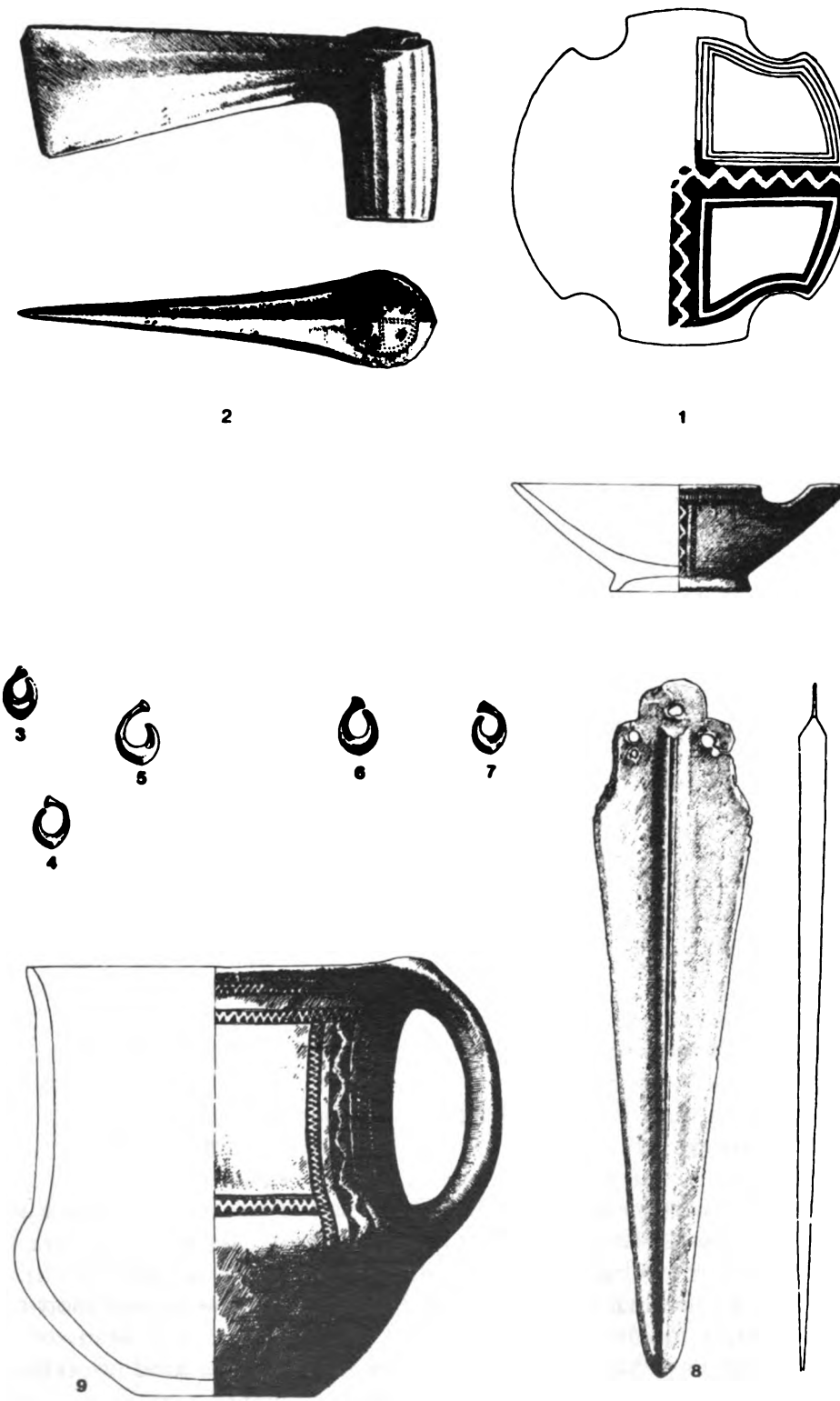
Pl. XLIII, 1-5, 8

continental zone, Rubež near Nikšić). Some of the finds from this group already belong to the Early Bronze Age (the early tumuli at the head of the Cetina).

There are few reliable data for the interpretation of "Vučedol finds on the Adriatic coast". One of the theories proposed is that it had been an aftermath of the incursion of the bearers of the culture, or rather style, from southern Bosnia (Debelo Brdo) towards the Adriatic coast. This would make it possible to explain certain finds of Vučedol-like pottery in Montenegro (Rubež near Nikšić, some finds from the Odmut cave - part of stratum VI) and, in some ways, the well-known grave from the Mala Gruda tumulus near Tivat.[278] On the other hand, the many sites of "the Adriatic type of the Ljubljana culture" all along the Adriatic coast and in its hinterland (Ravlića pećina, Badanj near Stolac, Slime near Posušje) offer much more information about the origins and development of the culture. However, disagreement arises as soon as it comes to dating. Is the culture Eneolithic or does it belong to the Early Bronze Age? P. Korošec and Š. Batović dated it to the tail-end of the Eneolithic. With some variation, F. Leben, B. Čović, B. Marijanovic, A. Milošević and B. Govedarica did the same.[279] S. Dimitrijević, on the other hand, believes that this culture marks the beginning of the Early Bronze Age on the Adriatic coast.[280] Another source of confusion is the fact that all phenomena preceding the A1 stage of the Bronze Age of Reinecke's periodization should be classified as Eneolithic. If we postulate an even earlier period than A1 within the Early Bronze Age of Central Europe, which has been largely accepted in archaeological literature,[281] the period encompassing all the "post-Vučedol cultures" and variants of the Bell Beaker complex, then the "Adriatic type of the Ljubljana culture", by analogy with the Ljubljana culture of the Alpine region or with Makó-Nyirség in the Pannonian Plain, would belong to the Early Bronze Age or the transitional period between the Eneolithic and the Bronze Age. We shall therefore deal with it only insofar as it helps to clarify the rather obscure period of heterogeneous phenomena on the Adriatic coast in the Late Eneolithic and Early Bronze Age.

Fig. 30
Pl. 11: Fig. 28

The specific features of the topography and climate of the Adriatic coast have determined the appearance of different types of settlements inhabited by the bearers of "the Adriatic type of the Ljubljana culture". The most frequent type is the cave settlement, both in the north (caves in the Gulf of Trieste and Istria), in central Dalmatia and on the islands (Tradanj, Šarena draga, Grapčeva špilja, Gudnja, etc.), in Herzegovina (Ravlića pećina, Badanj, etc.), and in the south, in Montenegro (Odmut, Vranjan). Hillfort settlements are slightly less frequent (Gradina Sv. Spas near Knin and Gradina near Kašići). More recently, settlements in karst holes have been discovered, e.g. on a high plateau near the village of Otišić (some 100 karst holes are mentioned) near Sinj, one of which has been excavated.[282] Most settlements were short-term, intermittently inhabited stations of nomadic stock-breeders. Many of their features indicate that these nomads were engaged in a kind of prehistoric transhumance and, indeed, conditions in the region favoured this type of



Pl. 11 -- Mala Gruda, Tivat
Grave goods from the central grave in the tumulus

activity. This can partly explain the presence of sites of "the Adriatic type of the Ljubljana culture" in Herzegovina and the continental parts of Montenegro.

The ceramic material of "the Adriatic type of the Ljubljana culture" is for the most part fragmented as it comes from caves, hillforts, and karst holes (where there is greater denudation of the soil). Specimens preserved intact are rare. The most frequent shapes are those of globular or hemispherical vessels (Grapčeva špilja, Otišić), tall-footed goblets (Grapčeva špilja, Otišić), conical and calotte-shaped vessels with a thickened rim (Rubež, Grapčeva špilja, Otišić), goblets on a cruciform foot (Mala Gruda near Tivat), etc.[283] Most vessels are richly decorated with incised lines or by carving. The ornamentation is often organized in zones, similarly to that of the Bell Beaker, Renedello, and Polada cultures. In carrying out a typological analysis of the pottery it is possible to single out Mala Gruda and Rubež as specific phenomena different from other sites of this circle. They probably represent a regional type within the cultural complex as a whole, or else an insufficiently differentiated phase in the development of the culture. Pl. XLIII, 1-8

In addition to settlements, four tumuli have been discovered that might well belong to the "Adriatic type of the Ljubljana culture": a tumulus at the head of the Cetina (barrow no. 2), barrows near Rubež and at Pazhok (Albania), and the chronologically very important tumulus at Mala Gruda near Tivat.[284] This last, the only systematically excavated tumulus, has yielded a grave with grave goods.[285] The body of the deceased was found in a cist of stone slabs dug into the subsoil. A calotte-shaped structure made of boulders, several pyres, exceptional grave goods, and the size of the tumulus (over 20 m in diameter, with a height of 2.5 - 4.0 m) indicate that the deceased had been an important figure and that burial rites had been very elaborate. In addition to two vessels, the grave goods included a triangular electrum dagger, a single-bladed shaft-hole axe of the same material and two gold hair rings (Noppenring). While the ceramic finds are clearly related to the Vučedol cultural complex, the electrum finds are considered to be an Aegean import from the time of the "Middle Minoan phase of the Aegean culture", around 1800 B.C. This is an important piece of information as regards chronology, and it can easily be confronted with other post-Vučedol phenomena (the Ljubljana culture, Makó, Nyirség, etc.). Pl. II

***

The end of the Vučedol complex and of the cultures that directly originated from it, both through a local evolution and under foreign influences, marks the end of the Eneolithic in the central and western Balkans. A series of new cultures, groups, and variants appeared all over the vast territory it had covered: Csepel-Bell Beaker and Somogyvár-Vinkovci in the north, with the Belotić-Bela Crkva variant in the central area; Glina III-Schneckenberg in the east; in the west the influence of the Bell Beaker and related cultures grew in

intensity, while the Cetina culture emerged in the south, no doubt as part of a more comprehensive process. They ushered in the "true Early Bronze Age", where the influence of the Vučedol substratum was still felt for a while, especially in the areas of its origin - Srem, Slavonia, Baranja, and in the Vinkovci-Somogyvár culture. That would be the period around 1800 B.C., as testified to both by the "Aegean connexion", and the chronological framework of the Early Bronze Age of Central Europe.

NOTES

1. K. Deschman, 1875.
2. F. Fiala, 1894, pp. 107 ff.; F. Milleker, 1889, pp. 1-6; J. Brunšmid, 1902; M. Vasić, 1906.
3. N. Vulić - M. Grbić, 1937.
4. V. Hoffiler, 1933; Idem, 1938. T. I, V, VII, VIII
5. V. Milojčić, 1949, pp. 88 ff.; M. Garašanin, 1959, pp. 29 ff.; Idem, 1973, pp. 161-288; A. Benac, 1962, pp. 131 ff.; S. Dimitrijević, 1961, pp. 24 ff.; N. Tasić, 1967, pp. 9-90; *Praistorija Vojvodine*, 1974, pp. 113-183.
6. N. Tasić - S. Dimitrijević - B. Jovanović in: PJZ III, passim.
7. N. Tasić, 1968, p. 266.
8. J. Cvijić, *Balkansko poluostrvo*, Beograd 1987.
9. N. Tasić, 1975a, pp. 51 ff.
10. A. Benac, 1948, pp. 3 ff. (Hrustovača); Idem, 1962a, pp. 21 ff. (Pivnica); B. Belić, 1964, pp. 22 f. (Vis near Modrana).
11. B. Marijanović, 1981, pp. 53 ff.
12. S. Dimitrijević, 1967, pp. 8-10; Idem, in: PJZ III, pp. 307, 317-320.
13. For the opinions concerning this issue, cf.: B. Čović, 1973, pp. 11 ff.; B. Jovanović, 1971, passim; Idem, in: PJZ III, pp. 33 ff.; B. Brukner, 1977, pp. 9 ff.
14. N. Tasić, 1968, 265; M. Garašanin, 1973, p. 161; *Praistorija Vojvodine*, 1974, pp. 113 ff.
15. Lj. Bukvić, 1978 (1979), pp. 14 ff.
16. P. Roman, 1980, pp. 220 ff.; M. Garašanin, 1967, p. 31; N. Tasić, 1983, pp. 23-27.
17. B. Jovanović, 1971, passim; M. Kuna, 1981, pp. 13 ff.; A. Durman, 1983, 35-51.
18. N. Tasić, 1973, 14 ff. (Zlotska pećina); R.R. Schmidt, 1945, pp. 21-26 (Sarvaš and Vučedol); PJZ III, T. XLIV/11-13 (Ljubljansko barje); A. Durman, 1983, pp. 39 ff.
19. B. Čović, 1976, pp. 110 ff., T. I-III; PJZ III, T. XLIII; A. Durman, 1983, pp. 37 ff., T. 1-6.
20. B. Jovanović in: PJZ III, p. 36, and quot. bibliog.
21. Ibid., pp. 35-36.
22. E. Černyh, 1975, pp. 132 ff.
23. M. Garašanin, 1971; Idem, 1973, p. 281; B. Jovanović in: PJZ III, pp. 381 ff.; N. Tasić, 1983, pp. 15 ff.; A. Benac, 1986, pp. 78 ff., and quot. bibliog.
24. M. Garašanin, 1954, pp. 225 ff.; Idem, 1973, p. 222; B. Jovanović in: PJZ III, p. 382, and quot. bibliog.
25. B. Stalio, *Zlokućani-Gradac*, Catalogue of the ceramics I, Narodni muzej, Beograd, 1955, pp. 9 ff.; *Arheološki lokaliteti Bubanj i Humska čuka*, catalogue of the exposition, Niš 1983, sl. 20, 25, 79.
26. B. Brukner, 1977, pp. 9 ff.
27. N. Tasić in: PJZ III, pp. 80-82.
28. For more information on Tiszapolgar and Bodrogkerezstur cultures and their

relation, cf.: I. Bognar-Kutzian, 1963; Idem, 1972; P. Patay, 1961, pp. 25 ff.; Idem, 1978, pp. 54 ff.; N. Tasić in: PJZ III, pp. 55 ff.
29. S. Šiška, 1968, pp. 61 ff., 138.
30. M. Zotović, 1963, pp. 18-20, T. I/3-4.
31. *Eneolit južnog Banata*, p. 39.
32. Ibid., pp. 21-22, 29, T. I.
33. Ibid., p. 15, T. III/17-21.
34. D. and M. Garašanin, 1957, pp. 199 ff.; B. Brukner in: *Praistorija Vojvodine*, p. 120; N. Tasić in: PJZ III, pp. 64 ff.
35. J. Korek, 1958, pp. 21-30, T. I-II.
36. B. Brukner in: *Praistorija Vojvodine*, pp. 114-115.
37. N. Tasić in: PJZ III, p. 69; Idem, 1984, pp. 72-74, sl. 43-44, 272-273; J. Todorović, 1956, pp. 50-52, sl. 37.
38. M. Šulman, 1952, pp. 157 ff.; Idem, 1954, pp. 70 ff.
39. J. Korek, 1958, pp. 22-26.
40. I. Bognar-Kutzian, 1963, pp. 20-229; Idem, 1972, pp. 179 ff.; S. Šiška, 1968, pp. 61 ff.
41. I. Bognar-Kutzian, 1972, pp. 178 ff.
42. *Eneolit južnog Banata*, pp. 21-22, 29.
43. M. Šulman, 1952, pp. 157 ff.; M. Garašanin, 1954, pp. 225 ff.; *Eneolit južnog Banata*, pp. 34-35.
44. I. Bognar-Kutzian, 1972, pp. 30-31, T. XXXIV; I. Escedy, 1979, p. 11, Figs. 2-4.
45. D. Telegin, 1973, pp. 17 ff., Ris. 7, 34, 56-57.
46. M. Garašanin, 1954, pp. 225 ff.
47. B. Jovanović, 1971, p. 29, App. 4; Idem in: PJZ III, pp. 38 ff.
48. J. Brunšmid, 1902, p. 43, sl. 3; B. Jovanović, 1971, T. VI/1-3.
49. N. Tasić, 1959, pp. 227 ff., sl. 15.
50. K. Vinski-Gasparini, 1957, pp. 6-10.
51. S. Šiška, 1968, p. 111, obr. 20; H. Todorova, 1986, p. 204, Ris. 111/9; I. Bognar-Kutzian, 1973, pp. 303 ff., figs. 2-3.
52. P. Patay, 1958, T. XV/1,2; sl. 5; B. Brukner in: *Praistorija Vojvodine*, p. 138.
53. I. Bognar-Kutzian, 1969, pp. 32 ff.; B. Brukner, 1970, pp. 1-14; N. Tasić in: PJZ III, pp. 129 ff.
54. B. Brukner, 1970, pp. 1 ff., T. I-VIII.
55. I. Bognar-Kutzian, 1973, p. 304, fig. 3.
56. B. Brukner in: *Praistorija Vojvodine*, pp. 144-145.
57. P. Patay in: *Gomolava I*, pp. 151-153, Abb. 2-5.
58. S. Dimitrijević in: PJZ II, pp. 263-303.
59. N. Tasić, 1985, pp. 51 ff.
60. J. Korošec, 1958, pp. 83 ff.; P. Korošec, 1975, p. 169.
61. T. Bregant, 1972, pp. 118 ff.; F. Leben, 1973, pp. 187-197; S. Dimitrijević, 1961, pp. 22 ff.; Idem in: PJZ III, pp. 137 ff.
62. Investigation carried out by the National Museum of Kruševac and the Institute for Balkan Stuudies of the SASA. Material has not been published.
63. A. Jurišić, 1961, pp. 99 ff.
64. For the hoards in Pločnik, cf.: B. Stalio, 1964, pp. 35-40; Idem, 1973, pp. 157-160; B. Jovanović in: PJZ III, pp. 37-38.

65. M. Kuna, 1984, pp. 17 ff.
66. M. Garašanin, 1973, p. 201.
67. B. Stalio, 1973, pp. 157 ff.
68. M. Garašanin, 1973, pp. 164 ff.; V. Trbuhović - Lj. Vuković, 1967, pp. 98-99; N. Tasić in: PJZ III, pp. 98-100; Gockova - Slavska 1955, pp. 1 ff.
69. P. Roman, 1971, pp. 32 ff.
70. Cf.: B. Kitanoski, 1971, 139-140, Fig. 1-12; D. Simoska - B. Kitanoski - J. Todorović, 1976, pp. 43 ff., T. I-X.
71. M. Garašanin - D. Simoska, 1976, pp. 9-31, T. I-X.
72. Z. Letica, 1972, pp. 117 ff.; D. Berciu, 1961, pp. 566 ff., fig. 110/1.
73. V. Trbuhović - Lj. Vuković, 1967, pp. 97 ff.; M. Garašanin, 1973, pp. 164 ff., and quot. bibliog.; N. Tasić, 1981, p. 9 ff.; M. Jevtić, 1987, pp. 21 ff.
74. M. Garašanin, 1973, p. 170, sl. 3.
75. N. Tasić, 1982, p. 27, T. IV/7, 8a-g.
76. J. Todorović, 1963, pp. 25 ff. Investigation of the site of Gadimlje by Gnjilane was carried out by J. Glišić. The material is unpublished. It is kept in the Museum of Kosovo in Priština.
77. P. Gockova-Slavska, 1955, pp. 1 ff. (Skopsko kale).
78. M. Garašanin, 1959, pp. 118 ff.; B. Kitanoski, 1971, p. 139; M. Garašanin - D. Simoska, 1976, pp. 9 ff.; N. Tasić in: PJZ III, pp. 92 ff.
79. M. Garašanin, 1959, pp. 118 ff.; D. Simoska - B. Kitanoski - J. Todorović, 1976, p. 62; D. Simoska - V. Sanev, 1976, p. 22.
80. M. Garašanin - D. Simoska, 1976, pp. 21 ff. (n. 45).
81. N. Tasić, in PJZ III, pp. 88-89.
82. D. Berciu, 1961, pp. 155-350; P. Gockova-Slavska 1955, p. 6; N. Tasić in PJZ III, p. 92.
83. N. Tasić, 1982, p. 27, T. III; H. Todorova, 1986, pp. 196 ff., Ris. 97 (Ovčarovo), Ris. 100 (Poljanica).
84. H. Todorova, 1986, T. 122-123, Ris. 112.
85. D. Simoska - V. Sanev, 1976, p. 48, sl. 230-231.
86. D. Berciu, 1961, pp. 159 ff.; Idem, 1961a, pp. 128 ff.; M. Garašanin, 1973, pp. 175 ff.; P. Roman, 1971, p. 104, Abb. 35; N. Tasić in: PJZ III, pp. 94 ff.
87. *Eneolit južnog Banata*, p. 6, T. III/17-21; *Praistorija Vojvodine*, p. 141.
88. F. Prendi, 1966, pp. 271 ff., T. III, IV, V/3,16,18, X.
89. H.J. Weishaar, 1980, pp. 34 ff.; N. Tasić, 1978 (1979), pp. 1-5.
90. J. Korošec, 1958, pp. 83-93.
91. R. Pittioni, 1954, pp. 169 ff., 208 ff.
92. S. Dimitrijević in: PJZ III, p. 137, and quot. bibliog.; F. Leben, 1973, pp. 187 ff.
93. S. Pahič, 1973, pp. 12 ff.
94. S. Dimitrijević, 1961, pp. 41 ff.
95. T. Bregant, 1972, pp. 181 ff.; Š. Batović, 1975, pp. 91-108.
96. J. Korošec, 1953, p. 64; P. Korošec, 1975, p. 169; Idem, 1980-1981, p. 12, and quot. bibliog.
97. Š. Batović, 1975, T. 14, 15, 17/1.
98. S. Dimitrijević in: PJZ III, p. 156, sl. 5.
99. Ibid., p. 137, and ns. 1-3; N. Kalicz, 1973, pp. 131 ff.
100. S. Dimitrijević in: PJZ III, p. 139, map. 3.

101. P. Korošec, 1975a, T. I-XIV; S. Dimitrijević in: PJZ III, p. 144, n. 14.
102. N. Kalicz, 1973, pp. 131 ff.
103. S. Dimitrijević, 1971, p. 151 (plates); Z. Marković, 1977, pp. 51 ff.
104. S. Dimitrijević in: PJZ III, p. 146.
105. Ibid., p. 176.
106. N. Tasić, 1986, pp. 51 ff.
107. N. Kalicz, 1973, pp. 158-159; F. Leben, 1973, pp. 187 ff.; Idem, 1975, pp. 151 ff.
108. P. Korošec, 1975a; S. Dimitrijević in: PJZ III, pp. 144-145.
109. Š. Batović, 1975, pp. 108 ff.
110. N. Petrić, 1976, pp. 305 ff.; S. Dimitrijević in: PJZ III, pp. 367 ff.; Č. Marković, 1985, pp. 79-81; B. Marijanović, 1982, p. 219.
111. A. Benac, 1962; Š. Batović, 1975, pp. 62 ff.; B. Čović, 1980, p. 35; Č. Marković, 1974, passim; Idem, 1985; B. Marijanović, 1981, pp. 50 ff.; Idem, 1982, p. 219; B. Govedarica, 1987, pp. 57.70.
112. Š. Batović, 1975, p. 108, T. 22-24; B. Čović in: PJZ IV, p. 162; B. Govedarica, 1987, p. 65.
113. N. Petrić, 1976, p. 305; B. Marijanović, 1982, p. 219.
114. S. Dimitrijević in: PJZ III, p. 373.
115. Č. Marković, 1985, p. 82.
116. Ibid., pp. 78-82, T. VIII/1-2, X/5, LXV/1-2, LXVI/1-6.
117. B. Marijanović, 1981, p. 50.
118. Š. Batović, 1975, pp. 106 ff.
119. S. Dimitirjević in: PJZ III, p. 376.
120. Č. Marković, 1985, p. 80, and the plates.
121. For this matter, cf.: P. Bosch-Gimpera 1960, pp. 3 ff.; V. Dumitrescu, 1963; M. Gimbutas, 1970; R. Crossland, 1971; Idem, 1971a, pp. 232 ff.; N. Hammond, 1972; A. Häusler, 1976. As for the Yugoslav bibliography, cf.: M. Garašanin, 1961, pp. 51 ff.; A. Benac, 1964, pp. 164 ff.; B. Jovanović in: PJZ III, pp. 397 ff.; N. Tasić, 1983, p. 16, and quot. bibliog.
122. N. Tasić, 1975a, pp. 51 ff.; B. Brukner, 1970, pp. 1-14; Idem, 1976, pp. 27-31; H. Todorova in: *Dobrudja I*, pp. 58-59; F. Prendi, 1966, pp. 270 ff.; M. Garašanin, 1973, pp. 165-168.
123. V. Zirra, 1960, pp. 90 ff.; E. Comsa, 1976, pp. 43 ff.
124. Lj. Bukvić, 1978 (1979), pp. 14-18, figs. 1-3.
125. N. Tasić, 1978 (1979), pp. 2-4; D. Srejović, 1976, pp. 117 ff.
126. I. Panajotov - V. Dergačov, 1984, p. 107, Abb. 4; H. Todorova in: *Dobrudja I*, pp. 62-63.
127. A. Benac, 1986, pp. 53 ff., sl. 5-11.
128. D. Srejović, 1976, pp. 117 ff. (Bare); M. Parović - V. Trbuhović, 1971, p. 138, T. III-V.
129. V. Nemejcová-Pavúková, 1981, pp. 261 ff.; Idem, 1973, pp. 297 ff.; S. Dimitrijević in: PJZ III, p. 194, T. XXII/1-6; E. Neustupny, 1973, p. 320, Abb. 1.
130. S. Morintz - P. Roman, 1973, p. 268, Abb. 5.
131. N. Tasić, 1975, pp. 12-20; Idem in: PJZ III, pp. 418 ff.
132. D. Berciu, 1964, pp. 269 ff.
133. V. Nemejcová-Pavúková, 1964, pp. 163 ff.; Idem, 1968, pp. 353 ff.; Idem,

1973, pp. 303-306, Abb. 4-7.
134. E. Ruttkay, 1973, pp. 441 ff., Abb. 1-4; M. Kaus, 1984, pp. 7-20, T. I-III.
135. S. Karamanski, 1970, pp. 1-2, T. I-XVIII; P. Medović, 1976, pp. 105 ff., T. I-III; N. Tasić, 1975, p. 10; Idem, 1986a, pp. 1-3; M. Jevtić, 1987, pp. 21-26.
136. I. Torma, 1973, pp. 483 ff., Abb. 1-3.
137. Cf.: PJZ III, p. 194 (S. Dimitrijević), and pp. 418 ff. and sl. 11 (N. Tasić).
138. J. Kozlowski, 1973, pp. 167 ff., and ns. 1-2.
139. S. Morintz - P. Roman, 1973, Abb. 5; V. Nemejcová-Pavúková, 1981, pp. 268 ff., Obr. 6-10.
140. J. Glišić, 1961, pp. 116 ff.
141. P. Medović, 1976, pp. 105 ff.; S. Karamanski, 1970; Idem, 1970a; N. Tasić, 1986a, pp. 1-3, sl. 1.
142. S. Morintz - P. Roman, 1973, pp. 268 ff., Abb. 5/11; P. Medović, 1976, p. 108, T. I/3; E. Ruttkay, 1973, pp. 441 ff., Abb. 3/5; V. Nemejcová-Pavúková, 1968, p. 368, Abb. 14/10.
143. V. Nemejcová-Pavúková, 1981, Obr. 1-2.
144. N. Tasić, 1986a, sl. 1/1, and 6; M. Kaus, 1984, T. III/15; I. Torma, 1973, p. 492, Abb. 3/5,9.
145. N. Tasić, 1983, sl. 3/5; M. Kaus, 1984, T. II/6; S. Karamanski, 1970, T. I, and III.
146. P. Medović, 1976, T. II/9; J. Glišić, 1961, p. 133; V. Nemejcová-Pavúková, 1981, Obr. 12/1-2, 14/3.
147. D. Ja. Telegin, 1973, Ris. 19 and 55.
148. V. Nemejcová-Pavúková, 1973, Abb. 6/1; B. Novotny, 1981, pp. 131 ff.; N. Tasić, 1980-1981, pp. 27 ff., Abb. 1-3.
149. Ezero, pp. 230 ff., Obr. 134, and 140.
150. N. Tasić, 1986, pp. 53-54.
151. E. Neustupny, 1959, pp. 260 ff.
152. S. Dimitrijević in: PJZ III, pp. 232-233; V. Nemejcová-Pavúková, 1981, p. 285.
153. O. Mengin, 1926; R.R. Schmidt, 1945, pp. 54-68. For broader information on the name, cf.: J. Banner, 1956, pp. 257-260, and N. Tasić, 1967, pp. 12-14.
154. A. Benac, 1962, pp. 21 ff.; M. Garašanin, 1959; Idem, 1973, pp. 226 ff.; N. Tasić, 1967, pp. 12 ff.; S. Dimitrijević, 1962, pp. 239-256; B. Jovanović in: *Praistorija Vojvodine*, pp. 154-160.
155. S. Dimitrijević in: PJZ III, pp. 183-234.
156. N. Tasić, 1961, pp. 143 ff. (Djurdjevo).
157. P. Roman - I. Németi, 1978, p. 82, Pl. 1.
158. K. Vinski-Gasparini, 1956, pp. 5 ff. (Beli Manastir); S. Karamanski, 1970, pp 1 ff. (Odžaci); R.R. Schmidt, 1945, passim (Vučedol and Sarvaš); N. Tasić, 1959, pp. 227 ff. (Dobanovci); Idem, 1984, pp. 69-72 (Vinča); M. Girić, 1960, (Gomolava).
159. R.R. Schmidt, 1945, passim.
160. B. Brukner, 1978-79, pp. 8-13.
161. K. Vinski-Gasparini, 1956, pp. 8 ff., sl. 10; N. Tasić, 1959, p. 229, sl. 1-3.
162. *Eneolit južnog Banata*, p. 30.
163. N. Tasić, 1967, pp. 19-21; J. Banner, 1956, p. 10; R.R. Schmidt, 1945, pp. 41 ff.; S. Dimitrijević in: PJZ III, p. 202; M. Garašanin, 1967, pp. 27-31.

164. M. Girić, 1982, pp. 99-100; S. Dimitrijević in: PJZ III, p. 204; P. Medović, 1987, pp. 77 ff.
165. I. Torma, 1973, pp. 483 ff.
166. St. Kovacs, 1987, pp. 99 ff.
167. J. Banner, 1956, pp. 226 ff.; V. Nemejcová-Pavúková, 1981, pp. 261 ff.; E. Neustupny, 1959, pp. 260 ff.; Idem, 1973, pp. 320 ff.; M. Garašanin, 1973, p. 232; S. Dimitrijević in: PJZ III, pp. 191-195, and quot. bibliog.; N. Tasić, 1967, pp. 3-34; *Praistorija Vojvodine*, pp. 158-160.
168. Cf. the vessels in: R.R. Schmidt, 1945, Taf. 24/9-11, and 25/1-2.
169. N. Tasić, 1959, p. 231, sl. 5,7 (Dobanovci); R.R. Schmidt, 1945, Textbd. 36/6, Taf. 22/1.
170. R.R. Schmidt, 1945, Taf. 20/1-2; N. Tasić, 1959, sl. 10; K. Vinski-Gasparini, 1956, T. XIII/52.
171. N. Tasić, 1959, sl. 8.
172. N. Kalicz, 1976, p. 126, T. 54, 55; P. Roman - I. Németi, 1978, Pl. 44/3-4; B. Novotny, 1981, p. 132, Abb. 1-4; N. Tasić, 1980-81, pp. 27 ff.; Idem, 1984, pp. 70-71, sl. 39-42.
173. N. Kalicz, 1976, p. 127; B. Novotny, 1981, p. 132.
174. V. Dumitrescu, 1960, p. 448, fig. 2/7, and quot. bibliog.
175. V. Nemejcová-Pavúková, 1981, pp. 261 ff.
176. E. Neustupny, 1959, pp. 265 ff.; Idem, 1973, p. 320.
177. V. Nemejcová-Pavúková, 1981, p. 261.
178. S. Dimitrijević in: PJZ III, pp. 194-195.
179. N. Tasić, 1967, pp. 33-34.
180. E. Neustupny, 1973, p. 324, Abb. 3.
181. V. Milojčić, 1943, pp. 42 ff.; Idem, 1949, pp. 157 ff.; Idem, 1953.
182. A. Benac, 1962a, pp. 21 ff.; R. Rašajski, 1954, pp. 187 ff.; M. Girić, 1960, p. 130; N. Tasić, 1965, pp. 39 ff.; Idem, 1967, pp. 45-48; B. Jovanović in: *Praistorija Vojvodine*, pp. 160 ff.; R. Galović, 1959, pp. 37 ff.; S. Dimitrijević, 1971, pp. 147 ff., n. 98; B. Brukner, 1978-79, pp. 8-13.
183. M. Garašanin, 1973, pp. 226 ff.; J. Todorović, 1963 p. 26 (Hisar by Suva Reka); J. Glišić, 1961, pp. 133 ff. (Gladnice by Priština).
184. N. Tasić, 1982, pp. 26-28; P. Roman, 1976, pp. 143 ff.
185. S. Dimitrijević in: PJZ III, p. 346.
186. I. Escedy, 1985, pp. 97 ff., Pls. 1-7; V. Nemejcová-Pavúková, 1968, pp. 380 ff., Abb. 23-38, Kart. Abb. 42.
187. M. Novotna, 1961, pp. 21 ff., T. IX-XVII.
188. V. Milojčić, 1953, p. 160; S. Dimitrijević, 1971, p. 147, n. 98; N. Tasić, 1970, pp. 26-28.
189. T. Težak-Gregl, 1985, pp. 57-59.
190. B. Brukner, 1978-79, pp. 8 ff., Abb.
191. R.R. Schmidt, 1945, p. 41, Taf. 10/2.
192. T. Težak-Gregl, 1985, p. 58.
193. M. Kosorić, 1965, pp. 83 ff., sl. 1.
194. B. Jovanović, 1976, pp. 131 ff., sl. 1-2.
195. V. Nemejcová-Pavúková, 1982, p. 380, Abb. 23-38; I. Escedy, 1985, Pls. 1-10; P. Roman, 1976a, p. 143, T. III; V. Boroneant, 1960, p. 350; A. Benac, 1962a, pp. 21 ff.; N. Tasić, 1965, p. 180, sl. 6, T. II-IV.

196. B. Jovanović, 1976, pp. 135-136; N. Tasić in: PJZ III, pp. 127 ff.; Idem, 1981, p. 20 ff.; Idem, 1982, pp. 27 ff.
197. Z. Marković, 1985, p. 20, sl. 8.
198. S. Dimitrijević in: PJZ III, p. 364.
199. Ibid., p. 359; Z. Marković, 1985, p. 20.
200. S. Dimitrijević in: PJZ III, p. 362.
201. N. Tasić in: PJZ III, pp. 115 ff.; Idem, 1981, pp. 9 ff., T. III-IV; M. Jevtić, 1987, pp. 21 ff.
202. P. Roman, 1976, pp. 79-86, Pl. 2.
203. N. Tasić, 1982, p. 19.
204. M. Jevtić, 1987, pp. 21-24.
205. V. Trbuhović - Lj. Vuković, 1967, pp. 97 ff.; N. Tasić, 1981, pp 9 ff.
206. P. Roman, 1976a, T. II/1-4 (Cernavoda III), T. III-IV (Kostolac); Idem, 1976, Pls. 55, 56/8 (Cernavoda III).
207. S. Morintz - P. Roman, 1973, p. 280.
208. N. Tasić, 1982, T. VI.
209. P. Roman, 1976, Pls. 53-60.
210. Ibid., Pls. 78-79, and 81; Idem, 1976a, T. III.
211. P. Roman, 1976, pp. 53 ff., fig. 8.
212. S. Dimitrijević in: PJZ III, p. 346.
213. Ibid., pp. 358 ff.; Z. Marković 1981, p. 243.
214. S. Dimitrijević in: PJZ III, pp. 348-351.
215. Ibid., p. 352; Z. Marković, 1985, p. 20.
216. M. Malez, 1967, pp. 14-15 (stratum b).
217. S. Dimitrijević, 1967, pp. 6-8; Z. Marković, 1981, pp. 243 ff.
218. Z. Marković, 1985, pp. 20 ff.
219. S. Dimitrijević, 1967, pp. 6 ff.; Idem in: PJZ III, p. 355; F. Leben, 1973, pp. 188 ff.
220. N. Kalicz, 1973, pp. 158 ff.; Z. Marković, 1985, p. 20; F. Leben, 1973, pp. 187 ff.
221. S. Dimitrijević, 1975; Idem in: PJZ III, pp. 363 ff.
222. F. Milleker, 1906, p. 183; M. Garašanin, 1973, p. 280, and quot. bibliog.
223. N. Tasić, 1959, pp. 30-32 (Batajnica); B. Jovanović, 1976, pp. 12 ff., sl. 2-6 (Vojlovica); D. Srejović, 1976, p. 117 (bare and Rogojevac in Šumadija); Lj. Bukvić, 1978, pp. 14 ff. (Jabuka by Pančevo); M. Girić, 1987, pp. 71-75 (tumuli in northern Banat); P. Medović, 1987, pp. 77-82 (tumuli near Perlez).
224. F. Milleker, 1906, pp. 193 ff.; M. Girić, 1982, pp. 102 ff., and quot. bibliog.
225. V. Dumitrescu, 1960; Idem, 1963; V. Zirra, 1960, pp. 90 ff.; E. Comsa, 1976, pp. 43 ff; I. Ecsedy, 1979; I. Panajotov - V. Dergačov 1984, pp. 100 ff.
226. B. Jovanović, 1976, pp. 12 ff., sl. 5-6.
227. P. Medović, 1987, pp. 79-81, Abb. 4.
228. D. Srejović, 1976, pp. 118 ff., sl. 1, T. I-V.
229. Ibid., pp. 125-126.
230. N. Vlassa - M. Takacs - Gh. Lazaroviciu, 1987, pp. 114 ff., T. VI-VII; P. Roman, 1976, p. 98.
231. P. Medović, 1987, p. 79; M. Girić, 1987, pp. 72, 76; D. Srejović, 1976, p. 122, sl. 3-5.
232. Lj. Bukvić, 1978-79, pp. 14 ff.

233. M. Girić, 1982, p. 103.
234. I. Escedy, 1979, p. 52.
235. D. Ja. Telegin - I.D. Potehkina, 1987, p. 200.
236. K. Deschman, 1875.
237. F. Fiala, 1894, pp. 107-124.
238. M. Wozinsky, 1904; M. Hoernes, 1915, pp. 337 ff.
239. J. Brunšmid, 1902.
240. N. Vulić - M. Grbić, 1937, passim; V. Hoffiler, 1933, passim; R.R. Schmidt, 1945.
241. A. Benac, 1948; Idem, 1959; M. Girić, 1960, pp. 139 ff.; J. Korošec, 1946; Idem, 1951; S. Dimitrijević in: PJZ III, pp. 270-272, and quot. bibliog.
242. S. Dimitrijević in: PJZ III, p. 278; N. Tasić, 1983, p. 39.
243. N. Tasić, 1961, pp. 143 ff. (Djurdjevačka Glavica by Djurdjevo); B. Stalio - A. Jurišić, 1961, pp. 157-161 (Jasik by Kragujevac).
244. A. Benac, 1959, (Zecovi); F. Fiala, 1894, p. 102, T. VIII; B. Čović, 1976, pp. 107 ff. (Debelo brdo near Sarajevo).
245. J. Korošec, 1946, pp. 7-38; A. Benac, 1948, pp. 5-39.
246. R.R. Schmidt, 1945, pp. 21 ff.
247. S. Dimitrijević in: PJZ III, p. 283.
248. R.R. Schmidt, 1945, pp. 41-47, sl. 24-26, T. 12-14; M. Garašanin, 1967, pp. 23 ff.; S. Dimitrijević in: PJZ III, p. 285.
249. T. Težak-Gregl, 1985, pp. 57-59, Abb. 5; S. Dimitrijević in: PJZ III, p. 285.
250. N. Tasić, 1983, p. 26. Idem, 1959, pp. 30-32.
251. P. Roman, 1980, p. 224, T. 11-12.
252. R.R. Schmidt, 1945, pp. 127-135; S. Dimitrijević, 1962, p. 252; Idem, 1971, p. 147, Abb. 2; N. Tasić, 1967, pp. 22-23; Idem, 1970, pp. 26-28.
253. S. Dimitrijević, 1982, pp. 15 ff., Abb. 2.
254. P. Roman, 1980, pp. 224-225.
255. S. Dimitrijević, 1977, p. 86, T. I/11.
256. S. Dimitrijević, in: PJZ III, pp. 276-278.
257. R.R. Schmidt, 1945, p. 22, Abb. 10-11.
258. S. Dimitrijević in: PJZ III, p. 296.
259. B. Čović, 1976, pp. 107-110, T. II/1-3, III/1-6.
260. Ibid., pp. 105-113.
261. S. Dimitrijević in: PJZ III, p. 299, and quot. bibliog.
262. S. Dimitrijević, 1966, p. 23; Idem, 1982, pp. 21-27; N. Tasić, 1967, p. 65.
263. P. Korošec, 1958-59, p. 105; M. Garašanin, 1973, p. 239.
264. S. Dimitrijević, 1967, pp. 2 ff.; Idem, 1982, pp. 7-11; N. Tasić, 1967, pp. 67-68.
265. I. Escedy, 1985, p. 93, Pls. 8-16.
266. Z. Marković, 1981, pp. 219 ff.
267. S. Dimitrijević, 1967, pp. 1 ff.
268. H. Parzinger, 1984, pp. 13-59, T. 4.
269. P. Korošec, 1959, pp. 94 ff.; F. Leben, 1973, pp. 145 ff.
270. P. Korošec, 1973, p. 193.
271. E. Ruttkay, 1973, pp. 38 ff.; F. Leben, 1973, pp. 145 ff.; Z. Marković, 1981, pp. 219 ff.
272. J. Korošec, 1955, pp. 243 ff.; P. Korošec, 1959, pp. 5 ff., T. I-IV; T. Bregant,

1964-65, pp. 179 ff.; Z. Harej, 1974, pp. 76 ff.

273. P. Korošec - J. Korošec, 1969, passim; T. Bregant, 1964-65, pp. 179 ff.; H. Parzinger, 1984, pp. 13 ff., T. 6-8.

274. P. Korošec, 1962, pp. 213-236, and quot. bibliog.; Š. Batović, 1973, pp. 62 ff.; N. Petrić, 1977, pp. 143 ff.; S. Dimitrijević in: PJZ III, pp. 321-325; B. Čović in: PJZ IV, pp. 109-112.

275. P. Korošec, 1962, pp. 213 ff.

276. Ibid., p. 214; Š. Batović, 1973, pp. 113-119.

277. S. Dimitrijević in: PJZ III, p. 313.

278. M. Parović - V. Trbuhović, 1974, pp. 138 ff., T. III-V; A. Benac, 1955, p. 85, T. I; Č. Marković, 1974, pp. 7 ff., fig. 5.

279. P. Korošec, 1962, pp. 213 ff.; Š. Batović, 1973, pp. 133 ff.; F. Leben, 1973, p. 151; B. Čović in: PJZ IV, p. 111; B. Marijanović, 1981, p. 52; A. Milošević - B. Govedarica, 1986, pp. 65-69.

280. S. Dimitrijević, 1967, p. 18; Idem in: PJZ III, pp. 321 ff.

281. N. Tasić in: FBK, pp. 10-13.

282. A. Milošević - B. Govedarica, 1986, pp. 51 ff.

283. P. Korošec, 1962, pp. 215 ff., T. I-VII; Š. Batović, 1973, pp. 133 ff., T. 25-27; A. Milošević - B. Govedarica, 1986, pp. 59 ff., T. I-XII.

284. S. Dimitrijević in: PJZ III, p. 322, and quot. bibliog.

285. M. Parović - V. Trbuhović, 1974, pp. 138 ff.

REGISTER OF MAJOR ENEOLITHIC SITES IN FORMER YUGOSLAVIA

THE LIST OF SITES

(The number of the site corresponds with the number on the map)

1 AJDOVSKA JAMA pri Nemeški Vasi by Krško (Slovenia)
2 BABA SIVAČKA near Vajska (Bačka)
3 BAKARNO GUMNO near Prilep (Pelagonia)
4 BATKA near Senta (Vojvodina)
5 BEKETINEC by Križevci (NW Croatia)
6 BELEGIŠ near Stara Pazova (Srem)
7 BRZA VRBA by Kovin (South Banat)
8 BUBANJ near Niš (Serbia)
9 CIGLANA in Beli Manastir (Baranja)
10 CIGLANA in Dobanovci near Zemun (Srem)
11 CRNOBUKI near Bitola (Pelagonia)
12 DEBELO BRDO near Sarajevo (Bosnia)
13 GOMOLAVA near Hrtkovci (Srem)
14 GRADINA on the river Bosut near Šid (Srem)
15 GRADINA ZECOVI near Prijedor (North Bosnia)
16 GRAPČEVA AND MARKOVA ŠPILJA on the island Hvar (Adriatic Coast - Croatia)
17 GUDNJA on Pelješac (Adriatic Coast - Croatia)
18 HISAR near Suva Reka in Metochia (Serbia)
19 HRNJEVAC by Kutjevo (West Slavonia - Croatia)
20 HRUSTOVAČA near Sanski Most (North Bosnia)
21 JELENAC near Aleksandrovac (Central Serbia)
22 KEVDERC on Lubnik (NW Slovenia)
23 KLOKOČEVAC near Donji Milanovac (East Serbia)
24 KRIVELJ near Bor (East Serbia)
25 LASTVINE by Bukovići near Benkovac (Dalmatia)
26 LICE near Erdevik (Srem)
27 LJUBLJANSKO BARJE near Ljubljana (Slovenia)
28 MALA GRUDA near Tivat (Montenegro)
29 MOSTONGA I near Deronje (Bačka)
30 ODMUT (NW Montenegro)
31 PADINA in the Upper Gorge of Djerdap (Serbia)
32 PEĆINE in Vrdnik near Ruma (Srem)
33 PEPELANE near Virovitica (NW Croatia)
34 PERLEZ near Zrenjanin (Banat)
35 PIVNICA near Odžaci in Bosnia
36 PLOČNIK near Prokuplje (South Serbia)
37 RUDINA I near Koprivnica (NW Croatia)
38 RUDNA GLAVA near Majdanpek (NE Serbia)
39 SEČE near Koprivnica (NW Croatia)
40 SPILA near Perast (Boka Kotorska - Montenegro)
41 ŠUPLEVEC near Bitola (Pelagonia)
42 TRI HUMKE by village Jabuka near Pančevo (Banat)
43 VAJUGA - KORBOVO (Serbia - Djerdap II)
44 VELA ŠPILJA near Vela Luka on the island Korčula (Croatia)
45 VINČA - BELO BRDO near Belgrade (Serbia)
46 VINKOVCI - STARA PIJACA - Market and Hotel (Croatia)
47 VIS near Derventa (North Bosnia)
48 VLASTELINSKI BREG (Gradac) in Sarvaš near Osijek (Croatia)
49 VUČEDOL near Vukovar (West Srem)
50 ZLOTSKA PEĆINA near Bor (East Serbia)

The following chapter represents the list of sites which were taken as a basis for this book. In our oppinion this list will proove itself usefull for understanding of the phenomenon and the development of Eneolithic cultures, their geographical distribution, the model of settlements, as well as the material culture and spiritual life. It has been done by choosing the most important eneolithic sites excavated, with material that was, at least partly published (reports in Arheološki pregled, Starinar, Arheološki vestnik, Macedoniae Acta Archaeologica, Godišnjak Centra za balkanološka ispitivanja ANU BiH, Glasnik Zemaljskog muzeja in Sarajevo or in some other publications). Of course, more detailed studies and few monographs on these sites were far more helpful. The author is aware that some sites were neglected, especially those investigated after 1989 when this book was actually written. The author was either not in the position to acquire the data on the material from few sites (Gudnja, new results from Vela Luka, excavations by Š. Batović near Zadar etc.), or could find only vague or inadequatly published data on certain sites, which could not be of any help to the reader of this book (sties in the Timok Valley near Negotin, Kovilovo, Hisar in Kosovo etc.). In spite of that, we believe that all of those interested in the matter will be able to find basic information on the site, particularly on its eneolithic horizon, and to look for further information in the relevant bibliography. In order to simplify the manipulation, in the bibliography we quoted only the author, journal, year and page, and in the bibliography listed in a separate chapter at the end of this book, only the authors name, the year of publishing and the page.

Meticulous reader will notice the difference in the number of Eneolithic sites from different regions. The reason for this lies in the fact that the former Yugoslav region was unevenly investigated. This was also due to unequal development of cultures, and sometimes due to archaeologists lust to excavate sites with more atractive material (e.g. the Vučedol culture ceramic ware, or the abundance of finds on Bubanj-Salcuta complex), and sometimes due to other reasons. The fact is that as we go from the East towards the West, the number of excavated eneolithic sites diminishes (unlike some other periods, Hallstatt for example). We

hope that the author of this book will not be judged as subjective for choosing 50 Eneolithic sites discussed further in the text.

In the end we owe an explanation regarding illustrations. The selection was made according to the data available from published material. The part of ceramical and other characteristic material was represented on the plates in this book. The reason for different quality of illustrations was the serious financial difficulties. The list of sites was made in alphabetical order, and their numeration was made according to the numeration on the map of sites which could be found at the end of this chapter.

*

1. AJDOVSKA JAMA PRI NEMEŠKI VASI BY KRŠKO (SW SLOVENIA)

Stratified settlement and Eneolithic graves

The cave Ajdovska or Kartuševa Jama, as some call it, is situated on the right bank of the river Sava, west of Krško. It has two hallways and a central chamber. The entrance is located beneath the cliff called Nemeško Vasjo, on the altitude of 227 m.

The excavations in this cave were started in the end of last century by K. Deschmann, and were latter continued by local amateur archaeologists. The material has been collected for years, when in 1938 S. Brodar decided to commence first wide-range excavations. These were inspired with authors desire to find the remnants of the Pleistocene period. Prehistoric material was brought in light by J. Korošec (Rasprave SAZU 3, 1953). In the year 1967 excavations of prehistoric deposit started and gained wider range in 1982.

According to the published results, in this cave exist five cultural horizons. The first belonging to the Pleistocene, the second was the horizon of the Late Neolithic graves, the third ~ Eneolithic, the fourth ~ Roman and the fifth was of the Medieval period. Here we are interested in horizons II and III. According to P. Korošec, they could be dated from the end of the Neolithic and to the beginning of the second phase of the Eneolithic. These horizons contain the material of the Alpine facies of the Lengyel culture, which could correspond to the Lasinjska culture (III horizon). The data acquired by M. Horvat, the author of latter investigations on this site, show the existance of 14 skeletons which belong to the II horizon (the final Neolithic or, in our opinion the Early Eneolithic). This could confirm J. Korošec's hypothesis that this cave was once used as a ritual place,

where deceased were simply laid on the ground, and sometimes put in a sitting position by the cave wall, and sometimes merely covered with stones.

The analysis of 14C give the dates from 534·130 BP for horizon II (the final Neolithic), and 5175-4800·130 for the Eneolithic horizon III.

Lit.: J. Korošec, Rasprave SAZU 3, 1953; P. Korošec, 1975, 167-169; M. Horvat, AP 1988, 40-42.; PJZ III, 144.

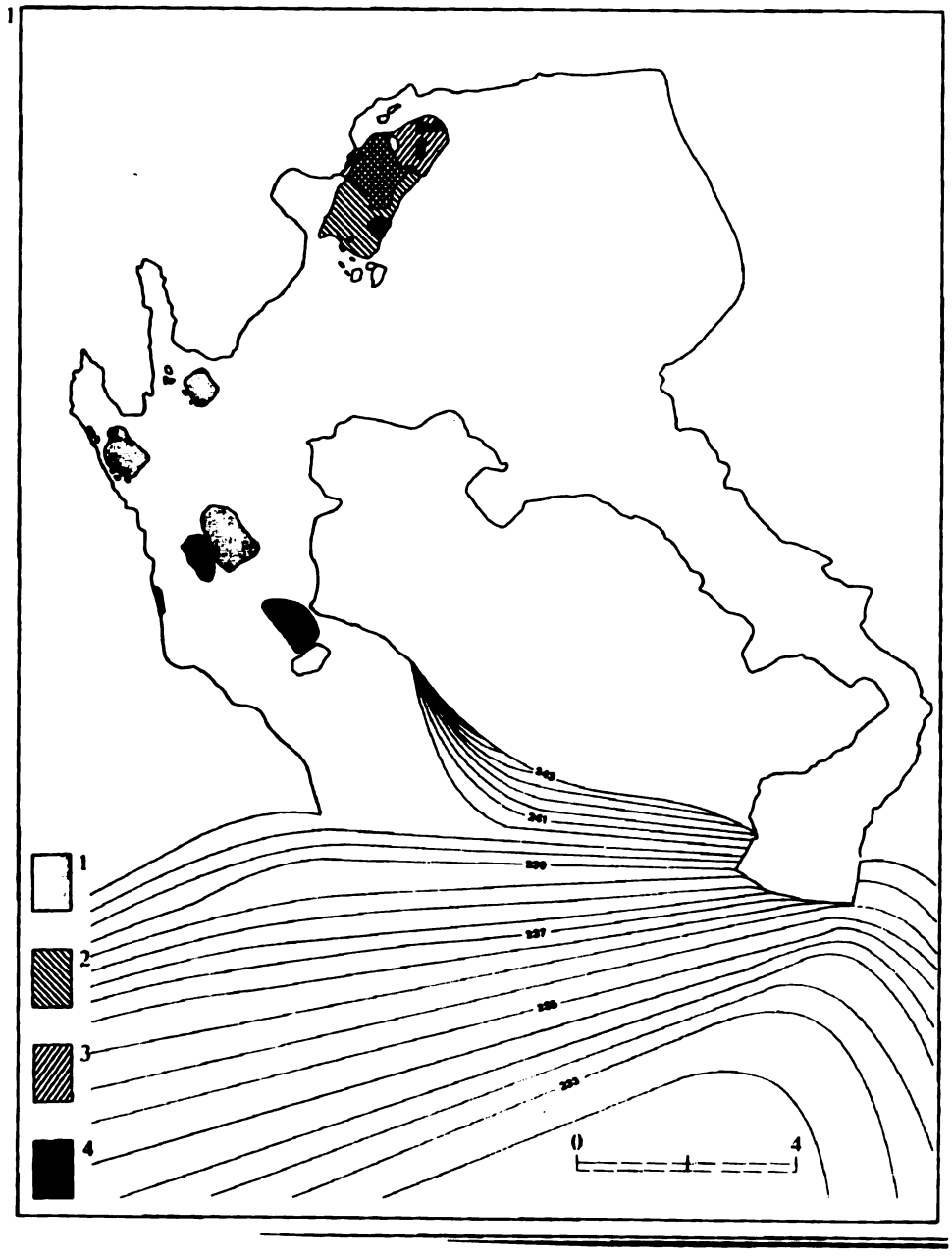


Fig. 1 – Ajdovska jama, the groundplan of the cave (after M. Horvat, 1988, 40)

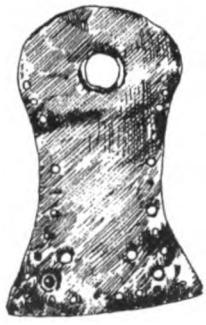
2. BABA SIVAČKA NEAR VAJSKA (BAČKA)
The Eneolithic necropolis

During the construction works for the embankmen,t 1.5 km northwest of Vajska, on the locality called Baba Sivačka one smaller necropolis was found. The terrain was somewhat higher than the old river bed of the Danube. During the big flood in 1965 this was the place from which the earth was taken for the embankment, and latter, during the first ground surveying one Eneolithic grave was found in the profile. It was the impetus for the rescue-excavations of 1966 and 1967 (B. Brukner and P. Medović). During these works 6 trenches were opened. All trenches were streched on the right side of the road that goes fromVajska to Karavukovo. Six skeletons were discovered, that were laid into sandy ground. One could get an impression that this could easily be smaller necropolis with individual graves (only 3 out of 6 trenches showed the existance of the graves).

The burial ritual, orientation, and the distribution of grave goods show that they obeyed strict funerary routine: skeletons were laid in rectangular grave pits in extremly flexed position, with arms positioned under the chin or under the head. Skeletons were oriented East-West, with the exception of the grave number 5 which was oriented Northwest- Southeast and the grave 6 which was dislocated. The decesed were laid on either left (Gr. 3, 5) or right side (Gr. 1), which could perhaps depend on the sex of the individuals. Grave goods were almost always put infront of the face (gr. 1, 5) while the grave 5 had one extra grave offering placed near the legs. The grave goods were coarse pots and bowls, and in the grave 5, which was the richest one, near the head on the both sides two golden pendants were found.

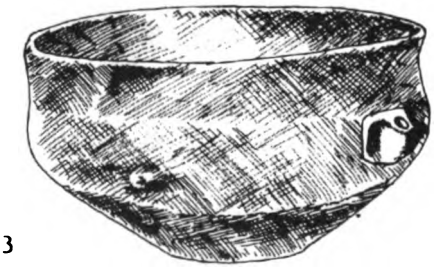
1

4



5

2



3

Fig. 2 – Baba Sivačka, pottery from the grave 1, 2, 5 and golden pendant (acc. to B. Brukner 1970)

The typological analysis of the ceramic material, especially the appereance of *Scheibenhenkel* handles, show that the necropolis belongs to the Hunyadihalom culture of the Eneolithic period. This is the single necropolis of this culture in Vojvodina. On the account of the specific material found here, B. Brukner named this phenomenon Vajska-Hunyadi culture. It could be placed into the end of the Early Eneolithic of this region.

Lit.: B. Brukner, AIug. XI, 1970, 1-14, Pl. I-VIII and Pr. 1-2.

3. BAKARNO GUMNO NEAR PRILEP (PELAGONIA)

Stratified site

The site Bakarno Gumno near village Čepigovo is of the tell-type (tumbe), as they call them locally. It is situated 17 km south of Prilep, on the bank of the river Blato which empties in the Crna Reka. The excavations were commenced in 1959 by the expert team from the Museum in Prilep (B. Kitanoski, 1971). The depth of the cultural layer is 3.10 meters. Three different horizons/phases (with two sub-phases) of occupation could be distinguished here.

Bakarno Gumno Ia (3.10-2.60 m) - with characteristic black ware which sometimes has channeled decoration. It belongs to the end of the Neolithic period of Pelagonia.

Bakarno Gumno Ib (2.60-1.70 m) - with houses of rectangular basis and the ware decorated with channels and burnishing (shallow bowls with swollen rims). The forms from the previous phase still appear.

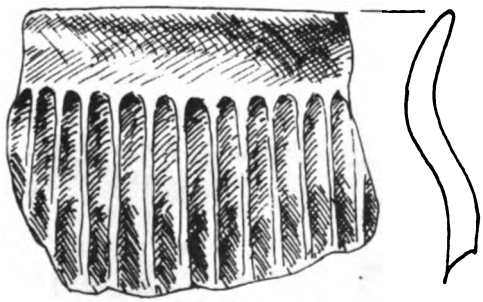
Bakarno Gumno II (1.70-0.50 m) - horizon of burnt houses. Although the continuity of ceramic forms and decoration exists, red painting appears (crusted), as well as terra-cotta. There are also burials in semi-seated position.

Bakarno Gumno III (0.50-0.00 m) - the youngest phase with significant transformation of the material culture. According to its manifestations (decoration with incised lines, wolf teeth, net ornaments) it belongs to the beginning of the Early Bronze Age, phase Kritzana.

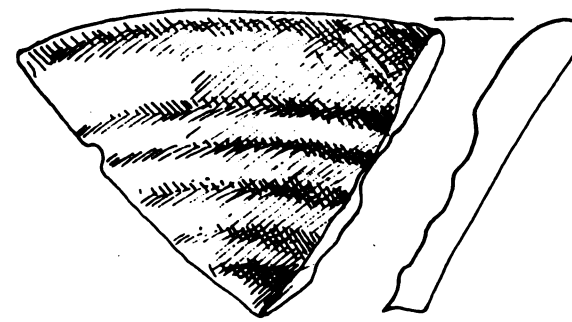
The first two phases on Bakarno Gumno belong to the period of the Early and the Middle Eneolithic of Pelagonia, with the following distinction: the first phase could be marked as Crnobuki-Bakarno Gumno, and the second as Crnobuki-Šuplevec.

1

2



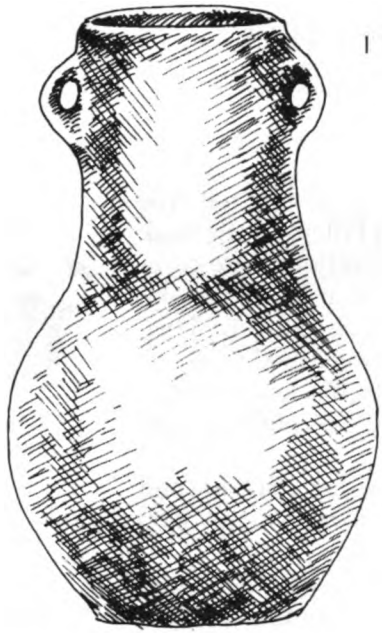
3

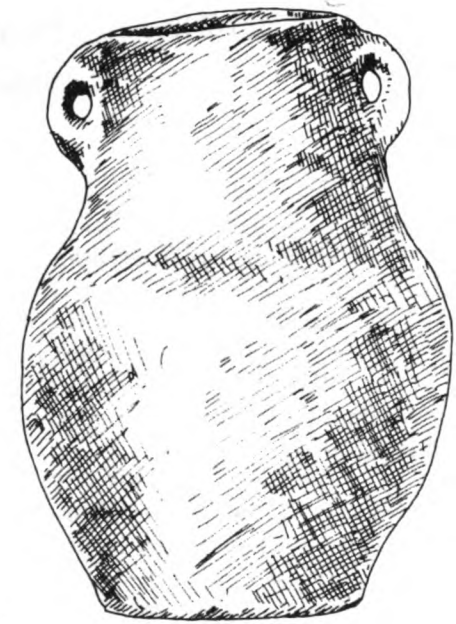


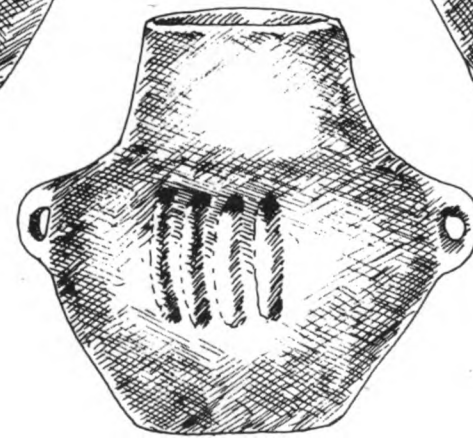
4

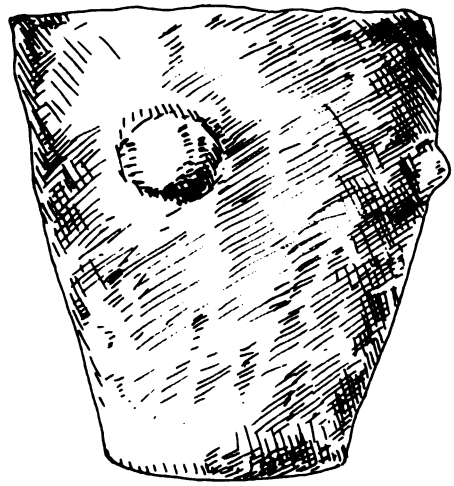
Lit.: B. Kitanoski, 1971, 139-140, fig. 1-12.

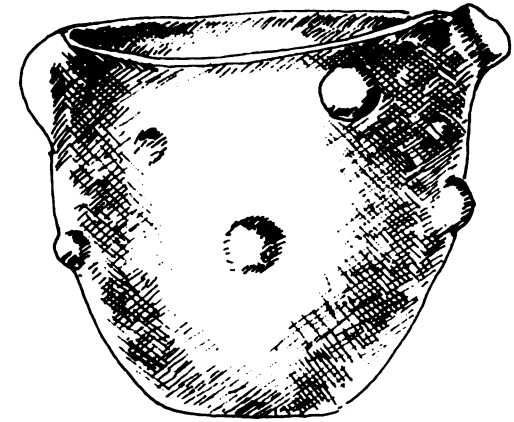
Fig. 3 – Bakarno Gumno, pottery and terra-cotta (acc. to B. Kitanoski, 1971, 139)


1


2

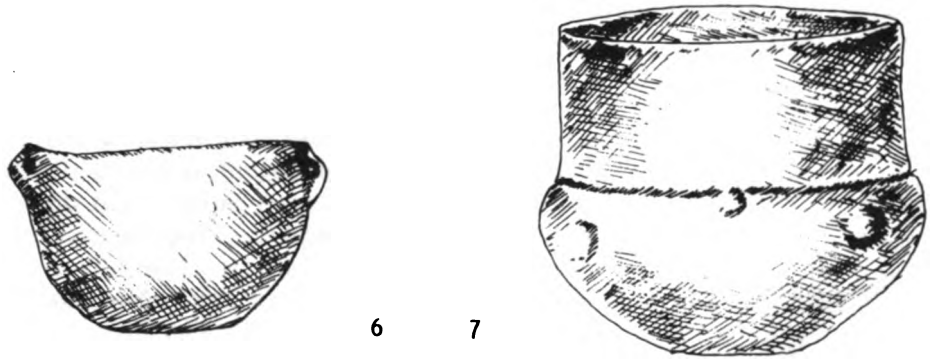

3


4


5

4. BATKA NEAR SENTA (VOJVODINA)
The necropolis and the settlement of the Tiszapolgar and Bodrogkerezstur cultures

Batka is frequent topographical term in Vojvodina and is sometimes associated with high loess terraces or larger mounds which are never flooded (Batka near Perlez, Batka near Subotica). On such a mound (J. Korek calls it *humka*) graves and remains of the settlement were excavated from 1873, and later on with few



6 7

gaps until 1944. Some of these graves, especially those excavated in 1882 by Gy. Dudas, belong to Sarmates, and some of them to the Medieval period, and only a small fraction belongs to the Eneolithic period (the Tiszapolgar and the Bodrogkerezstur cultures).

Except for the typology of ceramic material, findings from Batka are not very significant (the lack of complete grave assemblages), with the exception of the material collected by J. Korek in 1944, and published fourteen years latter. According to his information there were seven burials and three pits from the Eneolithic period. The deceased were buried in flexed position and were regularly oriented North-West – South-East. Grave offerings were smaller bowls, pots which resemble *Milchtopf* or coarse pots. The only exception is the grave 1 in which, apart from one bowl, the top of the copper knife and the stone polisher were found. Being partly devastated, this grave could not be taken as a reliable one, as it could be placed in the Tiszapolgar culture only according to the shape of the pot. The other graves are somewhat younger and belong to the Bodrogkerezstur culture.

According to the pottery shapes , three pits, excavated by J. Korek, can be attributed to the Tiszapolgar culture. This could lead us to the conclusion that one dugout-type settlement of the Tiszapolgar culture existed here, and was used latter as a necropolis. This is frequent phenomenon on sites of this two cultures in Hungary. Other graves in Batka, belong to the Sarmatian period (8-10 graves), and the Medieval period (18 graves).

Fig. 4/1-7 – Batka, offerings from graves: 9 (1, 7, 8); 8 (2, 5); 2 (4); 1 (6) and pit (3). (acc. to J. Korek 1958, 21 ff.)

Lit.: J. Korek, RVM 7, 1958, 21-30.

5. BEKETINEC BY KRIŽEVCI
The settlement of the Lasinja culture

Among the number of sites of the Lasinja culture of North-West Croatia, Beketinec could be of notable importance, due to the fact that it represents single layered settlement with chronologically unique material. It means that it gives clear information on a single phase in the development of the Lasinja culture. An amateur archaeologist was 'responsible' for the discovery of this site. It was Vjekoslav Đukić who gathered the material, performed test-trench excavations and aroused the interest for this site, among the professionals. S. Dimitrijević has quoted his investigations in the PJZ III, along with the data gathered by Z. Homen in later works.

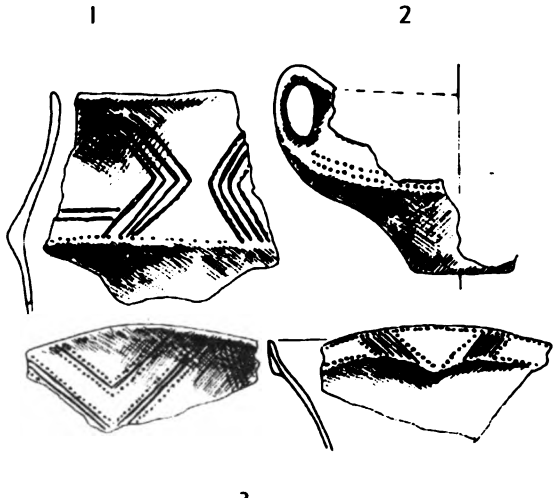


Fig. 5 – Beketinec, shards of pottery (acc. to Z. Homen, 1980, 30)

The topography show that Beketinec, according to its location, represents the prototype of the Lasinja culture sites between the rivers Sava and Drava. It is situated on an elongated mound with flattened plateau and relatively steep sides which descend towards marshy terrain and the Črnec creek which runs nearby. From the preliminary report by Z. Homen (1980) we see that the first rescue excavations were undertaken in 1978 on the locality Imbralovec left of the road that leads from Dobovac to Beketinec. The locality on the right side of the same road, on which sounding excavations took place in 1979 is called Topolje. It is evidently the same archaeological site with different names. As S. Dimitrijević already did, we shall also use only the name Beketinec.

The investigations of 1978 and 1979 show that the cultural layer is either poor, or has been destroyed by field works, and was preserved merely in pits, dugouts and natural depressions. During the campaign of 1978 one dugout was found. The other one, discovered in 1979 was very large (15 x 15 m), which makes it undoubtedly one of the biggest objects of the Lasinja culture in this region. The dugout had two rooms, and in its vicinity there was an unusual triangular hearth sunk 15 cm into the ground. This area was very rich with ceramic material, bone and flint tools. This abundance of ceramic material was not completely published, but the published material clearly shows the classical phase of the Lasinja culture (phase IIb, according to S. Dimitrijević). Those are well known shapes like cups with the handle, beakers on decorated foot, bowls with inverted rims, deep amphorae and similar ware. They were decorated with incised lines combined with pierced dots, which is characteristic for the classical phase of the Lasinja culture.

Lit. Z. Homen, AP 21, 1980, 30.

6. BELEGIŠ NEAR STARA PAZOVA (SREM)
Stratified settlement

On the high loess bank, in the district of village Belegiš, few archaeological sites were recognized. Excavations were undertaken on only three of them: Šančine, Gradac and Stojića Gumno. First two are important for the study of the Eneolithic cultures, while the third one was the necropolis with cremated individuals with urns that gave name to whole Bronze Age culture: Belegiš culture. Excavations were performed from 1954 to 1965.

The site Šančine is model for fortified, multy-layered settlements similar to those along the left bank of the Danube from the confluence of rivers Drava and Sava. The plateau with the settlement was fortified with two deep trenches divided with the palisade. The stratigraphy shows the following horizons:

1. the horizon with Tiszapolgar culture pits.
2. the horizon which should correspond with the Eneolithic humus.
3. the horizon of houses of the Early Vučedol culture.
4. the horizon with remains of the Vatin culture houses.
5. the horizon with the Bosut culture pottery (phase Kalakača).
6. humus layer with La Téne ceramic material.

The first and the third horizon belong to the Eneolithic period. The settlement of the Tiszapolgar culture would represent the southernmost point of

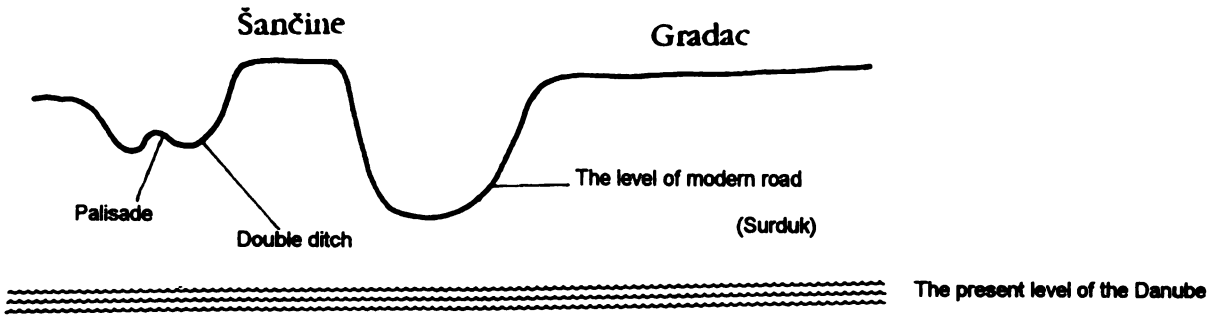


Fig. 6 – The cross-section of the site Šančine and Gradac in Belegiš

its penetration, while the Vučedol culture settlement would belong to the time of the erection of the fortifications (the trenches and the palisade). According to the ceramic material it could be dated to the Early phase of this culture.

The site Gradac is separated from the site Šančine with one deep trench, as it was the case on Vučedol. During the excavations on this site, remains of the Vučedol culture settlements were detected, together with graves which belong to the Vinkovci culture and dugout-type settlement of the Late Belegiš culture (Ha A2). The Vučedol culture ware is slightly younger than that found on Šančine and probably preceded the Vinkovci culture ware.

Lit.: V. Trbuhović, RVM 5, 1956, 147-188; N. Tasić, Epoques..., 164-166; S. Dimitrijević, PJZ III.

7. BRZA VRBA BY KOVIN (BANAT)
Stratified settlement

On the left bank of the Danube, only twelve kilometers upstream from Kovin, there are remains of larger prehistoric and antique settlement. In the opened profile one can follow the loess layer some 200 m in length, and 3 m deep, thus forming smooth terrace above marshy terrain. The site was spotted for the first time by F. Milleker in his notes, and rescue archaeological excavations were conducted from 1969 to 1970, before Đerdap power plant was built, and the terrain submerged. The occupation horizon varies in depth from 1.2 to 1.6 m. Three main horizons could be traced, among which the youngest belongs to the Roman period, the middle to the Bronze Age, and the oldest, and major horizon to the Eneolithic period.

Few dwelling objects were notified in this horizon: pits dug in the virgin soil, zones with house rubble, few bigger (2.70 x 1.8 m) and few smaller (1.5 x 1.4 m) calotte kilns. The ceramic material is poorly preserved due to floods that occasionally afflict this area. The reconstruction was made possible because ceramic material was predominantly discovered near kilns. Generally, those were large massive pots made of poorly refined clay, decorated with plastic ribbons, nail incisions, and often with haring bone ornament. The pottery from the Eneolithic layer belongs to one unique, characteristic style, that could be marked as Cernavoda III. With the exception of few fragments decorated with shallow channels

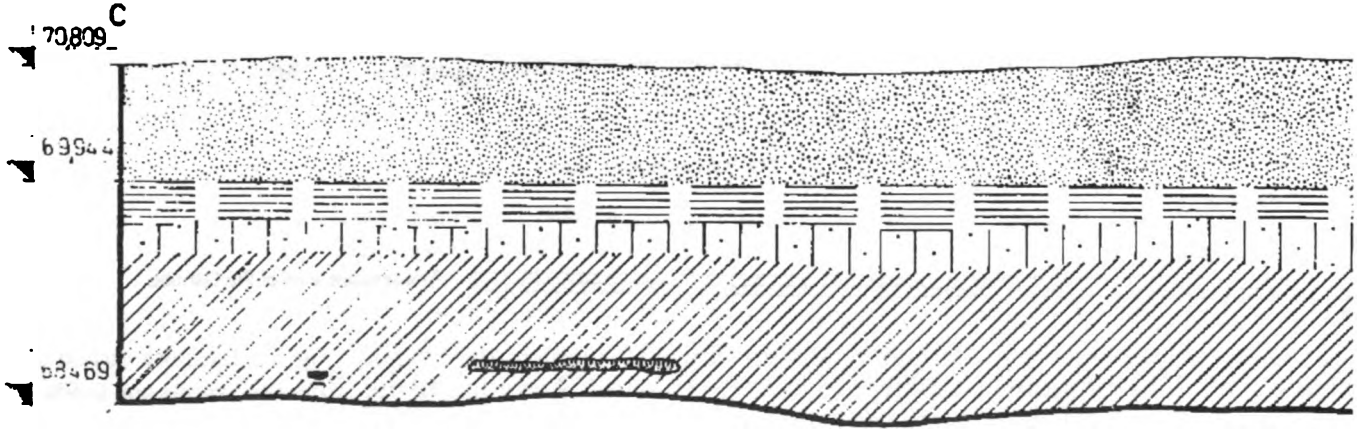


Fig. 7 – Brza Vrba, the profile of the trench (acc. to P. Medović, 1969, T. XLIV)

(on the rim of larger bowls), other pottery bares attributes of robust, rough manner of decoration.

The site near Brza Vrba belongs to the beginning of the Middle Eneolithic in this part of the Danube basin and is the first excavated site of this type in former Yugoslavia. In the vicinity of Vršac, superficial finds of similar settlements were also registered.

Lit. : P. Medović 1976, 105; Idem, 1976a, 5 ff.

8. BUBANJ NEAR NIŠ
Stratified site

The hill with the plateau which dominates the whole surrounding region is located in the the very center of the Niš valley. Once, in the period of prehistoric cultures, the river Nišava used to merge here with the Južna Morava. This site is extremly well situated on important crossrodads of South-East Europe. Roads that lead towards the South and the Aegean, to the East and the Sofia valley, Thrace and futher to Asia Minor, towards the South West and Kosovo and Metochia and further to the Adriatic coast, and finally towards the North, along Morava valley to the Pannonian plain all clustered in this place. Its' geographic position played important role in the dispersion of cultural groups that belong to the Bubanj-Salcuta-Krivodol complex.

The first investigation on this site was published by A. Oršić-Slavetić in 1935. The first scientific evaluation of Bubanj was made by M. Garašanin in 1950. and his division, with some latter revisions is still valid. The existance of the Bubanj or the Bubanj-Hum group was certified primarily through the analysis of the material from Bubanj. Latter excavations of this site remained associated with M. Garašanin, and partly D. Garašanin's opus.

If we neglected the lowest levels in the stratigraphy of Bubanj, which belong to one still insuficiently investigated Starčevo culture horizon, as well as the horizons of the Early Bronze Age (Bubanj III), the most impressive part of the occupation horizon, with houses, pits and hearths belong to the Eneolithic. Three different cultural and chronological entities could be divided: 1. Bubanj Ia, the settlement of the Bubanj-Salcuta-Krivodol culture period; 2. Bubanj Ib, with the material of the Baden-Kostolac culture provenience; 3. the material with elements of the Cotofeni III culture as well as of the Early Bronze Age of Thrace and Greek Macedonia.

The richest and the most important part of the cultural horizon on Bubanj (Ia) contains abundant and miscellaneous ceramic material with chantaroi and shallow plates with black burnished surface often ornated in graffito technique or painted with red colour.

Lit. : A. Oršić-Slavetić, Mitteilungen der praehist. Kommission der Akademie der Wissenschaften, Wien 1940, 1-40, M. Garašanin, Bubanj i Humska čuka (catalogue), Niš 1983, 7-19, and lit.cit.

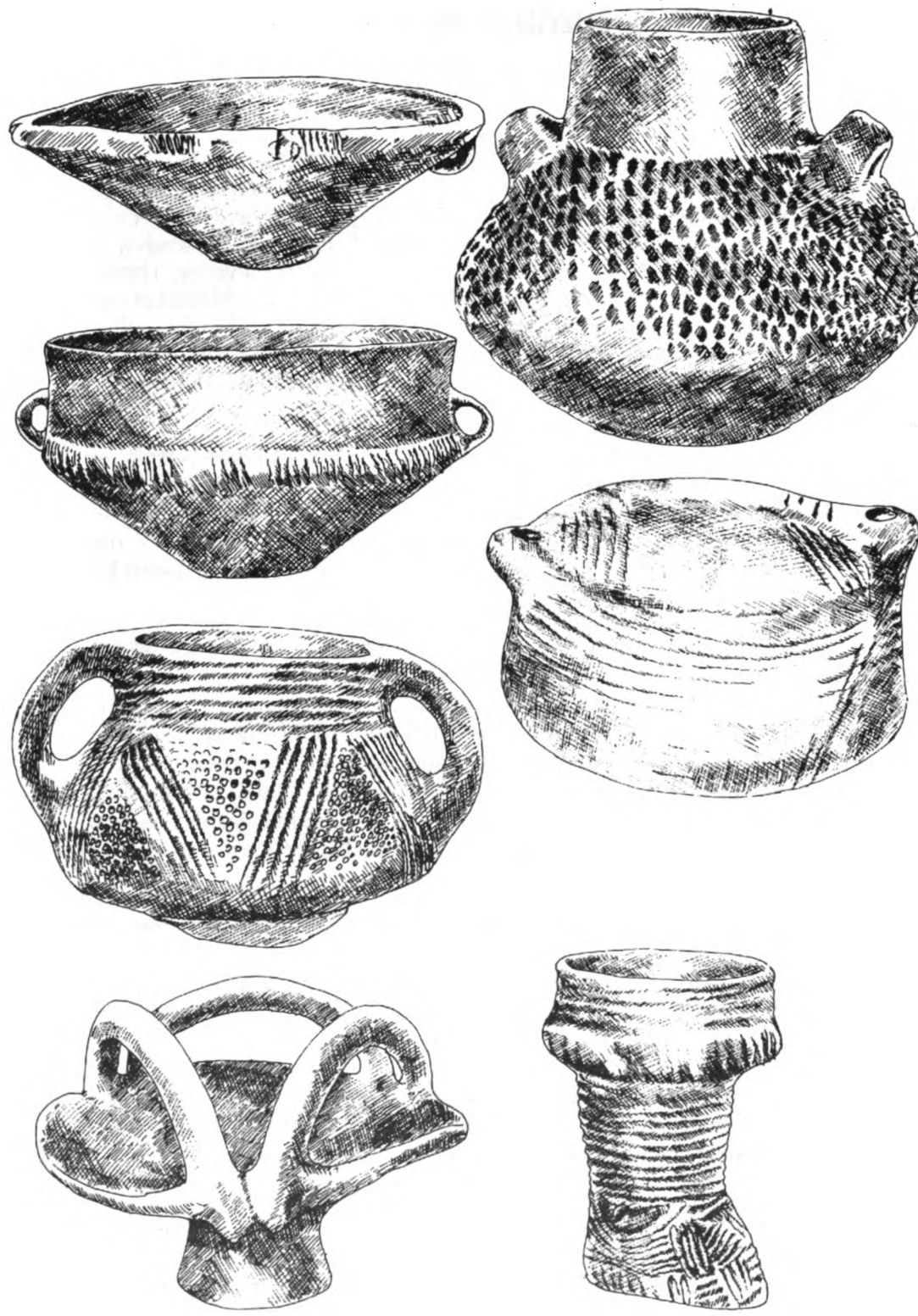
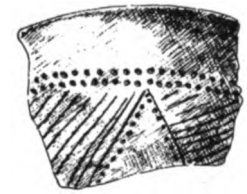


Fig. 8 – Pottery of the Bubanj - Sacluta - Krivodol culture from Bubanj

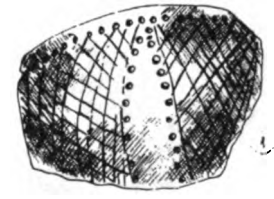
9. "CIGLANA" IN BELI MANASTIR
Stratified prehistoric settlement

An ample site of the Baden culture and the culture of the Trans-Danubian encrusted ware was found near the brick plant in Beli Manastir. The site of some 10 hectares is located on a plateau, in the triangle formed of the main railroad, local road Beli Manastir Baranjsko Petrovo Selo and the local railroad that goes in the crescent from the main railroad to Baranjsko Petrovo Selo. The plateau is 6.6 meters higher than the adjacent southern marshy terrain, which was ideal position for the settlement.

Small rescue investigations of this area were conducted in 1954. In the meantime the site was largely devastated by the exploitation of the clay. Thanks to the excavations of K. Vinski-Gasparini, the fellow of the Archaeological Museum in Zagreb and the Museum of Slavonia in Osijek, some 235 square meters were excavated, the archaeological material was gathered and a clear stratigraphic position of the cultural horizons obtained. There were 5 geological strata and only the second one (from the bottom) turned up to be cultural horizon. The layer was 0.4 meters thick, while in the pits it reached almost 2 meters. In this layer there were two cultural and chronological periods: one, older, which would belong to the Baden culture, rather poor, except in pits, and the other, younger which belongs to the Encrusted Pottery culture of the South Trans-Danubian, i.e. the transition from the Early into the Middle Bronze Age (Br B1/2). This unstratified Baden culture settlement had simple pits and dugouts, similar to that near the brick plant in Dobanovci. Pits 8 and 9 with annexes are characteristic for this site. They had ceramic material which determines them clearly. For example, the pit 9 contained cups with ribbon handles and bulb-like containers, bowls with net and dotted decoration, as well as other findings that date it into the classical phase of the Baden culture.



1



2

3

4

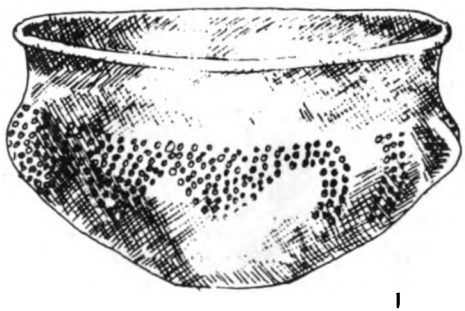
Fig. 9 – Pottery from Beli Manastir (acc. K. Vinski-Gasparini 1956)

Lit.: K. Vinski-Gasparini, 1956.

10. "CIGLANA" IN DOBANOVCI NEAR ZEMUN (SREM)

Stratified prehistoric settlement

In the eastern part of Srem, in the suburbs of village Dobanovci, not far from Zemun, on the terrace above the river Galovica (now canal), one larger prehistoric site with horizontal stratigraphy was found. The Galovica river runs from the southern slopes of Fruška Gora, and then via Srem region, flows into the river Sava. In the prehistory this was very important communication.



1

2

3

Fig. 10 – Dobanovci, pottery of the Baden, Kostolac and Vučedol cultures (according to N. Tasić, 1969, 39)

Very intensive work of the brick plant, between 1950 and 1970 devastated large part of the site, its numerous objects and Eneolithic graves. Smaller excavations were performed in 1954 (V. Trbuhović), while larger excavations were beeing undertaken with gaps from 1960 to 1969 (N. Tasić). Substantial collection of archaeological material dated mainly in the Baden culture was gathered.

During the excavations of 1954, 1960, 1964, 1968 and 1969 an area of some 1000 square meters was examined. In this area, which covered merely the endangered part of the site, the remains of the settlement and individual graves of different cultures like the Starčevo, Baden, Kostolac and individual findings of the Vučedol culture together with few metal findings and fragments of pots from the end of the Early Bronze Age were found. The settlements have developed in the horizontal stratigraphy so that we do not have any data on the position of each and every individual phase. They belong to the single-layered type with numerous pits, dugouts or semidugouts without any significant stratum. The largest settlement was the one that belongs to the Baden culture with 80% of objects excavated (pits, hearths, dugouts) together with two graves. One of them (the one with flexed skeleton), was discovered during archaeological research and, unfortunately, did not have any grave offerings, while the other, with grave goods, was discovered during the exploitation of the clay for the brick plant. Few larger dugouts (6-7m in diameter) also belong to the Baden culture settlement with elaborate house structure: hearths, banks etc. The ware was typical for the classical phase of the Baden culture. There are numerous cups with bulb shaped container, bowls and amphorae decorated with haring bone, stars and dotted ornament, then deeper pots decorated with broken lines, co called *Fischbutte* shapes etc.

The Kostolac culture pits were discovered in the west part of the site, and the ceramic material was found outside the horizon as well as in other parts of the site. It belongs to the *Furchenstich* phase of the Kostolac culture. Few pottery finds with the Vučedol culture elements (the cup on the ring shaped foot)

show that there are remnants of the settlement dated probably in the end of the Eneolithic on the part of the unexcavated site.

Lit. : N. Tasić, 1959, 227 ff; Ibid., 1969, AP 11, 39-42, T. XVI.

11. CRNOBUKI NEAR BITOLA (PELAGONIA)
Stratified settlement

This tell-type settlement is situated norh-east of Bitola on the right side of the road Bitola - Prilep, on the bank of the river Šemnica, not far from the village Crnobuki. It is circular in shape, some 150 meters in diameter, and 4 meters in height. Its dimensions conform with average prehistoric tells frequent in Pelagonia from Prilep to Florina in Greece. This site entered the archaeological literature rather early, thanks to the work of V.J. Fewkes in Macedonia. During his surveying in Pelagonia in 1934 he discovered this site and made smaller test soundings. His discovery was brought forward by V. Milojčić in 1949 when he attempted to settle it in his system of the Macedonian Neolithic. Later, in 1953, M. Garašanin dealt with this material for the same objective. The excavations were renewed in 1974 (B. Kitanoski, D. Simoska, J. Todorović). The precise sequence was established: the cultural layer was divided in four horizons (I-IV). According to the analysis of pottery, the authors proved that horizons I-III belong to the Eneolithic, and horizon IV to the Early Bronze Age. This youngest horizon develops continually above the youngest (III) horizon of the Eneolithic settlement.

The style types of ceramic ware and plastic art of Eneolithic horizons attributed this site to the Bubanj-Salcuta-Krivodol complex. Even more, this site could be dated into a regional variant of the same complex, sometimes mentioned as Crnobuki, Bakarno Gumno-Crnobuki, Crnobuki-Šuplevac group, or merely as the variant of the Pelagonian Eneolithic. Having in mind the frequent appearance of burnished ware, other pottery shapes as well as terra-cotta, Eneolithic horizons at Crnobuki could be settled in the horizon of East Balkan graffito ware, together with sites from Salcuta and Gumelnita in the North, over Bubanj and Karanovo VI, to the sites of Dikili-Tash - Sitagroi type in the South.

Lit. : D. Simoska, B. Kitanoski, J. Todorović, 1976, 43-72, T. I-XI.

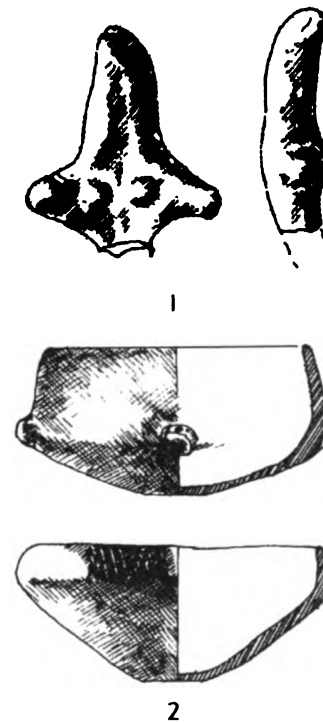
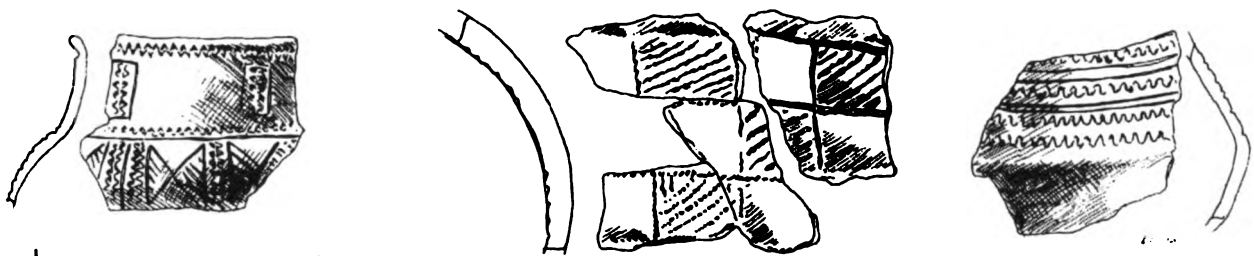


Fig. 11 – Crnobuki, terra-cotta and pottery (according to Simoska - Kitanoski - Todorović, 1976, 43)

12. DEBELO BRDO NEAR SARAJEVO
Stratified site

Debelo Brdo near Sarajevo belongs to the prehistoric hill-type settlements. It was largely devastated so that rich ceramic findings of different cultures could be discovered in secondary position on the slopes of the hill. This site is one of the first sites of the Vučedol culture. The first data on the site were given by F. Fiala in 1894. (GZM VI, 1894, 107-124, T. VIII, 9,11,12), when he published his excavations from previous year. The first conclusion he made was that the material was dislocated when washed down from the plateau. Few years later he wrote about the material from Debelo Brdo in WMBH IV (1896, 33 ff.). Almost seventy years elapsed until the day when the material finaly attained the proper place in the study



of the Vučedol culture and the development of the early metallurgy in Bosnia. The credit for that goes to B. Čović, who investigated in the Archaeological Collection of the Zemaljski Muzej in Sarajevo and worked on F. Fiala's already forgotten material. He divided three cultural and chronological horizons on Debelo Brdo: one, that belongs to the Late Neolithic, the second - the Eneolithic or the Vučedol culture horizon and the third one, that belongs to the Late Bronze Age, i.e. the South-Bosnian group, as he named it.

According to its typological attributes, the Eneolithic pottery belongs to one mature phase of the Vučedol culture, the South-Bosnian facies of the Vučedol culture, or the Debelo Brdo type, as S. Dimitrijević calls it. We are dealing with rather coarse modeled, carved or '*Furchenstich*' ware. Along this material one simple, fragmented terra-cotta was discovered. However, what is more important is the fact that Debelo Brdo in the Eneolithic period was big metallurgical center. Seven pieces of casts, larger and smaller, came from this site (3 for axes with tubular extension for the handle and 2 for daggers). There are two ceramic objects used during casting of metal. Together with Ljubljansko Barje and Vinkovci, Debelo Brdo could be the richest site with this type of objects.

Fig. 12 – Debelo Brdo, shards of pottery of the Vučedol culture (acc. B. Čović 1976, 107

Lit.: F. Fiala, 1894. (GZM Vl, 107, T VIII); B. Čović, 1976, 107-110, Pl. II-III; A. Durman, OA. 8, 1983, 1 ff.

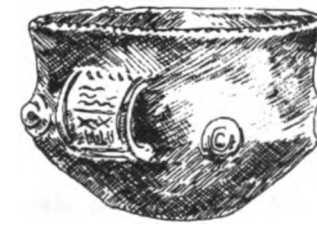
13. GOMOLAVA NEAR HRTKOVCI (SREM)
Stratified settlement

In the suburbs of village Hrtkovci, on the bank of the river Sava on the place where it makes the turn towards the South, there is a mound formed by stratification of cultural horizons from the Neolithic to the Medieval period. It is assumed that the remaining surface is merely the third of its original size. Even today we can see the trench that surrounded the mound and made the life on it more secure. This fortification were made probalby as early as Eneolithic, and the trench was latter widened and deepened.

This settlement was spotted early in the profile of the river bank and instantly entered the archaeological literature. It was mentioned firstly in the end of the last century in the reports of M. Wohalski (1898), then in 1904 in the works of M. Brunschmidt who started with minor trenching on Gomolava. Systematic excavations (the second phase) started in 1953. and lasted until 1957 (Š. Nađ, R. Rašajski, M. Girić, L. Sekereš et all.); finally, the third phase were extensive archaeological excavations performed in accord with the latest methodological stadnards (larger surface, palaeo-zoological and palaeo-botanical research, 14C dating and so on). These investigations took place from 1965 to 1985 (B. Brukner, N. Tasić, B. Jovanović, J. Petrović and numerous assistants).

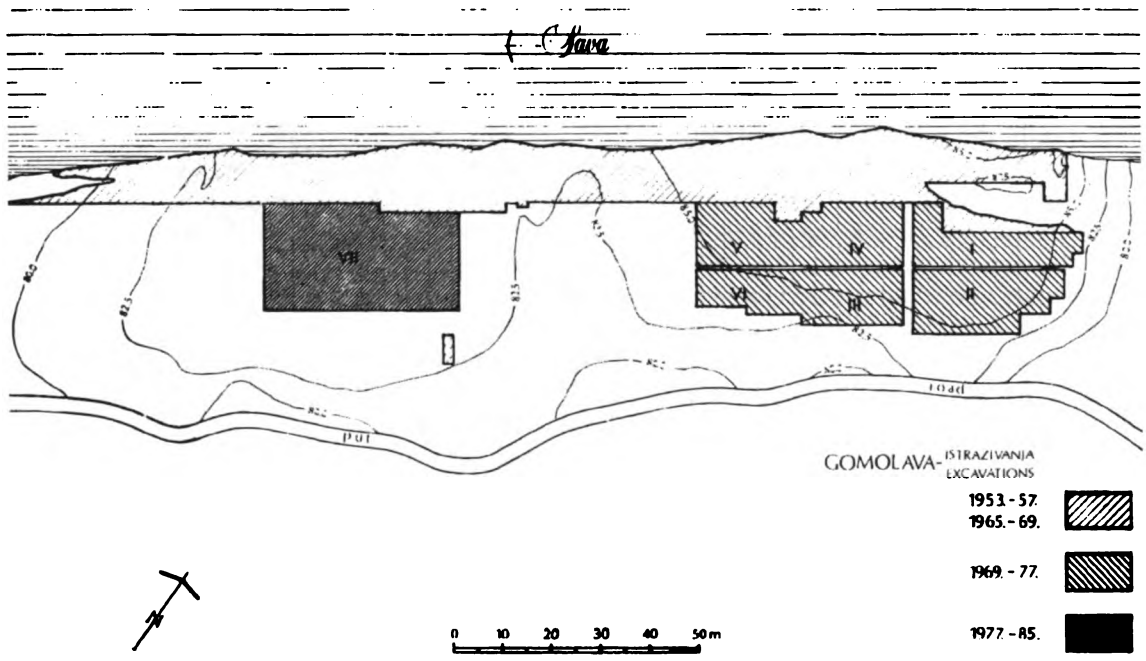
Fig. 13 – Gomolava, bowl of the Vučedol culture

The stratigraphy of the cultural horizon, of some 6.5 meters thick, showed that the lowest horizons (Gomolava Ia-b) belong to the Neolithic, while above it there are different layers of Eneolithic humus (II), Eneolithic, (IIIa-c), Bronze Age (IVa-c), Early Iron Age (Va-b), La Téne (VIa-c), Roman period (VII) and at last the Medieval horizon (VIII). The Eneolithic horizons II and III were formed above the youngest Vinča culture settlement and a smaller necropolis of the same culture (Gomalava Ic). According to individual pottery shards the Eneolithic humus (Gomolava II), belong to the time of penetration of the Tiszapolgar and Bodrogkerezstur cultures. This was evidenced in the entire area of the plateau, which could be seen in the profile towards the river. Phases Gomolava IIIa-c cover: a) a smaller settlement of the Baden culture with pits (IIIa); b) one long-teremed and abundant settlement of the Kostolac culture with three dwelling horizons (IIIb 1-3), and finally c) one modest settlement of the Vučedol cultre that belongs to the end of the Eneolithic (IIIc). Above these Eneolithic horizons, there was a horizon formed during the Early Bronze Age (IVa), with the material of the Vatin culture and individual findings of the incrusted Transdanubian ware, as well as fragments of the Vinkovci culture ware.



Individual graves with or without grave goods were also found during these excavations. Those were skeletal graves with decesed in flexed position. In one of these graves there was one Kostolac type vessel.

Lit.: M. Girić, in: Gomolava I, 1988, 17 (and the bibliography).



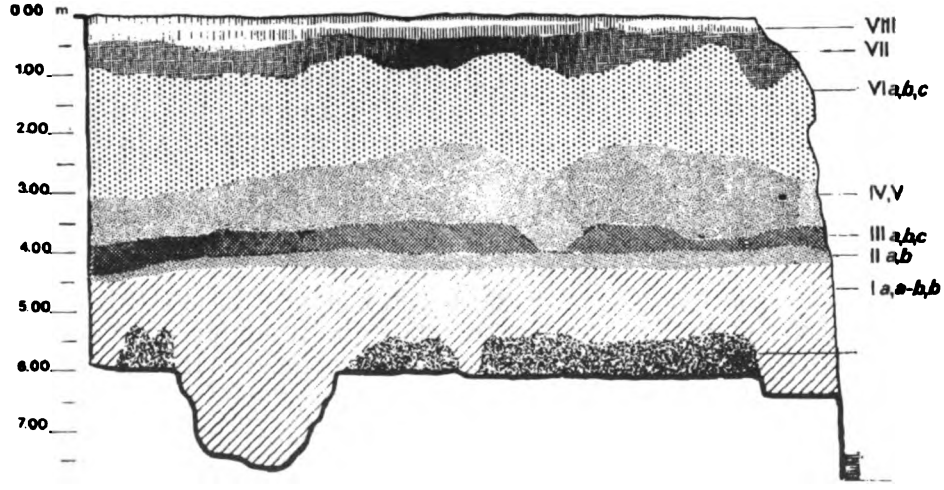


Fig. 12a – Gomolava, plan and profile (acc. to Gomolava I, 9-10)

14. GRADINA ON THE RIVER BOSUT NEAR ŠID (SREM)
Stratified settlement

The settlement Gradina on Bosut, 7 km south of Šid, entered the archaeological literature first of all as a stratified settlement of the Iron Age and as a eponymous site for one new culture then called the Bosut-Basarabi culture. No importance was then given to lower horizons, especially to the Eneolithic horizon.

The plateau Gradina, (dim. 265 x 60 m), is situated on the bank of the Bosut river (partly devastated by erosion) and the river Struga which flows near its western foothills. The plateau is about 10 meters higher then surrounding terrain, thus having dominant position. This site belongs to the fortified type or prehistoric settlements. The other two sides that were not protected by the Bosut and Struga river were encompassed with a deep trench. In the eastern part there is one smaller and even better fortified plateau (Gradac). This elaborate system was probably built in the time of the Bosut culture, although one can suppose that natural conveniences had been important for the building of the settlement in both Eneolithic and Bronze Age.

Although this site was already well known, excavations started as late as 1964. They were continued during next 1965 (N. Tasić, P. Milošević), and since 1975. they became extensive systematic investigations which lasted until 1985 (P. Medović, D. Popović, N. Tasić). Thanks to results of this research, precise stratigraphy of cultural layers up to 6.5 m thick was established. Abundant archaeological material was gathered, thus covering periods from the Late Neolithic (Bosut I), Eneolithic (Bosut II), Bronze Age (Bosut III) and Early and Late Iron Age (Bosut IV and V).

Two Eneolithic horizons (IIa and b) were formed, one should say, *in continuo* above the oldest horizon with material that belongs to the Sopot-Lengyel culture. The earlier Eneolithic settlement (IIa) according to its ware belongs to a variant of the early phase of the Balaton-Lasinje culture, and the younger (IIb) belongs to the Boleráz-Cernavoda III culture. The transition between these two phases was gradual, which was ascertained by stratigraphic evidences and typological characteristics of ceramic ware. From 1981 to 1985 two larger features were excavated. Opulent ceramic material was found which belongs to the Boleráz-Cernavoda III culture. This could be the first evidence on the architecture of this culture in the Yugoslav Danube Basin. This was the main reason why another relative chronology of this site was made. Instead of previous, corrected division on five horizons was introduced. The Eneolithic is marked as II, above this follows III - the Bronze Age (divided into two sub-phases a and b), then the richest one that belongs to the Early

Iron Age (with three sub-phases a-c), and the youngest prehistoric horizon (V) which belongs to the La Téne.

Lit,: D. Popović, 1981, Materijali XIX, 57-62; P. Medović, 1978, 13-14; N. Tasić, 1985, 1-11; N. Tasić, 1987, 85-92.

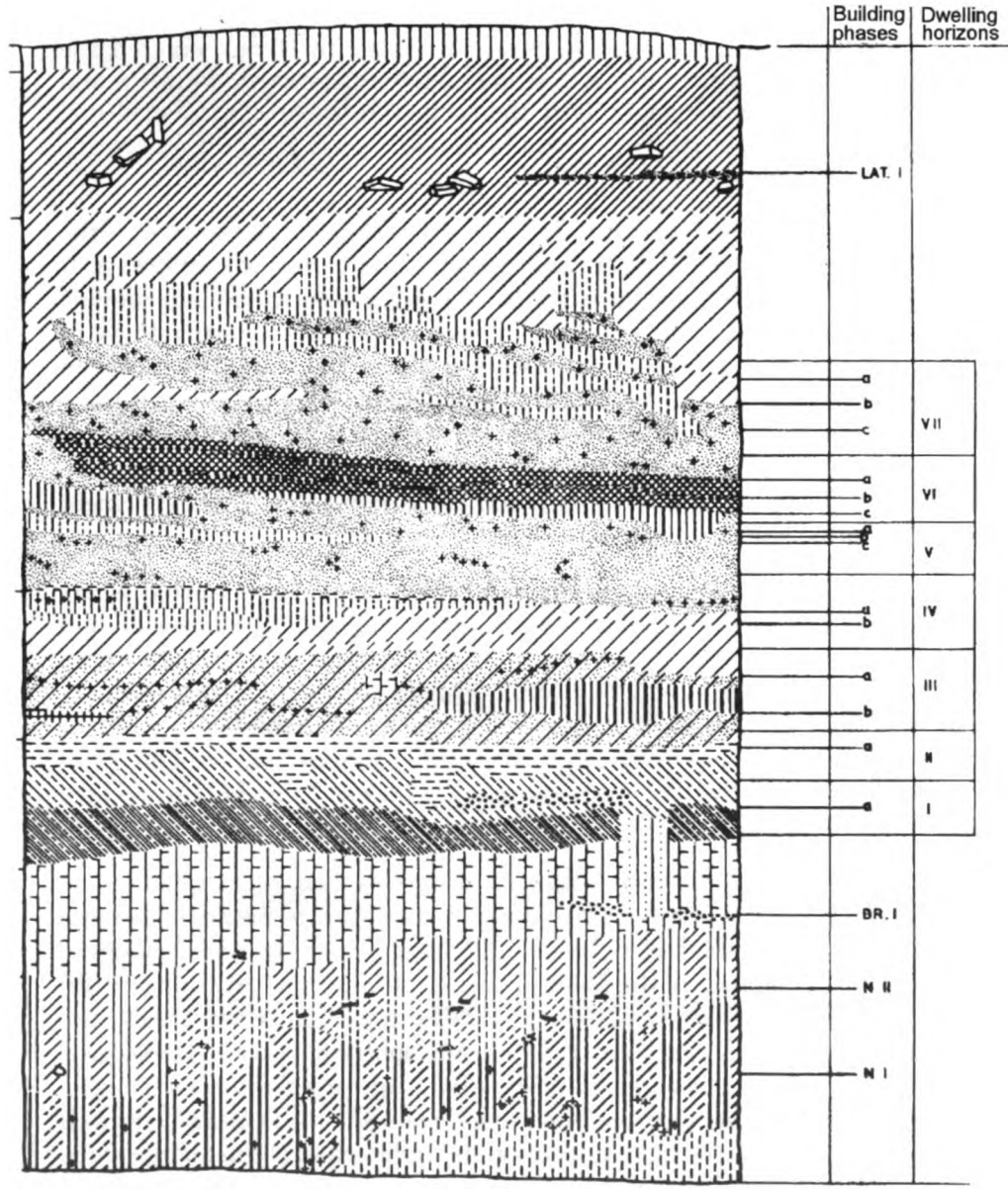


Fig. 14 – Gradina on the river Bosut, the profile of the trench 2

15. 'GRADINA' ZECOVI NEAR PRIJEDOR
Stratified settlement

Above the village Zecovi, 7 km south of Prijedor, there is one fortified prehistoric site Gradina. In the foothill of the mound runs the river Sana with broad plain behind it. This site dominates the surrounding and has important strategic position near the road Prijedor - Sanski Most. As an archaeological site it was mentioned for the first time in the end of the last century (1891) in the works of V. Radimsky. He mentions it as a Neolithic settlement used also in later periods (Roman period). Similar data could be found few years later in the notes of F. Fiala (1894). First archaeological excavations were commenced in 1953 (excavation of Roman period remains), and from 1954 A. Benac made investigations on prehistoric horizons. This research made this site important prehistoric site of the Vučedol culture in the first place.

In the restricted, smooth plateau Gradina - with the architectural remnants of the Roman and Medieval period - A. Benac opened some 75 square meters. Regardless of the fact that the excavated surface was rather small, stratigraphic data and prehistoric material show good opportunity to identify the Eneolithic settlement. From the documentation enclosed one can see that the lowest levels (V-IV) on Gradina belongs to the Vučedol (Slavonian, as was called at that time) culture. The next dwelling horizon (III), that follows the horizon of charcoal and ashes, belongs to the Bronze Age and 'Illyric culture', and after that come objects from the Roman and Medieval period.

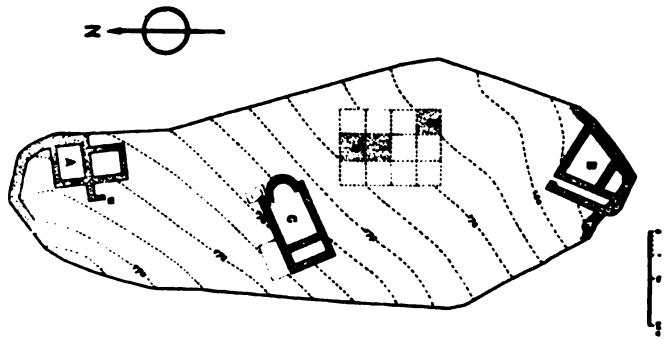


Fig. 15 – The ground plan of Gradina - Zecovi

The Vučedol culture settlement is rich in ceramic material and dwelling objects (pits, hearths and houses) which were rather devastated with following horizons. Vučedol culture ware was found mainly in pits. It was decorated with deep incised lines, with carving and white incrustation. Certain shapes (bottle shaped vessel) and the manner of the decoration determine this Vučedol culture settlement on Gradina Zecovi into the final Eneolithic, i.e. into the end of the period which it belongs to. The parts of casts and casting vessels also belong to the Vučedol culture horizon.

Lit.: A. Benac, 1956, GZM XI, 147-166, T. I-X; Ibid, Epoques..., 78-81.

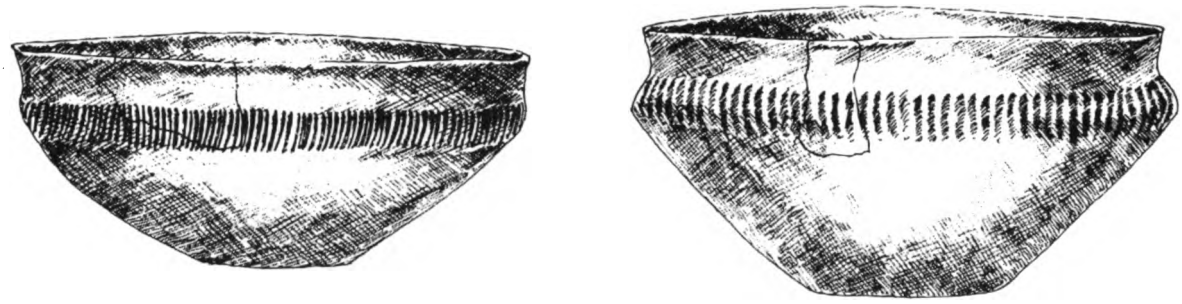


Fig. 16 – Grapčeva Špilja, the plan and the pottery, (acc. G. Novak 1955, 30)

16. GRAPČEVA AND MARKOVA ŠPILJA ON THE ISLAND HVAR

Prehistoric settlements

For this occasion, two cave-sites, investigated for years on the island Hvar, were taken as extremely important for understanding of the Adriatic Neolithic and Eneolithic. Grapčeva Špilja(16 B) is situated in central part of the island (south from Jelsa), on the slopes of the hill that dominates the island. The entrance in the cave is below the highest plateau near the village Humac. From this cave one can see the open sea, islands Korčula, Lastovo, Sušac and Vis. The conditions for life in this cave were remarkable, which was confirmed with numerous dwelling horizons. Markova Špilja (16A), on the other hand is located in the west part of the island, on northwestern slopes of the mount Pelegrin, on the altitude of 57 m. As well as Grapčeva Špilja, the other one also dominates its neighborhood, looking towards the Kornati archipelagos, Trogir and Brač, and across the Hvar channel to the mount Biokovo. It was sheltered from southern winds and had excellent conditions for inhabiting, particularly in its hidden part. Thanks to G. Novak's research, both caves entered the literature very early. First sounding excavations were performed in 1912-1914. Then, after one longer gap works were continued in 1955 and lasted until 1961. Grapčeva Špilja was also discovered in 1912. G. Novak had collected the material from that site for a long time and published it in 1955 in his outstanding book 'Praistorijski Hvar - Grapčeva špilja'.

Thanks to G. Novak's investigation, as well as to the noteworthy contribution of B. Čečuk, we now have clear stratigraphic sequence of the life in the caves from the Neolithic, Eneolithic, Bronze and Iron Ages to the Hellenistic and Roman periods. The stratigraphy is, at least during the Neolithic and the Eneolithic periods, similar in both caves. It is important that above the Late Neolithic horizon of the Hvar culture (according to some authors the Early Eneolithic culture) horizons of the Proto-Nakovanska and the Nakovanska culture were formed. They were covered by one interesting horizon with the material of Adriatic facies of the Ljubljanska culture. The Early Eneolithic pottery of the Nakovanska culture provenience, is similar to the findings from Gudnja and cave Nakovana on Pelješac, while the Ljubljanska culture pottery, particularly that from Grapčeva cave, is younger from the Tivat-Rubež group and belongs to the period of penetration of the Ljubljanska culture in this region.

Lit.: G. Novak, Praistorijski Hvar, 1955; Ibid., 1959, ARR I, 5-60; Ibid., 1962, ARR I, 19-102, T. I-XXXVI; Ibid., ARR VI, 61-179, T. I-XXII; Ibid., Epoques..., 110-113; B. Čečuk, 1968, ARR VI, 181-212, T. I-XII; G. Novak-B. Čečuk, 1982, ARR VIII-IX, 11-33, T. I-XVIII; S. Dimitrijević, 1970, 105 ff, T. II-III.

17. GUDNJA ON PELJEŠAC (ADRIATIC COAST)
Stratified cave-type settlement

The cave Gudnja is situated at the of the peninsula Pelješac, in the vicinity of Ston. It is one of the most important sites for the study of the Adriatic Eneolithic. Unfortunately, apart from scarce published information (PJZ III, 368), rich archaeological material gathered during excavations is still not available. We shall discuss this site using merely vague information and the fact that the author had the opportunity to see the part of the material in the Museum in Dubrovnik.

Gudnja was discovered during numerous field surveys of the Adriatic coast by Vladimir Miroslavljević. According to his information, in 1963 S. Petrak commenced systematic archaeological investigations. According to the information we have they lasted until 1968, and during that time remarkably interesting and opulent archaeological material was gathered. Having been introduced to the documentation and the material S. Dimitrijević attempted, to make a stratigraphic valorization of cultural horizons, and gave the following sequence in Praistorija Jugoslovenskih Zemalja III, unfortunately without necessary illustrative material and archaeological documentation: cultural layer consists of six strata, the first (going from the earliest) belongs to the impresso horizon; the second, belongs to the Proto-Danilo culture; the third, to the Gudnja culture, as he called it; the fourth - the Hvar culture; the fifth, to the Nakovanska culture (the Pelješka culture); and the sixth to the Adriatic variant of the Ljubljanska culture. First four strata belong to the Neolithic period, with the annotation that the upper horizons of the Hvar culture could be placed in the Eneolithic period. Fifth and sixth stratum contain Eneolithic material of the Nakovanska and the Ljubljanska cultures. It is characteristic that the Proto-Nakovanska culture material lacks, while the ware of the Nakovanska culture is corresponds with the findings from the other cave on Pelješac near Nakovana, the material from Odmut (stratum V), Vela Luka on Korčula, Grapčeva and Markova Špilja on the island Hvar. S. Dimitrijević supposed that the sixth stratum in Gudnja consisted of two horizons of the Ljubljanska culture, and that the oldest one was closer to the South Bosnian facies of the Vučedol culture, and younger one to the Ljubljanska culture horizon in the Adriatic coast (Grapčeva Špilja).

Lit.: S. Dimitrijević, in: PJZ III, 327, 368, 378.

Note: Unpublished material from excavations performed by Spomenka Petrak are kept in Pomorski Museum in Dubrovnik. S. Dimitrijević and author of this study took this material in the consideration after having been briefly introduced to it

18. HISAR NEAR SUVA REKA IN METOHIA

Stratified site

One section of the plateau with steep sides that descend steeply to the plain(dim 180 x 190m) is located on the northwest slopes of the hill Široko. This location is called Hisar. The impression is that those steep sides, particularly the one which separates this site from the other section of the plateau were artificially enhanced with trenches which could defend the settlement Gradac. The road Suva Reka - Prizren goes in the foothills of Hisar.

The first archaeological discoveries from Široko were made by Lj. Dašić in 1957. The author mentions that a mound was excavated by Austrians during the World War I, and that in 1953, curator of the Museum of Kosovo, I. Nikolić also dug on this place, but the documentation lacks. Dašić also mentions Hisar (Isar) which was separated from surrounding terrain with deep trench and a wall. It is obvious that during the prehistory the settlement had complex defense system. Thanks to the latter excavations conducted by J. Todorović in 1961 and 1962, Hisar entered archaeological literature with considerably more data, although the material was again not entirely published. During that campaigns the area of 350square meters was investigated. The cultural layer is 3.2 m (2.8m) thick and in pits it goes up to 4.7 m.

The stratigraphic sequence and the pottery analysis from 9 dwelling horizons show that the major part of the cultural layer belongs to the Eneolithic period. J. Todorović recognized two main strata with two sub-phases:

Hisar I A - 2.80 - 2.40 m, the lowest horizon of houses with pits (up to 4.70 m);

Hisar I B - 2.40 - 1.10 m, with three horizons of houses, separated from the previous with a debris of ashes;

Hisar II A and B - four horizons of houses, (one from II A well preserved; dim. 8 x 16 m);

Hisar III 0.50 - 0.00 m, belongs to the Hellenistic period.

The stratigraphic division was not illustrated with sufficient information (only preliminary report was published). However one can conclude that older stratum I with its sub-phases A and B belongs to the Bubanj - Salcuta culture with elements of the Vinča culture and influences of the Adriatic Neolithic. The problem of the stratum II a and B is still not clear enough. One part of published ceramic material certainly belongs to the Kostolac culture (its southernmost penetration), while the material labeled as "the Early Bronze Age of Macedonia" (Kritzana type) is considerably younger and belongs to the Iron Age of Metohia, with early Dardanian influences. It is, however, certain that the majority of the cultural deposit belongs to long-termed Eneolithic development of one Kosovo and Metohia variant of the Bubanj - Salcuta culture. It is illustrated with the ceramic ware from Hisar I A and B, which was decorated with thick red and white painting, black burnished pottery, numerous shapes of shallow plates with thickened rims, beakers on the foot, and as well with *Scheibenhenkel* handles pots. The

horizon II A certainly belongs to the Kostolac culture, which was confirmed with the pottery (cups with high band handle, chess-field motifs). One large house, quite familiar to the Kostolac culture, seems to belong to this horizon.

Lit. : Lj. Dašić, GMK II, 1957, 249 ff; J. Todorović, 1963, 25-29, T. I-VI.

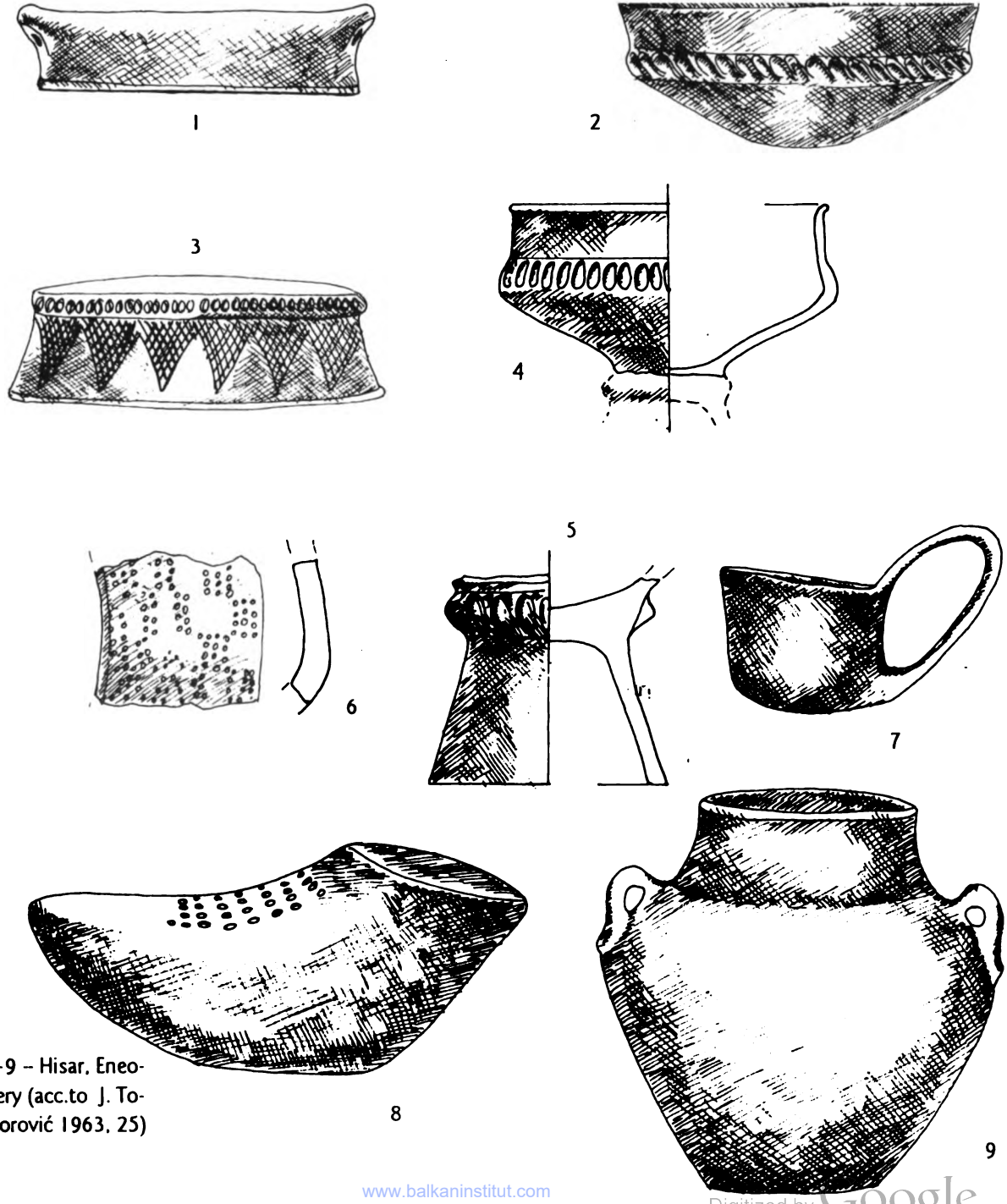


Fig. 18/1-9 – Hisar, Eneolithic pottery (acc.to J. Todorović 1963, 25)

19. HRNJEVAC BY KUTJEVO (WEST SLAVONIA)
Eneolithic site

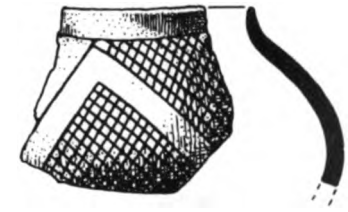
The site Brdo (Hrnjevac) by Kutjevo belongs to the hill-fort type. It is situated on a dominant hill. As well as other sites of the Kevderc-Hrnjevac type, this one is also located on rather high altitude (405 m. above see level). According to this one, and other settlements of the same type we can assume that they belonged to the population of hunters or farmers (Kevderc and Ljubniška Jama are located on 810 m. above see level).

The first finds from Hrnjevac were gathered by Milan Turković, fellow of the Museum in Zagreb in 1898. This data entered the literature in 1961 and were erroneously attributed to the Lasinja culture. Later on, (1975, 1980, and especially in PJZ III, 343.) S. Dimitrijević has placed this find in an independent culture - the Retz-Gajary culture - as its variant with proposed name - the Kevderc-Hrnjevac culture.

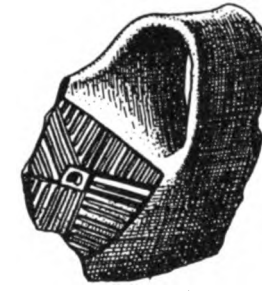
Among scarce Hrnjevac culture findings from the collection of the Archaeological Museum in Zagreb, which were published in the third volume of 'Praistorija Jugoslavenskih Zemalja', three characteristic cups with band handles which raise above the rim were also mentioned. The base on some of them was shaped as calotte. On the site Hrnjevac, beside these forms, we come across larger spherical vessels, 'pointed vessels', as well as coarse ware. These were decorated with incised ornaments, some kind of *Furchenstich* and rough carving. S. Dimitrijević also mentions one damaged roughly modeled female idol, and one object that resembles the *labrys*. The manner of decoration is similar to that in the Mondsee culture, on one hand, and to the Kostolac and Vučedol cultures on the other.

According to the criteria mentioned previously, the site Brdo near Hrnjevac, perhaps should not be listed here (the lack of the stratigraphy, scarcity of finds). However, its characteristic ceramic ware enabled S. Dimitrijević to identify one new Eneolithic variant of the Retz-Gajary culture. Finds from Drljanovo near Bjelovar (A. Durman, OA 7, 1982, 37 ff.), Kevderc near Škofja Loka and from some other sites in Hungary, especially those separated in the Balaton III group by N. Kalicz, also belong to this variant.

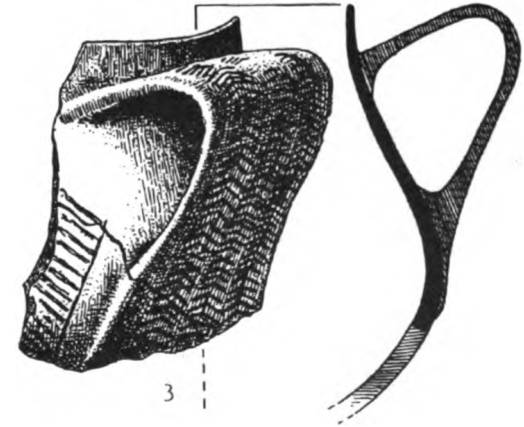
Lit.: S. Dimitrijević, in: PJZ, 343-365, T. XLVII, 1-6; Ibid., 61 BRGK, Mainz 1980, 15-89, T. 1-20.



1



2



3

Fig. 19 -- Hrnjevac, shards of pottery (acc. to S. Dimitrijević 1980, 15, Pl. 12)

20. HRUSTOVAČA NEAR SANSKI MOST
Stratified cave-type settlement

The cave Hrustovača near Sanski Most is one of the most important sites in the river Sana valley. It is located in the vicinity of Vrhpolje, not far from the village Hrustovo. Near the Hrustovača cave there are some other caves, among which the Dabarska cave, located 3 km northwest is certainly the most prominent.

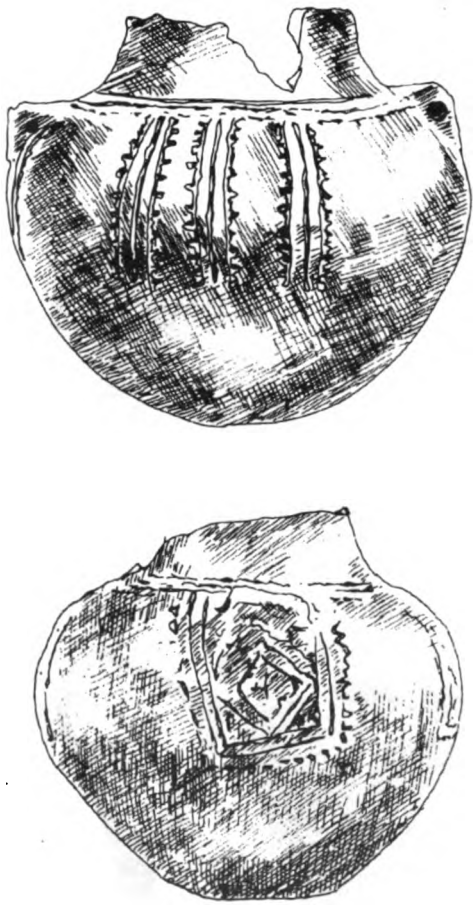


Fig. 20 – Hrustovača, two pots of the Vučedol culture (after A. Benac 1948.)

Archaeological site in this cave was discovered by M. Mandić in 1938, who also performed first excavations in 1939 (M. Mandić, GZM, 1939, 65 ff.). His excavations covered the right side of the vestibule and came across abundant archaeological material. First stratigraphic information was also obtained: the first stratum was humus (to 0.40 m), then very thin (some 0.10 m) Roman stratum, the third was Hallstadt stratum (about 1.00 m thick), then stratum with 'Pannonian ware' (0.30 m thick), and at last - clay layer with occasional osteological material.

The material discovered by M. Mandić, together with that collected latter, was processed by J. Korošec in 1946 (GZM, 1946, 7-38). New excavations in the cave were undertaken a year later by A. Benac. He gave a relevant stratigraphic sequence and meticulous analysis of the material. According to A. Benac three strata existed: upper, middle and lower. For the purpose of this book, we are interested only in the middle, Eneolithic stratum which varies from 0.40 - 1.10 m, depending on the inclination of the terrain. The abundance of the Vučedol culture ware (Slavonian, as he called it at the time), bones of wild and domesticated animals (deer, doe, bovine) is atypical, and what is also important are large quantities of cereals, parts of grindstones and few hearths. Two typological groups could be distinguished in the Vučedol culture ware: one, according to the shape and decoration closer to the Kostolac culture ware (incised decoration, hanging triangles, and ribbons), and the other which belongs to the developed Vučedol carving technique, where certain forms resemble the Vinkovci culture ware. The decoration of the Vučedol culture ware is regularly combined with white incrustation. This phenomenon represents the regional manifestation of the Vučedol culture that could be called 'Bosnian type' or Debelo Brdo-Hrustovača type.

Lit. : J. Korošec, GZM, 1946, 7-38; A, Benac, GZM, 1948, 5-40, T. I-XV and op. cit.

21. JELENAC NEAR ALEKSINAC
Eneolithic settlement

In the outskirts of Aleksinac raises a plateau (dim. 200 x 100), some ten meters higher from the valley of the river Moravica. Topographic character of this site, particularly its steep sides which descend towards the river, suggest that this settlement belongs to the Eneolithic type, already known in the Bubanj, Kostolac and Cotofeni cultures.

Thanks to M. Vasić's excavations in 1910, this settlement entered archaeological literature rather early. Preliminary results from these investigations were published in Godišnjak SKA XXIV (1910, 273-314) and in Starinar (1910, 23). After 45 years the works were renewed in 1950. Excavations by R. Galović of 1955, were not very extensive, but thanks to them it is now possible to make use of the results of the previous excavations, in spite of the fact that Vasić's material was irretrievably lost during the World War One. Galović opened about 70 square meters in three trenches on different parts of the plateau. Inspite the fact that the material does not suggests this division, two horizons were distinguished. The depth of the layer was 1.20 m and three floor levels were identified, probably belonging to the same house which was renewed (0.78, 0.90 and 1.01 m).

Rich ceramic material found in these two horizons belongs mainly to the Kostolac culture, although there are some other elements connected to the Bubanj-Hum as well as the Cotofeni cultures. The shapes, and the manner of decoration of the pottery, are typical for the Kostolac culture. There are cone-shaped cups with band handles that go above the rim, and bowls of different shape. They were decorated mainly with carved lines, net ornament, short incisions, dotted incisions, while for the *Furchenstich* technique it could not be told that it was frequent in both horizons. Among the published material we come across certain examples of bowls with thickened rim which could be connected with the Bubanj - Salcuta group, then fragments with lens-shaped appliqué or vertical plastic bands that belong to the Cotofeni culture complex.

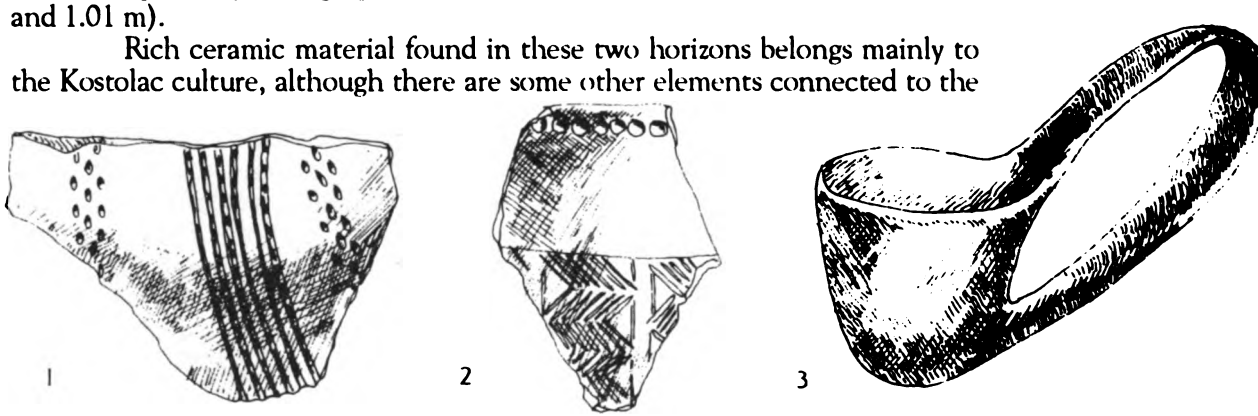


Fig.21 – Jelenac, the pottery of the Kostolac culture (acc. to R. Galović 1959, 329)

Lit.: R. Galović, ZRNM II, 1959, 329-338, T. I-IX.

22. KEVDERC ON LUBNIK (NW SLOVENIA)
Stratified Eneolithic settlement

As well as Lubniška Jama, located nearby, the site Kevderc belongs to Eneolithic highland-type settlements. Both of these sites are on the altitude of 810 meters, and one could say that they have similar stratigraphic sequence, as well as similar archaeological material. The material from systematic excavations was published by F. Leben in 1963 in Acta carsologica 3, 1963. The material is kept in the museum of Loka in Škofja Loka. Results of excavations are extremely important for the study of the Eneolithic of Slovenia, particularly of the Gorenjska district. Beside the author of the excavations, F. Leben, the material was also discussed by P. Korošec. Certain evident terminological differences in the articles upon this problem are the consequence of different approaches of the two authors. We used F. Leben's information for the interpretation of the stratigraphy.

Fig.22 – Kevderc-cave, the chalice of the Kevderc-Hrnjevac type (acc. to S. Dimitrijević 1980, Pl. 13/1)

Gathering all the information and evidence on Kevderc and Lubniška Jama, F. Leben distinguishes three, culturally and chronologically independent horizons:

A. The horizon of the Early Lasinja culture with cups, bowls and semi-spherical jugs with one handle. The decoration is modest and was made with incised lines.

B. The horizon with unique ceramic material, determined by F. Leben as the Lubnik type of the Lasinja culture. However, according to the channeled ornament, carving, rough carving, white incrustation and the shapes of the pottery (jugs without the base), this horizon could be as well placed into the time of the Kevderc - Hrnjevac type of the Retz - Gajary culture, as it was determined by S. Dimitrijević.

C. The youngest horizon in Kevderc belongs to the Late Vučedol culture (the Ljubljansko Barje II or rather to the Alpine *facies* of the Ljubljanska culture, depending on which terminology we use).

P. Korošec dates the habitation of caves Kevderc and Lubniška Jama in the period between the first phase of the Eneolithic, over II and III to the Bronze Age (Br A period).

Lit.: F. Leben, 1975, 151-156, and lit. cit., P. Korošec, 1973, AV XXIV, 171-176, T. I-II, and quoted literature.

23. KLOKOČEVAC NEAR DONJI MILANOVAC (EAST SERBIA) Eneolithic settlement

Near the road that leads to Negotin, in the outskirts of the village Klokočevac, there is one hill called Culmia Sciopului and cliff Strmac. There was a number of natural terraces on the steep amphitheater-shaped slope, on which bases of Eneolithic houses were found. During the excavation of 1970 very interesting and unique architecture was discovered. Houses were situated on terraces (there were 4 or 6 of them). The back side of the house was dug into the hill. The dimensions did not exceed 6 x 3 meters. Due to the inclination of the slope, pottery was often found in the secondary position. However, as this was single layered, and apparently short termed farmer's settlement, the stratigraphic sequence is not of a great importance.

The style analysis of the archaeological material, especially of the pottery, shows that two groups were represented here: Cotofeni, with carved decoration, plastic bands and lens-shaped appliqué, and the Kostolac culture pottery, decorated with crescent-shaped incisions, chess field motifs and *Furchenstich* technique. The blend of these two styles of different cultures is obvious and one can find ornaments of one group, on the ceramic form of the other culture and vice versa. The mutual relationship between these two cultural manifestations is so strong here, that it leads to the conclusion that it made quite new cultural phenomenon, which also occurs on some other sites in East Serbia (Kovilovo, Krivelj and also on sites in Đerdap I and II). These regions witnessed the intensive mixture of two contemporary styles, two cultures: western Kostolac culture (Srem-Slavonia and Central Balkans) and the Cotofeni (south Carpathian and Danubian) culture.

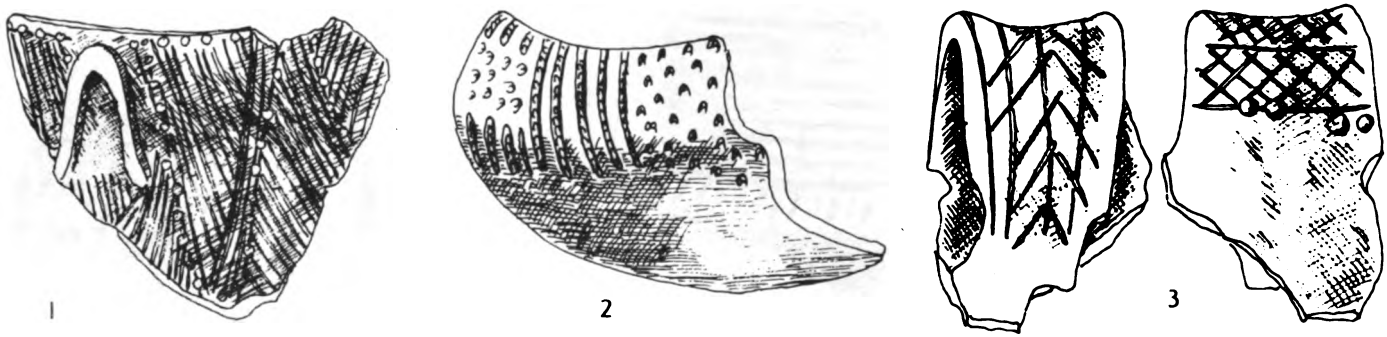
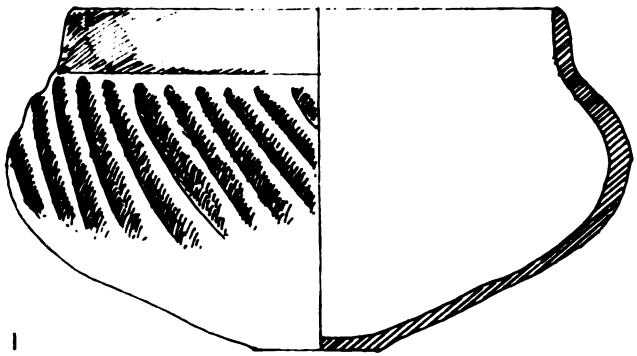


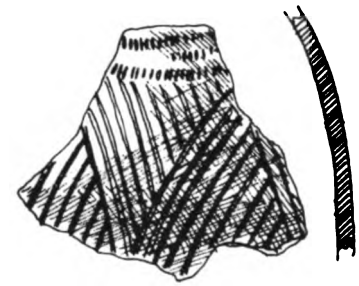
Fig. 23 – Klokočevac, the pottery of the Cotofeni and Kostolac cultures

The site Klokočevac is located in the mountain region of Homolje, in its peripheral region, and was home for the population of farmers. However, few smaller copper objects (copper pin) show the interest for the exploitation of the copper ore, abundant in this region, among the inhabitants of this settlement. The prehistoric Eneolithic mine near Rudna Glava is located only about 10 km south from Klokočevac.

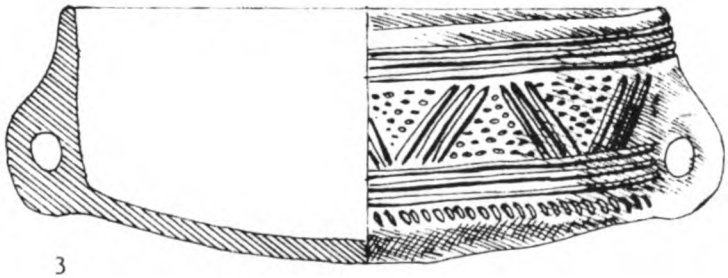
Lit.: N. Tasić, 1982, 19; Idem, 1987.



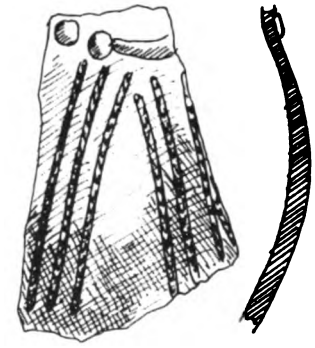
1



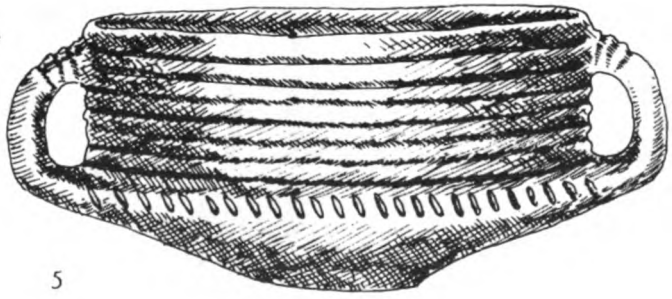
2



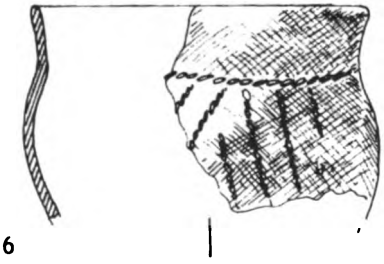
3



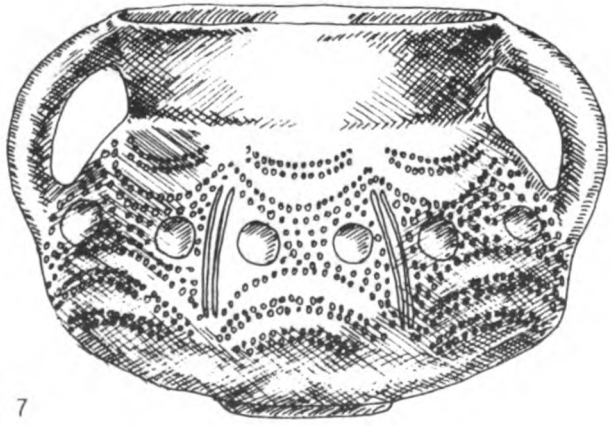
4



5



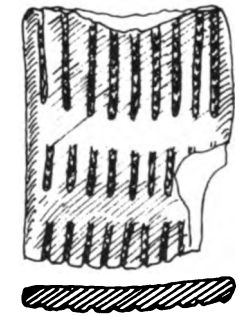
6



7

Fig. 24/1-9 -- Krivelj, the pottery of the Bubanj-Salcuta, Kostolac and Cotofeni cultures

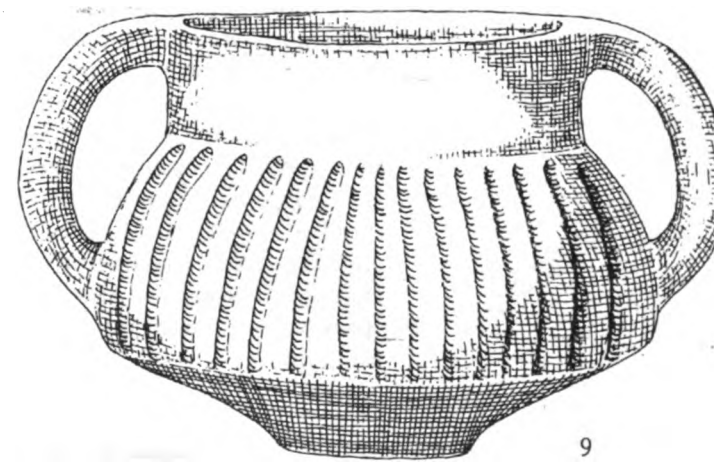
24. KRIVELJ NEAR BOR (EAST SERBIA)
The settlement of the Bubanj-Salcuta and Cotofeni cultures



8

In the suburbs of the village Krivelj, 6 km north of Bor, there is one mound known as Čokulu Balaš. It has flattened plateau and slopes which decline steeply toward the Kriveljski creek. According to its topographic characteristics this settlement belongs the category of fortified settlements of the Bubanj-Salcuta-Krivodol culture, already known in Romania (Salcuta), Bulgaria (Orlova Čuka), Serbia (Kovilovo near Negotin, Bubanj, Gadimlje and Hisar on Kosovo), and in Macedonia (Skopsko kale, Šuplevac in Pelagonia). The only accessible slope of the hill has the remains of a wall made of broken stones without mortar, which had protected the entrance to the settlement.

The archaeological excavations were performed by the Museum of Metallurgy in Bor during 1971 and 1972. Larger area of the settlement was investigated. The cultural layer which was partly devastated is 0.40 - 1.00 m. thick. Two stratigraphic, cultural and chronological entities were ascertained: a) upper horizon up to 0.50 m contained typical Cotofeni culture material with the Kostolac culture influences, and b) almost intact horizon which belongs to one well preserved Bubanj-Salcuta culture settlement with dwelling objects (house floors, hearths, pits) and rich archaeological material. The older settlement and its contents is exceptionally important. It represents the phase of the development of the Bubanj-Salcuta culture in which incised, channeled and dotted pottery appears, and painted decoration (either in white or red) and burnished ware lacks. No pots with so called *Scheibenhenkel* type handles which were found, what differs this settlement from other settlements of the same culture in Zlotska Pećina located in immediate vicinity. This should obviously represent the earlier phase of the same culture, thus giving the chronological priority to Krivelj. This statement could be also confirmed with the sculpture - two terra-cottas, one with analogies among Bulgarian figurines of the Gumelnica-Karanovo VI style, and the other with the Vinča culture.



9

Lit.: N. Tasić, 1982, 19-36, T. I-IV; N. Tasić, 1987, 13-20, T. I.

25. LASTVINE BY BUKOVIĆI NEAR BENKOVAC
Eneolithic settlement

In unsuficiently investigated Zadar hinterland region near the village Bukovići, on the North-East edge of Benkovačko Polje, on the hill which has an excellent view all the way to Ravni Kotari and Bribir, there is one dispersed Eneolithic settlement. It is well located, sheltered from winds from the North and from the South. Overflowing springs of fresh water are located in the vicinity of this site. All this gave excellent life conditions on this spot.

First discoveries which comprised mainly of pottery and flint implements, came to the Archaeological Collection in Benkovac in 1983, which was the sign to the curator M. Savić to commence the trench-type surveying of that area (dim. 300 x 500m). Two years later Š. Batović and J. Chapman began new investigations in order to catch the contours of the settlement, the depth of the cultural layer and its character. The best preserved part of the layer is located in one small depression, where it reached 1.60 m, while in the outskirts of the settlement it was never thicker than 0.35 m. In a single horizon, without stratigraphy, the authors have found poorly preserved remains of the architecture - wattle and daub houses and shards of house rubble, parts of the hearths and smaller pits.

The archaeological material is abundant and common. The pottery is simple, often very coarse. It is decorated merely with vertical channels on the shoulder or horizontal on the neck. The motifs like dots, incisions and ribs are rare. Apart from the pottery, large number of flint and stone tools was found (knives, picks, bores and parts of pierced stone axes). Two copper awls are certainly of great importance. One of them was found during the excavations. Typological analysis of the remains of the material culture shows that the settlement near Bukovići belongs to the Nakovanska culture of the Adriatic Eneolithic with specific continental influences, marked by the authors as the Vinča and Salcuta influences.

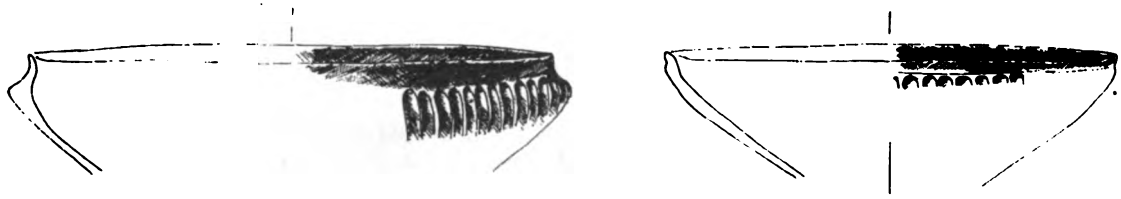


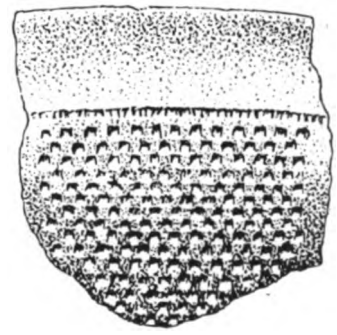
Fig. 25 – Lastvine, channeled bowls (acc. to Batović - Chapman, 1985, 52)

Zoological remains (bones of sheep and goat), as well as the type of the settlement with short-lasting architecture imply that this was probably a settlement occupied only occasionally or seasonally.

Lit.: Š. Batović - J. Chapman, Arheološki pregled 26, 1985, 52-53.

26. "LICE" NEAR ERDEVIK (SREM)

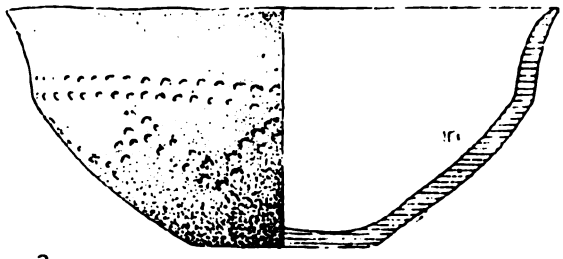
Stratified settlement



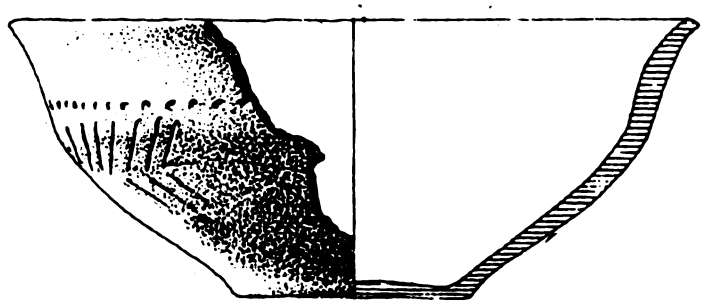
1

The remains of prehistoric settlement of the Eneolithic and the Bronze Age period are located on south slopes of the mountain Fruška Gora, covering the area of 500x200 meters. The locality "Lice" is one mound with flattened plateau. On its west is one wide plain which is the part of the Srem lowland. The stream Moharač flows through it (recently it became artificial lake). Steep slopes of the mound give the impression of the hill-fort site.

During the archaeological excavations of 1981 (Dragan Popović), remains of the settlement of the middle and late Eneolithic and the middle Bronze Age were detected. The depth of the cultural layer, without the pits, varies between 0.2 and 0.6 meters. The earliest settlement belongs to classical phase of the Baden culture. It is single layered settlement with pits and earth-cabins, the type quite frequent in this region (Dobanovci, Rimski Šančevi, the Baden culture horizon at Gomolava). One larger earth-cabin with a kiln is typical for this site.



2



3

Fig. 26 – Erdevik, the pottrery of the Baden and Kostolac cultures

The pottery shapes are often carinated (biconic) bowls, decorated with carving and incisions, then cups with bulb-shaped container with handles that surpass the rim, coarse pots and different shapes of amphorae. The Kostolac culture settlement with remains of dwellings and more durable houses, represents the younger period of life on this site. According to the pottery it belongs to one younger phase of the Kostolac culture in which *Furchenstich* decoration appears. Bowls of different shapes with rich decoration prevail among the pottery of this phase. In the vicinity of the plateau there are remains of younger periods, ceramic ware which has no stratigraphic links, but could be, according to its typological characteristics, chronologically placed : a) the pottery which belongs to incrusted Trans-Danubian group of finds in Srem (Br B1) and b) the pottery which belongs to the Belegiš culture (Br C - Ha A).

The material from these excavations is being kept in the Museum in Šid, and will be published by D. Popović.

27. LJUBLJANSKO BARJE (SLOVENIA)
Complex of the Neolithic and Eneolithic pile-dwelling settlements

South and south-east of Ljubljana stretches one geotectonic basin (20 x 10 km.) covered with numerous channels. During the prehistoric period the area was covered with marches and before that with a larger glacial lake. In the end of the Neolithic and the beginning of the Eneolithic the lake was dried out and left behind the swampland. In 19th century this region was meliorated and dried. Thanks to good climatic and other conditions in the region of Ljubljansko Barje numerous Neolithic and Eneolithic settlements were formed. These sites represent one regional group extremely important for the study of cultural development of this area.

The first excavations in Ljubljansko Barje performed by K. Decshmann from 1875-1877 also marked the beginning of archaeological works in this part of the world. After Deschmann's excavations, another campaign was performed near Notarnje Goric (W. Schmid, 1907-1908), and after the World War II, thanks to the Department for archaeology of the Faculty of Philosophy in Ljubljana (J. and P. Korošec, T. Bregant and others), systematic excavations were organized on many locations of Barje (Blatna Brezovica, Resnikov Prekop, Parte, Maharski Prekop and so on), which gave more vivid impression of the development in this region. Hence, Ljubljansko Barje became the best investigated micro-region of the Alpine zone, as far as the final Neolithic, Eneolithic and Early Bronze Age cultures are concerned.

1

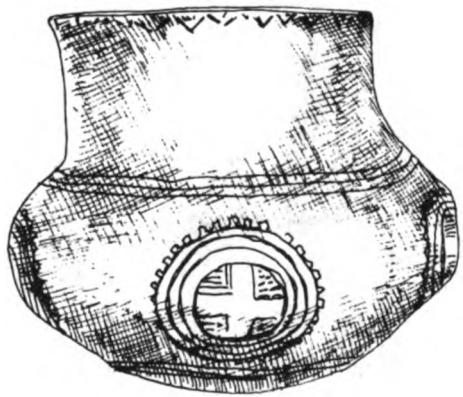
Fig. 27 -- Ljubljansko Barje. pottery of the phase Ig I (fig. 1-3) and Ig II (fig.4-7) according to R. Schmidt 1945

A large number of pile dwelling sites were ascertained in the outskirts of Ljubljansko Barje. Archaeological excavations were performed on some of them (Ižanska or Dežmanova Kolišč, Blatna Brezovica, Resnikov Prekop, Kolišče on Maharski Prekop, Kolišča near Notarnje Goric etc.), while other sites were topographically registered (Kamnik pod Krimom, Preserje). All investigated sites are located on the bank of the lake or in the marshy terrain, and belong to the pile-dwelling settlement type (*Slo.=kolišča; Ger.=Pfalbau*). This is suggested by numerous remains of animal bones and agricultural tools and grindstones. Numerous copper tools and casts show that the metallurgy was important activity.

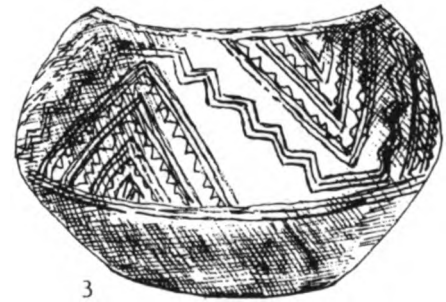
The life in pile-dwelling settlements in Ljubljansko Barje lasted from the end of the Neolithic to the beginning of the Early Bronze Age (between years 3000 and 1800 BC). Some of them lived shortly during the Early Eneolithic, while others lasted during the transition to the Early Bronze Age. The vertical stratigraphy that should confirm the continuity of life during these periods is not sufficient, and therefore in order to establish the relative chronology among sites we must rely on typological analysis of pottery and other material. The oldest settlements in Barje belong to one local variant of the Lengyel culture which develops in Slovenia at the beginning of the Eneolithic. According to J. Korošec it is 'Alpine facies of the Lengyel culture' and according to S. Dimitrijević it is the Lasinje culture. We could put Resnikov and Maharski Prekop, the oldest pile-dwelling settlements in Barje in the same group. Other sites (Veliki Mah, Studenec pri Igu, Parte and

other) belong to the Ljubljansko Barje culture, i.e. phases Ig I and Ig II, or to the Ljubljanska culture that markes the Early Bronze Age in this region.

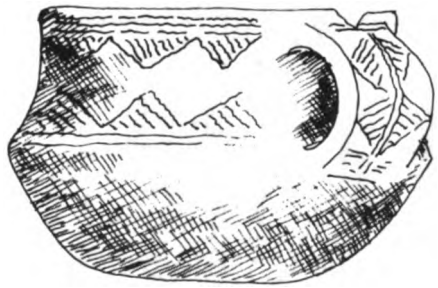
Lit.: J. Korošec, in: Zgodovina Ljubljane I, 1955, 244-268 and 277-322; P. Korošec, in: Arh. vestnik 9-10, 1958-1959; articles in: Poročilo o raziskovanju neolita i eneolita v Sloveniji (Kultura Ljubljanskog Barja) III, 1974, passim; T. Bregant, in: Poročilo... I, 1964; T. Bregant, in: Epoques..., 212-214; T. Bregant, in: Poročilo..., 1977; M. Budja, in: Poročilo..., XI, 1983, 73-83.



2

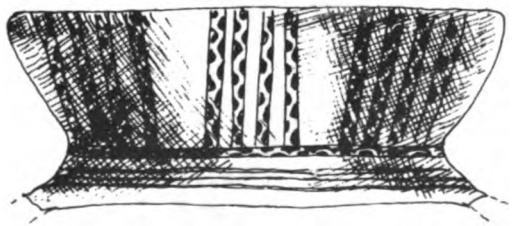


3

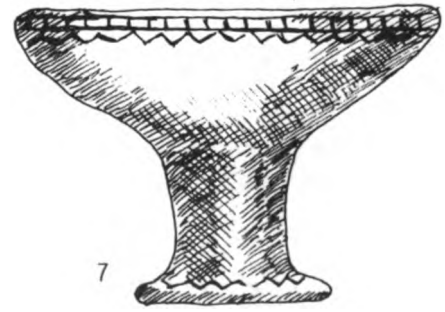


4

5



6



7

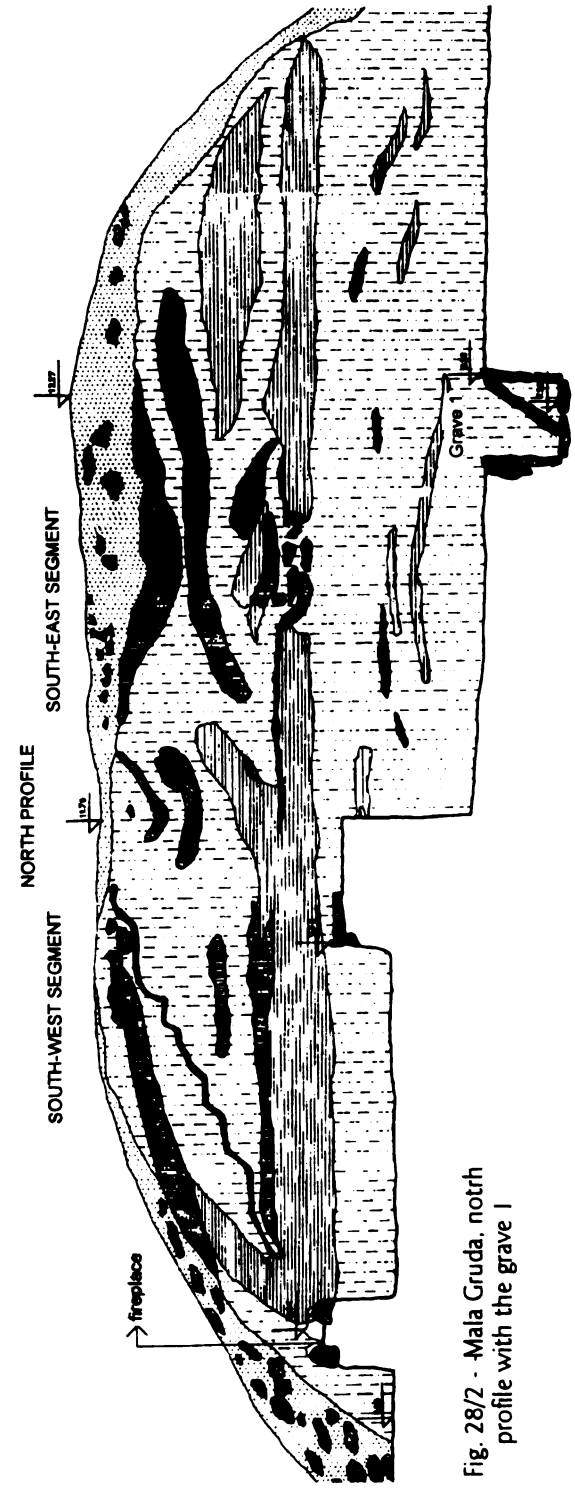
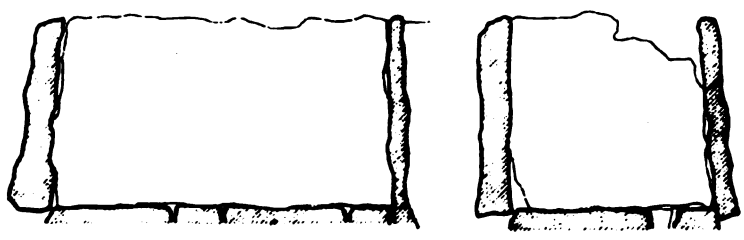


Fig. 28/2 - Mala Gruda, notrh profile with the grave 1

28. MALA GRUDA IN TIVATSKO POLJE
Eneolithic tumulus

'Gruda', 'Glavica', 'Gomila' are Serbian words for tumuli scattered over Tivatsko Polje, Krtole, Grblje and neighboring locations. They were all evidenced and detailedly surveyed by the Archaeological Institute from Belgrade and the Nautical Museum from Kotor. Archaeological excavations were performed on some of them (Milovića Lokva and Milovića Gumno). Before the excavations at Mala Gruda, three of them were already excavated (dim.: 18-20 m. in diameter and 1.5-2.5 m in height). They contained skeletal graves (graves formed of stone slabs) with deceased in flexed position without grave offerings. The first results from Tivatsko Polje came from Mala Gruda, excavated during 1970 and 1971. It is the tumulus located in the valley Polje and was, unlike the others, previously investigated. It is situated on the crossroads Budva-Tivat-Kotor. It was 3.5-4 meters high and 20 meters in diameter.

The results of excavations by M. Parović-Pešikan and V. Trbuhović show that there was only one, central, grave in this tumulus. This grave had few fireplaces which are thought to be places of cult. The grave construction was sunk, and is now 4.5 meters lower from the present highest point of the tumulus. The grave pit (dim.: 1.27 x 0.70/0.76 m) was formed of rectangular stone slabs. It was oriented North-South, with slight declination to the West. The grave contained poorly preserved skeleton (parts of the legs, pelvis, scull and mandible...), probably in flexed position. The grave contained: one golden dagger and one silver ax in abdominal region; two pots (a beaker and a bowl on low foot) positioned near the legs, and five golden pendants and a fragment of copper foil by the head (Pl. 11).



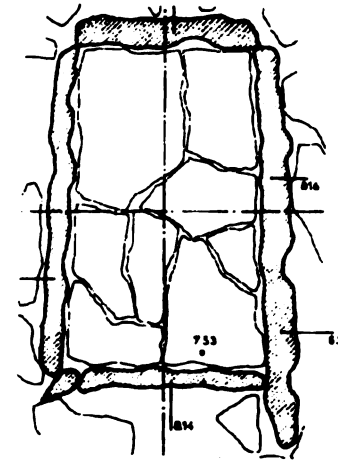


Fig..28/1 – Mala Gruda, the ground-plan and the cross-section of the central grave (acc. to M. Parović-Pešikan and V. Trbuhović, 1971)

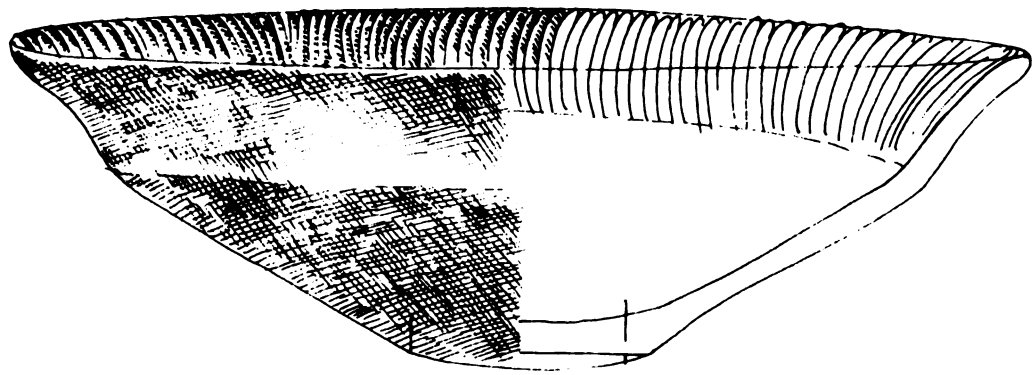
Extremly important findings from Mala Gruda such as rare gold and silver objects (the dagger, the pendants and the ax with one blade and cylindrical hole for the handle), and also pottery have initiated the discussion among archaeologists. They belong to the Early Bronze Age 'Post-Vučedol' culture period, i.e. to the group that was labelled as the Mala Gruda-Rubež (or Tivat-Rubež) and was dated in the beginning of the 2nd millennium BC.

Lit. : M. Parović-Pešikan - V. Trbuhović 1971 (1974), 132

29. MOSTONGA I NEAR DERONJE (BAČKA)
Stratified site

During the construction works on the bank of the ancient river bed of the river Danube, few archaeological sites were discovered. One of them was named 'Mostonga I' or Kruškov Koren. It is located on a high loess bank of the river Mostonga, that was later joined with the 'Danube-Tisa-Danube' channel. The knoll, from which the archaeological material came, is located 300 m south of Karavukovo, on the left side of the road that leads from the brick plant towards the 'DTD Channel'.

The site 'Mostonga I' was discovered in 1964 by S. Karmanski, who surveyed this area for years, and meticulously published the material he gathered. He made soundings on characteristic spots in order to establish relevant facts (stratigraphy, features etc.). Small-sized archaeological excavations were performed here and it showed the existence of pits, dugouts, hearths and probably houses of different cultures in the horizontal stratigraphy (the Starčevo - late Donja Branjevina phase, the Early Vinča culture, the Lengyel and Boleráz cultures). Important discovery for the study of the Eneolithic of southeastern Bačka region was the discovery of one dwelling (larger fireplace or burnt house) with abundance of ceramic ware (even whole pots), charcoal, ashes and burnt bones. This assemblage belongs to the Boleráz (Cernavoda III- Boleráz) culture. The rough ware



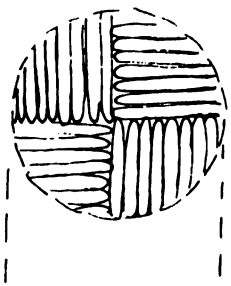


Fig. 29 – Mostonga, one bowl of the Boleráz-Cernavoda III culture (acc. to S. Karmanski 1970)

predominates: deep pots with plastic bands and fingerprints below the rim (typical for the Cernavoda III culture), deep amphorae, and what is important for the chronological determination of these objects, few fragments of fine pottery: bowls with bent out rim with shallow channels, bulblike cups with handles that raise above the rim, and finally similar, deep cups with channels organized in triangles in the upper part. According to the typological analysis, this material could be dated in the Boleráz (or Proto-Baden) culture period.

Lit. : S. Karmanski, Bakarnodobni lokaliteti jugozapadne Bačke I, 1970.

30. ODMUT (NW MONTENEGRO)
Stratified settlement

The cave Odmut is situated in northwestern part of Montenegro in the canyon of the river Piva, in the foothills of Kulin, on the altitude of 558 m above see level. Wide entrance looking towards the South-East and spacious hall in the cave offered excellent conditions for longer inhabitation of prehistoric populations. This was also suggested by the depth of the cultural horizon which is sometimes 4 meters thick.

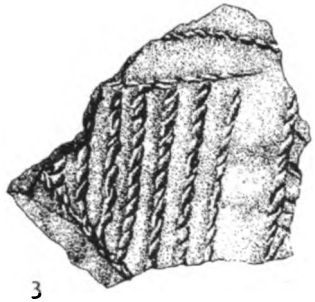
The main impetus for test-trenching and then systematic excavations of the interior of the cave was the construction of the power plant Piva. The project lasted from 1972 to 1974, when in 1975 the cave disappeared under the waters of the lake. The excavations performed by B. Gavela, D. Srejović, Č. Marković, covered the largest part of the cave (80 square meters).

The sediment analysis of the the cave showed eleven geological and seven archaeological strata:

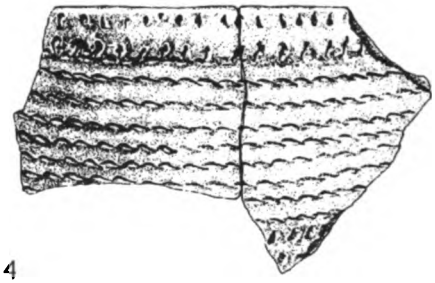
Odmut I A/B - the Mesolithic period
Odmut II A/B the Early Neolithic
Odmut III - the Late Neolithic
Odmut IV - the transitory period from the Neolithic to the Eneolithic
Odmut V - the Early Eneolithic
Odmut VI - the Final Eneolithic
Odmut VII - the Early Bronze Age

1

2



3



4

The horizons III, IV, V and VI are important for the study of the Eneolithic of the continental Montenegro. First three horizons show the continuity of the life in this cave. They contain elements of the Adriatic Eneolithic (the Nakovanska culture), on one hand, and the Vinča culture, on the other. These elements are, primarily, black burnished ware decorated with channels. The findings from the horizon VI are different in style and, among other things, contain elements of the Tivat-Rubež group, which is dated in the Final Eneolithic of this region.

Fig. 30 – Odmut, the pottery of the Nakovana (fig. 1) and Tivat-Rubež type. (acc. to Č. Marković 1985, 31)

Lit.: Č. Marković, Arch. Iugoslavica XV, 1974, 7-12; Idem, 1985, 31-44.

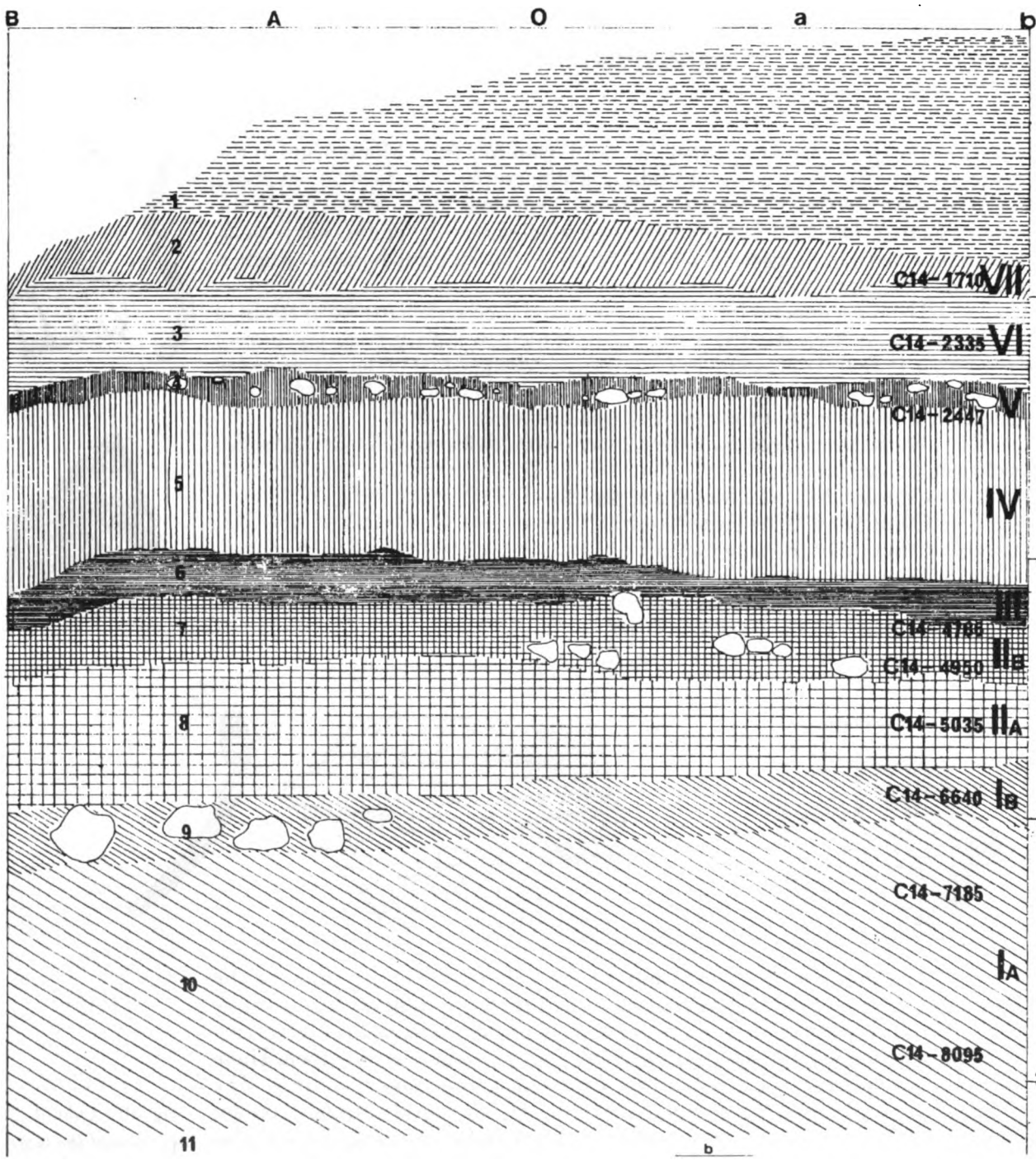


Fig. 30a – The cave Odmut, south-western profile of blocks II and III (acc. to Č. Marković 1985)

31. PADINA IN THE UPPER GORGE OF ĐERDAP

Stratified site

Padina is a local toponym for a line of inlets located under the steep cliffs which descend towards the Danube near the locality called Gospođin Vir. These inlets (or bays) have been hiding the remains of prehistoric settlements, which developed in the narrow and flat area between the cliffs and the water. Padina comprises of four such inlets (I-IV), with the remains of settlements of the Mesolithic, the earliest Neolithic period and individual findings of the Eneolithic pottery and graves with incinerated individuals.

The excavations of this important site started rather late, just before the artificial lake for the power plant 'Đerdap I' was made. Between 1968 and 1970 only a fraction of this site was excavated. Four sectors were investigated, and the sector III gave the majority of the information on the Eneolithic period. One smaller necropolis (?), with incinerated individuals was found near the Danube bank. Five graves were excavated (and few devastated), and only graves 2 and 3 contained cremated bones. Graves were dug in loess soil, 0.9 - 1.4 meters deep, and were organized in a row. Graves contained vessels (pots or bowls) with calcified bones in the recipient or in its immediate vicinity. Few pots (urns) were dislocated, which explains the absence of bones. According to the typological characteristics, shape and decoration, the necropolis belongs to the Kostolac culture. The urn from the grave 2 was particularly interesting. Its shape and decoration is typical for the Kostolac culture.

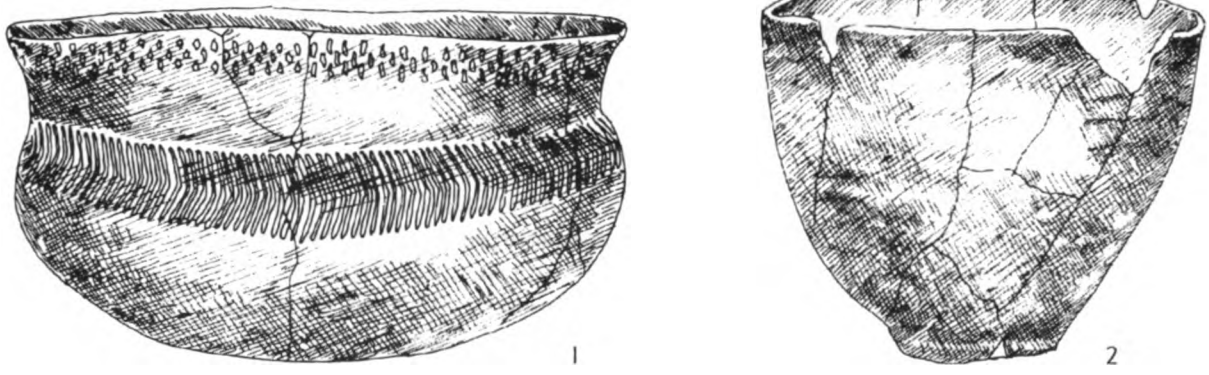


Fig. 31 -- Padina, the pottery (urns ?) from graves of the Kostolac culture (acc. to B. Jovanović 1976, 133)

Eneolithic pottery was also found outside the necropolis, in other sectors (I and II). The important fact is that the Cotofeni culture fragments are found next to the Kostolac pottery, which comes as no surprise for this region.

Lit. : B. Jovanović, Strinar XXII/1971, 1974, 11 ff., fig. 7, Pl. VII; Idem, 1976, 133-136, fig. 1-2.

32. PEĆINE IN VRDNIK NEAR RUMA (SREM)

Stratified site

Remains of the Eneolithic and Early Bronze Age settlements were detected on the plateau rather unusually named Pećine (*Caves*). Nearby was found an isolated skeleton, from the Bronze Age period (early phase of the Bosut group). The site is located on the hill that dominates the valley opened towards the South and to the lower Srem valley. The dimensions of the plateau are 350 x 250 m, and it seems that it was once fortified with a rampart whose remains are still visible.

The site near Vrdnik was discovered in 1967 during ground surveying of the region by the team of 'Zavod za zaštitu spomenika kulture Srema' (D. Popović). Two years later one small-scale excavation was performed on the upper plateau. According to the preliminary reports and the insight to the material we can establish: the stratigraphic situation of the site; its topography, as well as the typology of the material.

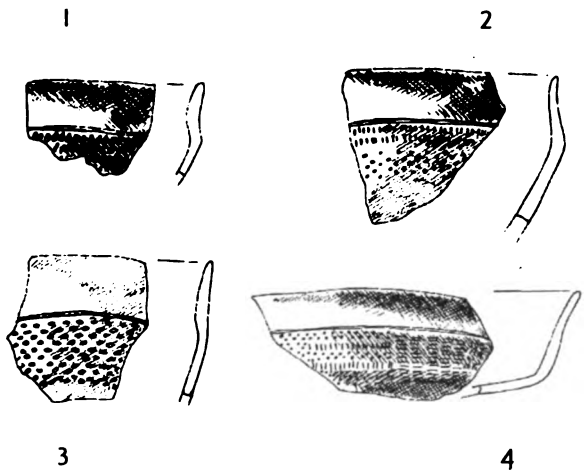


Fig. 32 – Pećine - Vrdnik, the pottery of the Kostolac culture (acc. to D. Popović 1969, 35)

-The cultural horizon in trenches varies between 0.5 and 2.5 meters. It is thickest in the trench II, in its southern part.

-The lowest part of the horizon belongs to the Kostolac culture horizon which was formed above the prehistoric humus. Following horizon, 0.3 m thick, contained the Vučedol culture ware, while in the youngest horizons, as well as in recent humus, Vinkovci culture ware was found. This part of the horizon is almost entirely devastated, but in the above mentioned trench II one pit was discovered with a number of whole pots of the Vinkovci culture. The occurrence of these pits with whole pots is known from other sites of this culture in Srem (Gradina on Bosut or Tvrđava in Ilok). Such stratigraphic situation (with the exception of the grave of the Early Iron Age) shows that this site was inhabited constantly from the Middle Eneolithic (the Kostolac culture settlement), then during the Late Eneolithic (the Vučedol culture horizon) until the Early Bronze Age (the Vinkovci culture findings).

Bowls decorated with dots, incisions, and seldom *Furchenstich* technique are predominant in the Kostolac culture horizon. The Vučedol culture ware belongs to the early phase of this culture (Šančine in Belegiš). It was decorated with concentric circles, rhomboids, triangles and wavy lines with white incrustation.

Lit.: D. Popović - P, Medović, AP 11, 1969, 35-36, T. XIII-XIV; D. Popović, Praistorijska nalazišta Vojvodine (catalogue) 1971, 33.

33. PEPELANE NEAR VIROVITICA (NW CROATIA)

Stratified prehistoric site

During the excavations of 1985 on the slopes of Bilogora that descend towards the river Brežnica, one dispersed settlement was discovered. Pepelane is small village some 20 kilometers southeast of Virovitica, in the vicinity of the railroad Daruvar-Virovitica. This site, or rather the system of prehistoric settlements is located in the southern suburbs of the village. The complex 'Pepelane' comprises of two independent units, ascertained with a large quantity of ceramic shards, house rubble and other archaeological material. One them is circular tell, dimensions 90 x 90 meters, sometimes 4 meters high. K. Minichreiter, who performed excavations here, marked this location as 'site I'. The other site, connected with the previous and shaped as a elongated mound, was labelled as 'site IIa'. That one was detected during the construction work for local gas pipeline.

The material from 'site IIa', with the Starčevo culture ware, pits and dugouts, is not interesting for this occasion. However, trenches opened across the tell gave enough evidence on the stratigraphy of the site, particularly when discussing the transitory phase - the Neolithic - the Eneolithic and the problem of the middle Eneolithic. The depth of the cultural layer in the tell trench is, according to the information by K. Minichreiter, about 3.60 m. Cultural horizons are formed in following order, from the present-day humus - downward:

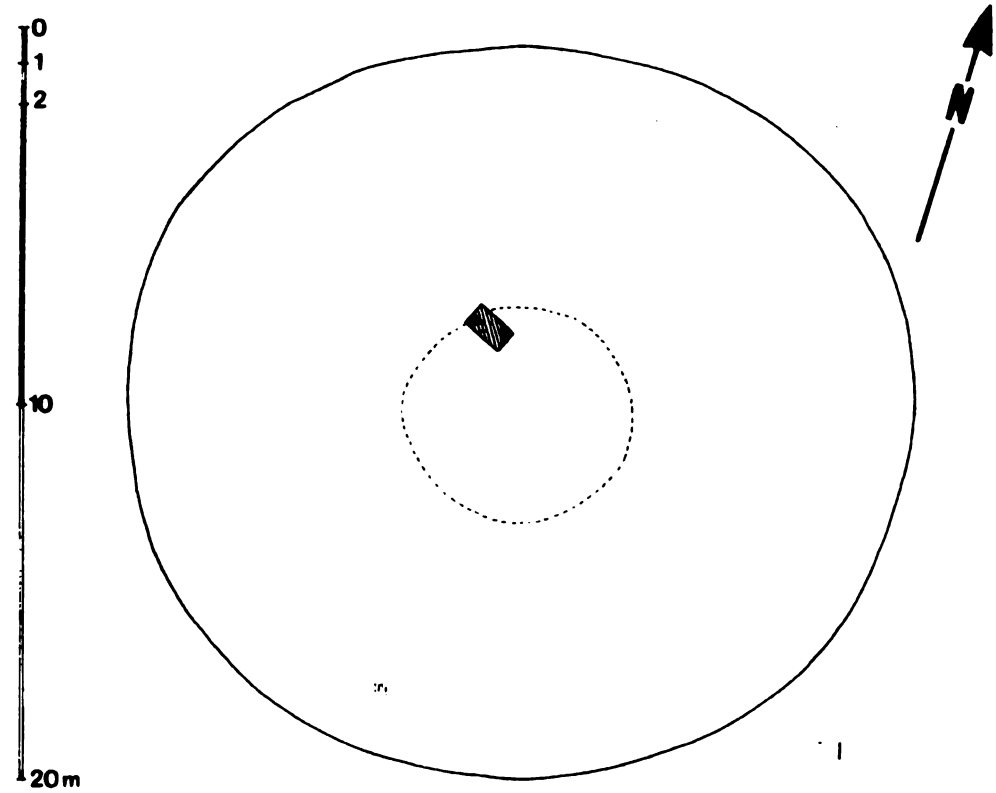
a) The first horizon (0.00-1.00 m) belongs to the Retz-Gajary culture, (its two different phases). The ware is typical for that culture, decorated with incised and plastic ornament. The Lasinjska culture influences are also noted.

b) The second horizon (1.00-2.40 m) belongs to the transition between the Neolithic and the Early Eneolithic. Proposed name for this manifestation is the 'Seče' culture (or Seče-Pepelane, acc. to Z. Marković). It is the blend of the Sopot, Lengyel and Lasinja culture elements (painted ware, bowls, terra-cotta, etc.) In our opinion, this culture could be attributed to the Early Eneolithic.

c) The third horizon (2.40-3.60 m) has dugouts and pits with abundant ceramic material, and belongs to the Starčevo culture.

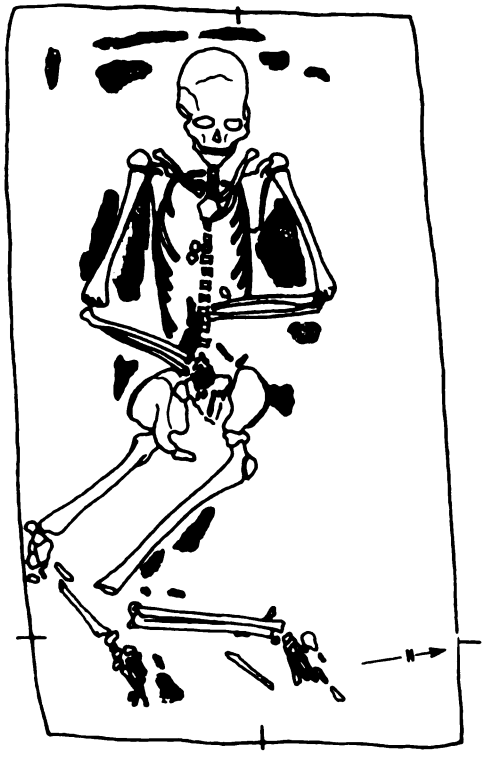
The importance of this site for the study of the Eneolithic of this region is in giving further information about the life on this site from the end of the Neolithic ('Seče' culture), and during two phases of the Retz-Gajary culture to the Middle Eneolithic period. In the Final Eneolithic one must count on the presence of the Vučedol culture population.

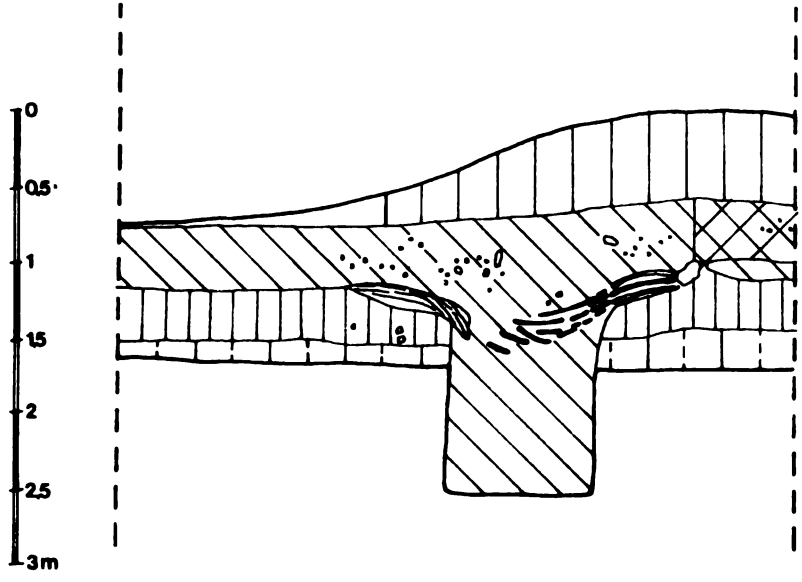
Lit.: K. Minichreiter, AP 26 (1985), 40-41.



3

1





2

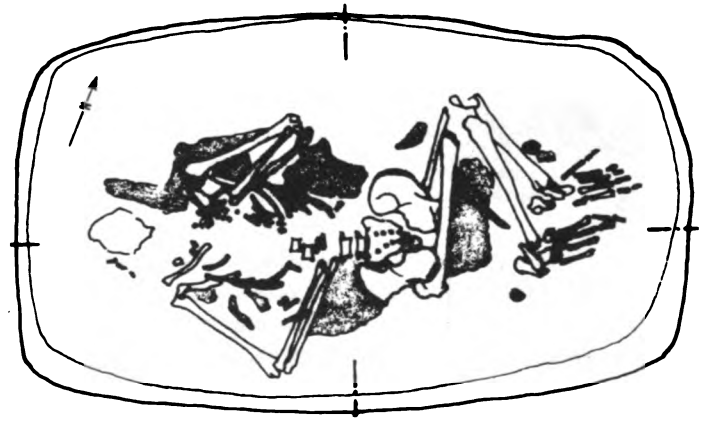
Fig. 34/1-3 – Perlez - Vuna, Tumulus 9, grave 1 (acc. to P. Medović, 1987)

34. PERLEZ NEAR ZRENJANIN
The necropolis with mounds

Two kilometers East of Perlez near Batka, there is a group of 15 tumuli which represent an independent group in the system of prehistoric (Eneolithic) tumuli that follows the river Tisa from its origin to its confluence with the Danube. The majority of them are located on the loess terrace of former river bed of the Begej, near its confluence with the Tisa. Only three out of 15 mounds were excavated: Vuna #9, Vuna #10 and Pašića Humka. The diameter of these mounds is from 30 to 40 meters, while the height varies from 0.80 - 3 meters (due to the intensity of agriculture).

The investigation of mounds near Perlez was commenced in 1972 and was finished with systematic excavations of 1976 (P. Medović, 1987, 77). The results could be following:

1. The mounds were formed when the earth was deposited over abandoned Baden culture settlement. The pottery, found here is probably dislocated. It marks only the *terminus post quem* for the chronology of the graves.
2. Tumulus Vuna #9 contained only one grave with the deceased in flexed position, sunk into the basis of the tumulus. Tumulus #10 had also only one grave, similar to previous. In the tumulus Pašića Humka there were six skeletal graves - one *senilis* female and five *infants* about 2 years of age.
3. Graves were without offerings. The only element for the chronological determination of these graves, apart from the orientation of the deceased, is the ocher as well as wooden construction, well-known in graves of the Steppe, Jamna culture, found in grave #6 in Pašića Humka.



4

Fig. 34/4 – Central grave in the tumulus 10 (acc. to P. Medović 1987. 77)

4. The stratigraphic superposition over the Baden culture settlement, shows that these mounds near Perlez probably belong to the time of the penetration of the Steppe population, or to the horizon of the Final Eneolithic (tumuli near Pančevo, Vojlovica and Tri Jabuke, Padej etc.).

Lit.: P. Medović, 1987, 77-82, Abb. 1-4.

35. PIVNICA NEAR ODŽACI IN BOSNIA

Stratified site

Pivnica belongs to the hill-fort type settlements, so called *'lingula* type', which depicts the form of the hill with three sides that descend steeply towards the river valley, and the fourth slope is connected with the hill. It is located near the village Potočani, and has the dominant position over the Sava valley.

The first data on this site was presented by Z. Marić. He discovered it during the ground surveying in 1958 when he also made smaller test excavations. Two years later A. Benac commenced systematic excavations. He uncovered some 233 square meters of the plateau and gained first relevant information on the stratigraphy of the site as well as on the remains of the material culture. On the plateau Gradina there were two dwelling, chronological and cultural layers: the older one that belongs to the Eneolithic, and younger with the material of the Early Iron Age. Due to the configuration of the site the depth of the cultural horizon varies. It goes from 0.30 m in the eastern part to the maximum of 1.50 m in the western part of the site. The most complete information derived from six opened trenches, was from the trench 3. The author A. Benac has used it to establish the above mentioned stratigraphic sequence. In this part of the site he found one well preserved Kostolac culture house with abundant archaeological material. The feature was of irregular shape, dim. 9 x 7.50 m. Two building phases were ascertained. The house was renewed so that certain details remained unchanged in following phase. As the matter of fact, the object, we are discussing, was semi subterranean house with few rooms (cells) and the hearth.

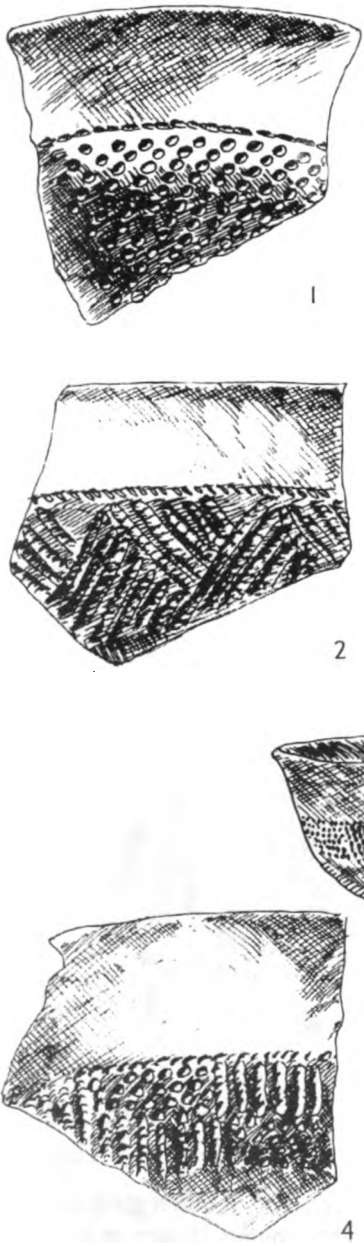


Fig. 35 – The Kostolac culture ware (acc. to A.Benac 1962, 21)

The Kostolac culture ware from Pivnice is rich in shapes and ornaments. Conical and smoothly carinated bowls, deep pots, amphorae and cups with stripe handles and cylindrical recipient are frequent. Almost all the motifs of this culture were used in the decoration of the pottery, especially those frequent on other sites from Srem and Slavonia: dotted incisions in different combinations (bands, hanging triangles, chess fields combined with other techniques of decoration etc.). It seems that *Furchenstich* ornament is used rarely, though some elements imply that this could be the late phase of this culture when some Vučedol culture elements already emerge.

The pottery of younger horizon belongs to the beginning of the Early Iron Age, and was characterized with turban-like bowls, garlands and similar motifs.

Lit.: A. Benac, 1962, 21-40, T. I-X.

36. PLOČNIK NEAR PROKUPLJE (SOUTH SERBIA)
The hoard of copper tools

Pločnik is well-known, eponimous, site for one phase of the Vinča culture. The discovery of four hoards of copper and other objects was a phenomenon. As far as we know, similar discoveries were not made on any other Eneolithic site in the wider region of middle and Southeast Europe. We shall leave aside the Neolithic settlement, which could be, in some ways, also determined as Eneolithic, and concentrate our attention to these hoards.

Hoard I was discovered during archaeological investigations by M. Grbić in 1927. It was located in the outskirts of the Vinča culture settlement, near the railway. It comprises of 12 copper chisels, one massive axe/hammer and five tongue-shaped axes made of light white limestone. The hoard was dug into the Vinča culture horizon 0.80 meters deep.

Hoard II came into the possession of the 'Muzej kneza Pavla' in the same year as the previous as a random find. According to the information of the finder, it was discovered not far from the hoard I, also in the outskirts of the Vinča culture settlement. It contained two axe/hammers, one of which was decorated with incisions on the cutting edge; two chisels and three copper bracelets.

Hoard III was discovered during the construction works for wool factory, across the railway station, again in the outskirts of the Vinča culture settlement. It was dug 0.7 m deep in the ground. It had 9 copper objects (6 chisels, axe/hammer, decorated with groups of incisions, one massive copper bracelet similar to that from one grave of the Vinča culture necropolis at Gomolava, and one needle with forked top with helical ending, important for chronological determination).

Hoard IV was found between hoards I and II and hoard III, in the outskirts of the Vinča culture settlement, on the right side of the railroad Prokuplje-Kuršumlija. The cultural layer, according to the profile, is shallow, and the hoard was dug into the ground on 0.30 m. It contains 5 copper chisels, 8 tongue-shaped axes made of light white limestone and one cylindrical casting vessel.

Although Bubanj-Salcuta culture pottery was found in the earliest horizons of Pločnik, it is still not certain whether the hoards belong to this younger period or, according to stone axes to the Vinča culture.

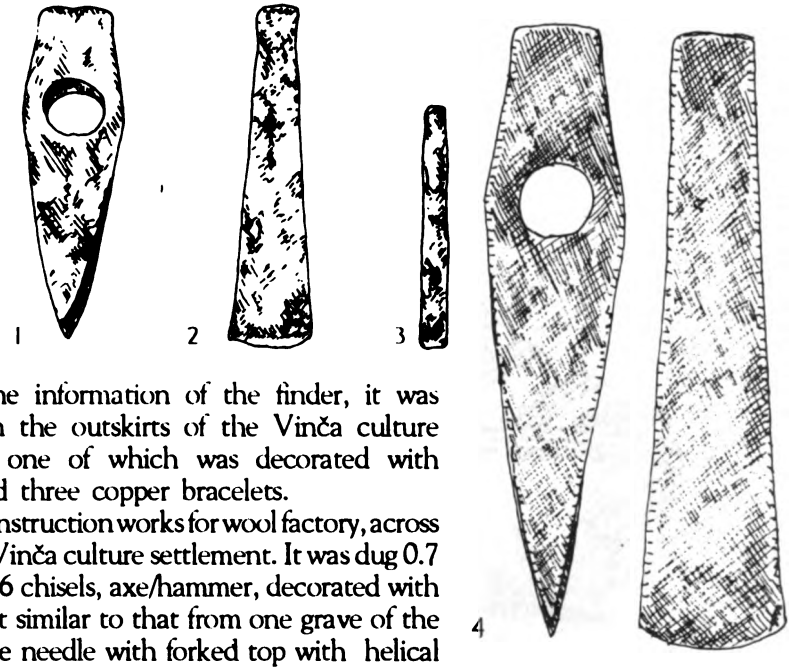


Fig.36 – Pločnik, the hoard II (acc. to B. Jovanović 1971, Pl. IV, 14-17)

Lit.: M. Grbić, 1929, 9; B. Stalio, 1964, 35 and further, fig. 1-2; B. Ibid, 1973, 157, fig. 1-14; B. Jovanović, 1971, 28-29, Pl. IV.

37. RUDINE I NEAR KOPRIVNICA (NW CROATIA)
The Vučedol culture settlement

Near the village Koprivnička Rijeka, on the plateau of the hill Rudine, southwest of Koprivnica, there is one larger Vučedol culture settlement. It dominates the surrounding and overlooks the river Koprivnica which runs in the foothills. The position of this settlement is similar to the position of other hill-fort settlements of the Late Vučedol culture.

The excavations were commenced in 1978, and continued during 1979. The area of some 812 square meters was uncovered. It was undoubtedly established that this was single horizon settlement. The excavated area revealed one house, nineteen pits (few of them were used as dwelling objects) and ten hearths. Few dwelling objects suggests that certain number of houses must have been devastated. Beside dugouts, pits with the remains of animal skeletons are also very important. The pit 19 offered the skeleton of a wild boar. Z. Marković labelled the pit 4 as an animal grave, but did not specify the species.

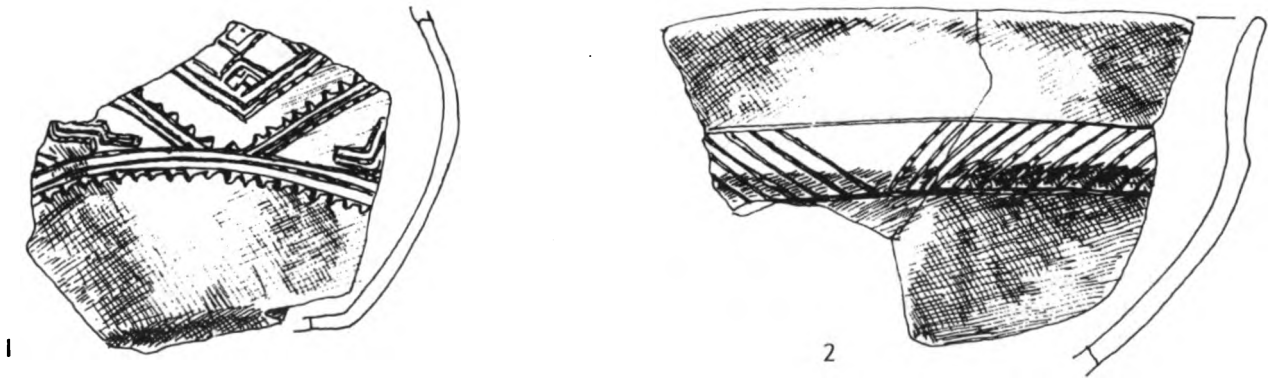


Fig. 37 – Rudine I, the pottery of the Kostolac and Vučedol cultures (acc. to Z. Marković 1981, 223)

The material culture from Rudine I comprises of numerous and miscellaneous ceramic ware, terra-cotta of zoo-morphic figurines, clay weighs, bone and stone implements and weapons. According to typological characteristics, particularly regarding the decoration and the shapes of the ware, this site should belong to the end of the Vučedol culture. Certain shapes (beakers with one handle), bowls or bottle-shaped containers already belong to the early phase of the Vinkovci culture. In Z. Marković's opinion it is the phase III in the development of the Vučedol culture in the region of Northwestern Croatia.

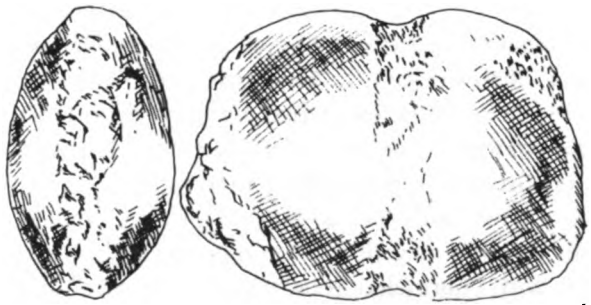
Lit.: Z. Marković, 1981, 223-236, fig. 1-7, Pl. VII-XIX.

38. RUDNA GLAVA NEAR MAJDANPEK (NE SERBIA)
Eneolithic mining shafts

One of the oldest mines in Central and West Balkans was discovered in the mountain region of East Serbia, in the contact zone between mount Liskovac and Deli Jovan. It is located above the village Rudna Glava, on the altitude of 450 m. In geological literature this locality is well known for its rich layers of magnetite and chalcopyrite, essential ores for obtaining quality copper. In the sector of prehistoric shafts, modern mining lasted until the 1960's. In the foothills of Rudna Glava flows the river Šaška (Saška) whose name, as well as the written sources imply that mining in this region was well developed during the Mediaeval period.

Systematic excavations of this undoubtedly most important mining complex of prehistoric Europe started in 1968. First phase of excavations lasted from 1968 to 1979, and were crowned with the monograph (B. Jovanović, 1982). Second phase lasts even today, thanks to the commitment of research fellows in the Museum of Bor and those of Archaeological Institute in Belgrade. This site entered archaeological literature through the monograph by B. Jovanović as well as numerous articles on the earliest mining on this site.

According to the latest information of 1990 there are over 40 Eneolithic mining shafts. Their diameter varies from 0.80 to 2.00 m, and the depth depends on the ability to follow the source through the rock. These shafts had wider access platforms, where most of the archaeological material was found. Among other material, five hoards that contained stone batons (slightly adjusted pebbles), antler tools, pottery, and altars, which were probably used also to illuminate the shaft. Typological analysis of the archaeological material clearly shows that this mine was in function during the transition of the Early Vinča culture into the Late Vinča. Authors of these excavations dated this site in the Eneolithic period, and it was therefore incorporated in this register.



1

2

Fig.38 – Rudna Glava. The Vinča culture pot and stone implement (acc. to B. Jovanović 1982)

Lit.: B. Jovanović, 1982, passim; Z. Stanojević, Arheometalurški lokaliteti u Srbiji, Bor 1990, 5-8.

39. SEČE NEAR KOPRIVNICA (NW CROATIA)
Stratified site

One scattered lowland-type settlement is situated near the village Koprivnički Breg (or Bregi), 6.5 km southeast of Koprivnica. It is located on a plateau near the Koprivnička river. First excavations were performed after ground surveing of the region in 1979 (Museum in Koprivnica, where the material is kept). After a short recess in 1984, the works were continued in 1987. The preliminary results were published by Z. Marković (VAMZ 18, 1985, AP 28, 1987, 50-51; Podravski zbornik 81, 1981, etc.). If we neglected scarce finds of the Roman and Medieval period (9th-14th century), these information suggest that this was single layered dugout-type settlement which developed horizontally over a larger area. During these excavations an area of some 1000 square meters was investigated. Most of the settlement was covered with test trenches which gave enough information about its disposition. The site is interesting and was picked up for this occasion, in the first place, due to the fact that it belongs to one still insufficiently acknowledged, early Eneolithic culture named Seče or Pepelani-Seče culture.

One dwelling object with elaborate internal structure is very important for understanding the type of the settlement and its architecture. It is a dugout (or rather semi-dugout) with more rooms, with a hearth. It was sunk from the level of humus and goes down to the virgin soil. The depth of certain parts of this house varies and goes from 0.78 to 1.84 m. The remains of wall supports show that it was covered with some kind of a organic material.

Pottery gathered from the pits and dugouts is unique in style and shows characteristics of the Early Eneolithic of this region. Z. Marković points out one strong Lasinja culture component, which could be explained with the hypothesis that the Seče-Pepelani culture could belong to the same cultural complex - as its early phase (the Proto-Lasinja),.or remains just regional phenomenon. Among the pottery shards, one can find remains of bowls with tongue-shaped handles, smaller pots with the handle that goes from the rim, as well as of amphorae and pithoi. The decoration is rare and was made with channeled lines, incisions or small and shallow impressions.

The results of calibrated 14C analysis performed in the laboratory Ruđer Bošković in Zagreb, show that this settlement developed between 3160 and 2860 BC which should correspond to the end of the Early Eneolithic, i.e. to the beginning of the Lasinja culture.

Lit.: Z. Marković, AP 28 (1987) 1989, 50-51.

40. SPILA NEAR PERAST (BOKA KOTORSKA)

Stratified cave settlement

The cave 'Spila' is situated about 1.5 km east of Perast on an altitude of 320 meters above see level. It overlooks the city of Risan and the Kotor bay. It is sheltered from the winds, which gave ideal conditions for the life of prehistoric men. This was also witnessed with rich cultural layers from the Neolithic to the end of the Eneolithic period.

This cave was discovered by local clergyman don Gracian Brajković in 1968. He opened one smaller sounding and gathered large number of pottery shards and bones of different animals. Six years later, in 1974, first systematic excavations were undertaken. Three trenches were opened on the entrance of the cave and in its interior (A, B, C) of total 24 square meters . The depth of cultural layer varies from 0.60 m on the entrance up to 2.00 m in the interior of the cave. Stratigraphic analysis submitted by Č. Marković, show that there are eight different layers divided in two cultural horizons. He marked them as stratum I and II, with sub-phases Ia, b, c and IIa, b, c. Numerous archaeological material show that continuity of material culture existed without significant changes in style. After the pottery analysis it showed that stratum Ia-c belonged to the final Neolithic of the Adriatic coast - the Hvar-Lisičići culture, while the stratum II belongs to the Adriatic Eneolithic closest to the Nakovanska culture. The single 14C analysis (Ruđer Bošković laboratory) taken from the layer between strata I and II, dates it between 3795-3617 cal. BC

Important information came through paleo-zoological research. In both strata predominate bones of domesticated animals, which certainly comes as a surprise because it seemed that this cave was used as a hunters shelter. According to S. Bökönyʼs analysis the ratio between domesticated and wild animals was 80 : 20 in favor of domesticated in stratum I, and even 87 : 13 for stratum II.

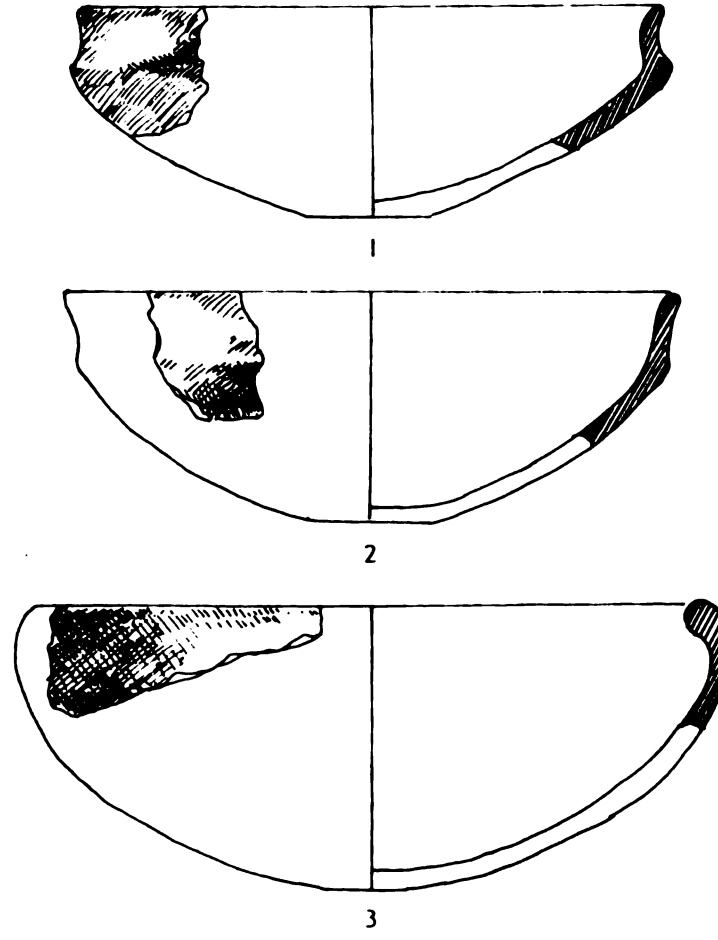


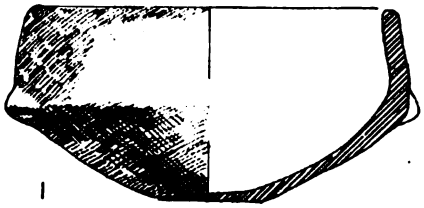
Fig.40 – Špila near Perast, the shapes of the Eneolithic pottery (acc. to Č. Marković 1985, 15)

Lit.: Č. Marković, 1985, 15-27.

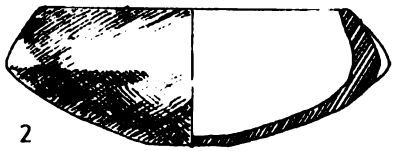
41. ŠUPLEVEC NEAR BITOLA (PELAGONIA)

Eneolithic settlement

On the east fringe of Pelagonian plain, in the vicinity of the village Dolno Oreovo, there is one steep slope which goes from southern and western side towards Pelagonian depression. Remains of fortified, two-layered Eneolithic settlement was found on small plateau called Šuplevec. According to its topography this site differs from other Eneolithic tell-type settlements in Pelagonia. However it conforms to one well known type of the Bubanj-Salcuta sites in northern regions.



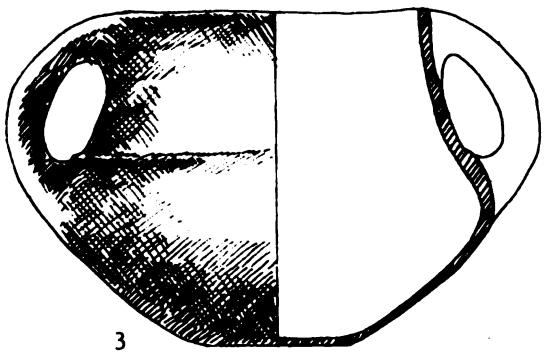
1



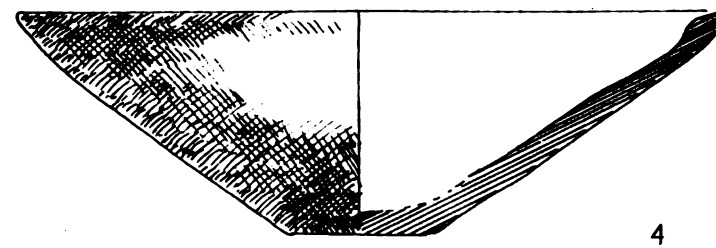
2

First rescue excavations on this place were commenced in 1959 by P. Mačkić and D. Simoska. Nevertheless, the interest for this site was raised only after one stone baton of the 'steppe provenience' was found, and instantly entered archaeological literature. The works were continued in 1971. The result was good stratigraphic sequence and other important data on the development of this site during the Eneolithic period.

According to M. Garašanin and D. Simoska, the stratigraphy shows that the cultural horizon was divided into two separate assemblages. These were marked with I and II with another five sub-horizons (1-5). The study of the contents of these horizons does not show major differences in style of pottery and other finds. The authors believe that this was one culture of the Bubanj-Salcuta complex and proposed the name - Šuplevec-Bakarno Gumno culture. The fact that no crusted



3



4

colour painting or graffito decoration was found in the cultural horizon on this site, is characteristic for chronological determination of this culture in the Eneolithic of Pelagonia. Instead, together with obvious Bubanj-Salcuta forms, *Schnur* ware appears (*Winckelschnur* ornament), which was attributed to the 'steppe influence', i.e. the same complex to which the stone baton belongs to.

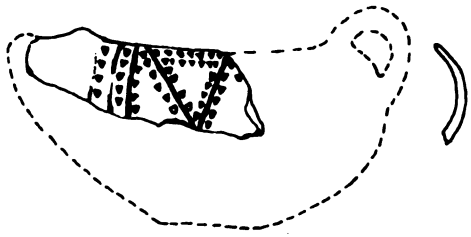
Fig. 41– The pottery from Šuplevec (acc. to Garašanin - Simoska 1976)

Lit.: M. Garašanin - D. Simoska 1976.

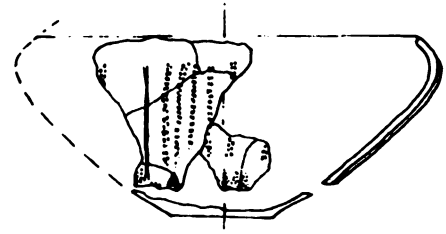
42. "TRI HUMKE" BY JABUKA – PANČEVO
Stratified settlement and tumulus

1

In the plains of southwest Banat, 8 km north of Pančevo, near the village Jabuka, few mounds - tumuli, called 'Three mounds' were ascertained. On one of them systematic excavation was performed. That mound, 48 m in diameter, 2.30 m in height belongs to middle sized tumuli. It is located on smaller terrace risen above marshy terrain. The excavations, at first rescue type, became systematic, and this tumulus was detailedly investigated in 1981. Its immediate vicinity was also surveyed, which showed that this mound was erected upon the stratified Eneolithic site.



2



3

Stratigraphic information from the tumulus, its surroundings and layers under it showed:

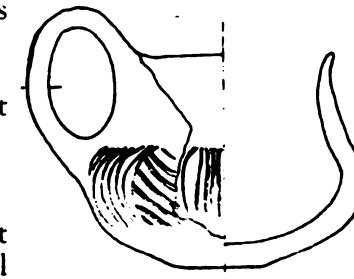
1) the lowest horizon with pits belong to the Baden culture settlement;

2) in the wider area above the previous, one Kostolac culture settlement was confirmed (during the excavations four houses were discovered);

3) humus layer (Eneolithic ?) 9.5 cm thick;

4) the tumulus with one grave of the Jamna culture.

This complex situation shows that the tumulus was formed after a short gap in the life of the Kostolac culture settlement, which certainly has chronological implications. According to all obtainable data, the tumulus belongs to the 'steppe graves' horizon of the late Jamna culture, such as Vojlovica and other sites in southern Banat, Potisje, Romania and north Bulgaria. The tumulus had only one, central grave dug into the base of the Kostolac culture house. The grave itself was 1.50 m long and 0.90 m wide. The deceased was laid on his back in flexed position, over a mat covered with ocher. The deceased was also covered with ocher. There were no grave offerings. The deceased was male, about 40 years of age, 165 cm high.



4

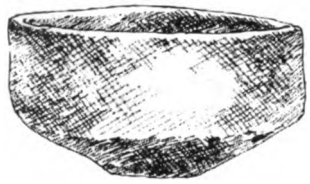
Two more graves were found on the periphery of the mound. They were also without grave offerings, with individuals in contracted position. It is supposed that they belonged to the Baden culture horizon of this site.

Fig.42 – Jabuka near Pančevo. The pottery of the Baden and Kostolac cultures

Lit.: Lj. Bukvić, 1978 (1979), 14-18.

43. VAJUGA-KORBOVO (ĐERDAP II)

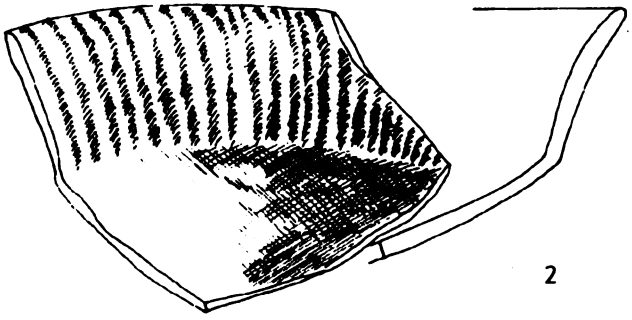
Stratified site



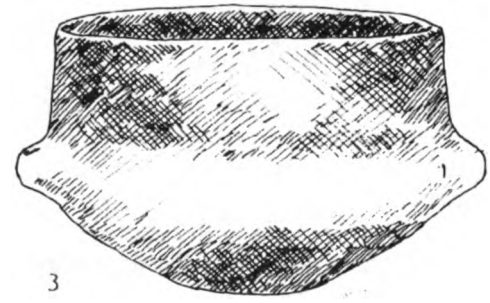
1

On a high terrace of the Danube, in the vicinity of the village Vajuga, a number of prehistoric, Roman and Medieval sites were ascertained. For the study of the Eneolithic on Đerdap II sites Vajuga-Zbradila, Vajuga-Pesak and Vajuga-Korbovo are particularly important. The last one is situated on the bank of the Danube channel which forms the isle Korbovo, well-known for its prehistoric sites (the Eneolithic, The Early and Middle Bronze Age).

The site near Vajuga was registered in 1980, during the trench surveying of the area. During next year, 1981, D. Krstić performed rescue archaeological excavations which covered some 360 square meters. The cultural horizon was



2



3

rather thin and was formed of the layer between the humus and sandy soil. The depth varies between 0.4 and 0.9 m. It is partly destroyed with the necropolis dug into the horizon during the Middle Bronze Age (11 graves - investigated), and also with later intrusions during the La Téne and the Roman period.

4

Fig. 43 – Vajuga - Korbovo. The Bubanj-Salcuta and Cernavoda III pottery (acc. to D. Krstić 1986, 148)

The Eneolithic horizon on this site is interesting for both its finds and stratigraphy. Two dwelling horizons, belonging to different cultures, frequent in the Đerdap region, could be distinguished here. One belongs to the Bubanj-Salcuta culture, and the other to the Cernavoda III (i.e. Boleráz-Cernavoda III). The Bubanj-Salcuta settlement was very rich in material, especially from one well preserved house that offered a number of whole and fragmented pots found *in situ*. The typology of the pottery and some other characteristics show that it was the product of a single phase of this culture, but with graffito pottery lacking. Most frequent forms were beakers with two handles with inverted rims as well as coarse pots. This material has closest analogies with the material from Kovilovo near Negotin and Krivelj near Bor. The finds of the Cernavoda III culture are rare, but typologically very clear. Those were bowls with channels in the interior of the rim, pots with double plastic bands beneath the rim, rugged zig-zag motifs and cups with wide vertical channels. The material is similar to that from Brza Vrba near Kovin.

Lit.: D. Krstić, Đerdapske sveske III, 1986, 148-152, Fig. 1-16.

44. VELA SPILJA ON THE ISLAND KORČULA NEAR VELA LUKA - Stratified cave-type settlement

Thanks to diligent archaeological excavations, which last to our days, Vela Spilja entered the literature as one of the most important sites for the study of Neolithic and Eneolithic of the Adriatic coast and islands. The cave is located above Vela Luka, on the peninsula called Pinski Rat, on the altitude of 130 m. It dominates the surrounding, and its ample interior (1600 square meters) offered extraordinary conditions for larger community. The continuity of the life here is illustrated with the material from the Neolithic and Eneolithic periods.

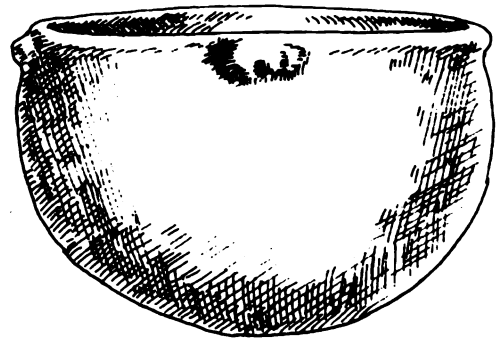
The first information on this site could be found in the middle of the 19th century in N. Ostojić's notes (1853), but only regarding natural curiosity, not on its archaeological contents. The first soundings (speleological) were undertaken in 1950 (M. Gljivoje), and then in 1951, thanks to G. Novak, this cave entered the literature as an archaeological site. In 1974 wide scaled excavations were commenced by G. Novak and in 1982 this works were continued by B. Čečuk.

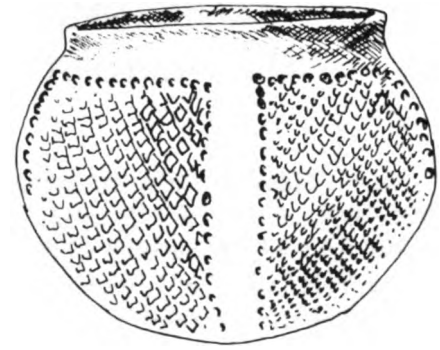
The stratigraphic data show that the depth of the horizon varies, depending on the inclination of the terrain, but there were also certain parts in the cave where the virgin soil have not been reached. The depth of 4.5 meters of cultural layer is mentioned in the documentation of this site. However, it seems that stratigraphic sequence is now clearly established: there are three Neolithic horizons (older, middle and younger) with Adriatic impresso ware, material of the Danilo-Kakanj-Ripoli culture, and finally the horizon of the Hvar-Lisičići culture. Eneolithic, Bronze Age and Iron Age sediments were superposed.

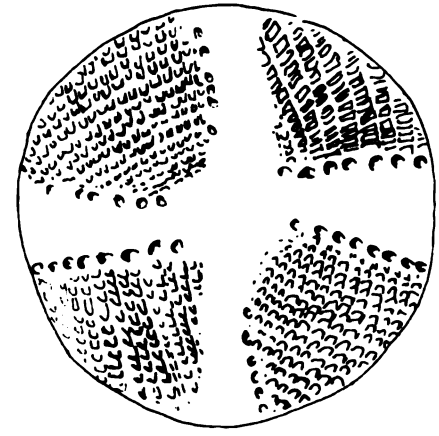
The Eneolithic horizon was distinguished in recent years, and according to B. Čečuk's information one can articulate two chronological and cultural horizons: the older one, which was influenced with the Hvar culture (Nakovanska), and the younger one with elements of Adriatic facies of the Vučedol (Ljubljanska) culture. One infant grave comes from the Eneolithic horizon, as well as one hoard (?) of long stone knives (steppe provenience ?), and one copper ax of the Pločnik culture style. This interesting material belongs to the Eneolithic period, probably to its final phase, when the Vučedol culture elements appear (Tivat-Rubež).

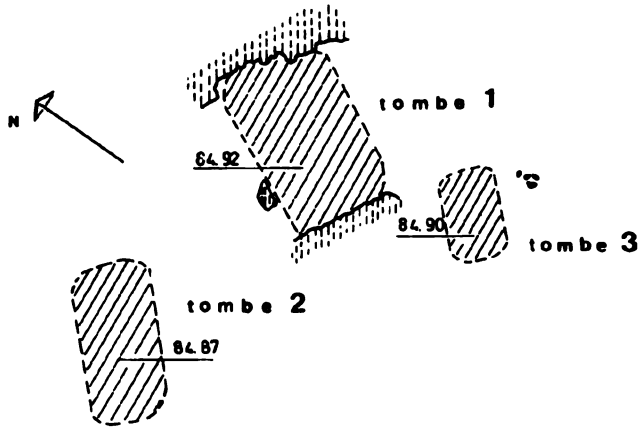
Unfortunately, the material from these excavations were not completely published, so this interesting site, will have to wait another occasion for comprehensive scientific valorization.

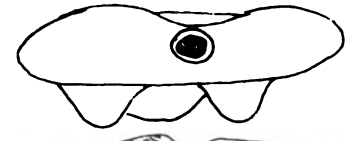
Lit.: B. Čečuk, Arheološki pregled 26, 1985, 46-47; Ibid, Arheološki pregled 28, 1987, 44-46 and lit. cit.

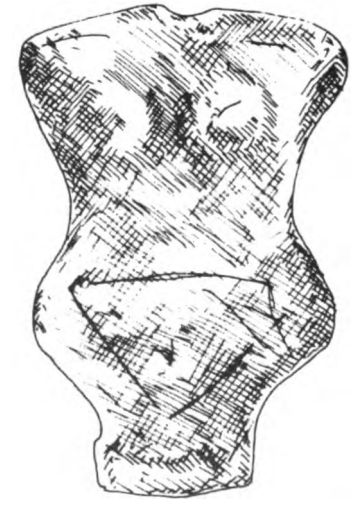


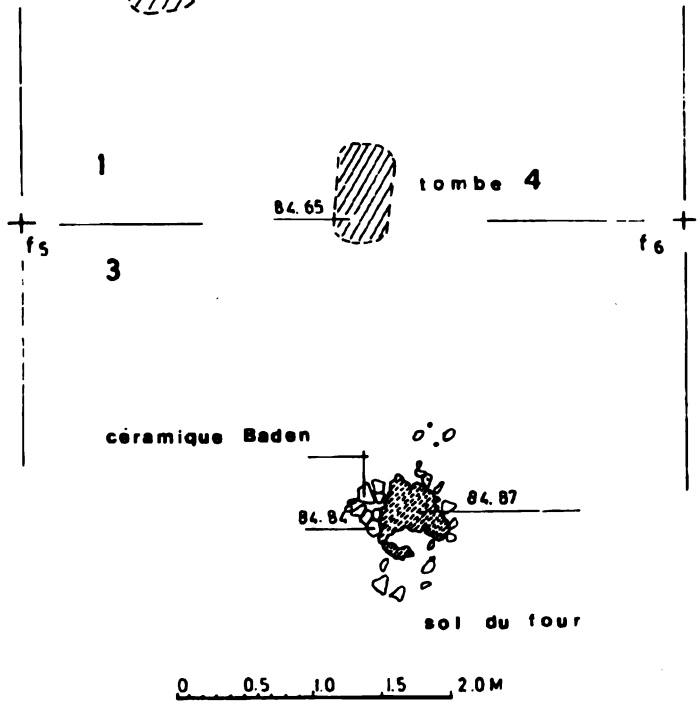












45. VINČA-BELO BRDO NEAR BELGRADE
Stratified prehistoric settlement

In the shadow of rich neolithic dwelling horizons of Belo Brdo in Vinča, numerous horizons of younger periods such as the Eneolithic and the Bronze Age horizon remained neglected. The pottery found in these horizons was known since M.M. Vasić's excavations. This material was also partly published, but its importance was never recognized. Therefore, in this place we shall bring forward only eneolithic findings.

So called 'Non-Vinča' pottery from younger levels M. Vasić simply marked as 'Post-Vinča culture pottery', Pannonian or Hellenistic. F. Holste (1939) also in general terms marks horizon E as the last 'Pre-Metal Age horizon'. The first accurate stratigraphic and cultural valorization of Baden and Vatin ware were made by D. Srejović (1957) and B. Jovanović (1963). Recent excavations in Vinča, which lasted from 1978 to 1983, gave reasonably rich information on the Eneolithic and Vatin culture horizon. These horizons, together with graves of a smaller necropolis, were presented for the first time (N. Tasić, 1984) thanks to the material from these excavations. Even though the Medieval necropolis (8-17th century), with some 700 graves was dug into Eneolithic horizon, and partly devastated it, numerous pits of the Baden culture were preserved as well as the part of the horizon with the Kostolac culture findings and a smaller necropolis with four graves which belong to the Bodrogkerezstur culture. The Baden culture settlement is of the single-stratum type with pits, such as those near Dobanovci or Beli Manastir. The pottery is typical, 'Early-classical', with bowls decorated with incised lines that end with dotted ornament, cups with bulb-shaped container. The curiosity of this site was the discovery of four anthropomorphic terra-cottas, one of which was completely preserved and represents the masterpiece of the Baden culture. The Kostolac culture ware belongs to one earlier phase, where *Furchenstich* ornament lacks as a rule, or is extremely rare.

The important phenomenon was the appearance of four graves in flexed position, laid in rectangular graves with abundant grave goods (grave 2 had five pots). The pottery (*Milchtopf*, spherical bowls with net ornament, semi-spherical bowls) puts these graves into the late phase of Bodrogkerezstur culture. Graves were concentrated in the periphery of the sector II, so one can assume that this necropolis possibly extends towards the South.

Lit.: N. Tasić, 1984, 69-75, Fig. 39-44; Cat. 264-266; M. Jevtić, 1986, 135-144, Fig. 1-14.

Fig. 45/1 – The base plan with graves (4) and the vessel of the Bodrogkerezstur culture (1-2) and Baden culture terra-cotta (3)

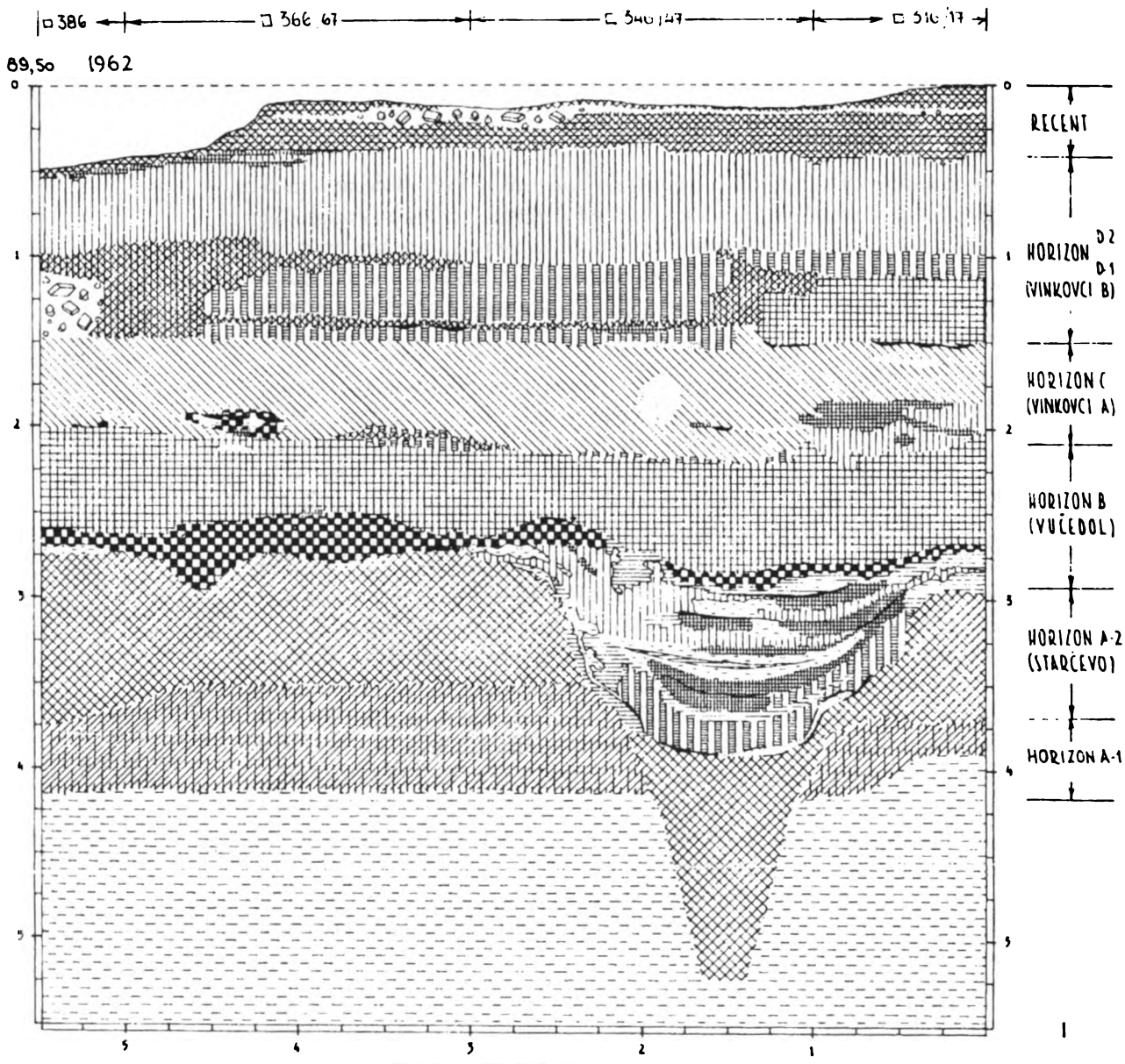


Fig. 46/1-4 Vinkovci - Tržnica, the profile of the trench iz1962, the casts and two pots (acc. to S. Dimitrijević 1982, abb. 2)

46. VINKOVCI - STARA PIJACA (MARKET AND HOTEL)

Stratified site

In the center of Vinkovci and in its immediate vicinity (Borik), larger number of Eneolithic, mostly Vučedol culture sites, was discovered. Thanks to systematic excavations, it was established that the most important one was in the very center of the town, in the region of old market (known in the literature as Tržnica and Hotel). From 1977 to 1978, extensive rescue excavations were undertaken which covered about 2100 square meters .

The Vinkovci culture sites enter archaeological literature rather early. In 1902 J. Brunschmidt published few prehistoric findings from this region. However, wider systematic excavation did not commence untill 1951. These works were most intense during 1978, when they covered almost the entire area of the Tell, with cultural horizon sometimes up to 4 meters thick. The results of the investigation showed that this settlement was similar to others Belonging to the Vučedol culture in Srem. It was fortified with the trench and the river Bosut which make a crescent around the mound. The stratigraphic analysis gives the following sequence:

1. prehistoric humus with random findings and the Starčevo culture earth-cabins;
2. (horizon A) the Starčevo culture settlement - spyraloid B phase;
3. (intermediate horizon - determined during 1978 campaign) the pottery of the Lasinje III-Salcuta IV culture;
4. (horizon B) the Vučedol culture settlement - phase B2 (according to S. Dimitrijević);
5. (horizon C) the Vinkovci culture - phase A;
6. (horizon D1) the Vinkovci culture - phase B1;
7. (horizon D2) the Vinkovci culture - phase B2;
8. recent humus with random findings belonging to the Iron Age, Roman Age and Gepid period.

Imoprtant horizons for the study of the Eneolithic of this region, were those with the Lasinje III-Salcuta IV and the Vučedol culture findings, particularly latter with a number of houses, hearths, altars and pits. Apart from the abundance of the Vučedol culture pottery (younger phase), one 'melting pit' with the hoard (?) with three casts for battle axes, one miniature of the same shape and a cast for chissel, are of great importance.

4

Lit.: S. Dimitrijević, Opuscula Archaeologica 7, 1982, 7 ff; Ibid, in:PJZ III, 140 ff; A. Durman, Opuscula Archaeologica 8, 1983.

47. VIS NEAR DERVENTA (NORTH BOSNIA)
Stratified prehistoric settlement

Near the village Modran, 11 km southeast of Derventa in northern Bosnia, there is prehistoric hill-fort site locally known as Vis. It has the position which dominates the surrounding area, especially the valley that goes towards the North and the river Sava. First archaeological excavations, with smaller trenches, were performed from 1957-1959, and were concentrated on the part of the fortification wall that was still above the ground. Somewhat more extensive works were undertaken from 1962-1964 (B. Belić). They covered the plateau inside the fortifications. While the first digs (Z.Marić) gave material of younger cultures (Ha A-C1), excavations by B. Belić offered more complete stratigraphy together with Eneolithic horizons. According to the results of this excavations following stratigraphic sequence was made:

Vis A - the settlement of the Lasinja culture (the Early Eneolithic);
Vis B - the settlement of the Kostolac culture (the Classical Eneolithic);
Vis C1 - the settlement of the Urnenfelder period (Ha A - the Late Bronze Age);
Vis C2 - the period of the transition from the Bronze Age into the Iron Age (Ha B-C1);

For the purpouse of this book horizons A and B are of great importance. They belong to the Lasinja and Kostolac cultures. According to B. Belić and S. Dimitrijević, the earliest horizon (0.45-1.10 m) belongs to the early Lasinja culture. It was dugout-type settlement with poorly decorated pottery. Above this horizon was the settlement of the Lasinja culture with houses (relative height - 0.45m). The pottery belongs to the classical phase of the Lasinja culture. The next horizon was with the Kostolac ware, its early phase of the Pivnica-Cerić-Ašikovci type. The interesting part was the appearance of the Vučedol culture (Vučedol A-Mitrovac) fragments in the Kostolac horizon. Two Lasinja culture horizons, together with data from Gornja Tuzla and Ajdovška Jama, enabled S. Dimitrijević to follow the genesis of this culture from the Vinča D1 period to the Kostolac culture.

Lit.: B. Belić, Arheološki pregled 6, 1964, 22-23; Z. Marić, in: Epoques..., 76-78; S. Dimitrijević, PJZ III, 142-147.

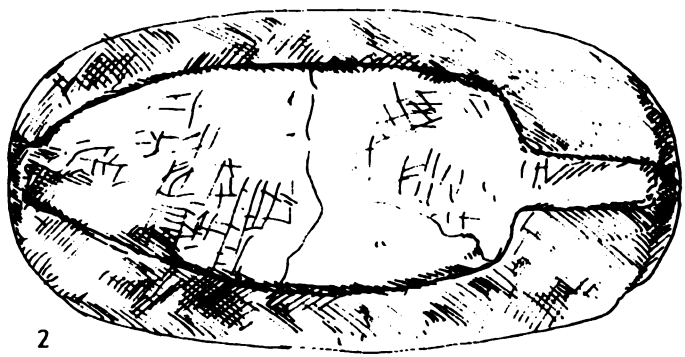
48. VLASTELINSKI BREG (GRADAC) IN SARVAŠ NEAR OSIJEK
Stratified settlement

If the results of the excavations were published, Sarvaš would probably become the most prominent of all sites of the Eneolithic period, particularly of the Vučedol culture, in the region from the river Drava to the confluence of rivers Sava and Danube. Unfortunately, results of R. Schmidt's work of 1942 and 1943 were never published and the documentation was irretrievably lost, and the stratigraphy of the 8 m thick layer can not be used. Nevertheless, Sarvaš has made its way to the literature as the site of remarkable importance for the study of the Eneolithic in Slavonia and Srem.

The topographic position of the plateau Vlastelinski Breg is similar to other Vučedol culture sites along the Danube. It is a mound (dim. 185 x 175 m), raised 15 meters above the river Drava, bordered with ancient river beds and fortified with the palisade, as Gradac in Vučedol which is merely 37 km away. Sarvaš was mentioned for the first time in the archaeological literature in the publication CVA Fasc. 2 by V. Hoffiller in 1938, and more stratigraphic data were given by R.R. Schmidt in Die Burg Vučedol in 1945. In the latter were for the first time mentioned results of the 1942/43 campaigns.

In the cultural deposit, 8,20 m thick, the first two horizons belong to the Neolithic period (Ia, Ib and II), then follow a massive eneolithic horizon (3.60-2,00 m) with two sub-horizons (III and IV) and finally horizons of the Bronze Age, La Téne, Roman and Slavic period (V, VI VII). The horizon III was the Baden culture fortification with apsidal houses and melting casts. The horizon IV was the Vučedol culture settlement with two building horizons, *megaron* houses and graves. These information could be corrected by interposing of one Kostolac culture horizon (probably the one with apsidal houses), to which melting casts could be attributed.

1



2

3

Fig. 48 – Sarvaš, the pottery of the Baden and Vučedol cultures and the cast (acc. to R. Schmidt 1945, 127)

Lit. : R.R. Schmidt, 1945, 127-131; S . Dimitrijević, in: PJZ III, 267-270.

49. VUČEDOL (WEST SREM)
Stratified prehistoric settlement

One of the most important Danubian and Middle European Eneolithic settlements is located only six kilometers upstream from Vukovar, on a high loess terrace of the river Danube. It is called Vučedol, the eponymous site of the culture. In a wider region, few more prehistoric settlements and individual graves were also found: Štrajmov vinograd i kukuruzište ('Streim's vineyard and corn-field'), Vinograd Karasović('Vine-yard Karasović') and Gradac ('Gradac'). Vučedol was mentioned in archaeological literature as early as 1897, thanks to small-scale test excavations by J. Brunschmidt. Since that time Vučedol remained unavoidable in archaeology (CVA I, Yu, 1933), particularly after systematic excavations of 1938 and the monograph 'Die Burg Vučedol' by R.R. Schmidt (1945). After the World War 2, smaller excavations were undertaken by S. Dimitrijević in 1966 and 1967, and after that came extensive excavations by A. Durman (1981, 1984-1988). These were all aimed in order to complete the sequence of the development of the Neolithic and Eneolithic cultures on these sites.

From previously mentioned locations, Gradac is undoubtedly the most important. This was fortified settlement with elaborate fortification system, surrounded from three sides with the trench and the palisade, while on the fourth side it was guarded with steep bank of the river Danube. Cultural horizon on this site was 4.00 meters thick, while on other neighboring sites it was considerably thinner (about 2.20 m). The earliest settlement, erected on the Neolithic humus, belonged to the Starčevo culture. The development of the Eneolithic cultures starts with the Baden culture, and continues with the Kostolac and Vučedol cultures and lasts continually until the Early Bronze Age and the cultures of the Early Iron Age. The youngest prehistoric settlement belongs to the Celtic period. Following disposition of the Eneolithic horizons was obtained by combining of the stratigraphic sequences from Gradac and both S. Dimitrijević's and A. Durman's stratigraphic data from 'Streim's vineyard and corn-field':

1. the horizon of the Baden culture phase I A (with the Boleráz culture elements);
2. the horizon with mixed classical Baden and Kostolac pottery;
3. the horizon of the Kostolac culture; 4. the horizon of the Early Vučedol culture with Kostolac culture elements;
5. the horizon of the classical Vučedol culture (B-1);
6. the horizon of the Vučedol culture with elements of the Vinkovci culture.

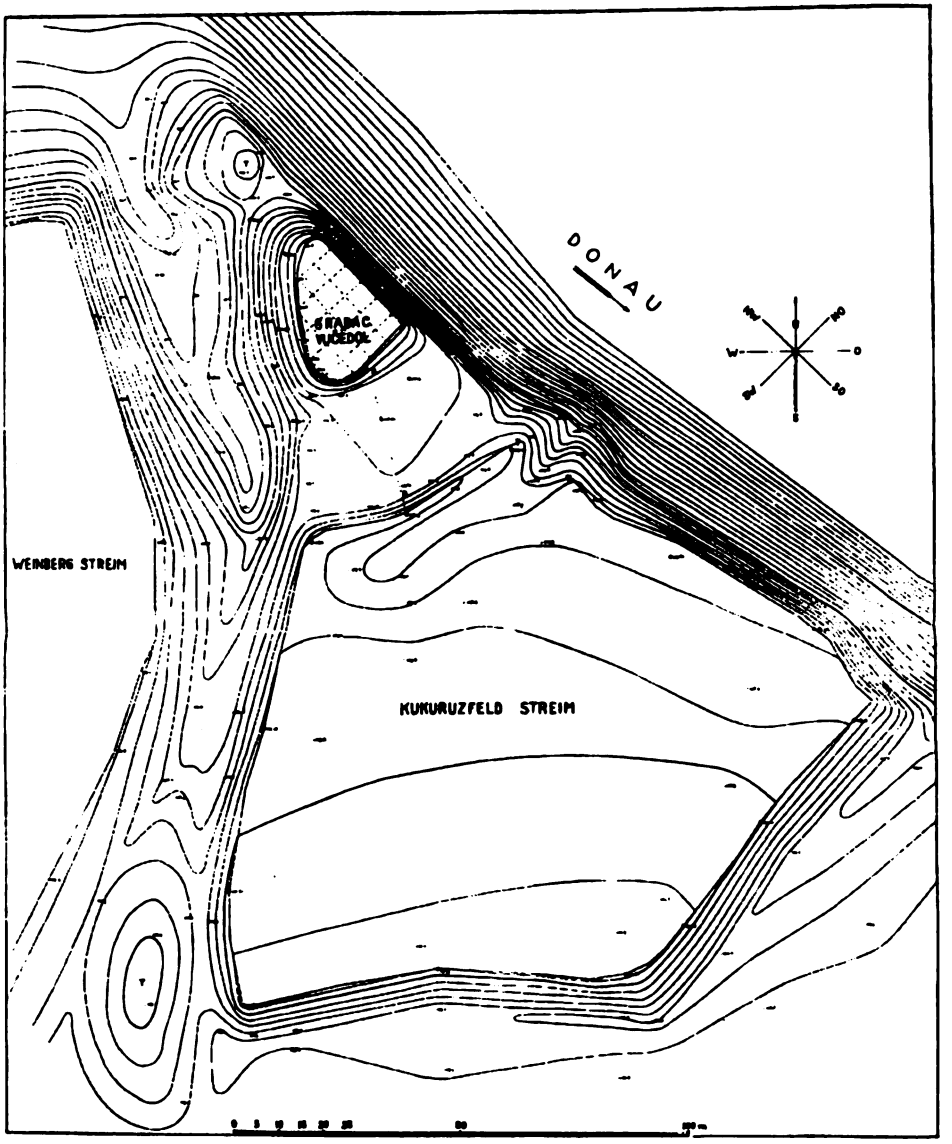
The economy of the Eneolithic population was based on agriculture, animal husbandry and fishing. Metal implements, weapons and melting casts, as well as numerous melting kilns, suggest the existence of metallurgy. R. Schmidt

has also written about specialized workshops for casting of copper objects (*Megaron des Kupfergissers*).

New excavations gave numerous samples that were analyzed in the laboratory Ruđer Bošković in Zagreb. The average age for the Baden culture is 4400 BP (uncalibrated) or 3365-3010 BC (calibrated). For the Vučedol culture they are 4215 (uncalibrated) or 2935-2785 (calibrated).

Fig. 49 – Vučedol - the ground-plan with micro locations.

Lit.: R.R. Schmidt, 1945, passim; S. Dimitrijević, 1977; A. Durman, 1983, 1-75; T. Težak, Arheološki pregled 26, 1985, 57-59.



50. ZLOTSKA PEĆINA NEAR BOR (EAST SERBIA)
Stratified cave-type settlement

Zlotska (Lazareva) Pećina (cave) is situated twenty kilometers south-west of Bor on the entrance of a deep canyon, which the river Zlotska carves into the mountain. The Eneolithic pottery was also found in another cave called Vernjikica, located about 800 m from Zlotska Pećina. The cave Zlotska ranks among other caves of East Serbia with complex infrastructure (such as Bogovinska cave). It has long corridors, small lakes and abundance of cave decoration. Its middle part consists of one large gallery, ideal as a shelter for larger population. Archaeological investigations were started in 1963, after preparations for the exploitation of the cave had been made. The interior of the cave was adequately illuminated, and the archaeological excavations could be performed properly. These works were continued during 1964, and then again from 1968 to 1969. The archaeological excavations covered large area in the central part of the gallery, as well as a smaller part of side halls.

Clear stratigraphy and abundant archaeological material was obtained, but exact disposition of the settlement could not be seized because one part of the cultural horizon was devastated, and the other part remained unexcavated due to the technical restrictions (electrical wires, drainage etc.). The depth of the cultural layer varies from 0.2 m on the entrance to 1.00 m in the interior. Following sequence of horizons was established.

A. The earliest Bubanj-Salcuta culture settlement with remains of house floors, hearths, and working surfaces was best preserved. The importance of this horizon was its pottery, abundance of antler tools, flint implements and particularly copper objects (awls, pins, flat ax). The pottery was decorated with carving, channels, white and dry red painting, and also black burnishing. However, along with this manner of decoration, pots with *Scheibenhenkel* type handles appear, which could suggest that we deal here with one late phase of the Bubanj- Salcuta culture.

B. Above the previous horizon, the settlement of the final Eneolithic was formed. According to its pottery (carved lines, lens-shaped plastic ornaments) this settlement belongs to the Cotofeni culture with elements of the Kostolac culture style (*Furchenstich* decoration). A large number of tools, predominantly made of antler, was also found in this horizon.

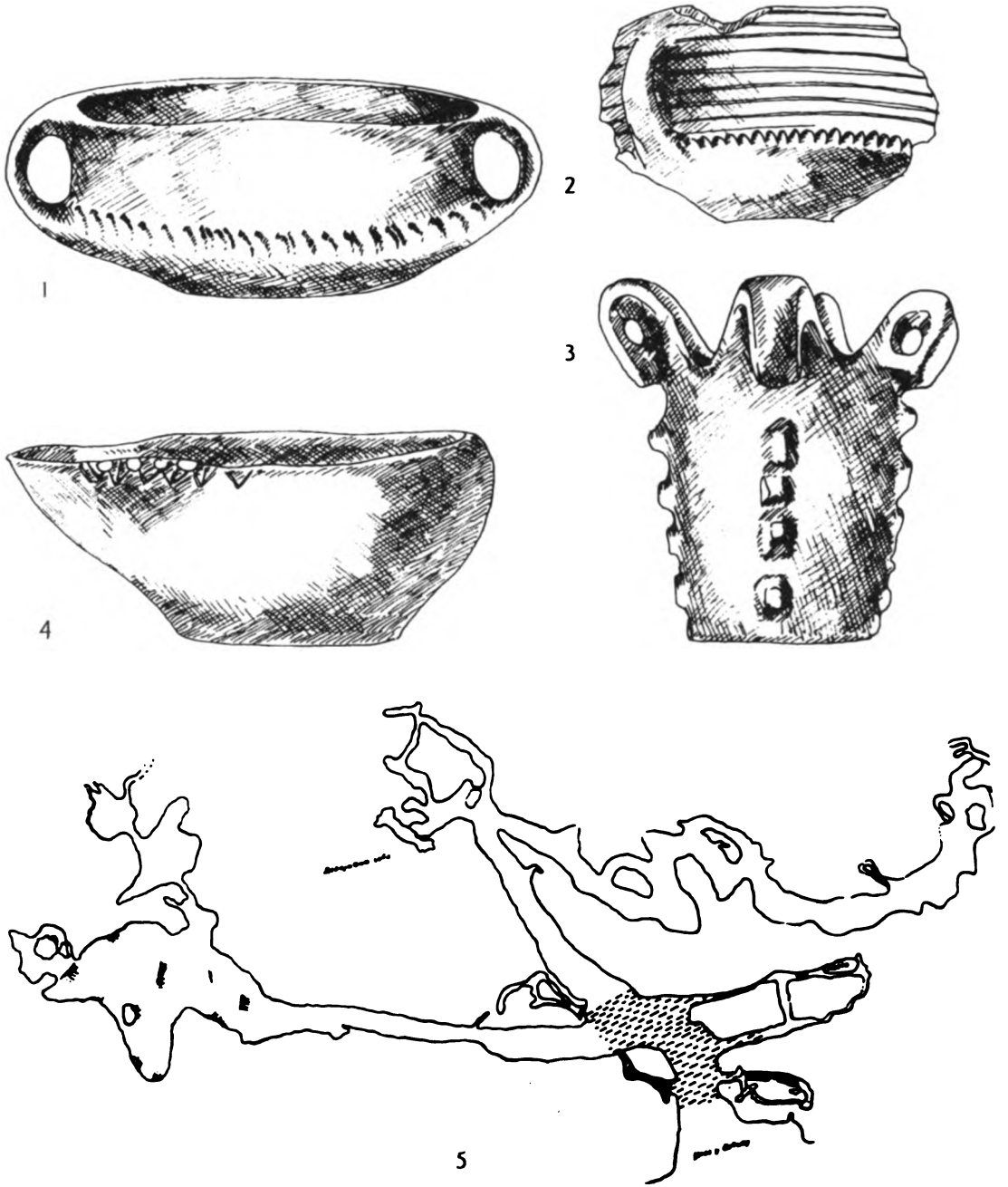
C. The youngest horizon belongs to the Early Iron Age, to the Basarabi culture. It is characterized with abundance of metal objects (bronze and iron).

Regarding the abundance of copper findings, and shards of native copper and slag, Zlotska cave was probably important metallurgical center in the time of the first half of the Eneolithic period. Its must have retained its importance until the end of the Eneolithic (the settlement of the Cotofeni-Kostolac culture), when

it became hunting station. Later, in the 7th century AD, it became, once again, important metallurgical center.

Lit.: N. Tasić, 1978, passim; Ibid., 1973, 11-28; Ibid., 1981, 7-26; Ibid., 1980, 43-59.

Fig. 50 – Zlotska Pećina, the ground-plan of the cave (5) and the pottery of the BubanJ- Salcuta (1-2, 3) and Cotofeni cultures (4).



BIBLIOGRAPHY

ABBREVIATIONS

AAHung	Acta archeologica Academiae Scientiarum Hungaricae, Budapest.
Actes I, II, Beograd	Actes du VIII[e] Congrés des Sciences prehistoriques et protohistoriques I, Beograd 1971; II, Beograd 1973.
AÉ	Archaeologia Értesitö, Budapest.
AH	Archaeologia Hungarica, Budapest.
Alug	Archaeologia Iugoslavica, Beograd.
Akten Székesfehérvar	Akten der Panonnia Konferenzen I, Székesfehérvar 1972.
AP	Arheološki pregled, Beograd.
ARR	Arheološki radovi i rasprave JAZU, Zagreb.
AV	Arheološki vestnik, Ljubljana.
Balcanica	Balcanica, Godišnjak Balkanološkog instituta SANU, Beograd.
BAR	BAR International Series, Oxford, England.
BRGK	Bericht der Römisch-Germanischen Kommission des Deutschen Archeologischen Institutes, Frankfurt am Main - Berlin.
ČGT	Članci i gradja za kulturnu istoriju Muzeja istočne Bosne, Tuzla.
Dobrudža	Istorija na Dobrudža, Tom I, Sofija 1984.
Eneolit južnog Banata	Eneolit južnog Banata (katalog izložbe), Pančevo-Vršac 1987.
Ezero	Ezero, ranobronzanodobno selište, Sofija 1979.
FBK	Kulturen der Frühbronzezeit des Karpatenbeckens und Nordbalkans, Beograd 1984.
GCBI	Godišnjak Centra za balkanološka istraživanja ANUBiH, Sarajevo.
GMGB	Godišnjak Muzeja grada Beograda, Beograd.
GMKM (GMK)	Godišnjak Muzeja Kosova (i Metohije), Priština.
Gomolava I	Gomolava - Chronologie und Stratigraphie der vorgeschichtlichen und antiken Kultur der Donauniederung und Südosteuropas, Novi Sad 1988.
Hügelbestattung ...	Hügelbestattung in der Karpaten-Donau-Balkan-Zone wärend der äneolithischen Periode, Internationales Symposium, Donji Milanovac 1985, Beograd 1987.

GZM	Godišnjak Zemaljskog Muzeja, Sarajevo.
Istraživanja	Istraživanja, Institut za istoriju Vojvodine, Novi Sad.
JPMÉ	A János Pannonius Müzeum Évkönyvéböl, Pécs.
MacAA	Macedoniae Acta Archaeologica, Prilep-Skopje.
Materijali	Materijali, Savez arheoloških društava SFRJ, Beograd.
NZMS	Naučni zbornik Matice srpske, Novi Sad.
OA	Opuscula Archaeologica, Zagreb.
OZ	Osječki zbornik, Osijek.
PJZ III, IV	Praistorija jugoslovenskih zemalja, Tom III, Sarajevo 1979; Tom IV, Sarajevo 1980.
Poročilo	Poročilo o raziskovanju neolita in eneolita v Sloveniji I-XII, Ljubljana.
Praistorija Vojvodine	B. Brukner, B. Jovanović, N. Tasić - Praistorija Vojvodine, Novi Sad 1974.
PZ	Prähistorische Zeitschrift, Berlin.
RF	Régészeti Füzetek, Budapest.
RVM	Rad vojvodjanskih muzeja, Novi Sad.
SA	Sovjetskaja arheologija, Moskva.
SCVI	Studii si cercetàri de Istorie Veche, Bucarest.
Simposio Lazise 1982	Atti X Simposio Internazionale sulla fine del Neolitico e gli inizi dell'etá del Bronzo in Europa, Lazise - Verona 1980 (1982).
Simpozium Zenica 1973	Materijali Simpoziuma "Rudarstvo i metalurgija BiH od praistorije do početka XX veka", Zenica 1973.
SlA	Slovenska archeologia, Bratislava.
St. Alb.	Studia Albanica, Tirana.
Symposium Bratislava 1973	Symposium über die Entstehung und Chronologie der Badener Kultur, Bratislava 1973.
Symposium Praha 1961	Actes du Symposium consacré aux problémes du Néolithique européen, Praha 1959 (1961).
ŠZ	Študijné Zvesti AI SAV, Nitra.
TRÉ	Történelmi és Régészeti Értesitö.
VAMZ	Vjesnik Arheološkog muzeja, Zagreb.
VHAD	Vjesnik Hrvatskog arheološkog društva, Zagreb.
WMBH	Wissenschaftliche Mitteilungen aus Bosna und Herzegovina, Sarajevo.
WPZ	Wiener Prähistorische Zeitschrift, Wien.
ZRNM	Zbornik radova Narodnog muzeja, Beograd.

BANNER J., 1956 Die Peceler Kultur, AH XXV Budapest 1956.

BATOVIĆ Š., 1975 Odnos jadranskog primorja prema području jugoistočnih Alpa u neolitu i eneolitu, AV XXIV, Ljubljana 1975.

BELIĆ B., 1964 Vis, Modran, Derventa - višeslojno praistorijsko naselje, AP 6, Beograd 1964.

BENAC A., 1948 Završna istraživanja u pećini Hrustovači, GZM III, Sarajevo 1948.

BENAC A., 1955 Nekoliko prethistorijskih nalaza sa područja Nikšića u Crnoj Gori, GZM X, Sarajevo 1955.

BENAC A., 1959 Slavonska i ilirska kultura na prethistorijskoj gradini Zecovi kod Prijedora, GZM XIV, 1959.

BENAC A., 1962, Studien zur Stein- und Kupferzeit im nordwestlichen Balkan, 42 BRGK 1961 (1962).

BENAC A., 1962 Pivnice kod Odžaka i neki problemi kostolačke kulture, GMZ XVII, Sarajevo 1962.

BENAC A., 1986, Praistorijski tumuli na Kupreškom polju, CBI, knj. 5, Sarajevo 1986.

BERCIU D., 1961 Contributii la problemele neopoliticului în România în lumina noilor cercetari, Bukuresti 1961.

BERCIU D., 1961a Les nouvelles fouilles de Salcuta (Roumanie) et le problème des groupes Bubanj (Yougoslavie) et Krivodol (Bulgarie), Symposium Praha 1961.

BERCIU D., 1964 Quelques données préliminaires concernant la civilisation de Cernavoda, SlA XII, Bratislava 1964.

BOGNAR-KUTZIAN I., 1963 The Copper Age Cemetery of Tiszapolgár-Basatanya, AH HLII, Budapest 1963.

BOGNAR-KUTZIAN I., 1969 Probleme der mittleren Kupferzeit im Karpatenbeken, SZ 17, Nitra 1969.

BOGNAR-KUTZIAN I., 1972 The Early Copper Age Tiszapolgár Culture in the Carpathian Basin, AH XLVIII, Budapest 1972.

BOGNAR-KUTZIAN I., 1973 — The Beginning and Position of the Copper Age in the Carpatho-Pannonian Region, Actes II, Beograd 1973.

BORONEANT V., 1966 — Cultura Kostolac de la Cuina Turcului, SCIV 17/2, Bukuresti 1966.

BOSCH-GIMPERA P., 1960 — Les Indo-europeéns, Paris 1960.

BREGANT T., 1964-1965 — Sondažna raziskovanja v okolici Iga na Ljubljanskem barju, AV 15-16, 1964-1965.

BREGANT T., 1972 — Elemente der adriatischen Mittelmeerkulturgruppe im Alpenfazies der Lengyel-Kultur, Akten, Székesfehérvar 1972.

BRUKNER B., 1970 — Die Nekropole in Vajska. Ein neuer Beitrag zur kulturellen und chronologischen Determinierung des Aneolithikums Südostpannoniens, AIug. XI, 1970, Beograd (1973).

BRUKNER B., 1976 — Funde der Salkutza-Gruppe in der Wojwodina, Istraživanja 5, 1976.

BRUKNER B., 1977 — Beitrag zur Feststellung des Beginns der Metallurgie und der Aeneolithisierung, AIug. XVIII, Beograd 1977.

BRUKNER B., 1978-1979 — Zur Chronologie der Kostolac-Gruppe, AIug. XIX, 1978-1979.

BRUNŠMID J., 1902 — Nahodjaji bakrenoga doba iz Hrvatske i Slavonije i susjednih zemalja, VHAD VI, Zagreb 1902.

BULAT M., 1962 — Bakrene sjekire u Muzeju Slavonije, OZ VIII, 1962.

BUKVIĆ LJ., 1978/1979 — Results of the Researches of the Mound near Jabuka, AIug. XIX, Beograd 1978 (1979).

BUKVIĆ LJ., 1987 — Die ältesten Hügelbestattungen in südlichen Banat, Hügelbestattung..., 1987.

COMSA E., 1976 — Considerations portant sur le tomb á ocre de la Zone du Bas-Danube, Istraživanja 5, 1976.

CROSSLAND R., 1971 — The Position in the Indo-european Language-family of Thracian and Prygian Studia Balcanica 5, Sofia 1971.

ČERNYH E., 1975 — Ai-bunarskii mednii Rudnik IV tisočletie do N. E. na Balkanah, SA, Moskva 1975.

ČOVIĆ B., 1973 — Praistorijsko rudarstvo i metalurgija u Bosni i Hercegovini, Simpozium, Zenica 1973.

ČOVIĆ B., 1976 — Metalurška djelatnost vučedolske grupe u Bosni, GCBI XIII, Sarajevo 1976.

ČOVIĆ B., 1980 — "Schnur" i "Litzen" keramika na području Neretve, Simpozijum "Dolina Neretve od praistorije do ranog srednjeg veka", Split 1980.

DESCHMANN K., 1875 — Die Pfahlbautenfunde auf dem Laibacher Moore, Verhandlungen der K. K. Geologischen Reichsanstalt, Wien 1875.

DIMITRIJEVIĆ S., 1961 — Problem neolita i eneolita u sjeverozapadnoj Jugoslaviji, OA V, Zagreb 1961.

DIMITRIJEVIĆ S., 1962 — Prilog stupnjevanju badenske kulture u sjevernoj Jugoslaviji, ARR II, 1962.

DIMITRIJEVIĆ S., 1966 — Rezultati arheoloških iskopavanja na području Vinkovačkog muzeja od 1957-1965. godine, Acta musei Cibalensis I, 1966.

DIMITRIJEVIĆ S., 1967 — Die Ljubljana-Kultur, AIug. VIII, Beograd 1967.

DIMITRIJEVIĆ S., 1970 — Zur Frage der kannelierten Keramik in der Hvar-Kultur, Adriatica - Praehistorica et Antiqua, Zagreb 1970.

DIMITRIJEVIĆ S., 1971 — Zu einigen Fragen des Spätneolithikum und Frühäneolithikums in Nordjugoslawien, Actes I, Beograd 1971.

DIMITRIJEVIĆ S., 1975 — Zur Frage der Retz-Gajary-Kultur in Nord-Jugoslawien - Äneolithische Studien II, VAMZ Zagreb 1975.

DIMITRIJEVIĆ S., 1977, — Zur Frage der Genese und der Gliederung der Vučedoler Kultur in dem Zwischenstromlande

Donau-Draue-Save, VAMZ II, Zagreb 1977.

DIMITRIJEVIĆ S., 1982, Die frühe Vinkovci-kultur und ihre Beziehungen zur vučedoler Supstrat im Lichte der Ausgrabungen in Vinkovci (1977-1978), OA 7, Zagreb 1982.

DURMAN A., 1983 Metalurgija vučedolskog kulturnog kompleksa, OA 8, Zagreb 1983.

DURMAN A., 1984 Ostava kalupa vučedolskog ljevača bakra iz Vinkovaca, Zbornik "Arheološka istraživanja u istočnoj Slavoniji i Baranji", Zagreb 1984.

DUMITRESCU V., 1960 La plus ancienne tombe à incinération trouvée sur le teritoire de la R. P. Roumanie et autres découvertes apparentées de la même région, Dacia IV, 1960.

DUMITRESCU V., 1963 The Date of the Earliest Western Expansion of the Kurgan Tribes, Dacia VII, 1963.

ECSEDY L., 1979 The Poeple of the Pit-Grave Kurgans in Eastern Hungary, Budapest 1979.

ECSEDY L., 1985 Öskori Leletek Dunaszekcso - Varhegylör, JPME XXIX, 1985.

FIALA F., 1894 Jedna prehistorična naseobina na Debelom brdu kod Sarajeva, GZM VII, 1894.

FIALA F., 1896 Die prähistorische Ansiedlung auf dem Debelo Brdo bei Sarajevo, WMBH IV, Wien 1896.

GALOVIĆ R., 1959 Praistorijsko naselje "Jelenac" kod Aleksinca, ZRNM II, Beograd 1959.

GARAŠANIN D. - GARAŠANIN M. 1957 Praistorijsko naselje u Crnoj Bari, RVM 6, Novi Sad 1957.

GARAŠANIN M. 1954 Ostava iz Kladova i problem stepskih uticaja u kasnom neolitu donjeg Podunavlja, AV I, Ljubljana 1954.

GARAŠANIN M. 1959 Neolithikum und Bronzenzeit in Serbien und Makedonien, 39. BRGK 1958, Frankfurt a/M - Berlin 1959.

GARAŠANIN M. 1967 — Die Bestattungen des Vučedoler "Burghügels", AIug. VIII, Beograd 1967.

GARAŠANIN M. 1971 — Nomades des steppes et autochtones dans le Sud-Est européen à l'époque de transition du néolithique à l' Age du bronze. L'ethnogenèse des peuples balkanique, Sofia 1971.

GARAŠANIN M. 1973 — Praistorija na tlu SR Srbije, Beograd 1973.

GARAŠANIN M. - SIMOSKA D., 1976 — Kontrolni iskopuvanja na Šuplevec-Bakarno Gumno, MacAA 2, Prilep 1976.

GIMBUTAS M., 1970 — Proto-Indo-European Cultures: The Kurgan Culture during the Fifth, Fourth, and Third Millenium B.C. Indo-European an Indo-Europeans, Philadelphia 1970.

GIRIĆ M., 1960 — Iskopavanja na Gomolavi 1957, RVM 9, Novi Sad 1960.

GIRIĆ M., 1982 — Über die Erforschung der Grabhügel in der Wojwodina, Simposio Lazise-Verona 1982.

GIRIĆ M., 1987 — Die Erforschung der äneolithischen Hügelgräber im Nördlichen Banat, Hügelbestattung... 1985, Beograd 1987.

GLIŠIĆ J., 1961 — Pojava ranih bronzanodobnih kultura na Kosovu i Metohiji, GMKM VI, Priština 1961.

GOCKOVA-SLAVSKA P., 1955 — Ostatoci od edna praistoriska kultura na Skopska tvrdina Kale, Skopje 1955.

GOVEDARICA B., 1987 — Einige Fragen der Chronologie und Herkunft der ältesten Tumuli mit Steinkistengräbern im ostadriatischen Gebiet, Hügelbestattung... 1985, Beograd 1987.

HAMMOND L. G. N., 1972 — The Comming of the Indo-Europeans to the Southwestern Balkans, Actes Athenes 1972.

HAREJ Z., 1974 — Poročilo o površinskih najdbah na kolišču ob Partovskem kanalu i pri Igu, Poročilo III, 1974.

HÄUSLER A., 1974 — Die Gräber der älteren Ockergrabkultur zwischen Ural und Dnepr, Berlin 1964.

HÄUSLER A., 1976 Die Gräber der älteren Ockergrab-kultur zwischen Dnepr und Karpaten, Berlin 1976.

HOFFILLER V., 1933 Corpus vasorum antiquorum Yougoslavie, Fasc. 1, Paris 1933.

HOFFILLER V., 1938 Corpus vasorum antiquorum Yougoslavie, Fasc. 2, Paris 1938.

JEVTIĆ M., 1986 Grobovi Bakarnog doba iz Vinče, Starinar XXXVII, 1986.

JEVTIĆ M., 1987 Les stations énéolithiques dans le secteur de Djerdap I-II, Hügelbestattung... 1987.

JOVANOVIĆ B., 1971 Metalurgija eneolitskog perioda Jugoslavije, Beograd 1971.

JOVANOVIĆ B., 1976 Obredi sahranjivanja u kostolačkoj grupi, GCBI, Sarajevo 1976.

JOVANOVIĆ B., 1976a Tumuli stepske kulture grobova jama u Podunavlju, Starinar XXVII, 1976.

JURIŠIĆ A., 1961 Velika Gradina u Staparima, Starinar XI, 1981.

KALITZ N., 1973 Über die chronologische Stellung der Balaton-Gruppe in Ungarn, Symposium, Bratislava 1973.

KALITZ N., 1976 Tököl, Dunapart (Kom. Pest), Mitt. des Arch. Institutes des Ung. Academie den Wissenschaften, 1976.

KARMANSKI S., 1970 Bakarnodobni lokaliteti jugozapadne Bačke - Pregled materijala sa lokaliteta iz okoline Odžaka, I, Odžaci - Bačka Palanka 1970.

KARMANSKI S., 1970a Bakarnodobni lokaliteti jugozapadne Bačke - Pregled materijala sa lokaliteta iz okoline Odžaka, II, Odžaci - Bačka Palanka 1970.

KAUS M., 1984 Ein jungneolithisches Gefässdepot von Doners- kirchen - Kentberg, Wiss. Arb. aus den Burgenland 69, 1984.

KITANOSKI B., 1971 Bakarno gumno, Čepigovo près de Prilep, Epoque préhistorique et protohistorique en Yugoslavie, Beograd 1971

KOREK J., 1958 — Groblje kasnog bakarnog doba i eneolitsko neselje u Senti, RVM 7, Novi Sad 1958.

KOROŠEC J., 1946 — Pećina Hrustovača, novi lokalitet slavonske kulture, GZM I, 1946

KOROŠEC J., 1951 — Predzgodovinska naselbina na Ptujskem gradu, Ljubljana 1951.

KOROŠEC J., 1953 — Kulturne ostaline v Ajdovski jami pri Nemški Vasi, Razprave (Dissertationes) III Classis I, Ljubljana 1953.

KOROŠEC J., 1955 — Opis predzgodovine Ljubljane, Zgodovina Ljubljane I, 1955.

KOROŠEC J., 1958 — Eine neue Kulturgruppe des späten Neolithikums, AAHung IX/1-4, Budapest 1958.

KOROŠEC P., 1958-1959 — Kulturna opredelitev materijalne kulture na koliščih pri Igu, AV/IX-X 2, 1958-1959.

KOROŠEC P., 1959 — Podela slavonske kulture, njeno poreklo i relativna hronologija, RVM 8, 1959.

KOROŠEC P., 1962 — Neka pitanja oko eneolita Dalmacije, ARR II, 1962.

KOROŠEC P., 1975 — Eneolitik Slovenije, AV XXIV, 1973/1975.

KOROŠEC P., 1975a — Poročilo o raziskovanju v Ajdovski jami 1967. leta, Poročila IV, Ljubljana 1975.

KOROŠEC P., 1980-1981 — Neuere archäologische Forschungen in der Höhle Ajdovska jama bei Nemška Vas in Verbindung mit dem Totenkult, AIug XX-XXI, 1980-1981.

KOROŠEC P. - KOROŠEC J., 1969 — Najdbe s koliščarskih naselbin pri Igu na Ljubljanskom barju, Ljubljana 1969.

KOSORIĆ M., 1965 — Praistorijska nekropola u selu Dvorovi kod Bijeljine, ČGT VI, Tuzla 1965.

KOVACZ S., 1987 — Hügelgräberfelder der Badener Kultur im Slanátal, Hügelbestattung... 1987.

KOZLOWSKI J., 1973 — Le problème de la périodisation de la civilisation de

la cèramique cannelée en Pologne, Symposium, Bratislava 1973.

KUNA M., 1981 Zur neolithischen und äneolithischen Kupferverarbeitung in Gebiet Jugoslaviens, GCBI XIX/17, 1981.

LEBEN F., 1973 Zur Kenntnis der Lasinja-Kultur in Slowenien, Symposium Bratislava 1973.

LEBEN F., 1975 Opredelitev neolitske in eneolitske keramike iz jamskih najdišč jugovzhodnega alpskego prostora, AV XXIV, 1973 (1975).

LETICA Z., 1972 Grob Salkuta kulture sa Lepenskog Vira, Starinar XXI, 1970, Beograd (1972).

MALEZ M., 1967 Paleolit Velike pećine na Ravnoj gori u sjeverozapadnoj Hrvatskoj, ARR IV-V, Zagreb 1967.

MARIJANOVIĆ B., 1981 Ravlića pećina (Peć. Mlini), GZM 35/36, 1981.

MARIJANOVIĆ B., 1982 Novi eneolitski nalazi u Hercegovini, GMZ 37, 1982.

MARKOVIĆ Č., 1974 The Stratigraphi and Chronology of the Odmut Cave, AIug. XV, Beograd 1974.

MARKOVIĆ Č., 1985 Neolit Crne Gore, Beograd 1985.

MARKOVIĆ Z., 1977 Problem eneolita u Našičkoj regiji - prilog genezi i stupnjevanju Lasinjske kulture, AV XXVII, Ljubljana 1977.

MARKOVIĆ Z., 1981 Vučedolska kultura u sjeverozapadnoj Hrvatskoj, AV XXXII, 1981.

MARKOVIĆ Z., 1985 Problem ranog eneolita u sjeverozapadnoj Hrvatskoj, VAMZ/XVIII, 1985.

MEDOVIĆ P., 1976 Die Cernavoda III-Kultur im jugoslawischen Donaugebiet, Istraživanja 5, Novi Sad 1976.

MEDOVIĆ P., 1976a Eneolitsko naselje "Brza vrba" kod Kovina, Građa Pokrajinskog zavoda za zaštitu spomenika kulture, VI-VII, Novi Sad 1976.

MEDOVIĆ P., 1978 — Naselja starijeg gvozdenog doba u jugoslovenskom Podunavlju, Beograd 1978.

MEDOVIĆ P., 1987 — Resultate der Untersuchungen auf drei Grabhügeln in der Gemarkung des Dorfes Perlez im mittleren Banat, Hügelbestattung... 1987

MENGHIN O., 1926 — Einführung in die Urgeschichte Böhmens und Mährens, Reichenberg 1926.

MILLEKER F., 1889 — A Rézkor emlékei Dél - Magyarországon, TRÉ 1889.

MILLEKER F., 1906 — Délmagyarország regisegleletei, III, Temesvér 1906.

MILLEKER F., 1939 — Vorgeschichte des Banats. Aeneolithikum, Kupferzeit, Starinar XIV, 1938 (1939).

MILOJČIĆ V., 1943 — Das vorgeschichtliche Bergwerk "Šuplja Stena" am Avalaberg bei Belgrad in Serbien, WPZ XXX, Berlin 1943.

MILOJČIĆ V., 1949 — Chronologie der Steizeit Mittel-und Südosteuropas, Berlin 1949.

MILOJČIĆ V., 1953 — Funde der Kostolacer Kultur in der Sammlung des Vorgeschichtlichen Seminars in Marburg/Lahn, WPZ XXXIV, 1949/1950, Berlin 1953.

MILOŠEVIĆ A. - GOVEDARICA B., 1986 — Otišić -Vlake, Praistorijsko nalazište u Vrtači I, GCBI 22, 1986.

MORINTZ S. - ROMAN P., 1973 — Über die Übergangsperiod von Äneolithikum zur Bronzezeit in Rumänien, Symposium, Bratislava 1973.

NEMEJCOVÁ-PAVÚKOVÁ V., 1964 — Sidlisko bolerázskeho typu v Nitranskom Hrádku, SlA XX/1, Bratislava 1964.

NEMEJCOVÁ-PAVÚKOVÁ V., 1968 — Äneolithische Siedlung und Stratigraphie in Iža, SlA XVI/2, Bratislava 1968.

NEMEJCOVÁ-PAVÚKOVÁ V., 1973 — Zur Ursprung und Chronologie der Boleráz-Gruppe, Symposium Bratislava 1973.

NEMEJCOVÁ-PAVÚKOVÁ V., 1981 Nacrt periodizácie badenskej kultúry a jej chronologickyh vztahov k j-v Európe, SlA XXIX/2, 1981.

NEUSTUPNY E., 1959 Zur Entstehung der Kultur mit kannelierten Keramik, SlA VII/2, Bratislava 1959.

NEUSTUPNY E., 1973 Die Badener Kultur, Symposium, Bratislava 1973.

NEUSTUPNY E., 1979 Der Übergang von Neolithikum zum Äneolithikum und der Ausklang der Lengyel-Kultur, ŠZ 17, 1979.

NOVOTNÁ M., 1961 Bošacko-Kostolačky horizont na strednem Považi, Musaica XII/1, Bratislava 1961.

NOVOTNY B., 1981 Zur idololatrie der Badener Kultur in der Slowakei, SLA XXIX/1, A981.

PAHIČ S., 1975 Najstarejše seliščne najdbe v severozahodni Sloveniji, AV XXIV/1973, Ljubljana 1975.

PANAJOTOV I. - DERGAČEV V., 1984 Die Okergrabkultur in Bulgarien (Darstellung des Problems), Studia Praehistorica 7, Sofia 1974.

PAROVIĆ-PEŠIKAN M. - TRBUHOVIĆ V., 1971 Iskopavanja tumula ranog bronzanog doba u Tivatskom polju, Starinar XXII, 1971 (1974).

PARZINGER H., 1984 Die Stellung der Uferrandsiedlungen bei Ljubljana im äneolithischen und frühbronzezeitlichen Kultursystem der Mittleren Donauländer, AV XXV, 1984.

PATAY P., 1958 Rézkori aranyleletek, AÉ 85, Budapest 1958.

PATAY P., 1961 A Bodrogkerszturi kultura temetöi, RF II/10, Budapest 1961.

PATAY P., 1978 Das kupferzeitliche Gräberfeld von Tiszavalk - Kenderföld, Budapest 1978.

PETRIĆ N., 1976 Prethistorijske kulture Pelješca, Pelješki zbornik 1, Zagreb 1976.

PETRIĆ N., 1977 Prilozi pretpovijesti Istre, Jadranski zbornik X, Rijeka-Pula 1977.

PITTIONI R., 1954 — Urgeschichte des österreichischen Raumes, Wien 1954.

POPOVIĆ D., 1981 — Über die Ergebnisse der Untersuchungen auf der Siedlung Gradina am Bosut, Symposium Novi Sad 1979, Materijali XIX, Novi Sad 1981.

POPOVIĆ D. - MEDOVIĆ P., 1969 — Pećine, Vrdnik - naselja eneolitskog i bronzanog doba, AP 11, 1969.

PRENDI F., 1966 — La civilisation préhistorique le Maliq, St. Alb. 1, Tirana 1966.

RAŠAJSKI R., 1954 — Gomolava kod Hrtkovaca, RVM 3, Novi Sad 1954.

ROMAN P., 1971 — Strukturänderungen des Endäneolithikums im Donau-Karpatenraum, Dacia XV, Bucarest 1971.

ROMAN P., 1976 — Kontakte der Cotofeni-Kultur mit den Baden-Kostolac und Vučedol Kultur im Westen Rumäniens, Istraživanja 5, 1976.

ROMAN P., 1976a — Cultura Cotofeni, Bucuresti 1976.

ROMAN P., 1980 — Der "Kostolac-Kultur" - Begrieff nach 35 Jahren, PZ 55/2, 1980.

ROMAN P., - NÉMETI L., 1978 — Cultura Baden în România, Bucaresti 1978.

RUTKAY E., 1973 — Über einige Fragen der Leibach - Vučedol-Kultur in Niederösterreich und im Burgenland, AV XXIV, 1973.

SCHMIDT R. R., 1945 — Die Burg Vučedol, Zagreb 1945.

SIMOSKA D. - KITANOSKI B. - TODOROVIĆ J., 1976 — Naselbata Crnobuki i problemot na istoimenata kultura vo svetlinata na novite arheološki istražuvanja, MacAA 2, Prilep 1976.

SIMOSKA D. - SANEV V., 1976 — Preistorija vo centralna Pelagonija, Bitola 1976.

SREJOVIĆ D., 1976 — Humke stepskih odlika na teritoriji Srbije, GCBI XIII, Sarajevo 1976.

STALIO B., 1964 — Novi metalni nalaz iz Pločnika kod Prokuplja, ZRNM IV, Beograd 1964.

STALIO B., 1973 — Četvrti nalaz bakrenog i kamenog orudja sa Pločnika kod Prokuplja, ZRNM VII, Beograd 1973.

STALIO B. - JURIŠIĆ A., 1961 — Jasik - Gornje Komarice, Starinar XI, 1961.

ŠIŠKA S., 1968 — Tiszapolgárska kultura na Slovensku, SlA XVI/1, Bratislava 1968.

ŠULMAN M., 1952 — Grobovi iz bakrenog doba iz Subotice, NZMS III, Novi Sad 1952.

ŠULMAN M., 1954 — Groblje bakrenog doba u blizini Subotice, NZMS VI, Novi Sad 1954.

TASIĆ N., 1959 — Praistorijsko naselje kod Dobanovaca i prilog proučavanju badenske grupe u Vojvodini, Starinar IX-X/1958-1959, Beograd 1959.

TASIĆ N., 1959a — Velika humka kod Batajnice, AP 1, 1959.

TASIĆ N., 1960 — Djurdjevačka Glavica - prilog proučavanju vučedolske grupe južno od Save i Dunava, Starinar XI, 1960, Beograd (1961).

TASIĆ N., 1965 — Poznoeneolitski, bronzanodopski i sloj starijeg gvozdenog doba na Gomolavi, iskopavanja 1965-1966, RVM 14, Novi Sad 1965.

TASIĆ N., 1967 — Badenski i vučedolski kulturni kompleks u Jugoslaviji, Beograd 1967.

TASIĆ N., 1968 — Eneolitske kulturne grupe i neolitska tradicija, Neolit centralnog Balkana, Beograd 1968.

TASIĆ N., 1970 — Genetische Probleme der Gruppen Baden, Kostolac und Vučedol in jugoslawischen Donaugebiet und Zentralbalkan, Balcanica I, Beograd 1970.

TASIĆ N., 1973 — Bor i njegova okolina u praistoriji, Bor i okolina, Bor 1973.

TASIĆ N., 1975 — Cernavoda III i Boleráz nalazi u jugoslovenskom Podunavlju i problem hronološkog odnosa kultura bakarnog doba u karpatsko-podunavskim oblastima, Balcanica VI, Beograd 1975.

TASIĆ N., 1975a — Der Einbruch des Salkuta-Bubanj-Krivodol-Komplexes auf der Balkan, GCBI XIV, Sarajevo 1975.

TASIĆ N., 1978(1979) — Der jugoslawische Donauraum und Ägäa in Eneolithikum, AIug. XIX, Beograd 1978(1979).

TASIĆ N., 1981 — Äneolithische Kulturen Ostserbiens und dehren Verhältnis zu den Fundstätten in Oltenien, Transsylvanien und im rumänischen Teil des Banats, Balcanica XII, Beograd 1981.

TASIĆ N., 1980-1981 — Die Idole der Baden-Kultur in Vinča, AIug. XX-XXI, 1980-1981.

TASIĆ N., 1982 — Naselja bakarnog doba u istočnoj Srbiji, Zbornik muzeja rudarstva i metalurgije 2, Bor 1982.

TASIĆ N., 1983 — Jugoslovensko Podunavlje od indoevropske seobe do prodora Skita, Novi Sad - Beograd 1983.

TASIĆ N., 1984 — Vinča u bakarno i bronzano doba, Vinča u praistoriji i srednjem veku, Beograd 1984.

TASIĆ N., 1985 — O hronološkom odnosu eneolitskih kultura u jugoslovenskom Podunavlju, Starinar XXXVI, 1985.

TASIĆ N., 1986 — Sopot-Lengyel, Lasinja und Boleraz Funde am Bosut in der Nähe von Šid, A Béri Balogh Ádám müseum Évkönyve XIII, Szekszárd 1986.

TASIĆ N., 1986a — O hronološkom odnosu eneolitskih kultura u jugoslovenskom Podunavlju, Starinar XXXVI, 1986.

TASIĆ N., 1987 — Stratigrafski i relativnohronološki odnosi Gomolave kod Hrtkovaca i Gradine na Bosutu, RVM 30, 1980.

TELEGIN D., 1973 — Srednostrogievska kultura epohi midi, Kiev 1973.

TELEGIN D. - POTENKHINA L., 1987 — Neolithic Cemeteries and Populations in the Dneper Basin, BAR 383, 1987.

TEŽAK-GREGL T., 1985 — Vučedol kod Vukovara, AP 26, 1985.

TODOROVA H., 1986 — Kameno-mednata epoha v Blgarija, Sofija 1986.

TODOROVIĆ J., 1956 — Praistorijska nekropola na Rospi Ćupriji kod Beograda, GMGB III, Beograd 1956.

TODOROVIĆ J., 1963 — Die Grabung Hissar und ihre Verhältnisse zum Änaeolithikum und der frühen Bronzezeit, Alug. IV, Beograd 1964.

TORMA L., 1973 — Die Boleraz-Gruppe in Ungarn, Symposium Bratislava 1973.

TRBUHOVIĆ V. - VUKOVIĆ LJ., 1967 — O hronološkom odnosu lokaliteta ranog bronzanog doba u Negotinskoj Krajini, Starinar XVII, Beograd 1967.

VASIĆ M., 1906 — Starosrpska nalazišta u Srbiji, Starinar I, Beograd 1906.

VINSKI-GASPARINI K., 1956 — Iskapanje prethistorijskih naselja u Belom Manastiru, OZ V, Osijek 1956.

VINSKI-GASPARINI K., 1957 — Zlatni nalaz iz Progara u Srijemu, VHAD 1954, Zagreb (1957).

VLASA N. - TAKACS M. - LAZAROVICIU GH., 1987 — Die Hügelgräber aus dem Banat und aus Siebenbürgen an der spätäneolithischen Periode, Hügelbestattung... 1987.

VULIĆ N. - GRBIĆ M., 1937 — Corpus Vasorum Antiquorum Yougoslavie, fasc. 3, Beograd 1937.

WEISHAAR J. H., 1980 — Ägäische Tonanker, Mitteilungen das DAI (Anthr. Abteilung) 95, Berlin 1980.

WOZINSKY M., 1904 — Die inkrustierte Keramik der Stein-und Bronze zeit, Temesvar 1904.

ZIRRA V., 1960 — Kultura pogrebenija s' ohroj v Zakarpatskih oblastjah RNR, Materijali i isledovanija po arheologii j-z SSSR i RNR, Kišinev 1960.

ZOTOVIĆ M., 1963 — Kremenilo, Višesava, Bajina Bašta - višeslojno praistorijsko nalazište, AP 5, Beograd 1963.

ENEOLITSKE KULTURE CENTRALNOG I ZAPADNOG BALKANA

- Rezime -

Prelaz iz neolitskog u eneolitski period na području srednje i jugoistočne Evrope nije bio tako nagao, praćen većim populacionim promenama ili burnim smenjivanjem kultura. Proces je započeo znatno ranije već u agrarnim neolitskim kulturama: vinčanskoj, lendjelskoj, butmirskoj, potiskoj i trajao je sve do njihovog kraja, kada zapravo počinju da se pojavljuju prve, prave bakanodobne kulture, kod kojih dobijanje i prerada bakra, izrada predmeta i njihova razmena počinju da označavaju ekonomske kategorije. Ovaj proces "eneolitizacije" neolitskih kultura nije bio istovremen na celom balkanskom prostoru niti su sve oblasti bile zahvaćene istim kulturama. Geografske odlike tla i prethodna heterogenost u razvoju neolitskih zajednica, uslovili su, da se pod uticajem raznih kulturnih centara (Karpatski basen, Egeja, severnopontske oblasti i sl.) na području centralnog i zapadnog Balkana formiraju kulturne oblasti, regije sa svojim lokalnim specifičnim razvojem. U pojedinim fazama eneolita one se nezavisno razvijaju jedna od druge, da bi se kasnije, pod uticajem snažnih kultura i kulturnih grupa integrisale u jedan kulturni kompleks (vučedolski npr.). Trajanje eneolita, kako pokazuju najnovija saznanja u ovoj oblasti, iznosi negde oko 1000 godina, što je i razlog da se u praistorijskoj arheologiji napustilo mišljenje o kratkotrajnom eneolitskom periodu kao prelaznom vremenu izmedju kamenog (neolitskog) i metalnog (bronzanog) doba. U toku ovih 1000 godina , praistorijsko rudarstvo i rana metalurgija doživljavaju punu afirmaciju, nameću se kao neophodnost za dalji razvoj ekonomike društva i čine uvod za sledeće etape u kojima će, najpre bronza a zatim i gvoždje, pokazati svoju superiornost pri izradi orudja, oružja i nakita u odnosu na kost, kamen pa i bakar.

Posmatrajući kulturno-istorijske procese na prostoru bivše Jugoslavije (centralni i zapadni Balkan), uz poštovanje regionalnih specifičnosti i autohtonih

osnova, mogu da se izdvoje četiri osnovne oblasti: centralnobalkanska, jadranska i istočno-alpska. Prva obuhvata područje jugoslovenskog Podunavlja i njegovog neposrednog zaledja (donji tokovi Save i Drave, sliv Velike Morave, donje Potijske, dolina Timoka). Druga, Centralnobalkanska zona ime prelazni karakter i često se (Bubanj-Salcuta-Krivodol kompleks i eneolit Pelagonije ili u vreme prodora vučedolskog stila) pojavljuje kao zona transmisije izmedju kultura Karpatskog basena sa jedne i egejskih kultura sa druge strane. Treća, Jadranska oblast obuhvata usko područje Primorja, od Trsta na severu do Albanije na jugu u kome se razvijaju specifične kulture od kojih neke prodiru i u balkansko zaledje (eneolit u Crnoj Gori i Hercegovini), ali i obratno primaju snažne uticaje kontinentalnog eneolita. Treća, Prialpska zona se kasno uključuje u praistorijski razvoj jugoistočne Evrope. Skromno neolitsko nasledje nije bilo dobra podloga za razvoj ranih eneolitskih kultura. Medjutim, sa pojavom lasinjske ("alpskog faciesa lendjelske kulture"), a kasnije vučedolske kulture (sojeničarska naselja Ljubljanskog barja) ova regija postaje značajan centar razvoja eneolitskih kultura povezanih sa istočnim susedima.

Pored pojave i razvoja metalurgije u istočnim oblastima, gde se nalaze najstariji rudokopi na Balkanu (Rudna glava kod Majdanpeka), postoji još nekoliko značajnih pojava koje daju osnovni pravac razvoju eneolitskih kultura na širem području uključujući veliki deo srednje i jugoistočne Evrope. Akcenat se stavlja na dva dogadjaja od kojih prvi označava širenje indoevropskih populacija iz stepskih oblasti južne Rusije prema srednjoj i jugoistočnoj Evropi i drugi, koji se manifestuje velikom ekspanzijom vučedolskog stila prema jadranskoj zoni, Panonskoj niziji i Rumunskom Banatu. Njegovom dezintegracijom započinje rano bronzano doba ovih oblasti. Ova dva dogadjaja označavaju one prelomne trenutke u razvoju eneolita centralnog i zapadnog Balkana koji nam služe kao podloga stvaranja
Pl. I-IV njegove periodizacije. *Rani eneolit*, na osnovu ovih i nekih drugih kriterijuma, označava dalju evoluciju neolitskih kultura koje se postepeno upoznaju sa bakrom,
Pl. III. 3-7 preradjuju ga i izradjuju od njega, u prvo vreme, sitnije pretežno ukrasne predmete
Pl. XIII ili sekire koje podražavaju kamene, neolitske uzore (nalazi bakarnih predmeta u vinčanskoj kulturi, ostave kod Pločnika i sl.). *Srednji eneolit* započinje sa prvim prodorom "stepskih pastira" najpre u jugoslovensko Podunavlje, a kasnije i južno od njega. Najzad *pozni eneolit* naročito u zapadnim oblastima započinje formiranjem
Pl. XXVII-XXXIV rane vučedolske kulture i traje kroz sve tri njene razvojne faze, sve do raspada velikog vučedolskog kompleksa i formiranja čitavog niza lokalnih kultura ranog bronzanog doba nastalih na njenim tradicijama (Tivat-Rubež grupa, ljubljanska, vinkovačka ili na severu Mako u Madjarskoj, Kosihy-Čaka u Slovačkoj, a na istoku u Rumuniji Moldova Veche. U apsolutnim ciframa koje se oslanjaju na C-14 podatke (bez kalibracije) rani eneolit pripada vremenu 3100-2700, srednji eneolit traje od 2700-2300, a pozni od 2300 do 1900 god. pre n.e.

U toku RANOG ENEOLITA, u južno-panonskoj regiji, srpskom Podunavlju, istočnoj Srbiji, Makedoniji sve do Pelagonije, kulturnoistorijski razvoj išao je u dva pravca. Severne oblasti, veći deo Vojvodine posebno, bile su zahvaćene razvojem kultura tisapolgarsko-bodrogkeresturskog (Tizsapolgar-Bodrogk-

erezstru) kompleksa koji je ponikao na neolitskom supstratu potiske i Herpalj (Herpaly) kulture, dok su istočni i južni delovi bili zahvaćeni snažnim razvojem lokalnih grupa Bubanj-Salkuca (Salcuta) - Krivodol kompleksa. Tisapolgarska i bodrogkerestruska kultura na vojvodjanskom prostoru čini integralni deo razvoja ovih kultura istočnog dela Karpatskog basena. Njihovo matično područje se nalazi u madjarskom Potisju. Karakteriše ih vrlo kvalitetna keramika, bogatstvo u bakarnim nalazima i relativno česta pojava zlatnih predmeta. Materijalna kultura poznata je pretežno na osnovu velikog broja istraživanih nekropola u kojima se pokojnik sahranjivao po kanonima važećim za neolitske kulture i na osnovu brojnih priloga u njima (keramika, orudje, nakit). U Vojvodini su istraživane dve nekropole ovih kultura (jedna kod Sente i druga kod Subotice) i jedno naselje otkriveno u Pl. V, 1-9
Crnoj Bari kod Zrenjanina. Na osnovu pojedinačnih nalaza zabeležen je i jedan kratkotrajan prodor ovih kultura prema jugu, u Srem, srpsko Podunavlje i zapadnu Srbiju. Jedna manja nekropola sa bodrogkeresturskim grobovima otkrivena je u Pl. VII, 7-8; Fig. 45
Vinči kraj Beograda. Ona je dala zanimljiv materijal i potvrdila fizičko prisustvo nosilaca bodrogkeresturske kulture i u oblastima znatno južnije od onih koje su smatrane njenom južnom granicom. Ovoj grupi nalaza treba dodati i dobro poznati zlatan nalaz iz Progara kod Zemuna koji predstavlja stilizovanu antropomorfnu figuru.

U vreme razvoja tisapolgarske i bodrogkeresturske kulture, prostor od srpskog Podunavlja do Pelagonije bio je zahvaćen dugim kontinuiranim razvojem Bubanj-Salkuca kulture. Ona je deo jednog šireg, istočno balkanskog kulturnog kompleksa slikane, grafitirane keramike (Bubanj-Salkuca-Krivodol-Gumelnica kompleks) kome pripada čitav niz kultura i kulturnih grupa od istočne Bugarske do Pomoravlja i od južnih Karpata do Pelagonije i dalje do trakijskog dela Grčke na jugu (nalazišta Dikili Tash, Paradimi, Sitagroja i dr.). Nalazišta u našoj zemlji koja se svrstavaju u regionalnu varijantu označenu kao bubanjska kultura (ili Bubanj-Salkuca) pripadaju zapadnim oblastima ovog kulturnog kompleksa. Relativno je dobro istražena, naročito zahvaljujući radovima u istočnoj Srbiji (Zlotska pećina, Krivelj, Bubanj, Kovilovo, Veljkovo i dr.), na Kosovu (Hisar kod Suve Reke i Gadimlje kod Lipljana) i u Pelagoniji gde je iskopavan veći broj nalazišta tipa "tumbi" (tella) u okolini Bitolja i Prilepa (Crnobuki, Karamani, Bakarno Pl. XIII, 3, 5
gumno) i gradinskih naselja kao što je Šupljevac kod Suvodola. Na ovako velikom prostoru, koji je zahvatila Bubanj-Salkuca i njoj srodna Crnobuki kultura pojavljuju Fig. 11
se, zavisno od geografskih uslova i od ekonomskih odlika kulture, različiti tipovi naselja. U istočnoj Srbiji, južnokarpatskoj zoni u Rumuniji i u severozapadnoj Bugarskoj koriste se pećine za boravak i većih ljudskih zajednica (Zlotska pećina kod Bora, Hotilor kod Baie Herculane ili Devetaška pećina kod Vidina). U njima se podižu kuće, kolibe, objekti za stanovanje. Prilikom arheoloških iskopavanja naišlo se na više naseobinskih horizonata što ukazuje da se ne radi o privremenim staništima, zaklonima stočara, već o dugotrajnim naseljima u kojima su se obavljale Fig. 50
i druge aktivnosti. U Zlotskoj pećini na primer nalazio se značajan preradjivački metalurški centar (otkopano je više bakarnih alatki, komadi zgure, tučkovi za mrvljenje rude i sl.). Na prostoru od Karpata, pa preko Kosova, Skopske kotline

do Pelagonije i Pinda u Grčkoj postojao je jedan značajan stočarski put u eneolitskom periodu. Na njemu se nalazi veliki broj sličnih naselja polunomadskog karaktera koja su podizana na uzvišenim čukama iznad brdskih rečica i potoka (Kovilovo kod Negotina, Krivelj kod Bora, Bubanj kod Niša, Gadimlje kod Lipljana, Skopsko kale, Šupljevac u Pelagoniji). Ona pripadaju drugom tipu naselja ovog kulturnog kompleksa. Treći tip su "*tell*" naselja, *tumbe* koje se nalaze u nizinama, često na barskom terenu gde se koriste mala uzvišenja - *grede* na kojima se podiže prvo naselje, a onda iznad njega drugo, treće pa se na taj način formira uzvišenje - "tumba". Ova vrsta naselja karakteristična je za južne i istočne oblasti "istočnobalkanskog kompleksa grafitirane keramike" (naselja u Trakiji, severnoj Grčkoj) a kod nas su jedna od osnovnih karakteristika za područje Pelagonije.

Pl. XI-XII

Materijalna kultura Bubanj - Salkuca nalazišta je izrazito bogata i raznovrsna. Njena keramika je poznata preko različitih oblika posudja (zdela, pehara, šolja, amfora, pitosa i dr.), bogatog i raznovrsnog načina ukrašavanja: od tehnika ureza i bockanja, slikanja crvenom ili belom bojom do ukrašavanja specifičnom tehnikom grafitiranja, što je jedna od osnovnih stilskih odlika na čitavom prostoru ovog kulturnog kompleksa. Pored keramičkih posuda na nalazištima su česte antropomorfne i zoomorfne figurine (Krivelj, Gradimlje, Crnobuki), koje ukazuju na postojanje verovanja, kultova i magije eneolitskog čoveka. Od ostalih oblika materijalne kulture brojne su alatke (sekire, šila) od jelenjih rogova, zatim bakarne sekire, igle i ukrasni predmeti.

Pl. XII

Pl. XXXV/1-11

Zapadni delovi Balkanskog poluostrva prolazili su, tokom ranog eneolita kroz drugačiji kulturnoistorijski razvoj. Na području Slovenije, severozapadne Hrvatske pa i severne Bosne, nasledje lendjelske ili sopotsko-lendjelske kulture, oseća se gotovo kroz ceo rani period eneolita. U Slavoniji i severozapadnoj Hrvatskoj kao supstrat eneolitskoj lasinjskoj kulturi pominje se sopotska kultura kao deo lendjelskog kompleksa. U Sloveniji pak, kako pokazuju najnovija istraživanja prisustvo "alpsko-lendjelske" kulture osvedočeno je na više nalazišta (Drulovka, Ptujski grad, Jama na Lubniku kod Škofje Loke), a u pećinskom nalazištu Ajdovska jama kod Nemške Vasi (blizu Brežica), u vertikalnoj stratigrafiji, "alpsko-lendjelska" kultura nalazi se ispod slojeva sa lasinjskom kulturom. Ima se utisak da je lendjelska kultura na području Slovenije, slično sopotskoj u Hrvatskoj, nešto duže trjala, skoro kroz čitavo vreme ranog eneolita ovih oblasti. Za ovo vreme došlo je, pod uticajem kultura iz susednih oblasti, do prerastanja lendjelske kulture u jednu specifičnu pojavu koja je dobila naziv "alpski facies lendjelske kulture" ili lasinjska kultura.

Fig. 1

Jadranska zona je najmanje istražena oblast u izučavanju eneolitskih kultura, posebno kada se ima u vidu sam početak ovog perioda. Nedovoljan broj istraženih nalazišta, neobjavljena gradja, neujednačena terminologija kod naziva kultura itd., sve je to razlog da se u ovom trenutku mogu samo naslutiti putevi razvoja eneolita u ovim oblastima. Hvarska kultura nesumnjivo čini neolitski supstrat, koji bi, analogno pojavama u drugim savremenim kulturama (vinčanska, lendjelska), mogao da se smatra već eneolitskim ili bar proto eneolitskim. U Grabčevoj špilji na Hvaru, u Gudnji kod Stona na Pelješcu, Vela Luci na Korčuli

Fig. 16

i još na nekim drugim nalazištima nalaze se keramički oblici koji pripadaju ranim eneolitskim kulturama. Medjutim, izvesno je, kako to pokazuje stratigrafija pomenutog nalazišta kod Stona, da na srednjem Jadranu prvu eneolitsku kulturu predstavlja pelješka (N.Petrić) ili nakovanska kultura (po nalazištu Spila kod Nakovana na Pelješcu) kako je još naziva S.Dimitrijević. Nju čini crna kvalitetna keramika ukrašavana kanelurama koja se sa ranim eneolitom pojavljuje na većem broju nalazišta na jadranskoj obali (Grapčeva i Markova pećina, Jamina Sredi na Cresu i dr.). Pl. XLII

SREDNJI ENEOLIT gotovo na celom balkanskom prostoru obeležavaju snažne kulturne i socijalne promene: napuštanje neolitskih tradicija gotovo u svim vidovima materijalne i duhovne kulture. Ima se utisak, da u ovom vremenu dolazi do prodora novih populacija, velikog etnokulturnog potencijala, koje na širem prostoru srednje i jugoistočne Evrope dovode do promena, ne samo kultura, kulturnih grupa i stilova u keramičkoj proizvodnji, već znatno šire, oni menjaju strukturu privrede i način života eneolitskog stanovništva na ovom prostoru. Migracioni pokreti koji su zahvatili veliku teritoriju, od stepskih oblasti južne Rusije pa do Podunavlja, a zatim i dalje, do jadranske obale, ostavili su dubok trag u razvoju eneolitskih kultura. Istočne oblasti Podunavlja i Balkanskog poluostrva bile su jače izložene ovim promenama pa je razumljivo da je do smenjivanja kulturu došlo uz veće potrese. Prema zapdau intenzitet populacionog talasa, koji se povezuje sa prvom indoevropskom seobom "stepskih pastira" slabi, što se ogleda i u postepenom smenjivanju kultura: prerastanje lendjelske u lasinjsku ili razvoj protonakovanske u nakovansku kulturu u jadranskoj zoni.

Kao prva kultura "novog talasa" u osnovi južno panonska, ali koja prelazi i južno od Save i Dunava, javlja se Černavoda III - Boleras kultura, koja se pod pritiskom novih populacija širi od istoka prema zapadu. Zahvaljujući svojoj nomadskoj komponenti u ekonomi i, pokretljivosti njenih nosilaca, vrlo brzo prekriva prostor od donjeg Podunavlja do istočnih Alpa i od južne Poljske do centralnog Balkana. Nalazišta Černavoda III i Boleras kulture (ove dve kulture čine jedan kulturni kompleks) skoncentrisana su u jugoslovensko Podunavlje, mada kako pokazuju nova istraživanja pojedinačno su otkrivena i u centralnobalkanskoj zoni (nalazišta kod Kragujevca, Svetozareva, Smederevske Palanke, Valjeva i u Bosni). Po tipu, ona u Podunavlju pripadaju ravničarskim naseljima podizanim kraj reka (Brza Vrba kod Kovina, Mostonga kod Odžaka, gradina na Bosutu kod Šida i dr.). Izuzetak čine naselja južno od Save i Dunava od kojih se neka podižu u brdovitom ambijentu, često na uzvišenim dominantnim položajima (Gradina Likodra u Radjevini). Nekropole ili pojedinačni grobovi nisu poznati u jugoslovenskom Podunavlju, ali na osnovu nekih podataka iz susednih oblasti (Madjarska), u ovoj kulturi se napušta tradicionalan način sahranjivanja pokojnika (ravni grobovi, skeletno sahranjivanje u zgrčenom položaju) i pojavljuje se spaljivanje pokojnika i sahranjivanje u urnama koje se polažu u manje tumule - humke (nekropola Pilismarot u Madjarskoj).

Materijalna kultura, posebno keramički nalazi, znatno se razlikuju od oblika koji su karakterisali kulture ranog eneolita. Sada se pojavljuju šolje luk- Pl. XIV-XV

ovičastog oblika ukrašene plitkim kanelurama, velike zdele, plitki tanjiri - poklopci,
Pl. XIV, 4 lonci ukrašavani plastičnim trakama, velike duboke posude it. U ornamentici sreću se novi motivi i nove tehnike ukrašavanja što stilu ove kulture daje specifičan karakter. Duboki brazdasti urezi, motiv riblje kosti izveden u tek prosušenu glinu i plitke kanelure čine, uz nabrojane oblike, osnovne odlike novog stilskog izraza nepoznatog u kulturama ranog eneolita u srednjoj i jugoistočnoj Evropi. To je razlog što se u genezi ove kulture, strani elementi uzimaju kao osnovna odrednica pri formiranju njenog stila.

Sa Černavoda III i Boleras kulturom započinje nov ciklus u razvoju eneolitskih kultura na prostoru jugoslovenskog Podunavlja i u oblastima koje mu gravitiraju. Badenska kultura koja postupnom evolucijom nastaje iz Boleras osnove, zahvata gotovo isto područje kao i njena prethodnica. Čak je i afinitet prema sličnim položajima za podizanje naselja ostao isti. U južnopanonskoj zoni brojna su ravničarska naselja, slobodno formirana, pretežno zemuničkog tipa u kojima se boravi nekoliko sezona a zatim se ide dalje. Nomadski način života, pojava kola i konja, učinili su ovu kulturu izuzetno mobilnom tako da je postignuto jedinstvo stila na velikom prostranstvu od Karpata na istoku do Alpa (do Bodenskog jezera) na zapadu i od Malopoljske na severu do Save i Dunava na jugu. U jugoslovenskom Podunavlju (iako brojna), istražen je relativno mali broj naselja (Dobanovci kod Zemuna i Lice kod Erdevika na Sremu, Perlez i Rimski šančevi u Bačkoj, Vučedol, Sarvaš i Beli Manastir kod Osijeka), ali nam ona pružaju dosta podataka za rekonstrukciju načina života i materijalne kulture.

Posle promena koje su se u načinu sahranjivanja odigrale kao posledica prodora ranih stepskih populacija, u badenskoj kulturi, ponovo srećemo klasičan ritual, nasledjen iz neolitskih i ranih eneolitskih kultura - sahranjivanje pokojnika u zgrčenom položaju (Dobanovci, Vučedol, Bogojevo, Gomolava). Medjutim, uporedo sa njim javlja se i nov način, sahranjivanje pod humkama u kojima se nalaze urne sa spaljenim kostima pokojnika, što se bar jednim delom povezuje sa stepskim načinom sahranjivanja (Aradjanska humka kod Kikinde). Biritualnost u sahranjivanju karaktersitika je i badenske kulture u Madjarskoj, gde se često i na istim nekropolama pojavljuje spaljivanje pokojnika i skeletno sahranjivanje.

Pl. XVI, 1-6 U materijalnoj kulturi badenskih nalazišta nastavlja se dalji razvoj Boleras stila: šolje sa lukovičastim recipientom postaju vodeća forma, zdele se ukrašavaju motivom urezane zvezde, na dubljim posudama nalazi se ornament riblje kosti itd. Uporedo sa ovim oblicima i nasledjenom ornamentikom Černavoda III - Boleras stila na keramici počinje da se upotrebljava bela inkrustacija a kod oblika se
Pl. XVII, 5 pojavljuju elipsoidne posude (Fischbutte), amfore i čitav niz novih varijanata kod pehara i šolja čija drška nadvisuje obod suda. U proizvodnji bakarnih predmeta takodje se pojavljuju novi oblici medju kojima su karakteristične velike masivne krstaste sekire i sekire sa jednim sečivom i cevastim dodatkom. Ove stilske karakteristike pokazuju da se razvoj oblika posuda iz prethodne kulture nastavlja i kroz badenski stil; one se usavršavaju, pojavljuju novi ali se takodje napuštaju
Pl. III neki elementi karakteristični za stariji period. Tako se na primer antropomorfna
Fig. 45

plastika kakva je poznata sa naših badenskih nalazišta (Vinča, Dobanovci, Vučedol) pojavljuje samo u ranoj fazi kulture dok kasnije potpuno isčezava.

Evolucija eneolitskih kultura nastavlja se na većoj teritoriji jugoslovenskog Podunavlja prerastanjem badenske u kostolačku kulturu. Promene su nastale pre svega zbog izmenjenog načina života: nomadsko badensko stanovništvo sve se više vezuje za odredjene lokacije, počinje da se bavi ratarstvom, menja svoje navike života a time i svoje potrebe što se sve ogleda i u promeni na planu materijalne kulture. Nomadski način života u kostolačkoj kulturi skoro se potpuno napušta: naselja se podižu na odcednom terenu, visokim lesnim obalama reka ili na manjim uzvišenjima u ravničarskim oblastima. Grade se veće nadzemne kuće, sa više prostorija i sa više faza obnavljanja. Na Gomolavi na primer, u vertikalnoj stratigrafiji nalaze se tri naseobinska horizonta sa većim brojem kuća i sa više faza njihovog obnavljanja i rekonstrukcije. Podizanje kostolačkog naselja na Gomolavi na osnovama badenskog naselja zemuničkog tipa i gradnja trajnih stambenih objekata vezana je za početak intenzivnijeg bavljenja zemljoradnjom, za šta su na okolnom terenu postojali povoljni uslovi.

U keramičkoj proizvodnji, kostolačka kultura je prihvatila mnoge oblike badenskih posuda (šolje sa trakastom drškom, zdele, amfore, Fischbutte i sl.) ali ih je tokom vremena modelirala, davala im duh svoga stila. To se naročito dobro zapaža kod ukrašavanja posuda gde se postepeno gubi linearno ukrašavanje i tačkasti ubodi a pojavljuje nova tehnika ukrašavanja: brazdasti urez u kombinaciji sa belom inkrustacijom (Furchenstih) ili motivi zareza u raznim kombinacijama. Kostolački stil ukrašavanje je vrlo specifičan i javlja se samo u ovoj kulturi - varijante koje se kasnije pojavljuju (duborez u vučedolskoj kulturi na pr.) samo su njegova dalja evolucija. Pl. XX-XXIII

Smatra se da su Slavonija i Srem oblasti u kojima je nastao kostolački stil i kostolačka kultura. Odavde se ona širi prema jugu u Srbiju južno od Save i Dunava (Koričane kod Kragujevca, Jelenac kod Aleksinca, Hisar na Kosovu, Klokočevac, Crnajka kod Majdanpeka itd.), u Bosnu (Pivnice kod Odžaka), a na severu kostolačka kermika se nalazi do Dunavskog kolena u Madjarskoj i na nalazištima u Slovačkoj u okviru jedne, kostolačkoj srodne kulture koja se naziva Bosača. Na istoku, kako pokazuju nalazišta na području Djerdapa, u istočnoj Srbiji i jugozapadnoj Rumuniji došlo je do simbioze Kostolačke sa Kocofeni (Cotofeni) kulturom čije se matično područje nalazi u Transilvaniji, južnom Banatu i Olteniji.

U vreme razvoja kostolačke kulture oblasti Balkanskog poluostrva i medjurečje Sava - Drava karakteriše dalji razvoj lasinjske kulture, sa jedne, i pojava kostolačkoj srodne kulture koja nosi naziv Rec-Gajari (Retz-Gajary), sa druge strane. Lasinjska kultura se razvija istovremeno sa početkom, a Rec-Gajari sa krajem kostolačke kulture. Medjusobno to su dve potpuno različite kulturne pojave prialpske zone i severozapadne Hrvatske: lasinjska se razvija, kako je istaknuto na lendjelskim osnovama dok se Rec-Gajari stil razvija nezavisno, verovatno pod uticajem "Furchenstih mode" na području Karpatskog basena, istočnoalpskih oblasti i Erdelja. Privremeni karakter rec-gajarskih naselja i četo korišćenje pećina Pl. XXXVII-XXXVIII

kao staništa (Vindjija, Velika pećina u Višnjici) ukazuje na polunomadsku komponentu u njenoj ekonomici.

POZNI ENEOLIT centralnog i istočnog dela Balkanskog Poluostrva, posebno Podunavlja, obeležen je pre svega novim, snažnim prodorom stepskih populacija, nosilaca kulture jamnih grobova (oker grobovi), a odmah zatim i ekspanzijom vučedolske kulture na jug, zapad i istok. Ovaj vremenski period u eneolitu je, za razliku relativno mirne evolucije na relaciji Boleraz-Baden-Kostolac kultura, izuzetno turbulentan, praćen čestim migracionim pokretima, integracionim i dezintegracionim procesima. Nesumnjivo da je u istočnim oblastima naše zemlje prodor nosilaca jamne kulture imao poseban značaj za celokupan kasniji kulturni razvoj šireg područja Karpatskog basena i oblasti koje mu gravitiraju. Nedostatak naselja ove kulture objašnjava se izrazito nomadskom komponentom u njenoj ekonomici. Medjutim, veliki broj registrovanih tumula (humki) na području madjarskog i srpskog Potisja, u jugoslovenskom Podunavlju i na centralnobalkanskom tlu (njihov broj iznosi više hiljada) ukazuje na brojno prisustvo nosilaca kulture u ovim oblastima. U Vojvodini je istraživano desetak tumula ovog tipa i svi su dali sigurne podatke o njihovom stepskom karakteru, počev od načina sahranjivanja (polaganje pokojnika na asuru, posipanje crvenom bojom - okerom, drvena konstrukcija iznad rake, nasipanje tumula), do priloga koji se nalaze uz pokojnika (zlatni i srebrni uvojci za kosu). Posebno su važni tumuli - humke iskopavani kod Pančeva (Vojlovica, Jabuka), Vršca (Vlajkovac, Vatin, Uljma) i Perleza (Batka), koji su dali značajne podatke o ovom fenomenu u eneolitu jugoslovenskog Podunavlja. Velika humka Jabuka kod Pančeva (R oko 40 m.) bila je nasuta iznad naselja kostolačke kulture tako da je raka stepskog groba probila osnovu jedne kuće sa kostolačkom keramikom. Na ovaj način dobijen je značajan podatak o vremenu prodora stepskih naroda u ove oblasti, odnosno da se humke ovog tipa javljaju krajem kostolačke kulture (oko 2300 god.). Sličnu situaciju srećemo i na humkama kod Perleza samo što je ovde humka (Pašica humka) zasipana sa zemljom u kojoj su bili fragmenti badenske keramike.

Fig. 42

Fig. 34

Map. 2

Prodor stepskih kultura nije u svim oblastima naše zemlje prekinuo razvoj autohtonih kultura. U sremsko-slavonskoj zoni, na osnovama kostolačkog stila formira se vrlo značajna vučedolska kultura. Ona će ostati dominantna pojava kroz ceo pozni eneolit na prostoru od Slovačke na severu, do jadranske obale na jugu, i od Karpata na istoku do Alpa na zapadu. Zahvatajući ovako veliko prostranstvo formirale su se brojne lokalne grupe i kulture koje, zahvaljujući inicijalnom stilskom jedinstvu čine vučedolski kulturni kompleks. Medjutim, kada se govori o čistoj vučedolskoj kulturi, obično se pod tim podrazumeva njena pojava u sremsko-slavonskoj oblasti, a zatim i na području severne Bosne i centralne Srbije. Zastupljena su dva osnovna tipa naselja: jedna podizana na visokim lesnim obalama Dunava, Save, Drave (Svaraš, Vučedol, Belegiš, Gomolava) i druga koja se nalaze južno u brdovitim predelima Bosne i Srbije a koja imaju gradinski karakter (Debelo brdo i delovi u Bosni, Jasik i Djurdjevo kod Kragujevca). Izuzetak od pravila čine naselja podizana u pećinama (Hrustovača u Bosni na pr.). Ono što karakteriše veliki broj vučedolskih naselja to je njihov u izvesnoj meri i odbrambeni karakter. Gradac u

Vučedolu, Šančine u Belegišu ili Sarvaš kod Osijeka imaju razvijen fortifikacioni sistem: jednostruki ili dvostruki rovovi, palisade i sl. Utvrdjeni karakter imaju i vučedolska naselja na području Bosne i Srbije što sve ukazuje na prisustvo stranih populacija u neposrednom susedstvu i na potrebu podizanja bezbednih naselja.

Kod sahranjivanja pokojnika, u vučedolskoj kulturi istovremeno se pojavljuje incineracija i inhumacija pokojnika. Skeletno sahranjivanje zadržava u osnovi odlike ranijih kultura ovog područja ali se pojavljuju i novi oblici: dvojno sahranjivanje ili sahranjivanje cele porodice. U Vučedolu su na pr. zastupljene sve tri vrste skeletnog sahranjivanja - pojedinačnog, dvojnog i grupnog sahranjivanja. Uz to, kao jedna specifičnost nasledjena iz badenske kulture sreće se i sahranjivanje životinja - Tirgräber-i. Sa druge strane naročito u istočnim oblastima vučedolske kulture pojavljuje se spaljivanje pokojnika i sahranjivanje pod humkama. Kod Batajnice i Vojke iskopavana su dva vučedolska tumula u čijem su se središtu nalazile urne sa spaljenim kostima pokojnika a na području južnog dela rumunskog Banata, nedaleko od Dunava, otkopavano je kod Moldova Veche nekoliko vučedolskih tumula sa urnama i kamenom kalotom. Ove odlike sahranjivanja u vučedolskoj kulturi pokazuju da su promene u najosetljivijoj i najkonzervativnijoj manifestaciji praistorijskog društva - načinu sahranjivanja - bile spore. Postepeno se napuštao tradicionalni način sahranjivanja na račun novih oblika. Pl. XXVI-XXVII, 1-3

Keramička proizvodnja u vučedolskoj kulturi predstavlja najviši domet kako u raznovrsnosti oblika tako i u načinu ukrašavanja. Posle brazdastog urezivanja koje je prihvatila iz kostolačke kulture, sve se češće pojavljuje duborez, dubljene (rovašene) površine suda da bi se u udubljenja stavljali veći nanosi bele mase. Kontrast izmedju crne uglačane površine suda i bele inkrustacije dostizao je visok estetski efekat. Raznovrsnost motiva takodje dostiže svoj najviši stepen: koncentrični krugovi, urezani trouglovi, rombovi i kvadrati, zvezde i elipse, svi ti geometrijski motivi izvode se u brojnim varijantama i varijetetima. Ukrašavaju se čak i površine suda koje nisu vidljive. Na zdelama, peharima, amforama, neobičnim predmetima verovatno kultne namene, na terakotama i zoomorfnim figurama ukrašava se maksimalno moguća površina. Kod plitkih pehara na nozi, ukrašava se i unutrašnjost suda. Sve ovo čini da se vučedolska keramika smatra jedinstvenom pojavom po bogatstvu ukrašavanja nedostignuta u praistorijskim kulturama srednje i jugoistočne Evrope. Pl. XXVIII-XXXII

Iz svoga matičnog područja, Srema i Slavonije vučedolska kultura se proširila vrlo brzo u susedne oblasti; najpre u Baranju (Zok u Madjarskoj), zatim na područje Ljubljanskog barja (Ig I, II) gde je naišla na vrlo pogodno tlo za dalji razvoj, zatim u Bosnu i Srbiju i najzad u rumunski Banat i na jadransku obalu. Zahvatajući ovako veliko područje sa heterogenim supstratom, udaljujući se od matičnog jezgra i primarnog stilskog izraza, u izmenjenim uslovima vrlo brzo je došlo do raspada velikog vučedolskog kompleksa i do formiranja novih kultura koje će poslužiti kao osnov za razvoj grupa i stilova ranog bronzanog doba. U sremsko-slavonskom području i u delu južne Madjarske nastaje vinkovačka (Vinkovci-Somogyvar) kultura; na zapadu u Sloveniji, a delom i na jadranskoj obali formira se ljubljanska kultura; na srednjem i južnom Jadranu grupa Tivat-Rubež; na severu u

srednjoj i severnoj Madjarskoj, zatim u Slovačkoj grupe tipa Mako, Kosihy-Čaka i još neke varijante. One u hronološkom pogledu već pripadaju ranom bronzanom dobu, ali po svojoj genezi, stilskim odlikama i opštim karakteristikama materijalne i duhovne kulture one su poslednji refleks hiljadugodišnjeg eneolitskog razvoja na području centralnog i zapadnog Balkana koji počinje krajem četvrtog i traje sve do početka drugog milenija oko 1900/1800 godine pre n.e.

THE LIST OF PLATES

PLATE I — **Fig. 1-7** – Stone and bone implements (1-3), pottery (4-6) and the altar (7) from Rudna Glava near Majdanpek. R - 1:4 (1, 2, 7); 1:6 (4); 1:8 (3, 5, 6).

PLATE II — **Fig. 1-8** – Casts for copper tools and caster's pot (8). Sarvaš (1, 2, 4); Vučedol - Gradac (3); Vinkovci - Tržnica (5); Debelo Brdo near Sarajevo (6, 8); Ljubljansko Barje (7). R - 1:2 (5-8); 1:4 (1-4).

PLATE III — **Fig. 1-7** – Copper axes. Bečmen near Zemun (1, 2, 5) and Pločnik near Prokuplje (3, 4, 6, 7). R - 1:2 (2-7); 1:4 (1).

PLATE IV — **Fig. 1 a-c** – Copper axe from Osijek. R - 1:2 (b, c) and 1:4 (a).

PLATE V — **Fig. 1-9** – The pottery of the Tizsapolgar culture. Crna Bara (1-5, 8, 9) and Srpski Krstur (6, 7). R - 1:2 (9); 1:4 (1-8).

PLATE VI — **Fig. 1-6** – The pottery of the Tizsapolgar culture. Vršac - 29. November p. (1, 5) Čenta - Mali Alas (2); Crna Bara - Prkos (3,6); Belegiš - Šančine (4). Different ratios.

PLATE VII — **Fig. 1-8** – The pottery and golden find from the graves of the Bodrogkerezstur culture. Nosa near Subotica (1-6) and Vinča (7-8). R - 1:2 (3-6); 1:4 (1, 2).

PLATE VIII — **Fig. 1-8** – Grave finds from Vajska, Hunyadi - Vajska culture. Grave 1 (3, 6, 7); grave 2 (5); grave 5 (1, 2, 4, 8). Different ratios.

PLATE IX — **Fig. 1-8** –The pottery of the Bubanj - Salcuta - Krivodol complex from Gadimlje (1), Hisar near Suva Reka (2, 4, 6); Ustja na Drim near Struga (3), Baranda near Pančevo (5), Rospi Ćuprija near Belgrade (7) and Kovilovo near Negotin (8). R - 1:2 (2, 4, 5); 1:4 (1, 3, 6-8).

PLATE X — **Fig. 1-7** – The finds of the Bubanj - Salcuta - Krivodol complex from Hisar (1), Kovilovo (2), Krivelj near Bor (3, 4), Šuplevec near Bitola (5, 6) and Gadimlje near Lipljan (7). R - 1:2 (2-7); 1:4 (1).

PLATE XI — **Fig. 1-9** – Bubanj - Salcuta - Krivodol complex. Zoomorphic ware, the lid and the flint, bone and copper implements from Kovilovo (1), Krivelj (2, 4), Hisar (3), Kladovo (5, 9), Gadimlje (6, 7) and Zlotska Pećina (8). R - 1:2 (1, 3-5, 7-9); 1:4 (2, 6).

PLATE XII — **Fig. 1-8** – The sculpture of the Bubanj - Salcuta - Krivodol style from Krivelj (1, 7), Šuplevec (2), Kovilovo (4, 5), Crnobuki near Bitola (3, 6), Zlotska Pećina (8) and sites in Macedonia (with no closer references). R - 1:2 (1-8)

PLATE XIII — **Fig. 1-6** – Steppe finds' within the sites of the Bubanj - Salcuta - Krivodol culture from Šuplevec (1), the hoard from Kladovo (2), Crnobuki (3, 5), Zlotska Pećina (4) and individual finding from Srpski Krstur (6). R - 1:1 (1); 1:2 (2-6).

PLATE XIV — **Fig. 1-7** – The pottery of the Cernavoda III culture from Brza Vrba near Kovin. R - 1:2 (5); 1:4 (1-4, 6); 1:10 (7).

PLATE XV — **Fig. 1-6** – The pottery of the Boleráz type from Mostonga I - Deronje (1-3, 5-6) and Vučedol (The Early Baden pottery). R - 1:2 (4); 1:4 (1-3, 5, 6).

PLATE XVI — **Fig. 1-6** – The pottery of the early phase of the Baden culture (the transition between the Boleráz - Cernavoda III and the Baden culture) from Mostonga I - Deronje (1, 4, 6). Beli Manastir (2) and Vučedol - Gradac (3, 5). Different ratios.

PLATE XVII — **Fig. 1-7** – The pottery of the classical phase of the Baden culture from Vučedol (1-3), Opovo - Beli Breg near Pančevo (4), Ilok - Tvrđava (5), Beli Manastir - Ciglana (6) and Vršac - A. Ranković st (7). Different ratios.

PLATE XVIII — **Fig. 1-9** – The pottery of the classical phase of the Baden culture from Sarvaš (2, 4), Arađanska Humka (gr. 1, 6), Gomolava near Hrtkovci (3), Beli Manastir - Ciglana (5, 8) and Vučedol (7, 9). R - 1:2 (2, 4, 7-9); 1:4 (1, 3, 5, 6).

PLATE XXX **Fig. 1-4** – Decorated pottery of the classical phase (B-1, 2) according to S. Dimitrijević) of the Vučedol culture from Sarvaš (1, 3, 4) and Vinkovci (2).

PLATE XXXI **Fig. 1-7** – Pottery and the altar of the 'baroque' phase of the Vučedol culture (B-2) from Sarvaš (1-5), Batajnica (urn from the tumulus; fig. 6) and Vučedol - Vinogradi Streim (7). Different ratios.

PLATE XXXII **Fig. 1-6** – Pottery of the late phase of the Vučedol culture (B-2/c according to S. Dimitrijević) from Vinkovci - Zvijezda (1), Vinkovci - Tržnica (2, 3), Opatovac (4), Draganlug - Ciglenik (5) and Sotin (6). Different ratios.

PLATE XXXIII **Fig. 1-9** – Pottery of the West-Bosnian phase of the Vučedol culture from Hrustovača (1-3, 6, 8) and Zecovi near Prijedor (4, 5, 7, 9). R - 1:2 (1-3, 6, 8, 9); 1:4 (4, 5, 7).

PLATE XXXIV **Fig. 1-2** – The objects of cult from Vučedol - Gradac ('the pigeon' and the pedestal or altar). The classical phase of the Vučedol culture. Different ratios.

PLATE XXXV **Fig. 1-11** – Pottery and anthropomorphic sculpture of the early phase of the Lasinja culture from: Vis - Modran near Doboj (1-3, 7, 8), Ljubljansko Barje - Resnikov Prekop (4, 9), Novoselci - Pašnjak (5, 6) and Ajdovska Jama (10). R - 1:2 (2, 3, 5-7, 11); 1:4 (1, 4, 8, 9, 10).

PLATE XXXVI **Fig. 1-8** – Pottery of the late phase of the Lasinja culture from sites: Pavlovac near Križevac (1), Gradac - Pašnjak (2-4) and Jakšić (5, 6, 8) near Slavonska Požega and Vis - Modran (7). R - 1:2 (1-4); 1:4 (5-8).

PLATE XXXVII **Fig. 1-10** – Pottery of the Retz-Gajary culture - Višnjica type according to S. Dimitrijević - from sites Donja Voća near Vindija (1) and Velika Pećina near Višnjica (2-10). R - 1:2 (1-10).

PLATE XXXVIII **Fig. 1-6** – Pottery of the Retz-Gajary culture, Kevderc-Hrnjevac type according to S. Dimitrijević. Site Hrnjevac - Brdo near Kutjevo (1-6). R - 1:1.

PLATE XXXIX **Fig. 1-7** – Pottery and sculpture (4) of west (East Alpine) variant of the Vučedol culture from Ljubljansko Barje - Ig (1-7). R - 1:2 (1, 3-6); 1:4 (2, 7).

PLATE XL — **Fig. 1-8** – Bone (1-3), flint (6-8), copper (5) and clay (4) implements from Ig in Ljubljansko Barje. West - (East Alpine) variant of the Vučedol culture. R - 1:1 (6-8); 1:2 (1-5).

PLATE XLI — **Fig. 1-8** – Pottery of the final phase of the Vučedol culture complex - Ljubljanska culture from Ig (Ig II according to P. Korošec). R - 1:2 (1, 3-8); 1:4 (2).

PLATE XLII — **Fig. 1-9** – Pottery of the early and middle Eneolithic of the Adriatic zone - Proto-Nakovana and Nakovana culture from sites Grapčeva Špilja (1-3, 6, 7), Markova Špilja on the island Hvar (5), and Nakovana Špilja on Pelješac (4, 9). R - 1:2 (1-9).

PLATE XLIII — **Fig. 1-8** – Pottery of the final Eneolithic of the Adriatic zone. Adriatic type of the Ljubljanska culture according to S. Dimitrijević. Sites: Grapčeva Špilja (1-5, 8) and Trdanj Špilja near Šibenik (6, 7). Different ratios.

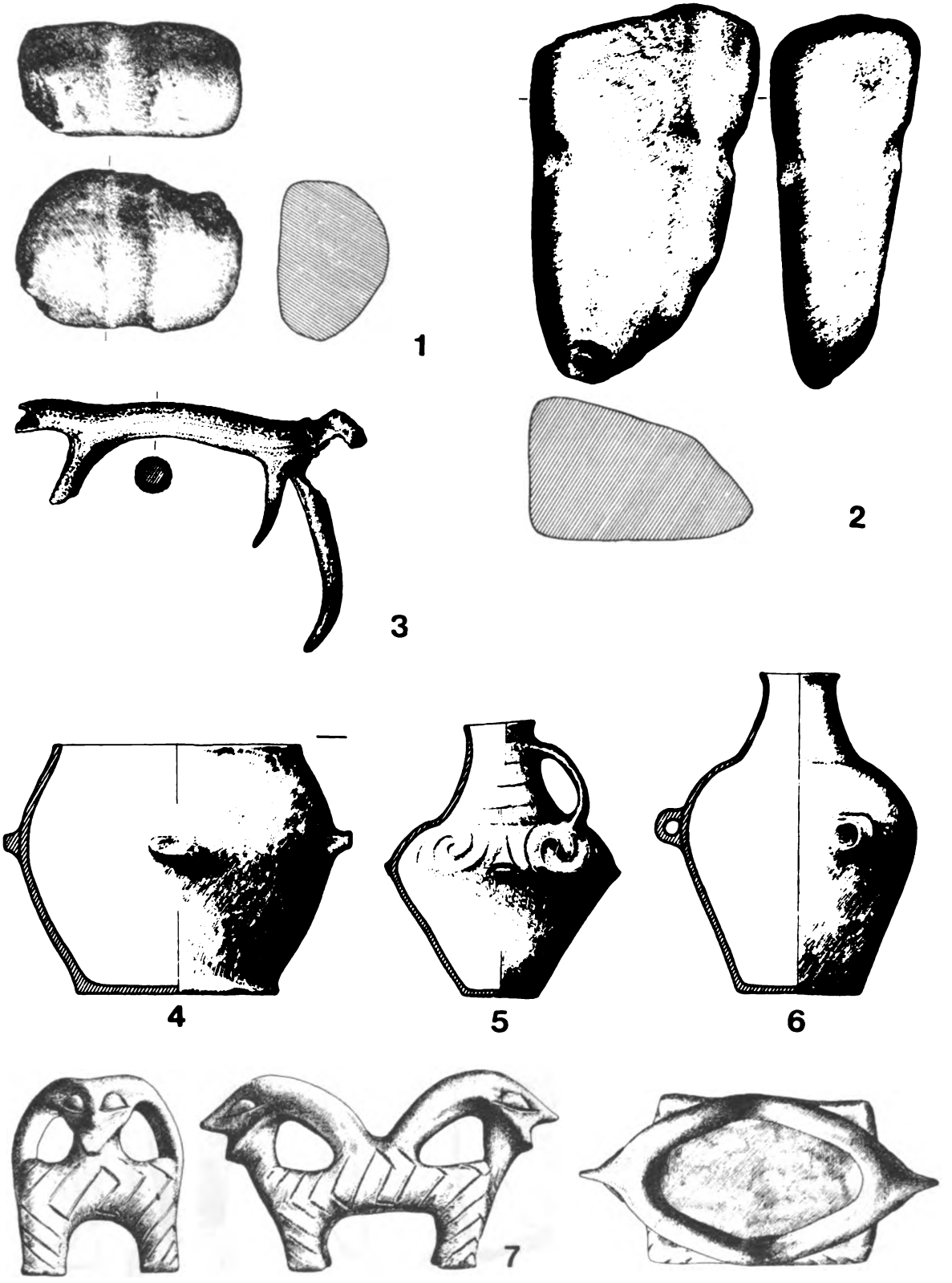


Plate I – Mining tools and pottery from Rudna Glava

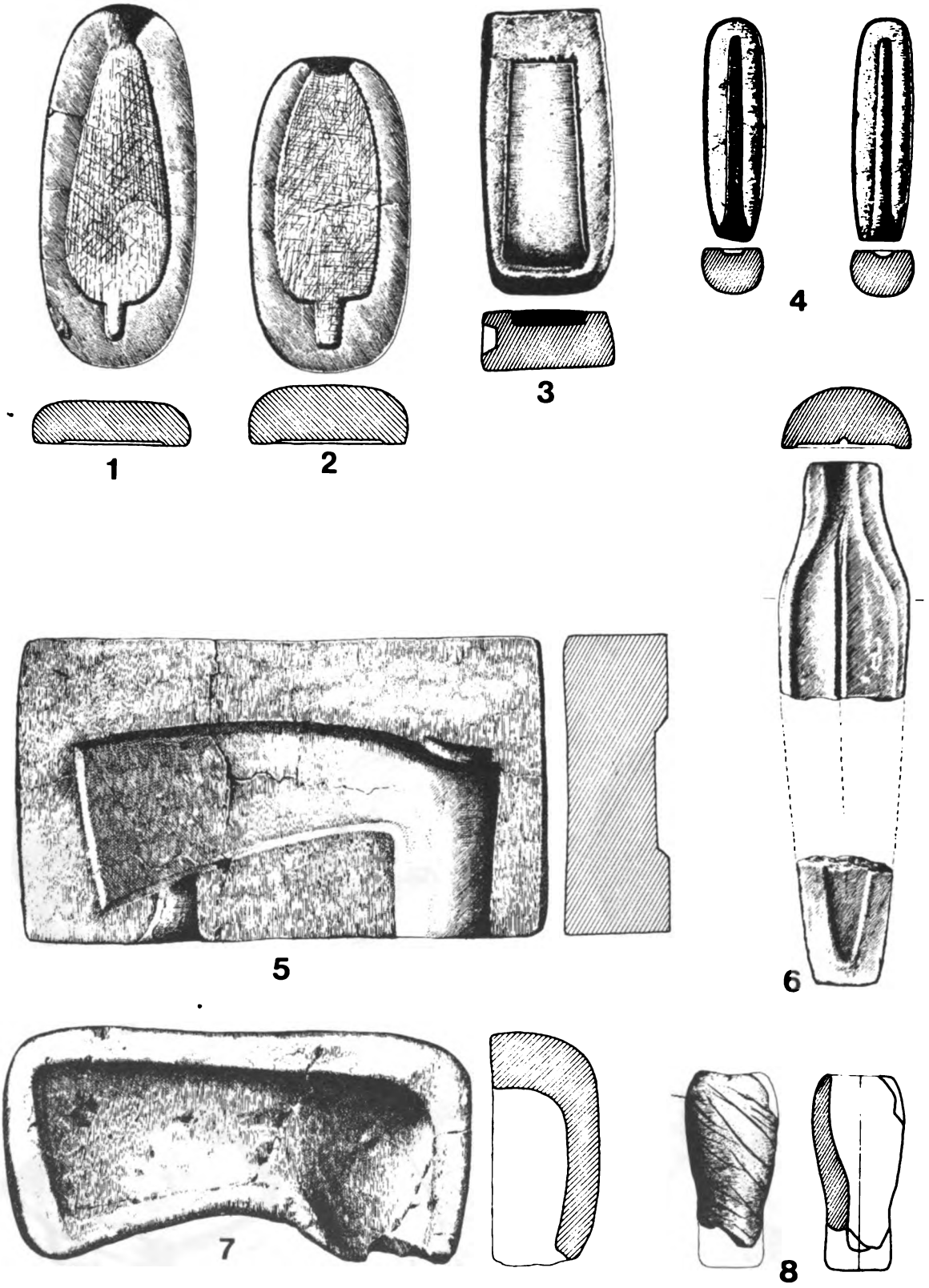


Plate II – Casts for copper tools and casters pot

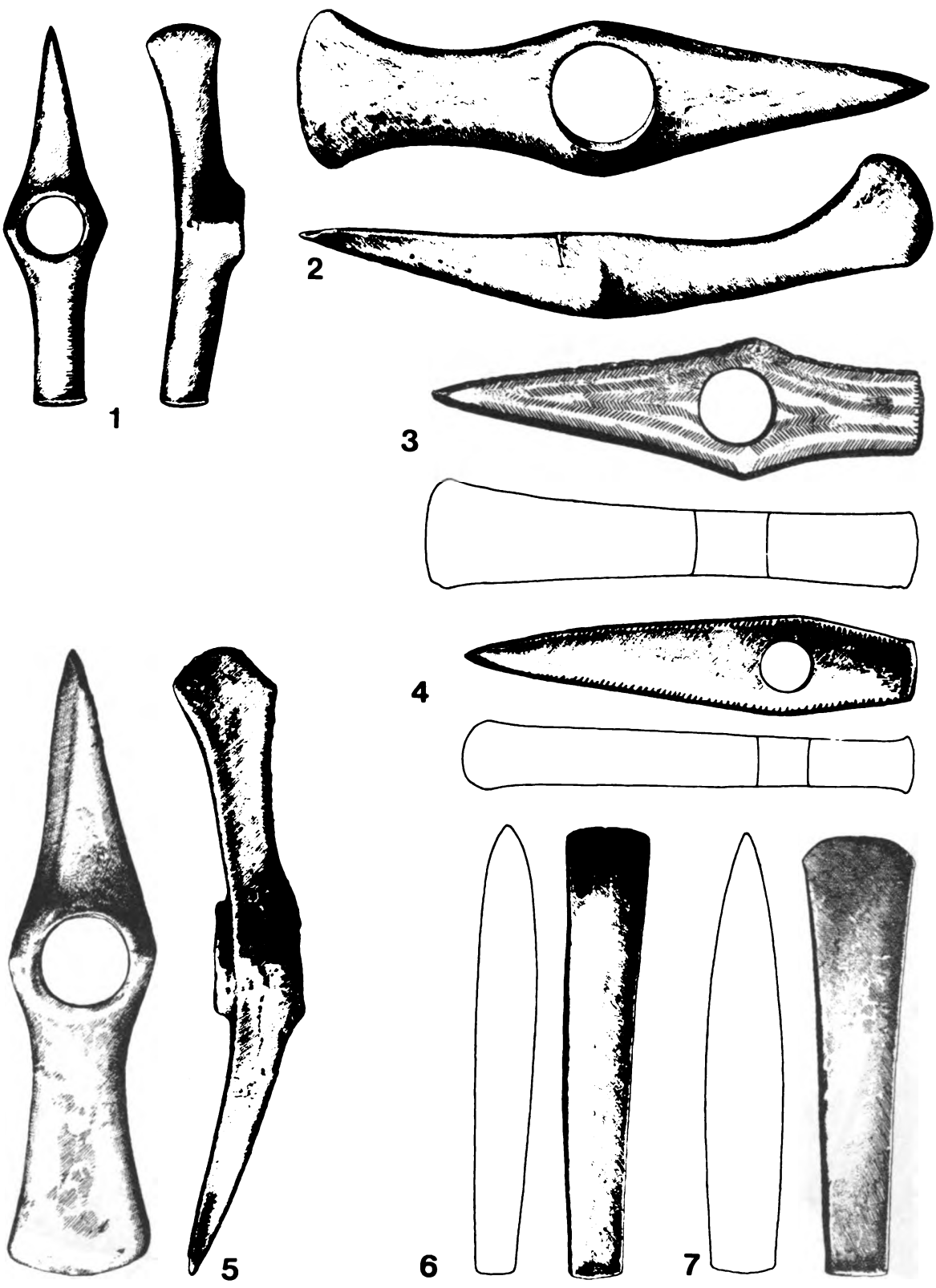


Plate III – Copper ax

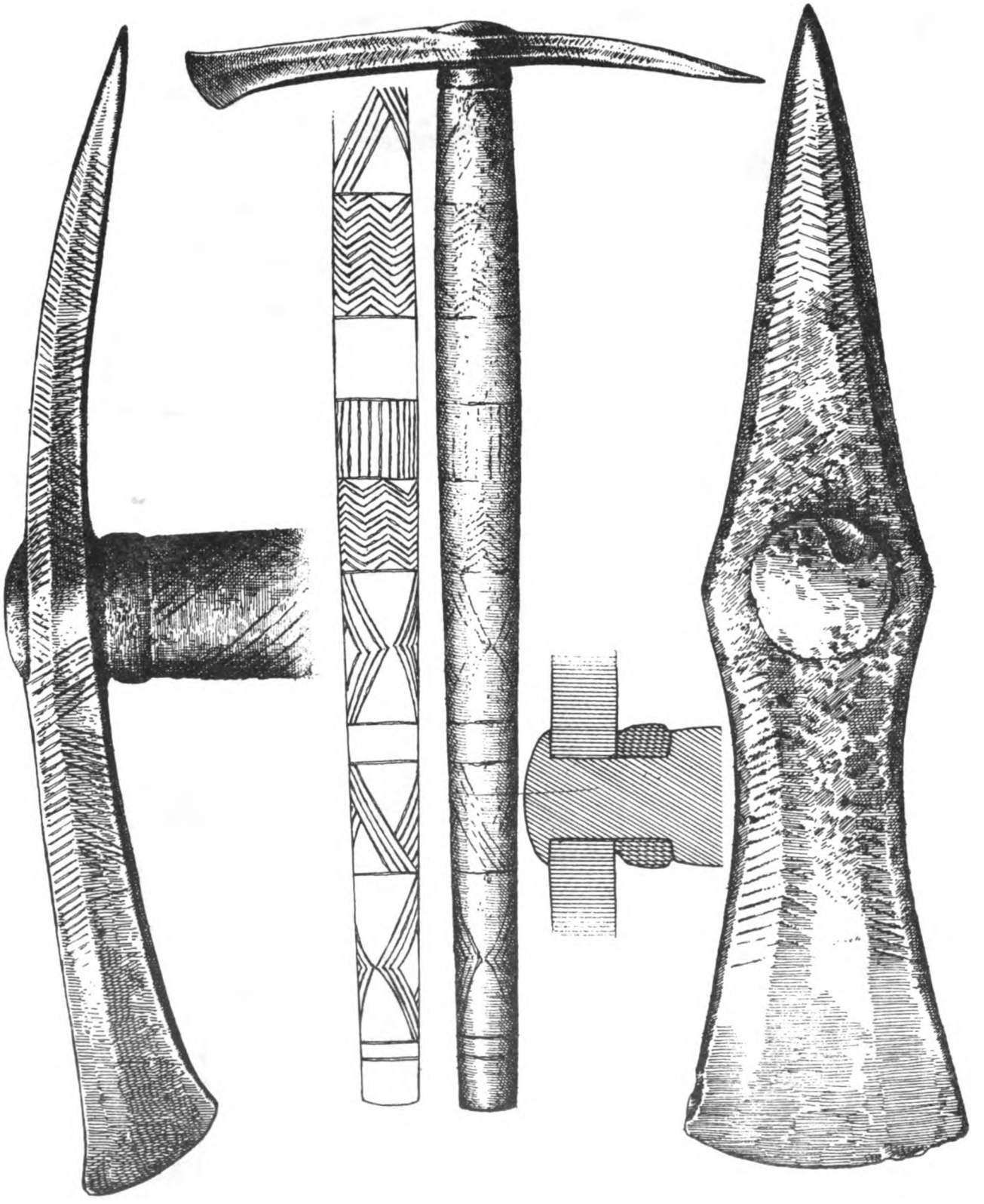


Plate IV – Copper ax from Osijek

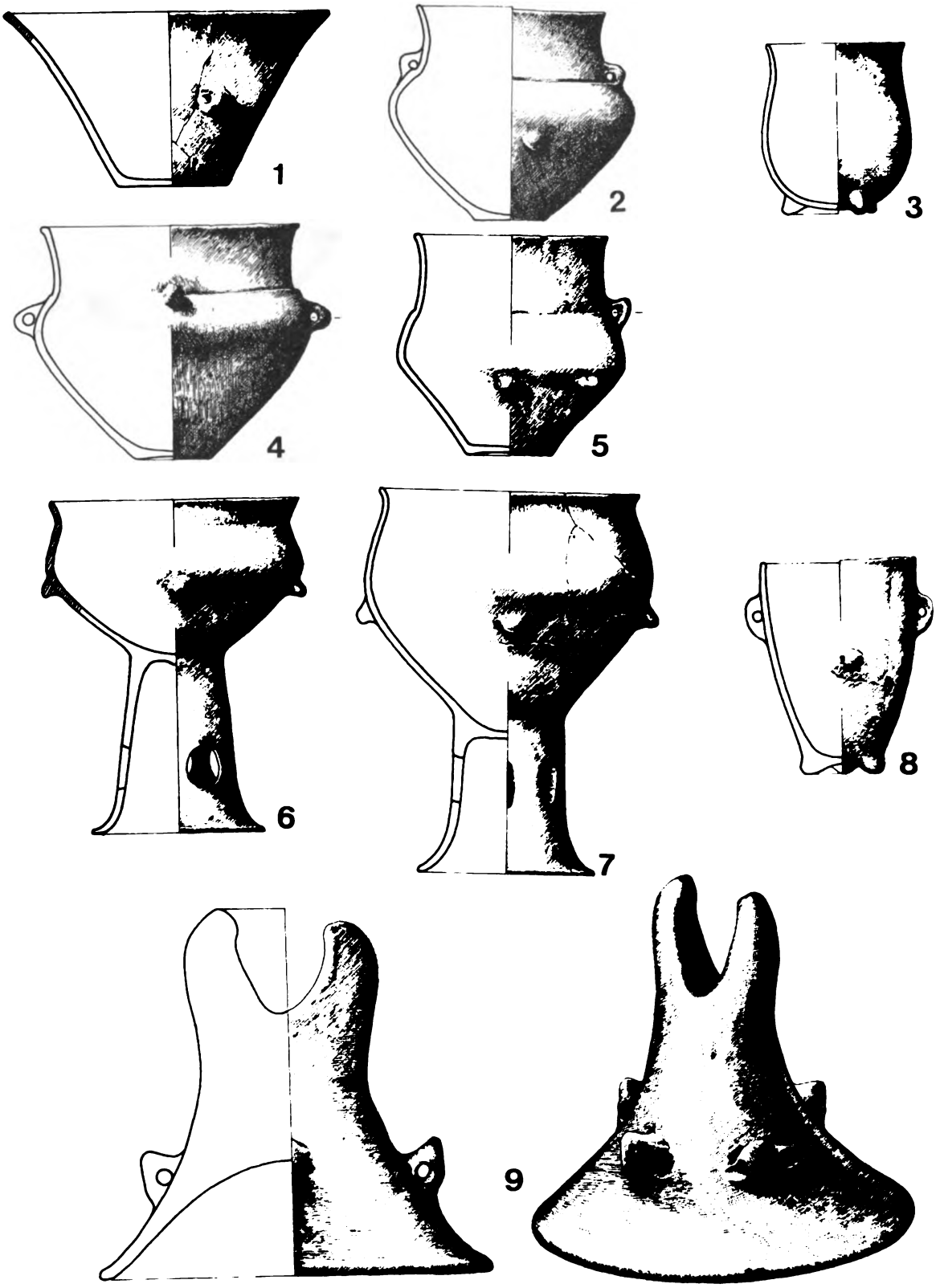
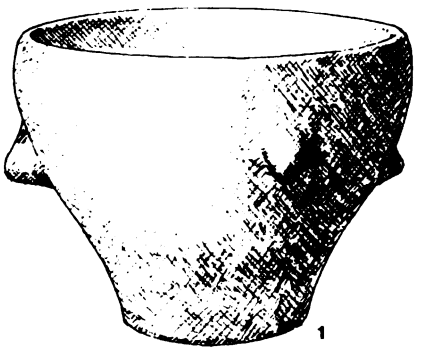
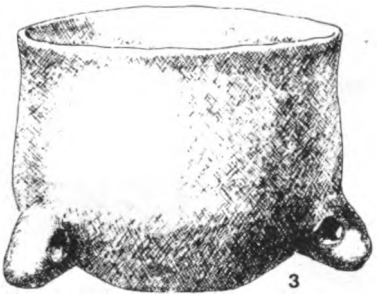
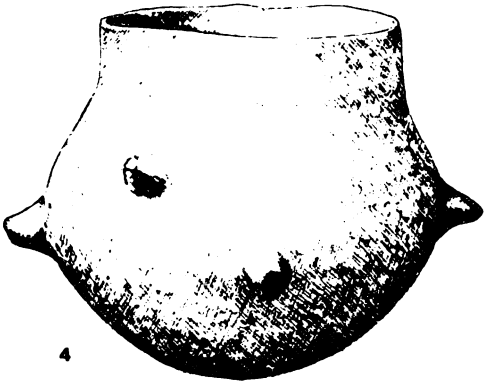
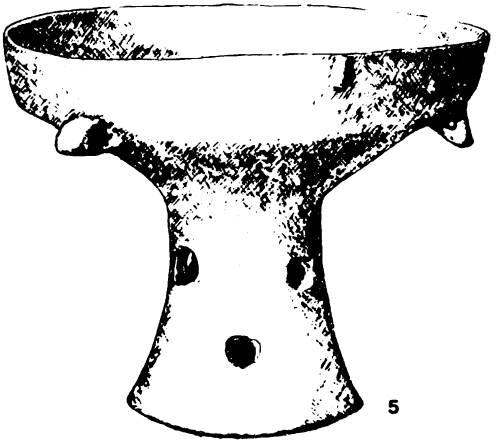


Plate V – Pottery of the Tizsapolgar culture









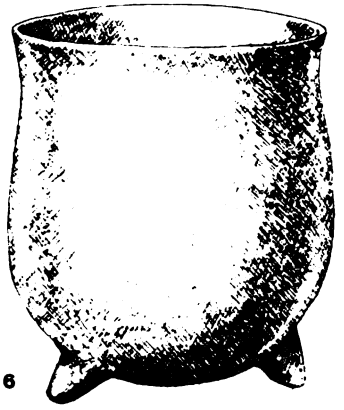
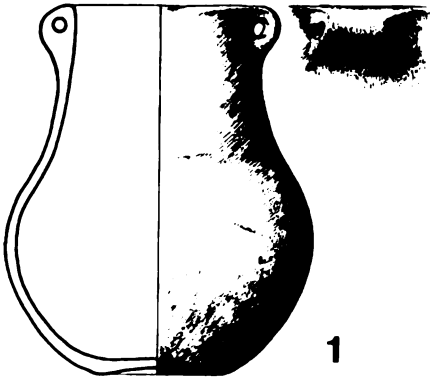
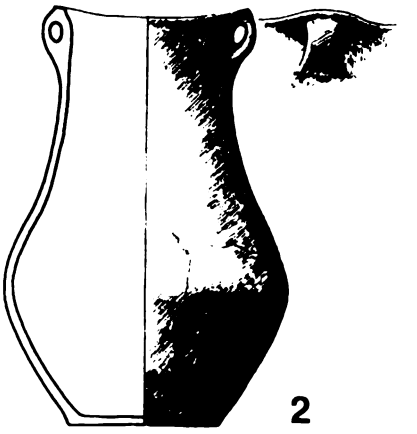
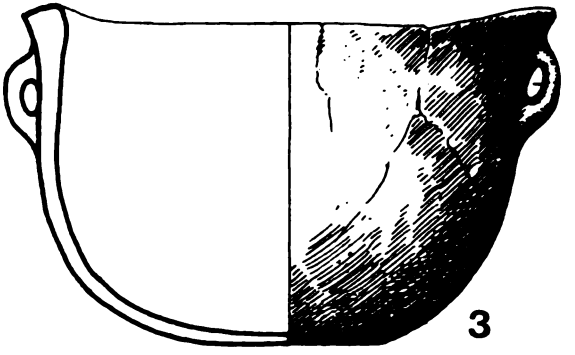
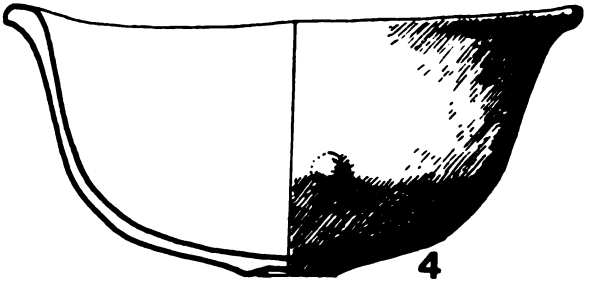


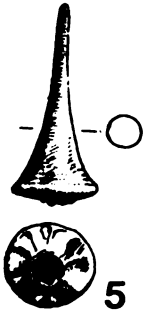
Plate VI – Ceramic ware of the Tizsapolgar culture

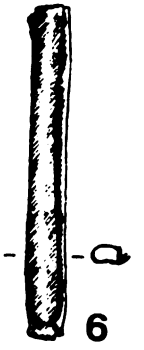


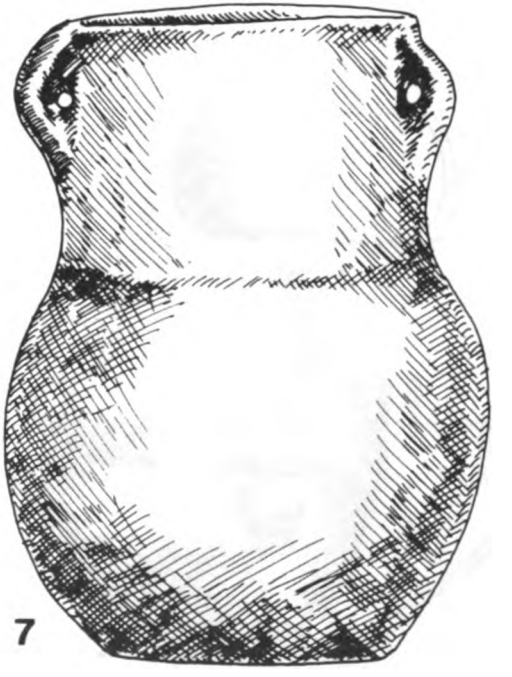












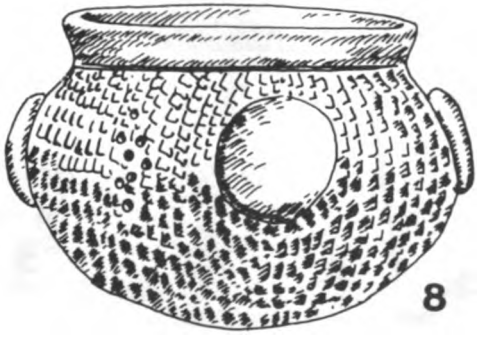


Plate VII – Grave goods of the Bodrogkerezstur culture

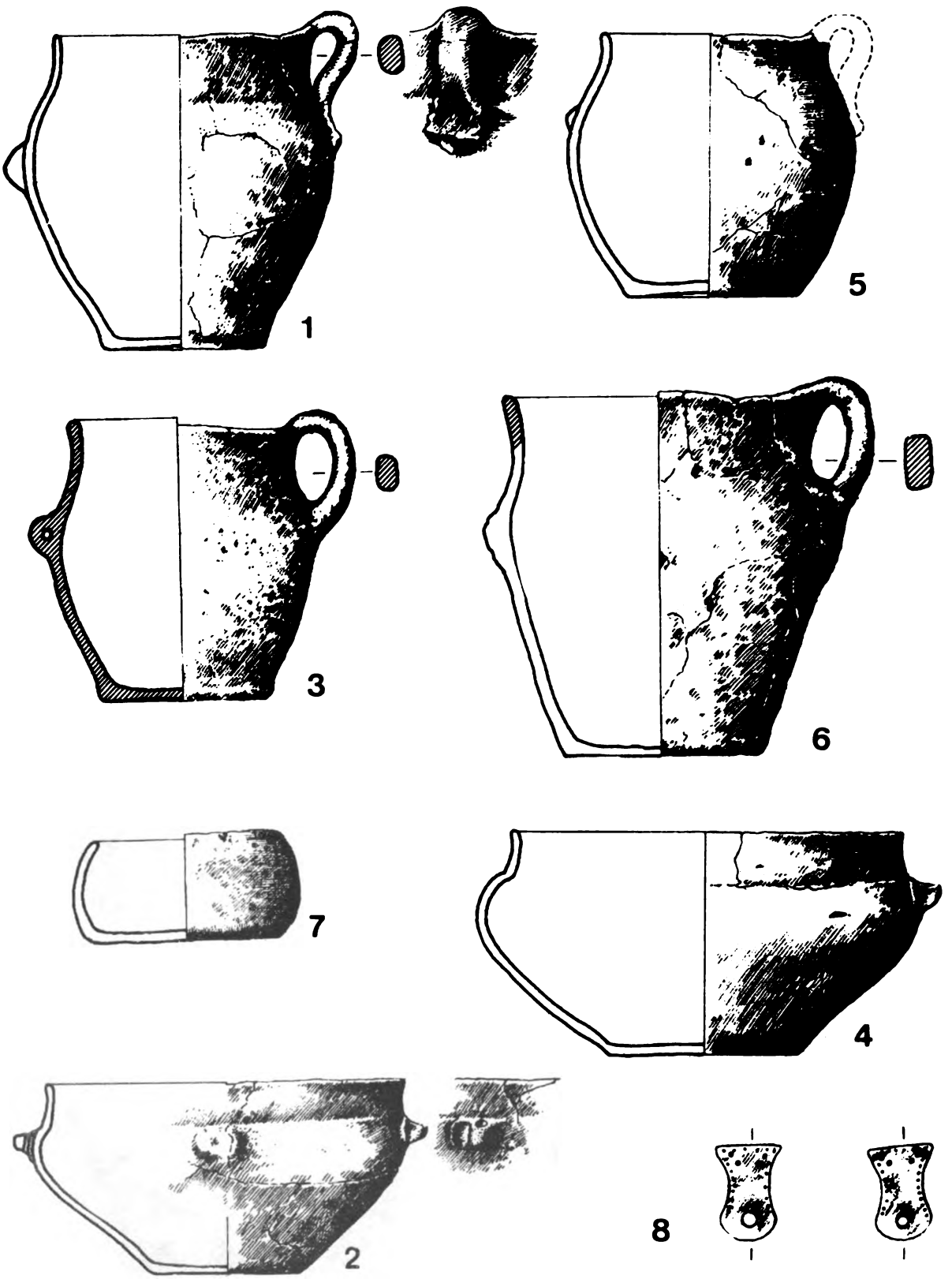
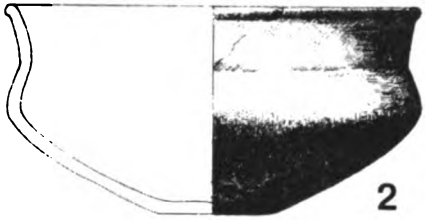
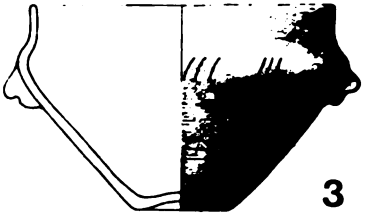
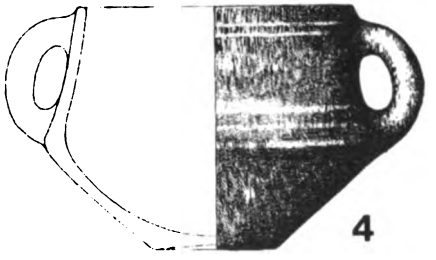
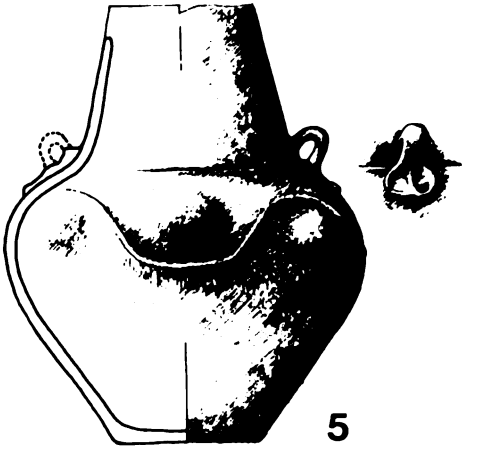


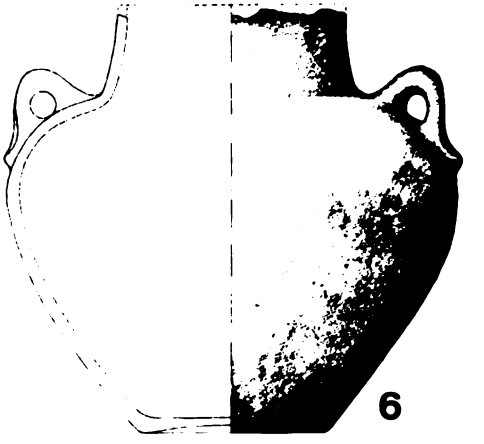
Plate VIII – Grave goods from the graves of the Huniady-Vajska culture (Vajska)

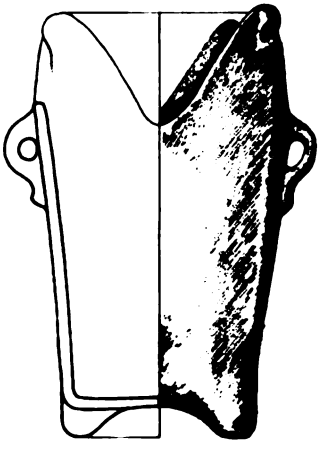


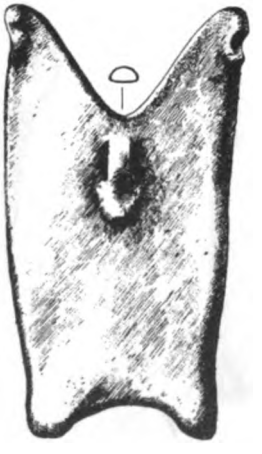












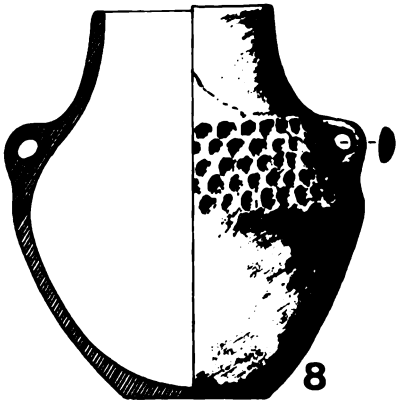


Plate IX – Pottery of the Bubanj - Salcuta - Krivodol culture

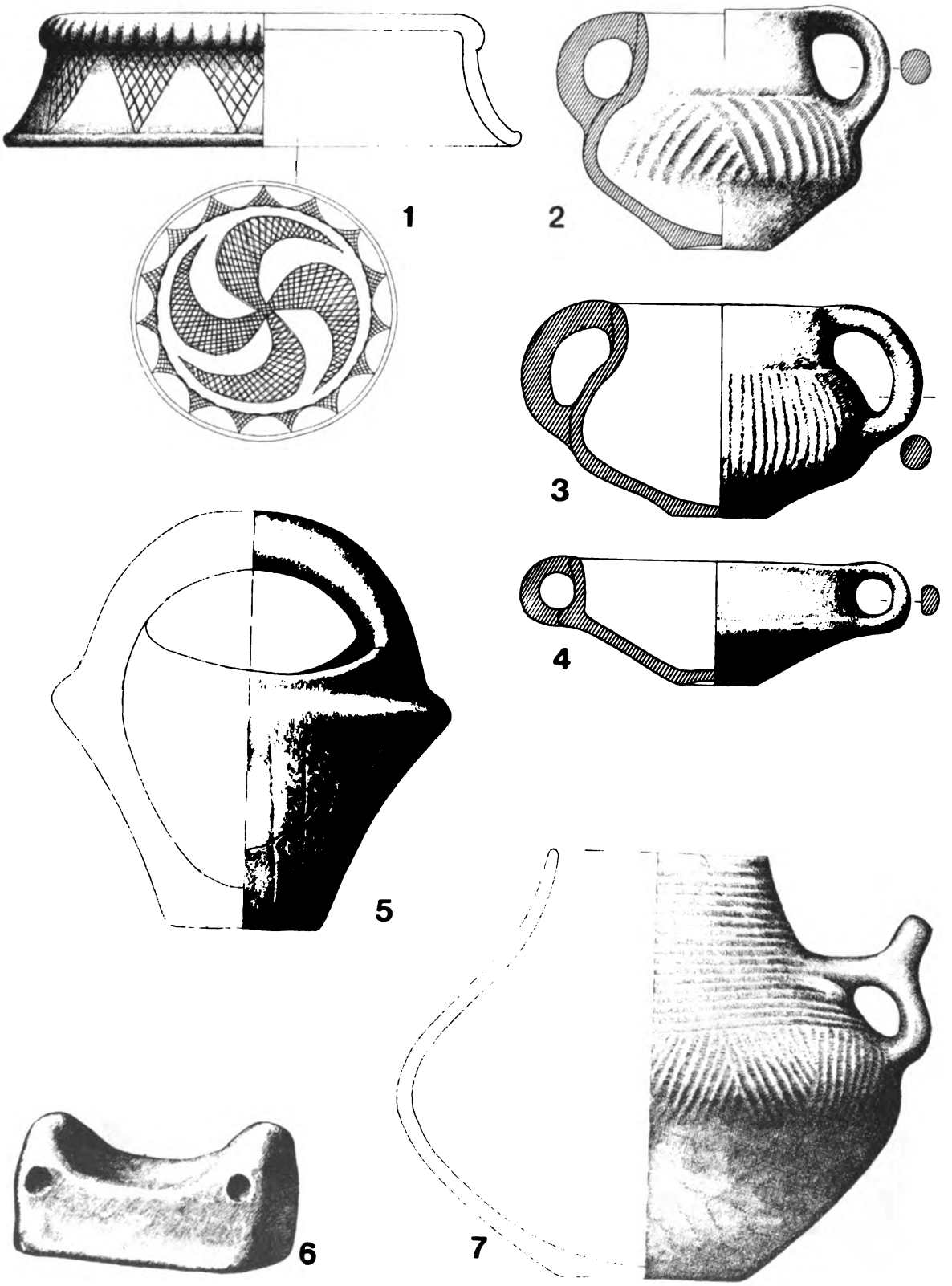


Plate X – Pottery and the 'loom weigh' of the Bubanj - Salcuta - Krivodol culture

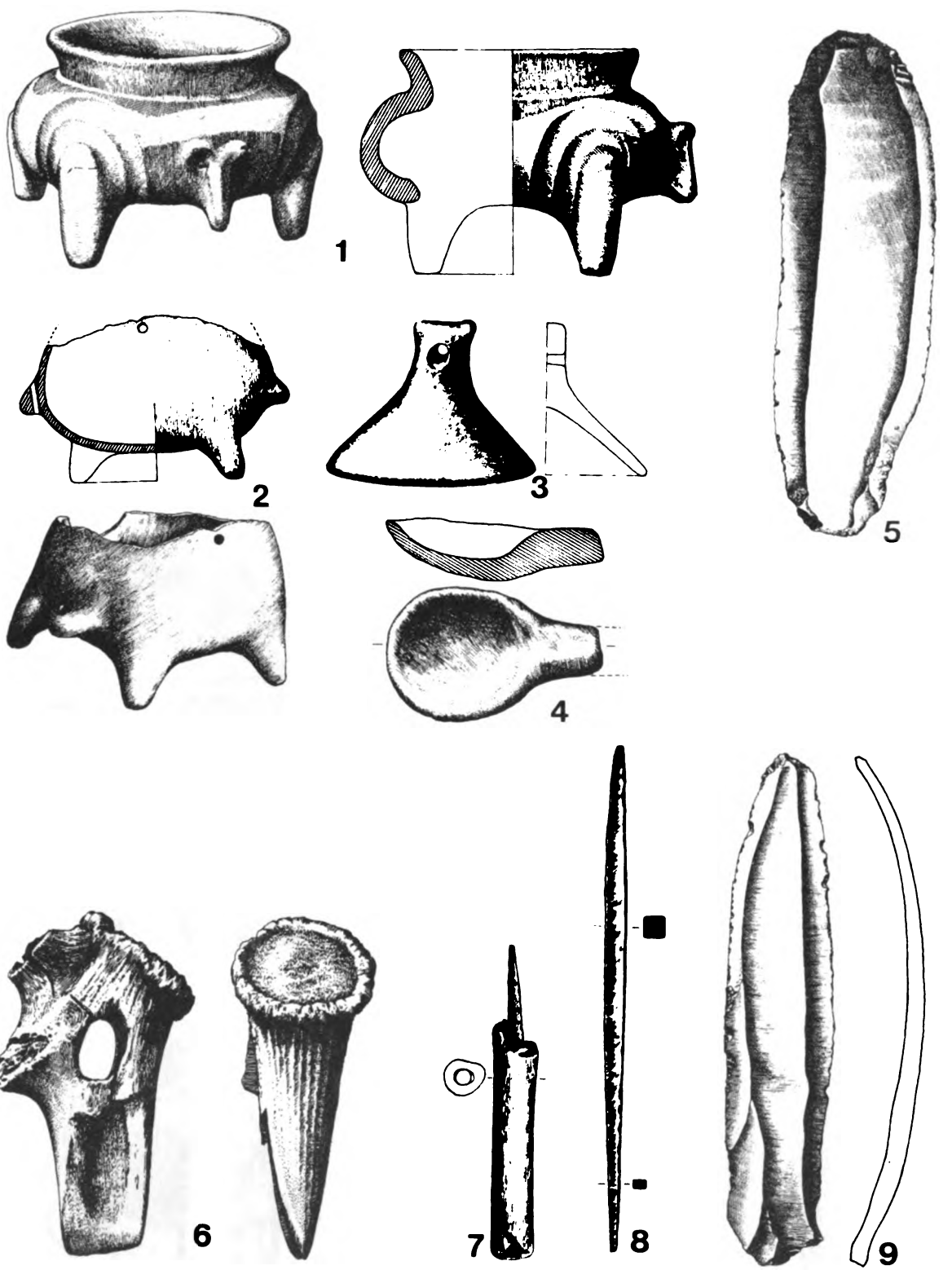


Plate XI – The pottery, bone, copper and flint implements of the Bubanj - Salcuta - Krivodol culture

1

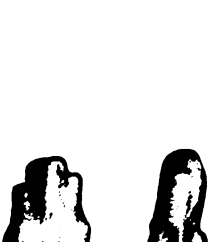
2

3

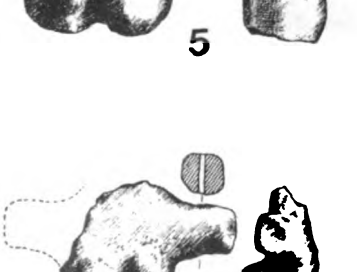
4

5

6

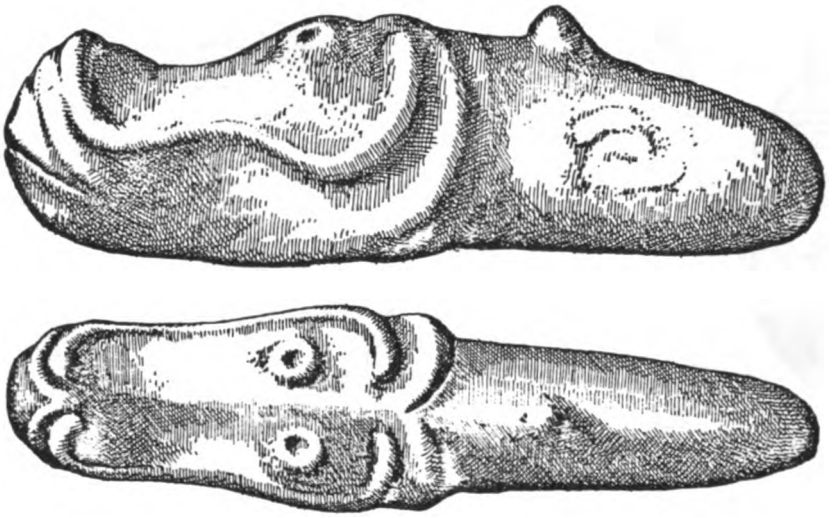


7



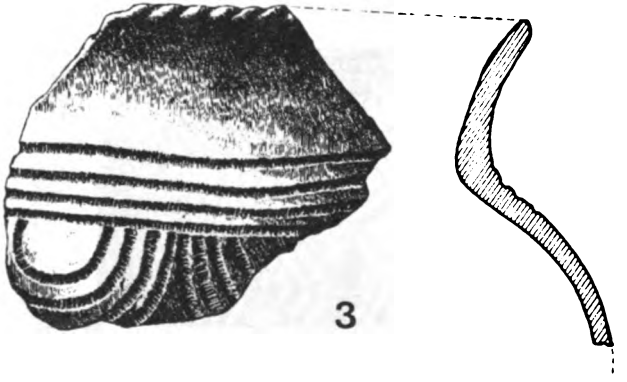
8

Plate XII – Anthropomorphic figurines of the Bubanj - Salcuta - Krivodol culture

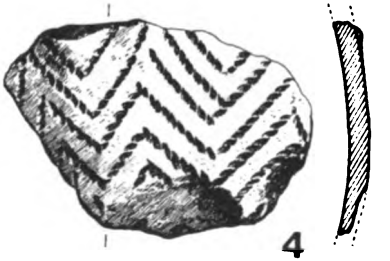


1

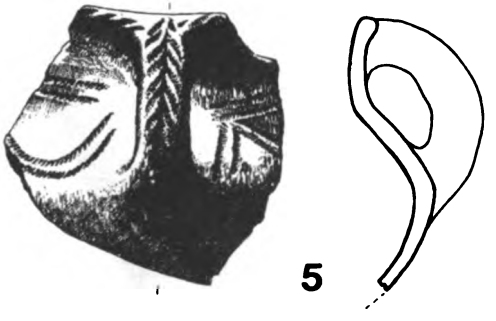
2



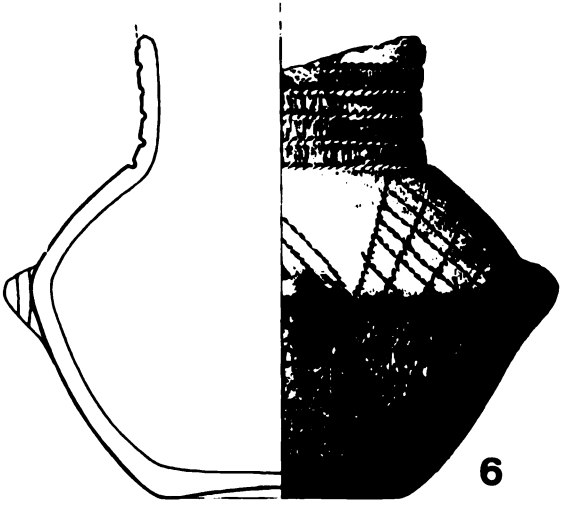
3



4



5



6

Plate XIII – Elements of the Early phase of the Steppe invasion t the Balkans

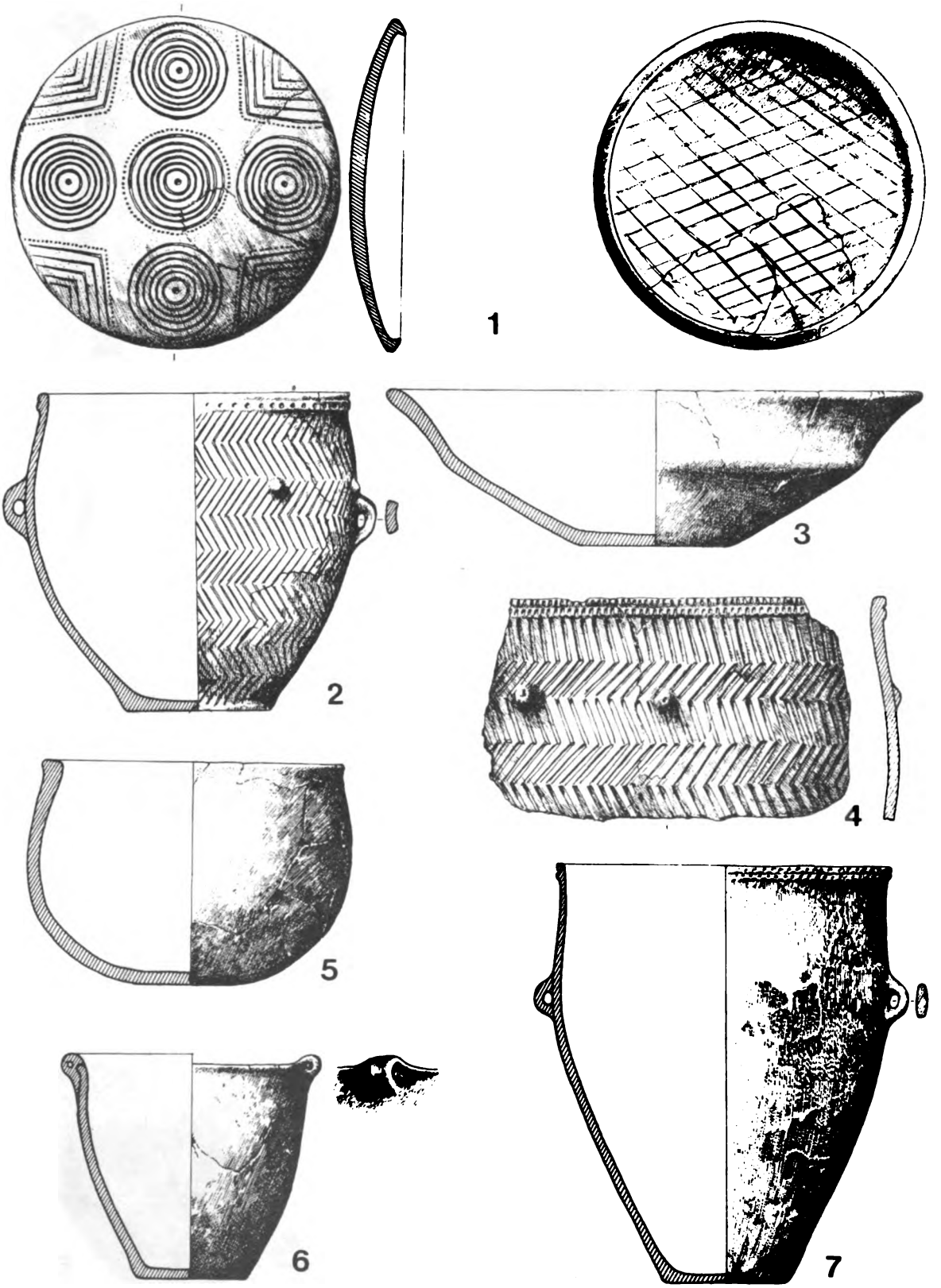


Plate XIV – Pottery of the Cernavoda III culture from Brza Vrba

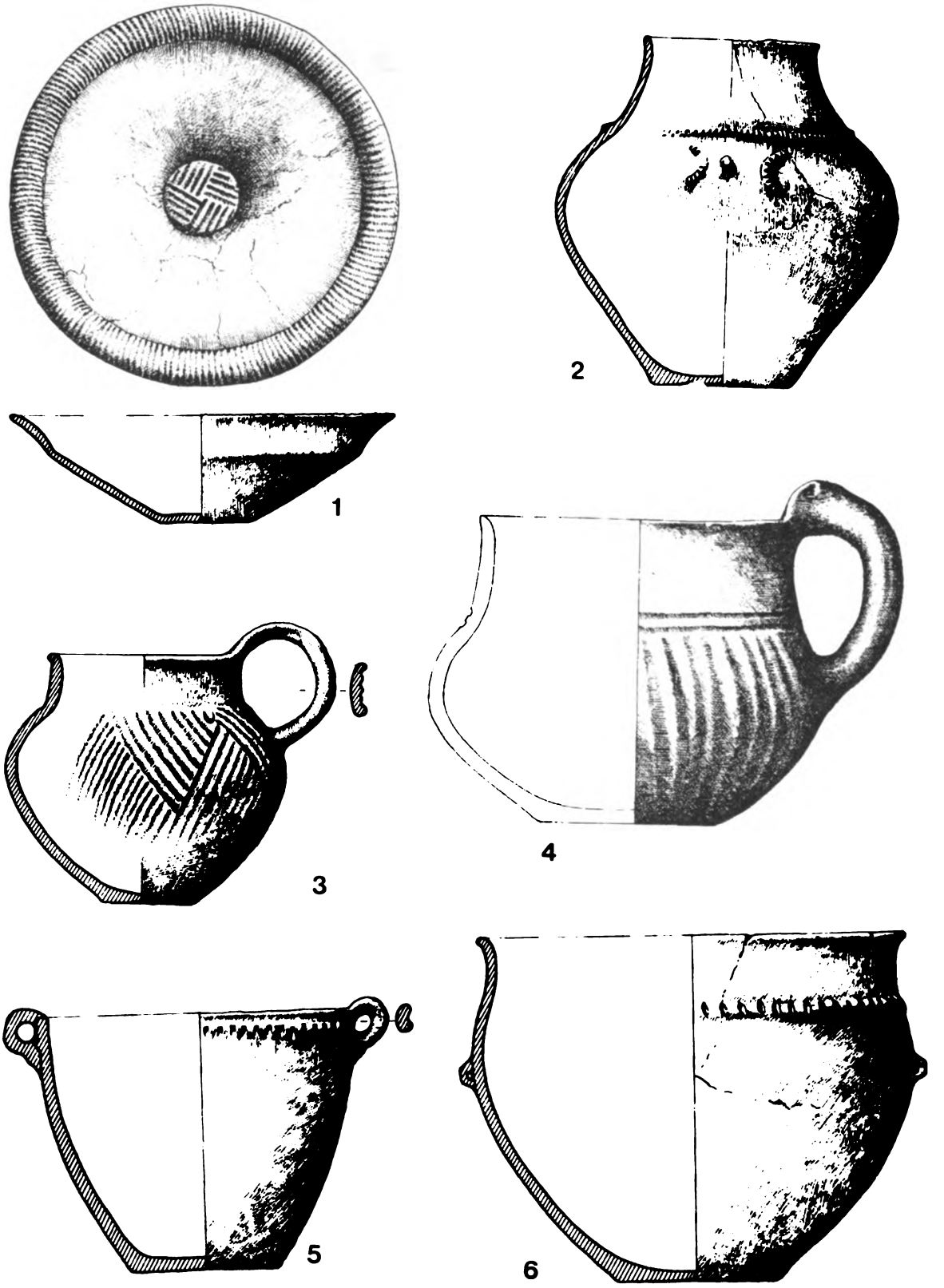
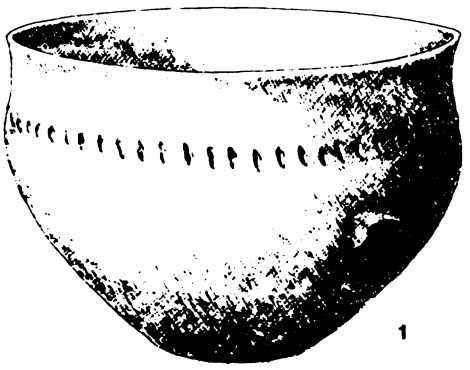


Plate XV – Pottery of the Cernavoda III - Boleráz culture from Mostonga



1

2

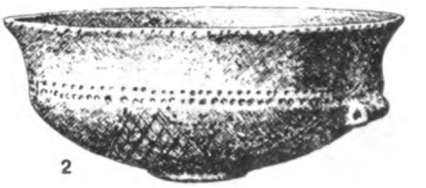
3

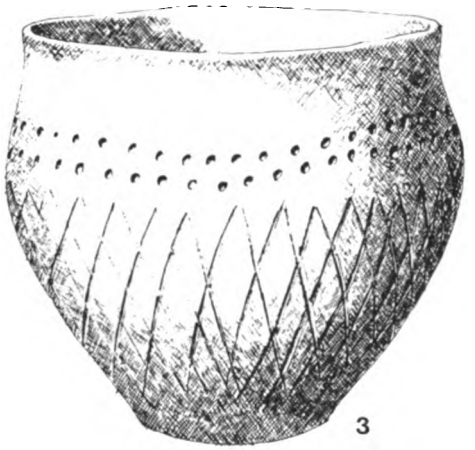
4

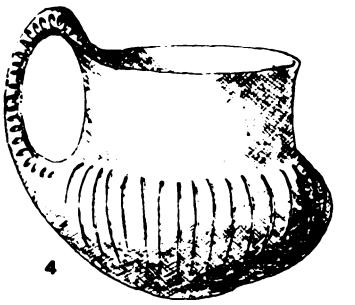
5

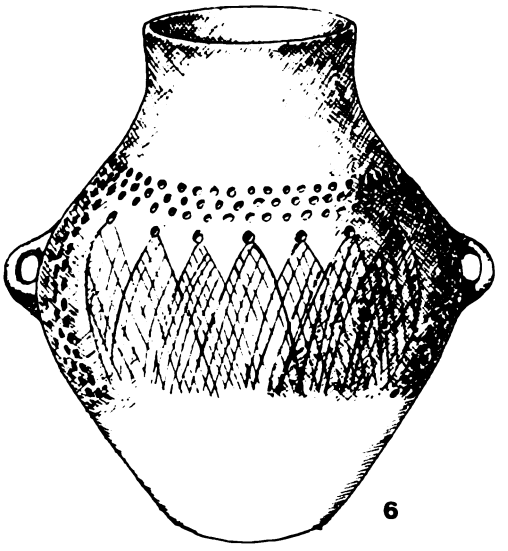
6

Plate XVI – Pottery of the Early phase of the Baden culture









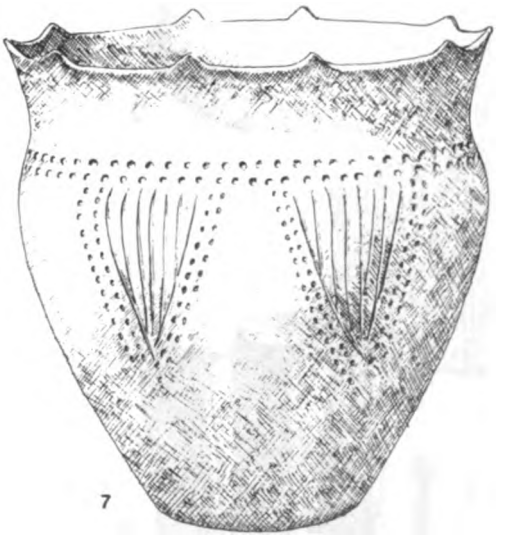
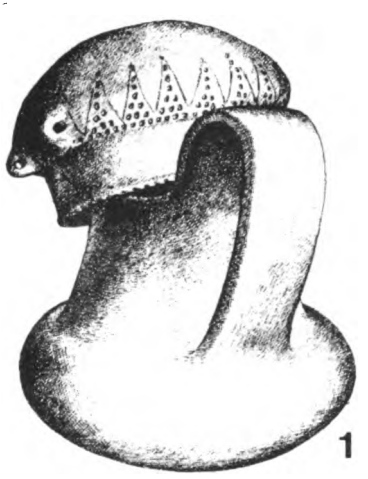
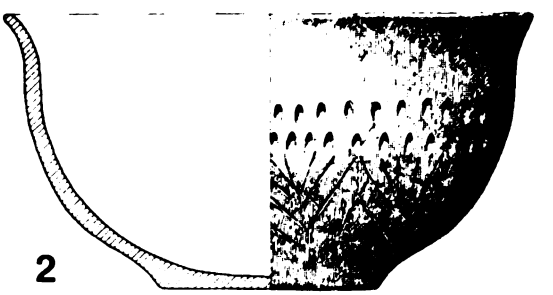
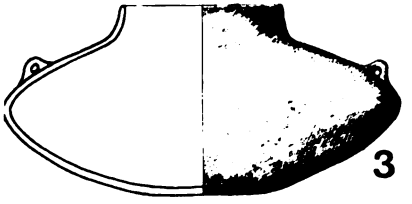
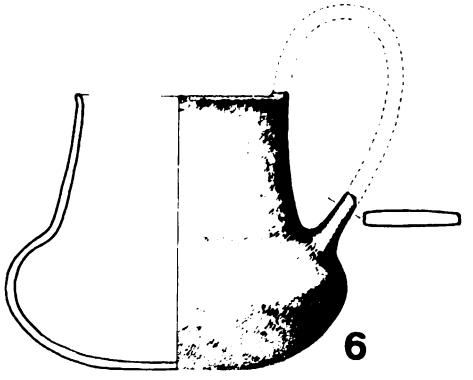


Plate XVII – Pottery of the classical phase of the Baden culture









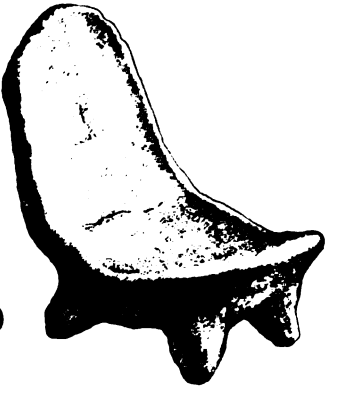
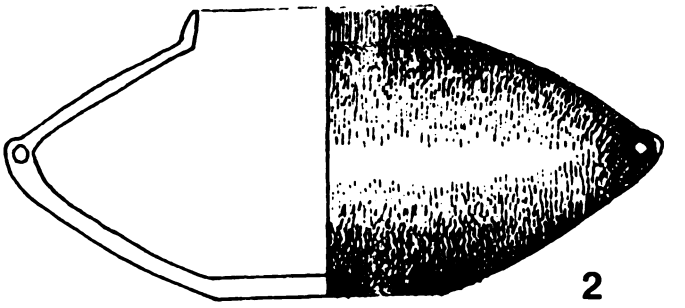
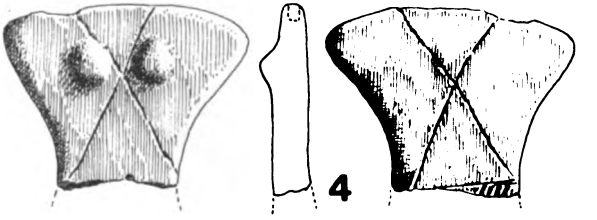


Plate XVIII -- Ceramic ware of the classical phase of the Baden culture

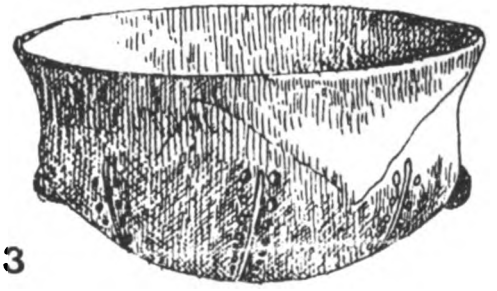
1



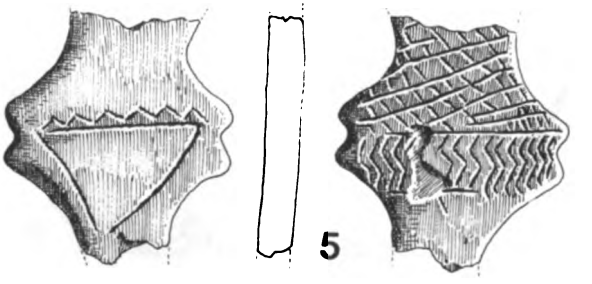
2



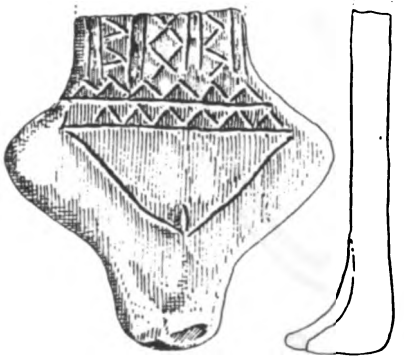
4



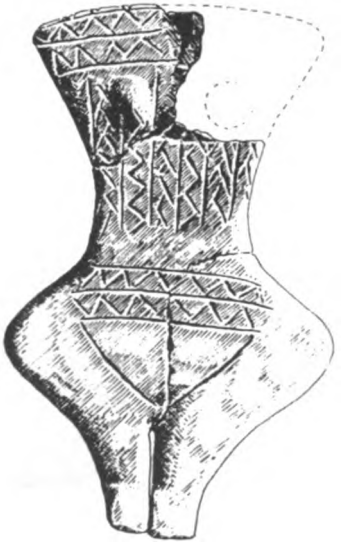
3

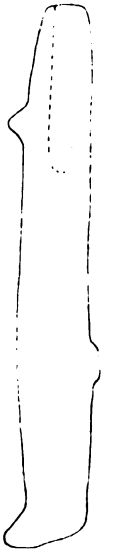


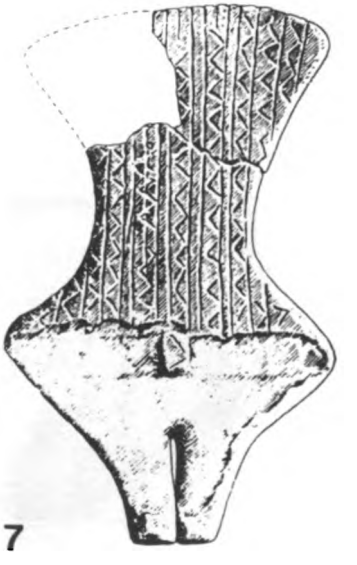
5



6

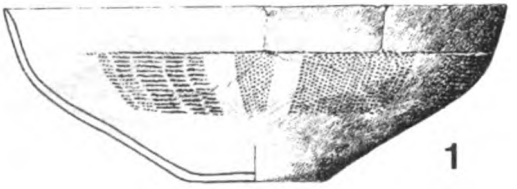


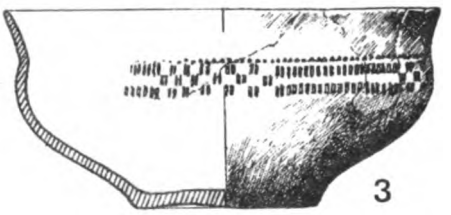


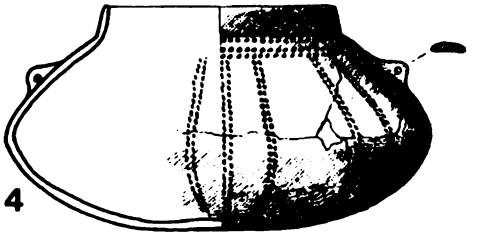


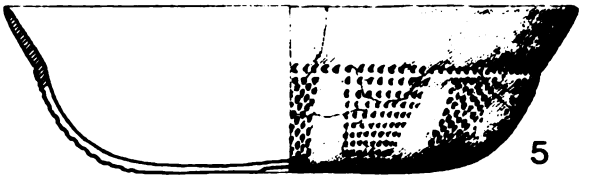
7

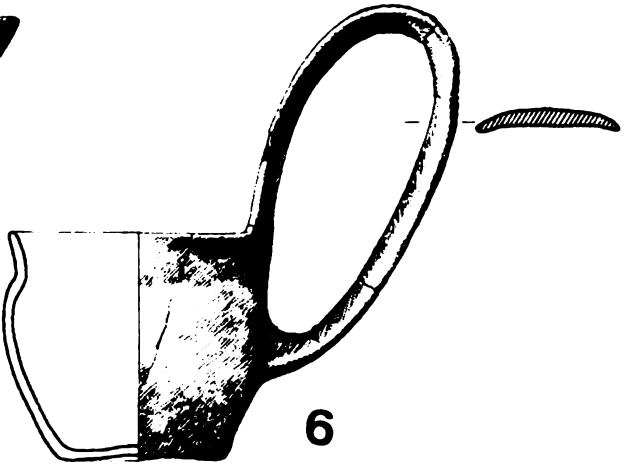
Plate XIX – Pottery and sculpture of the Baden culture from Vinča

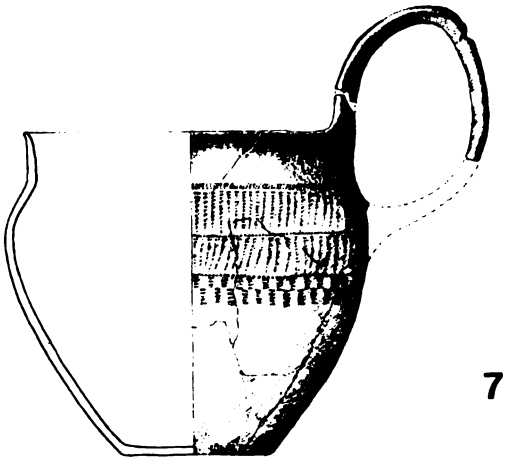












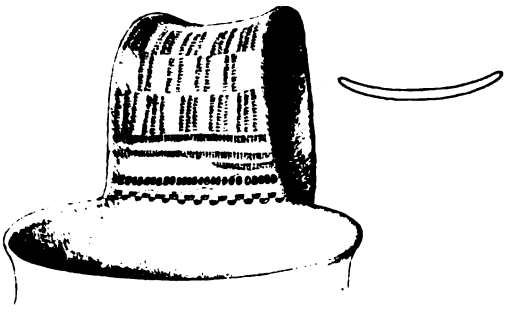
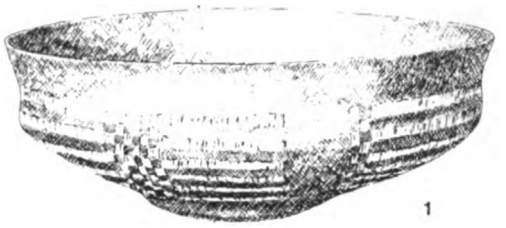
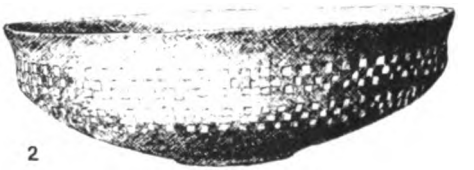


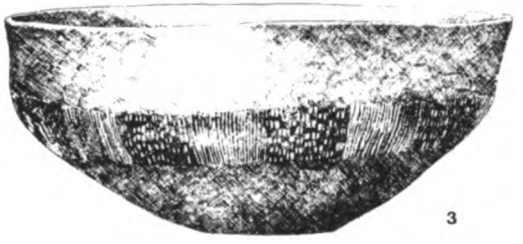
Plate XX -- Pottery of the Early phase of the Kostolac culture



1

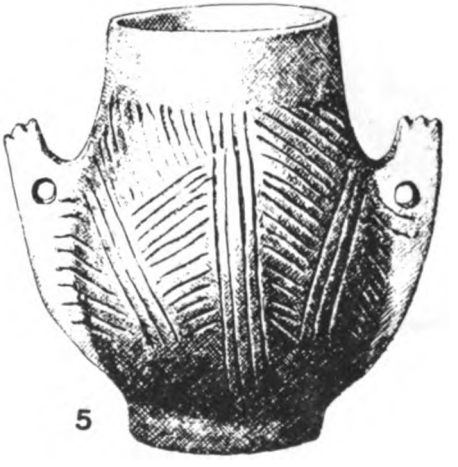


2

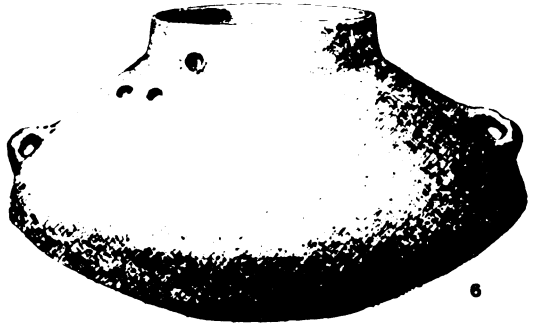


3

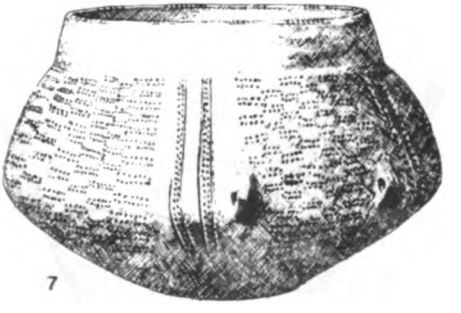
4



5



6



7

Plate XXI – Pottery of the developed phase of the Kostolac culture

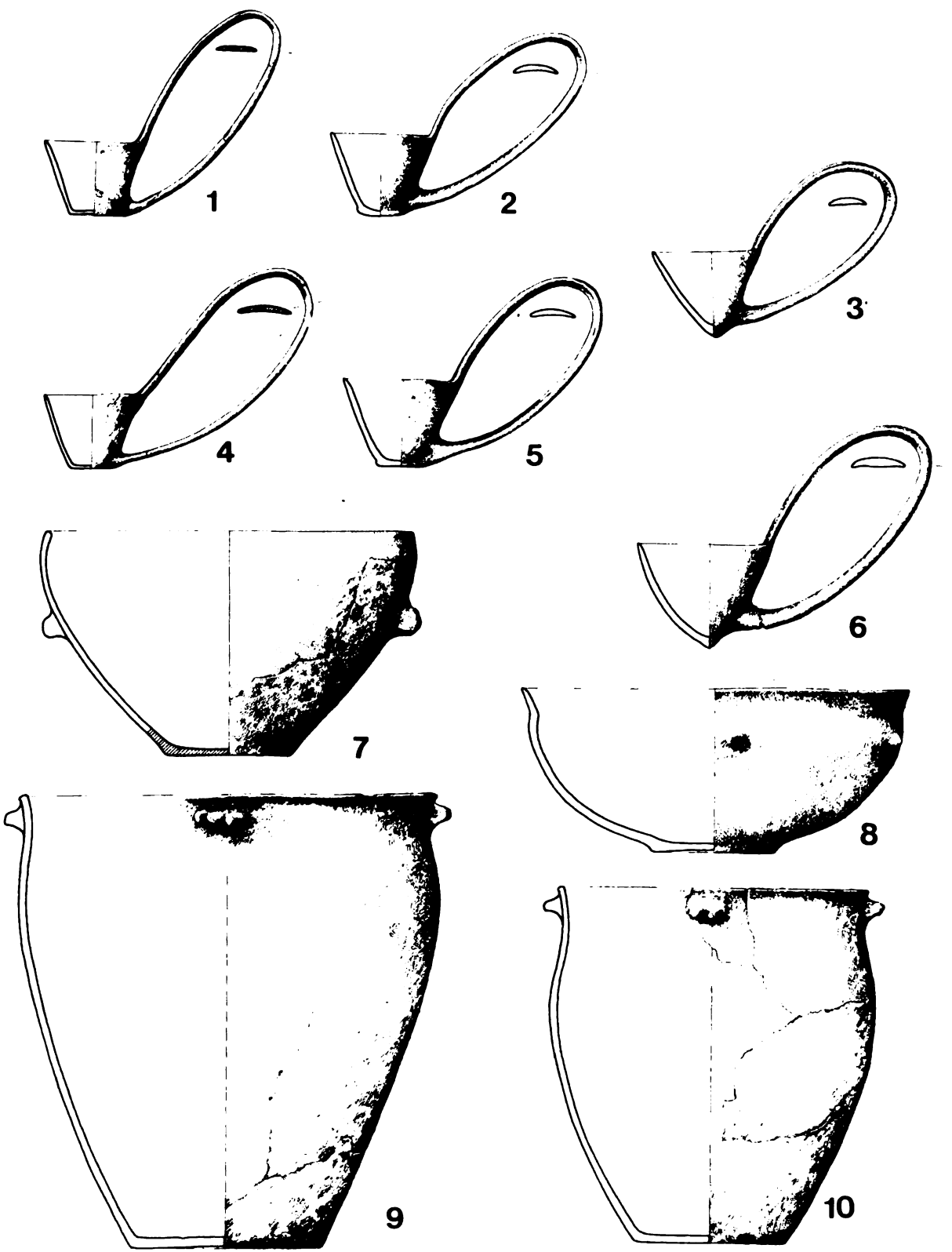


Plate XXII – Pottery of the Kostolac culture from the deposit in Sremski Karlovci

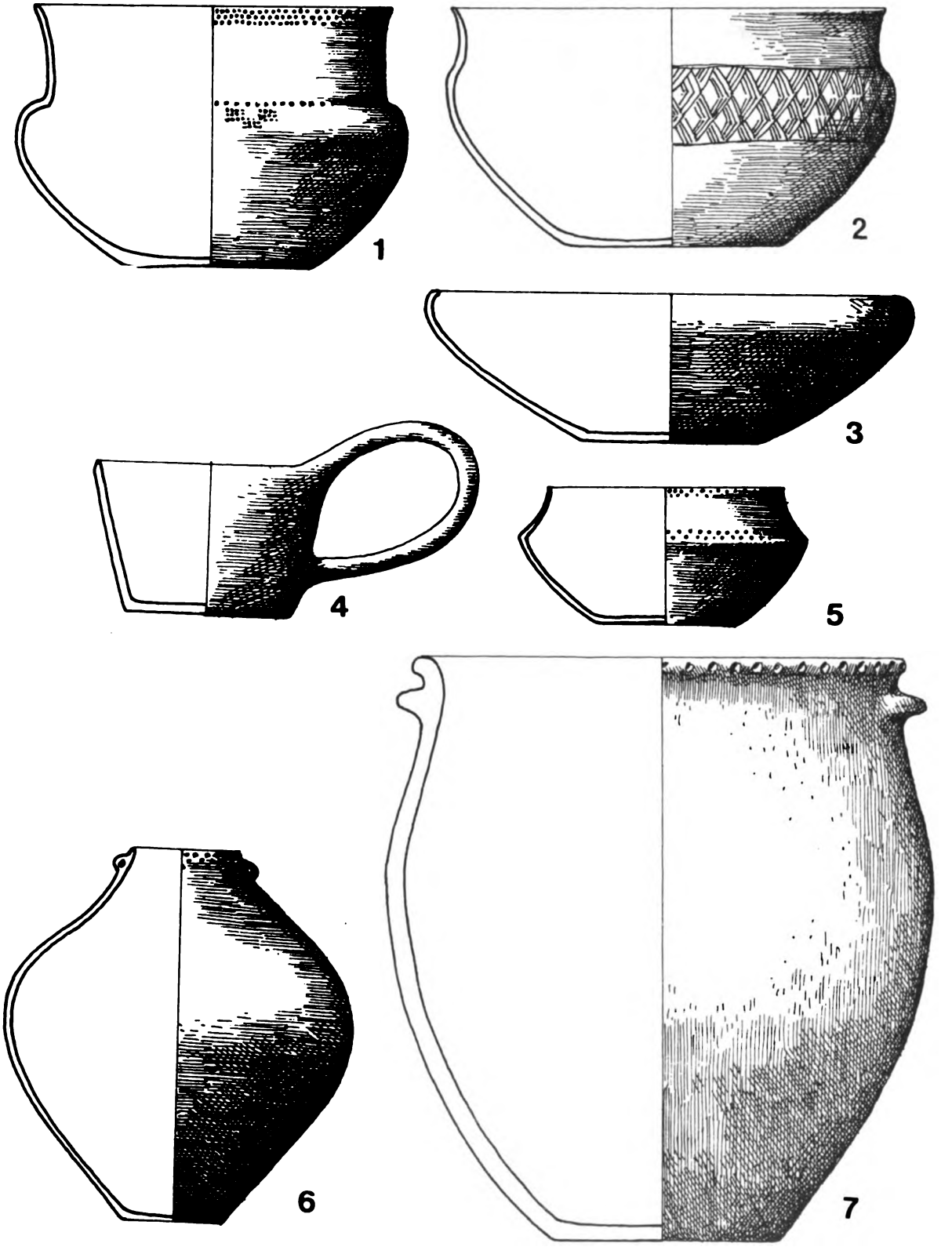
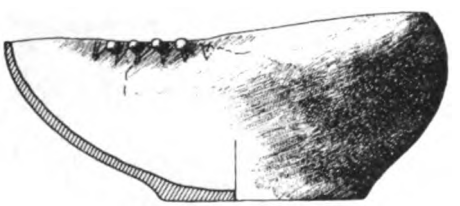
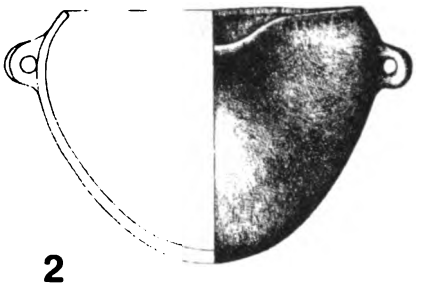


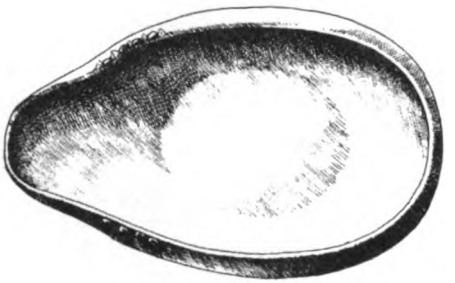
Plate XXIII – The Kostolac ware from Pivnice in Bosnia

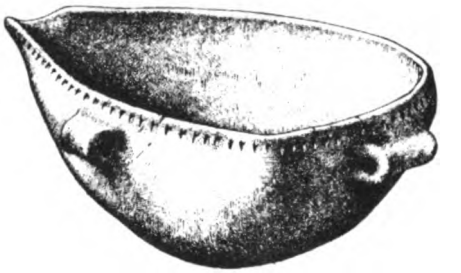


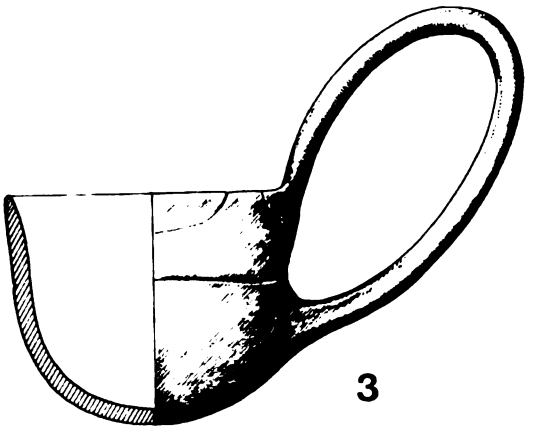
1



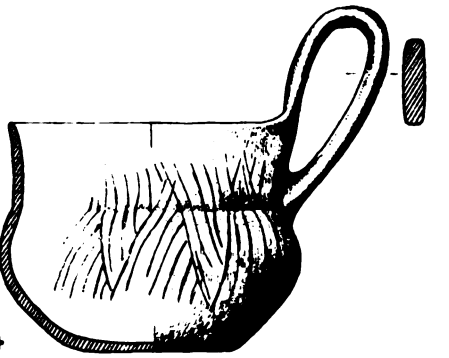
2



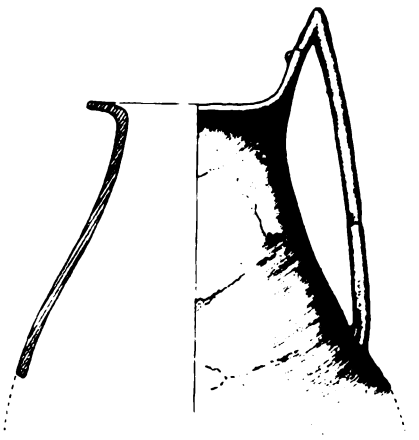


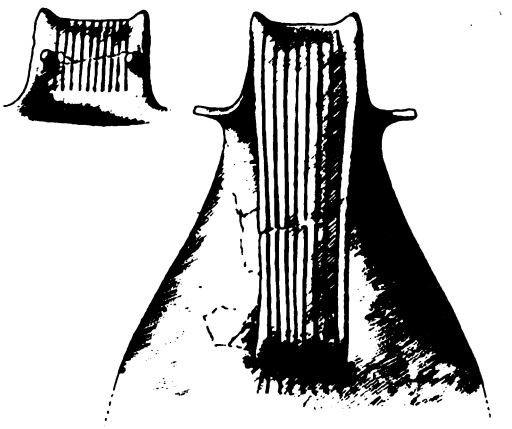


3



4





5

Plate XXIV – Pottery of the Cotofeni culture

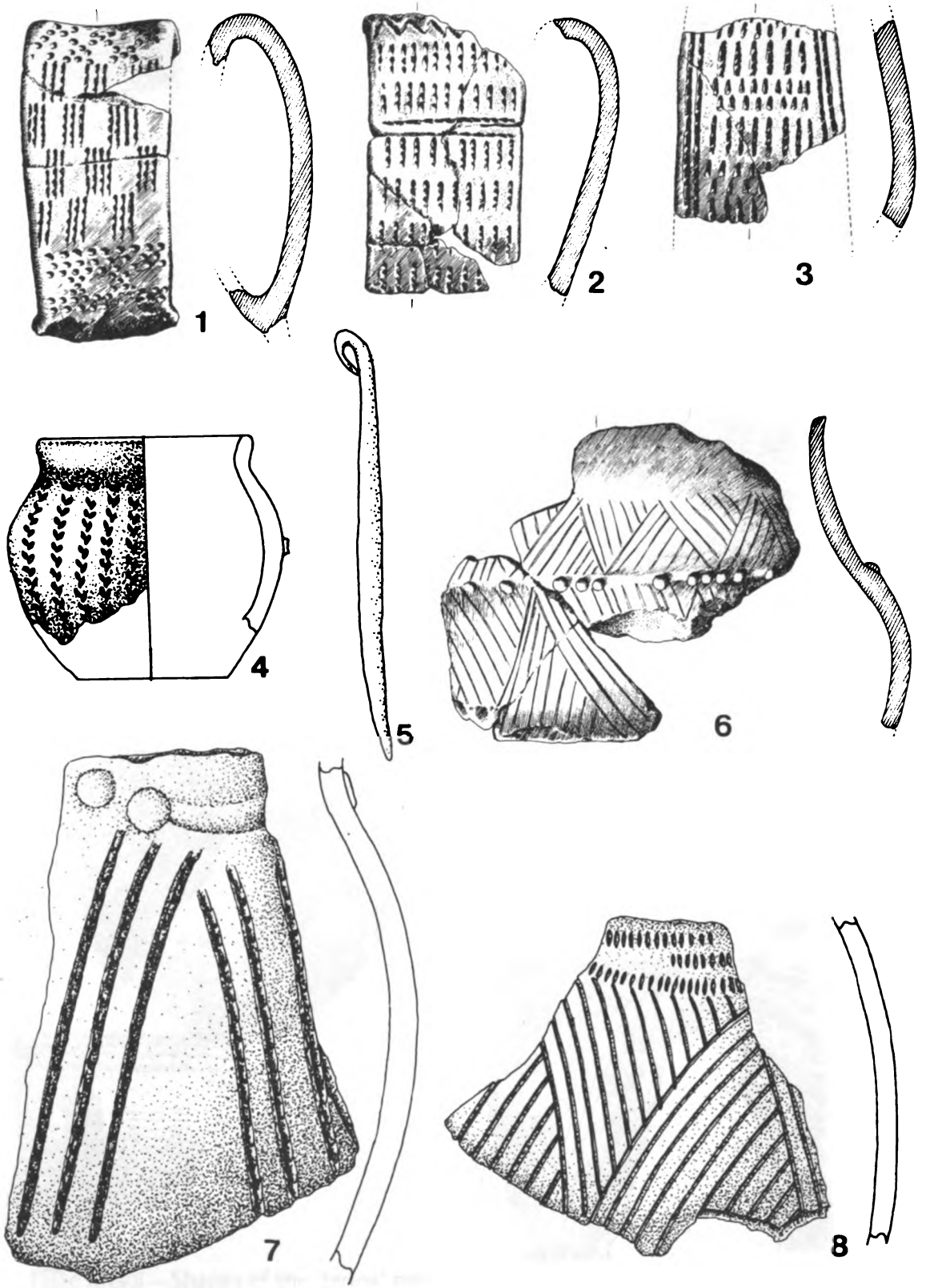


Plate XXV – Pottery of the Kostolac and Cotofeni cultures style

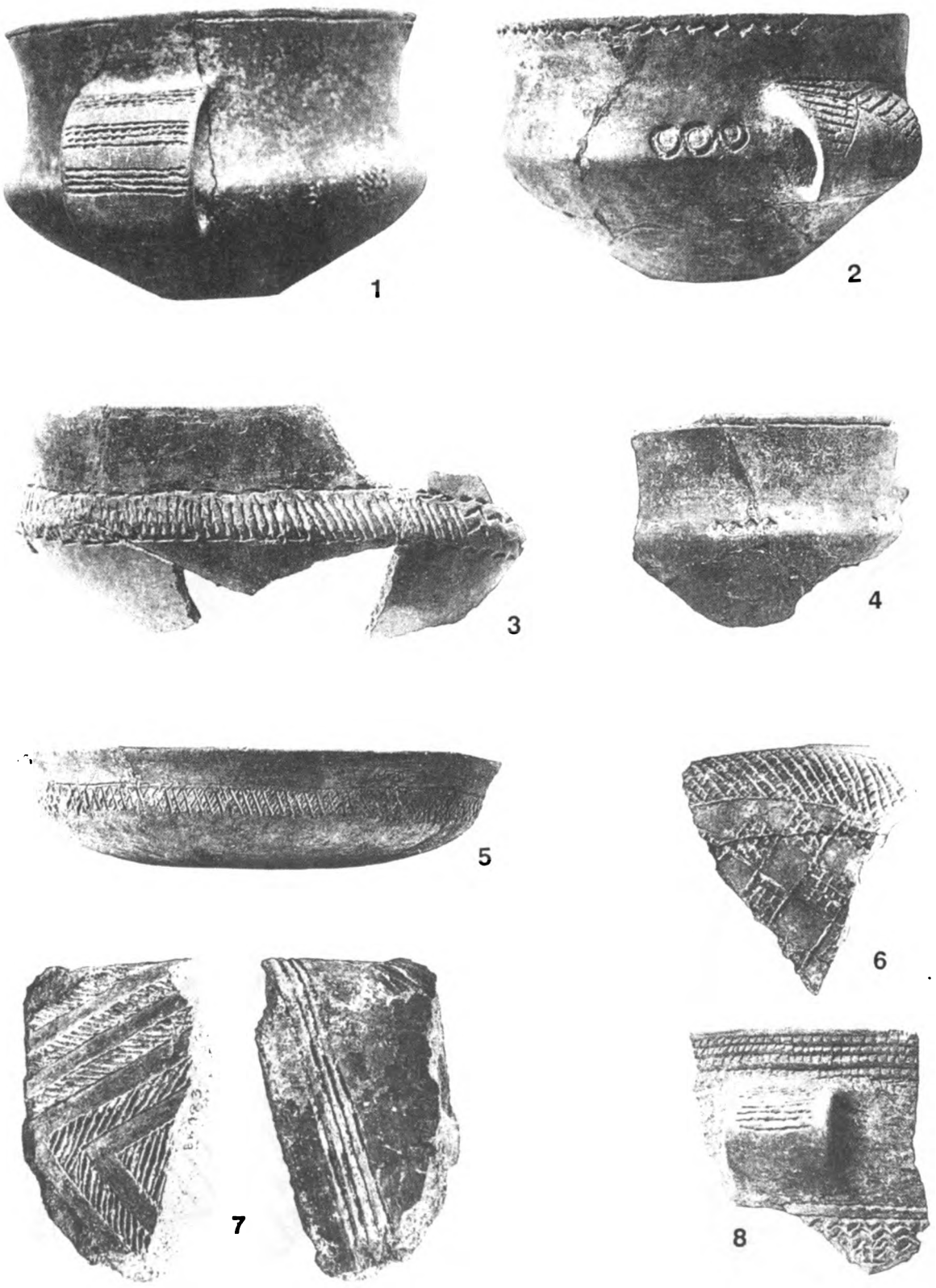


Plate XXVI – Pottery of the early phase of the Vučedol culture

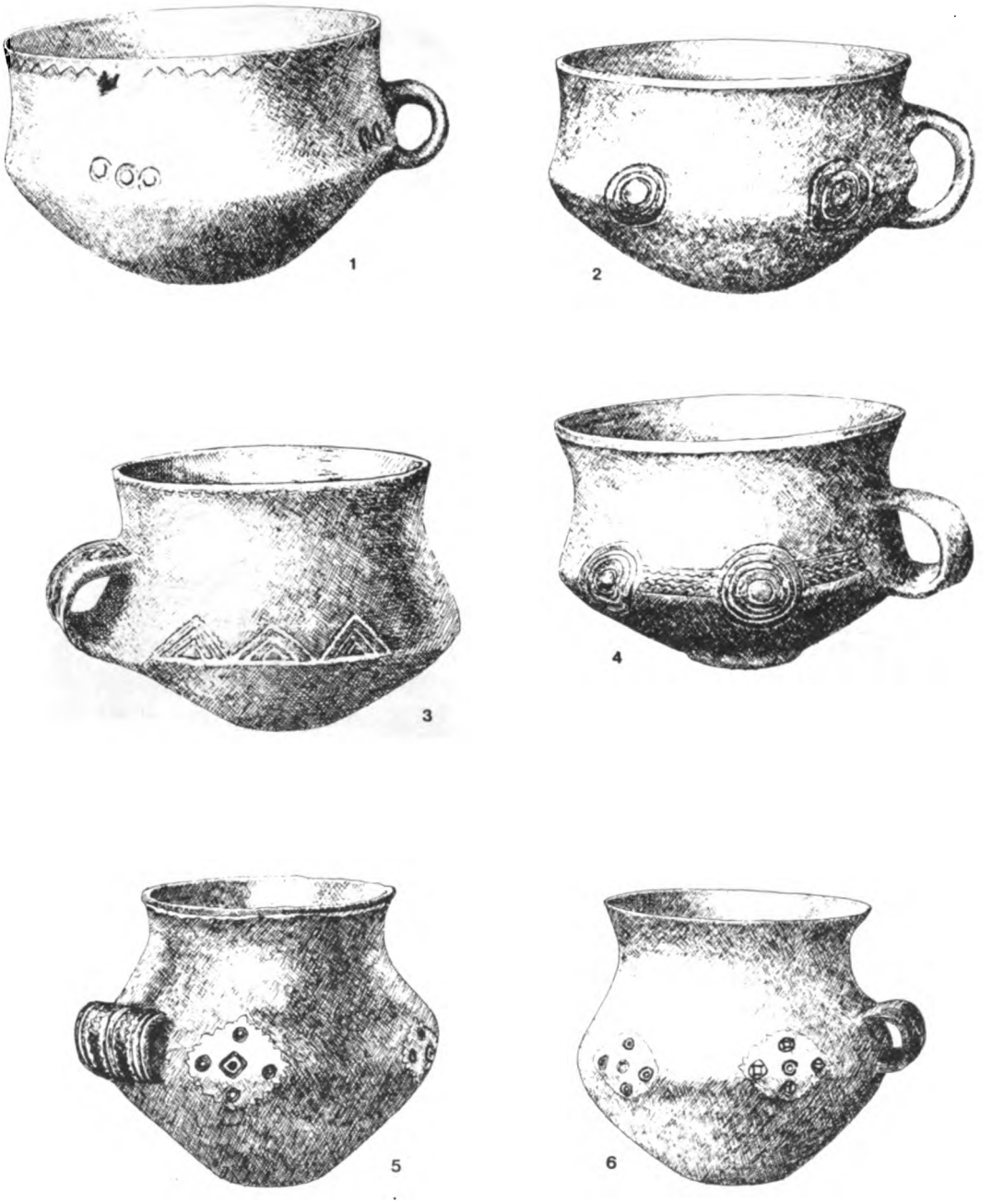
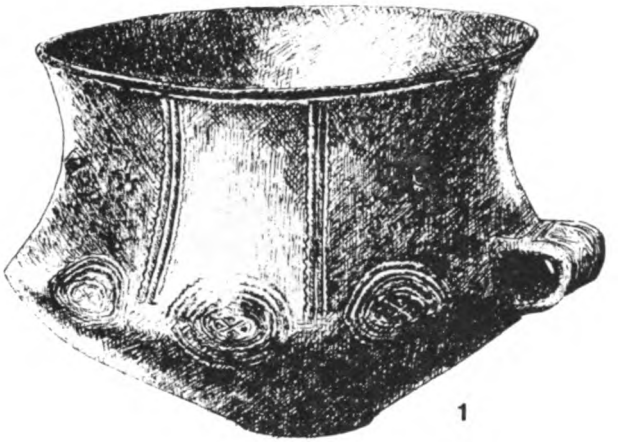


Plate XXVII – Shapes of the 'terina' pottery of the early (1-3) and classical phase of the Vučedol culture



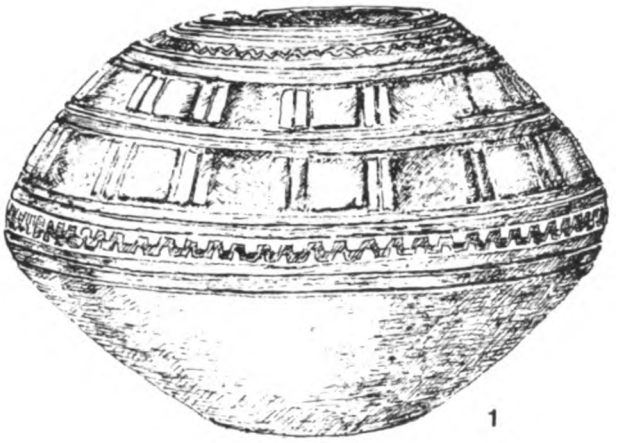
1

2

3

4

Plate XXVIII – Pottery of the classical phase of the Vučedol culture



1

2

3

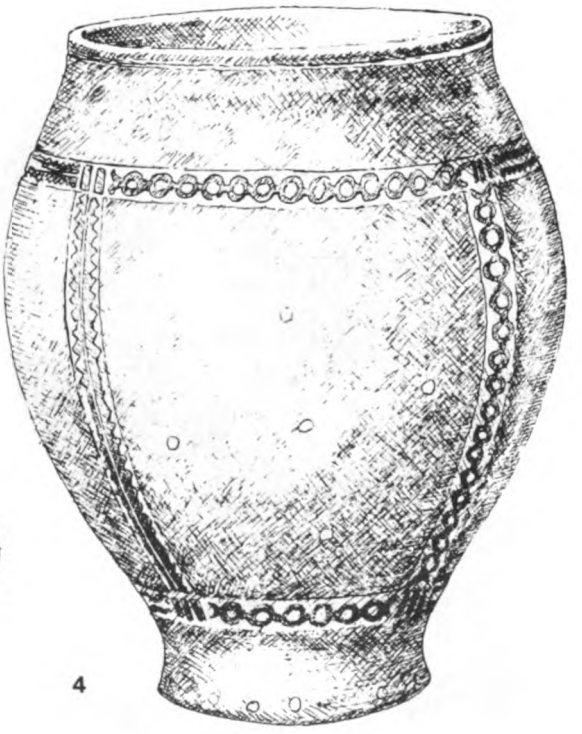
4

Plate XXIX – Pottery of the classical phase of the Vučedol culture

1

2

3



4

Plate XXX – Pottery of the classical phase of the Vučedol culture

1

2

3

4

5

6

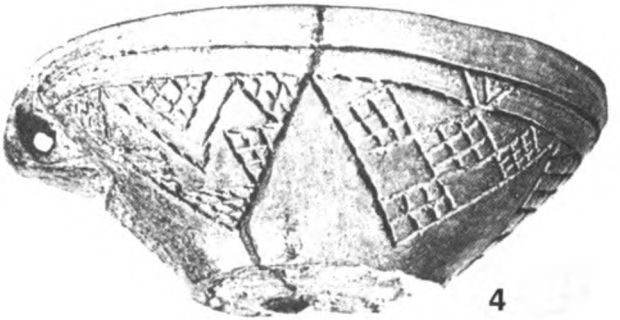
7

Plate XXXI – Pottery of the 'baroque' phase of the Vučedol culture

1

2

3



4

5

6

Plate XXXII – Pottery of the late phase of the Vučedol culture

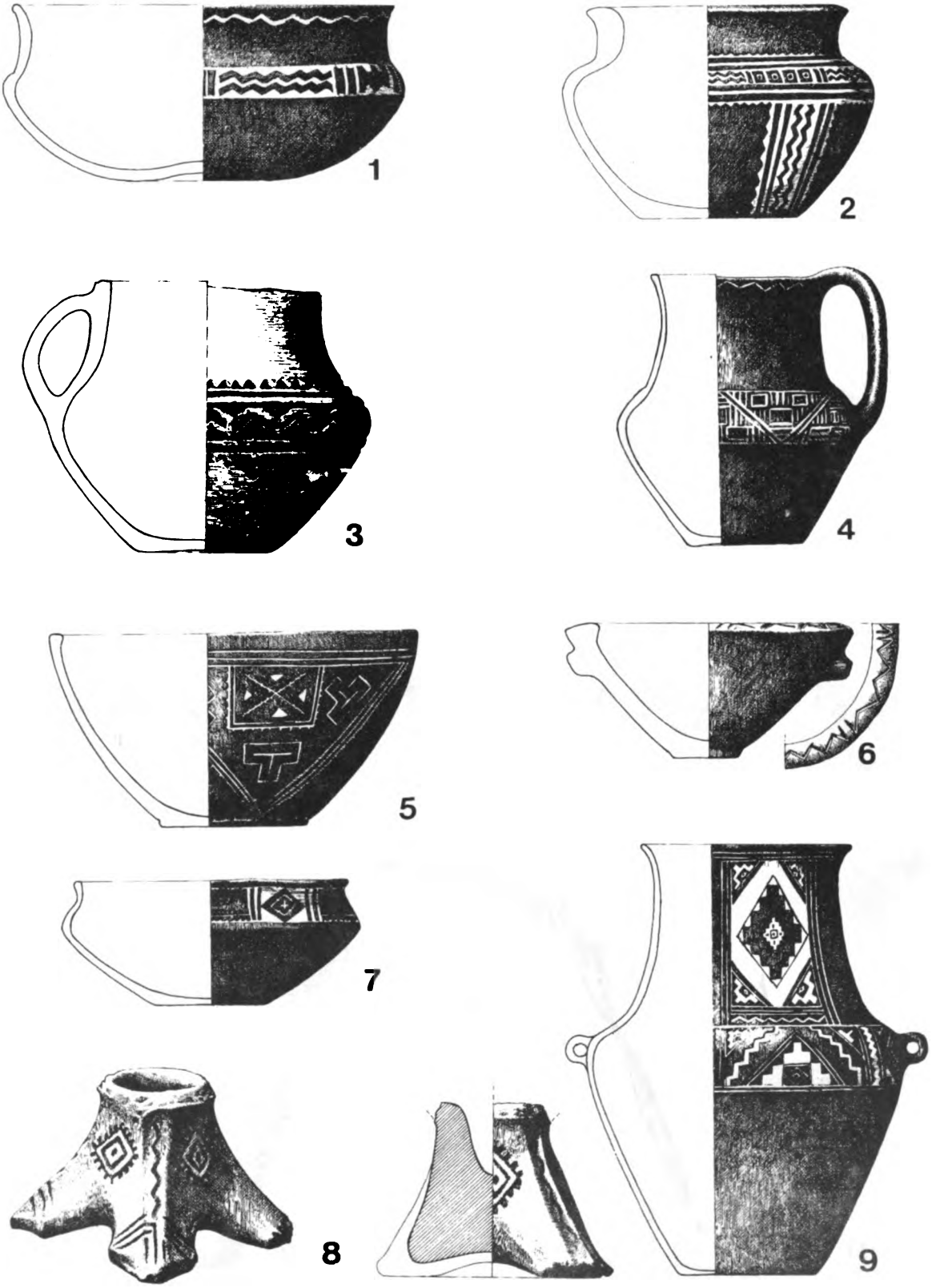
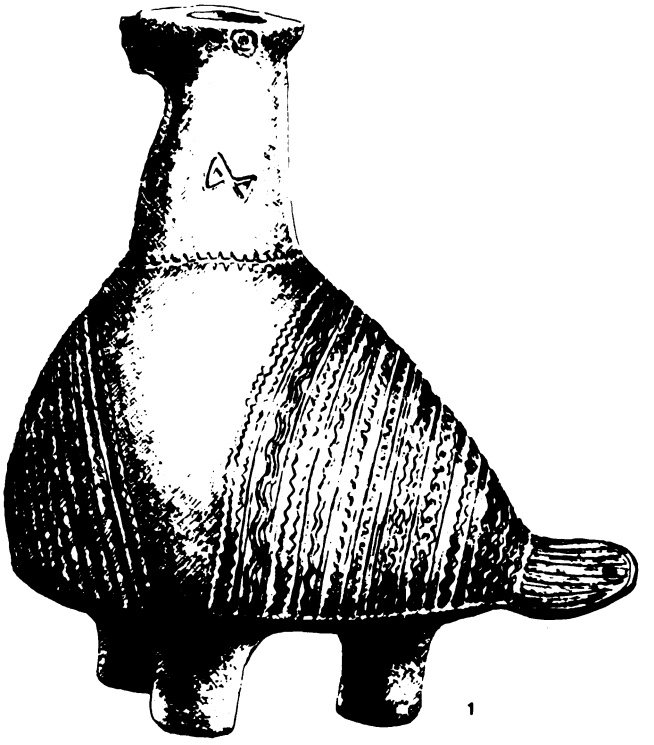
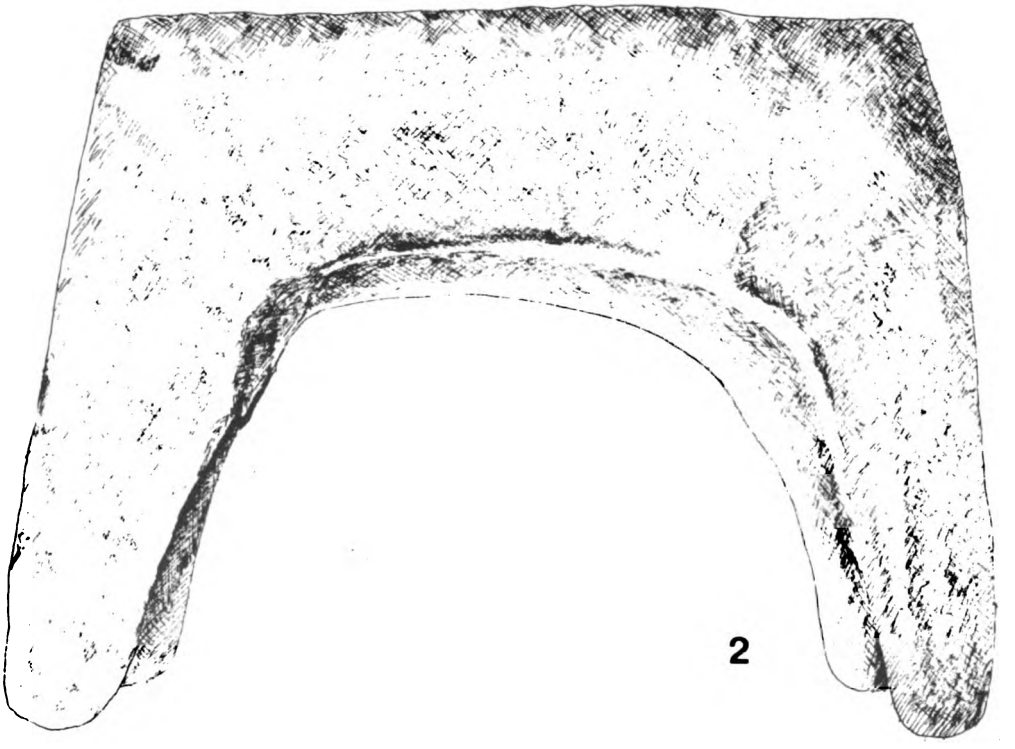


Plate XXXIII – Pottery of the West-Bosnian phase of the Vučedol culture



1



2

Plate XXXIV – The objects of cult of the Vučedol culture from Vučedol

Plate XXXV – Pottery and sculpture of the early phase of the Lasinja culture

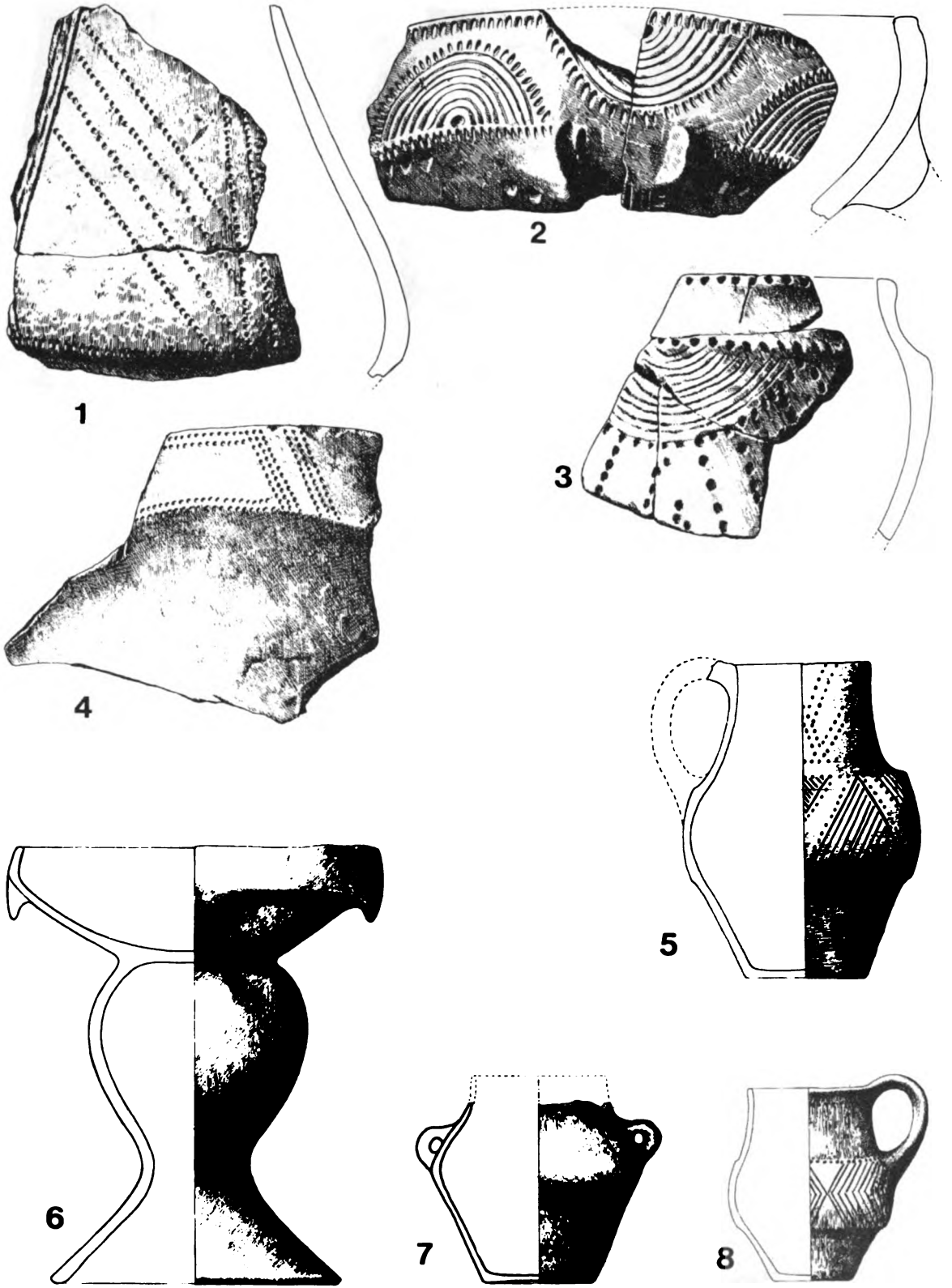


Plate XXXVI – Pottery of the late phase of the Lasinja culture

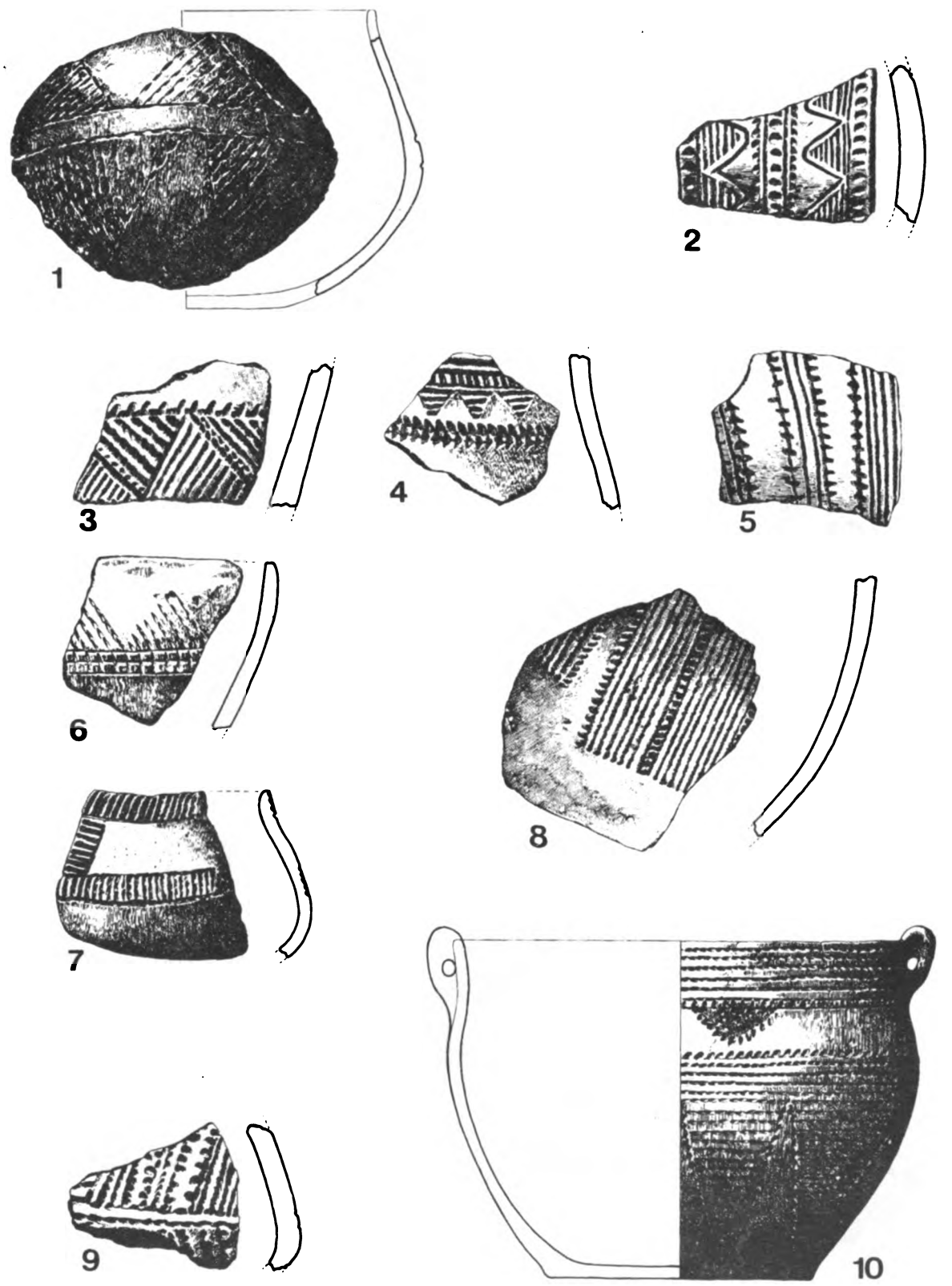


Plate XXXVII – Pottery of the Retz-Gajary culture (the Višnjica type)

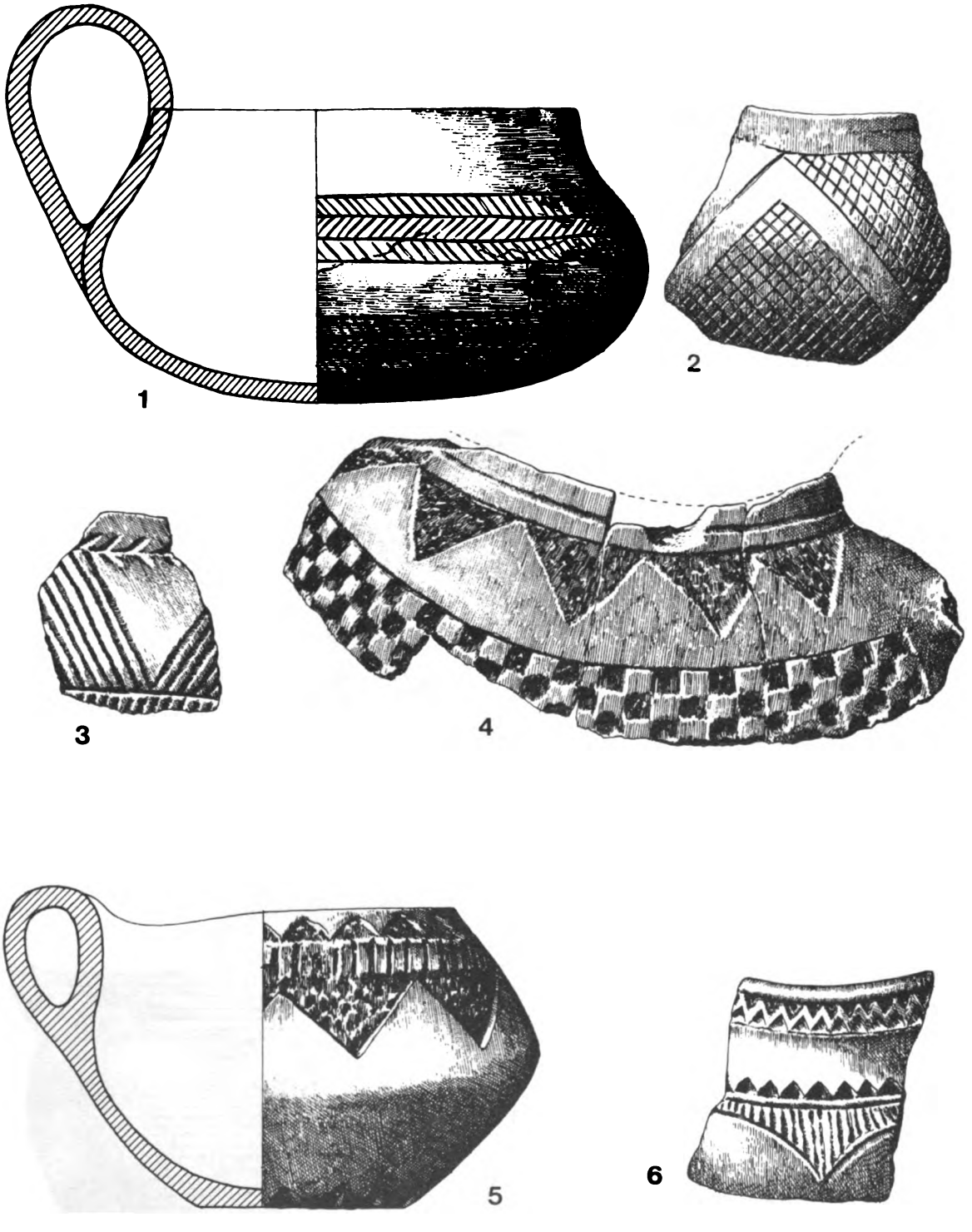


Plate XXXVIII – Kevderc-Hrnjevac type of the Retz-Gajary culture

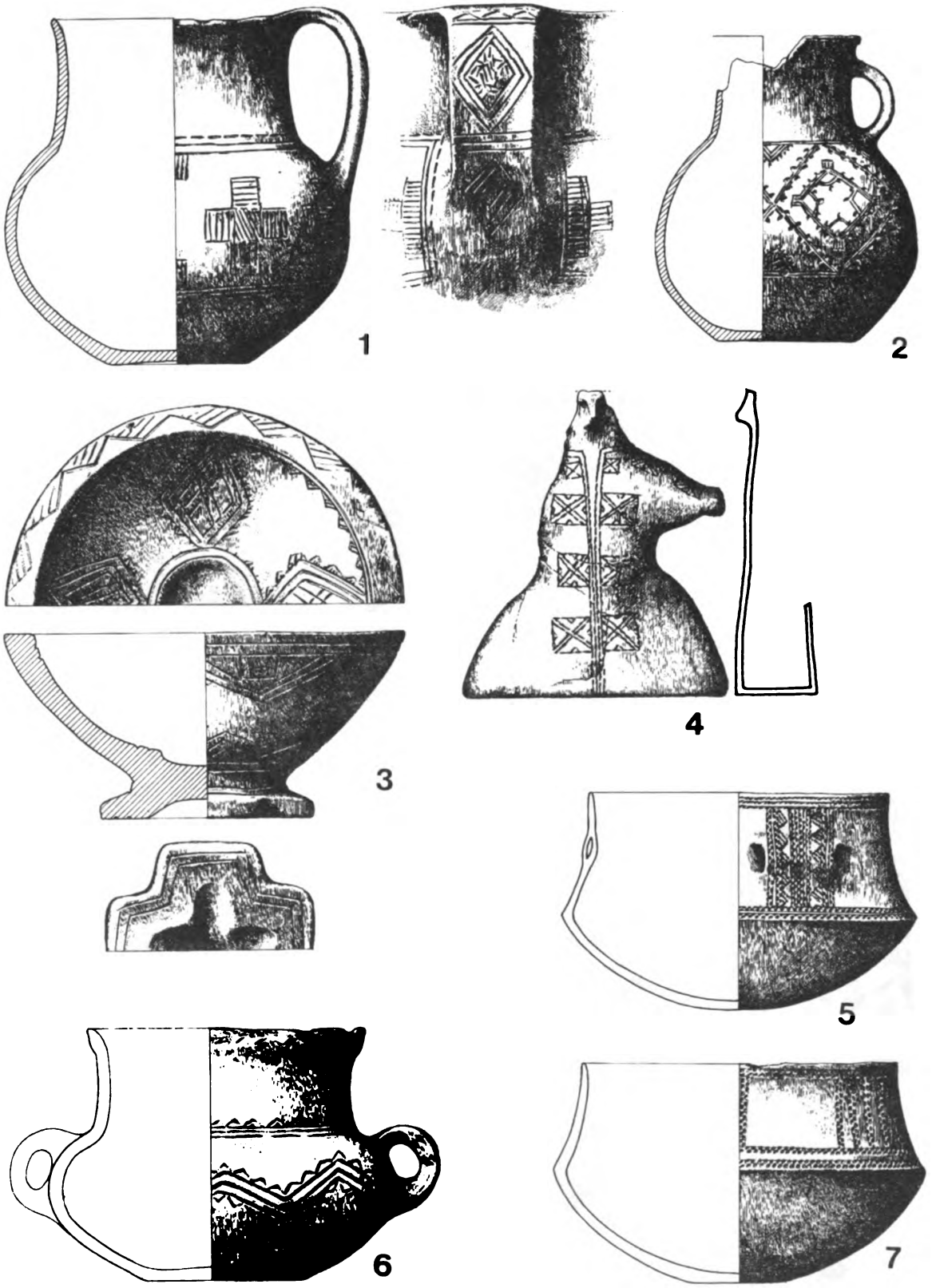


Plate XXXIX – Pottery and sculpture from Ljubljansko Barje (Ig)

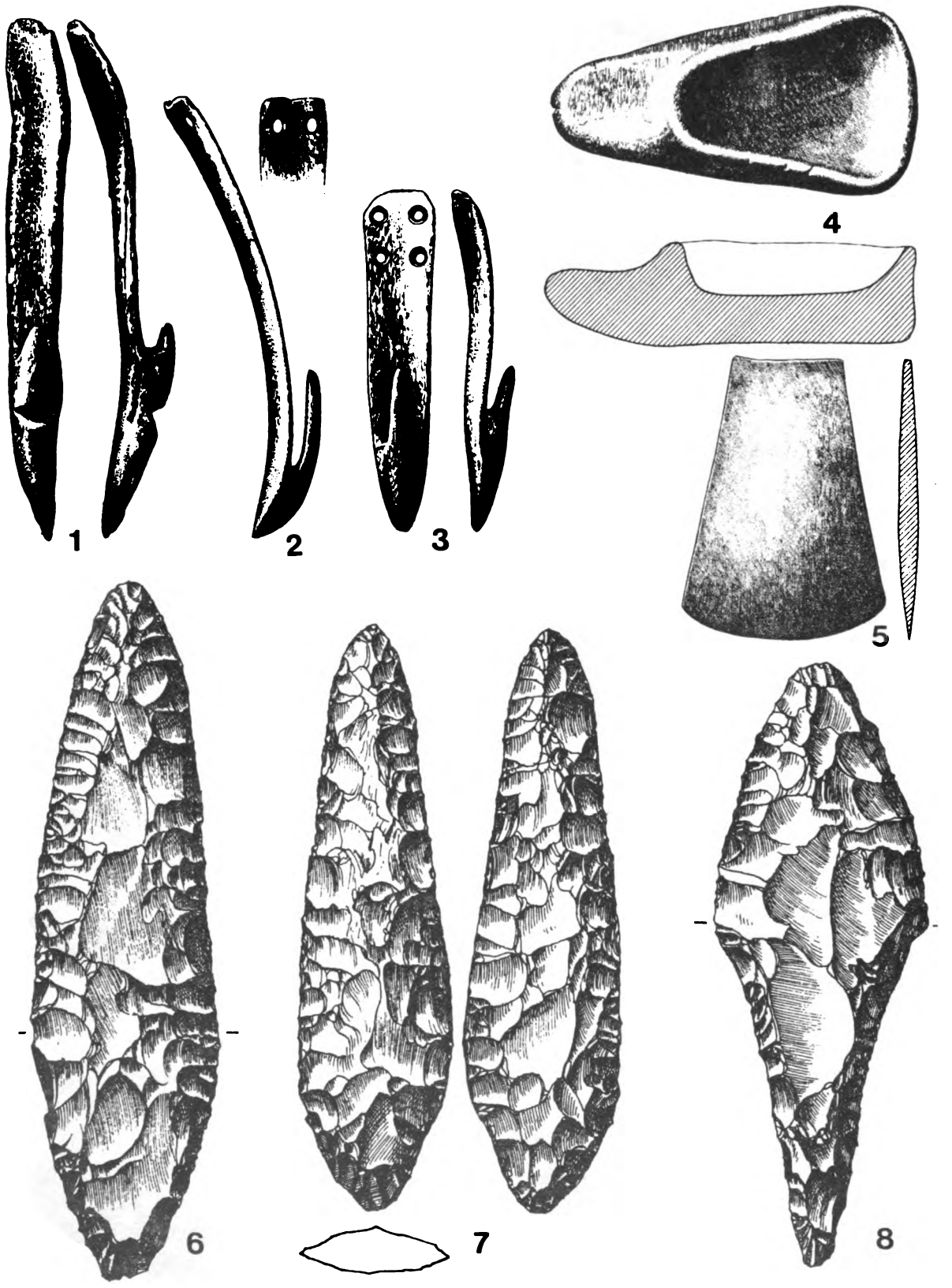
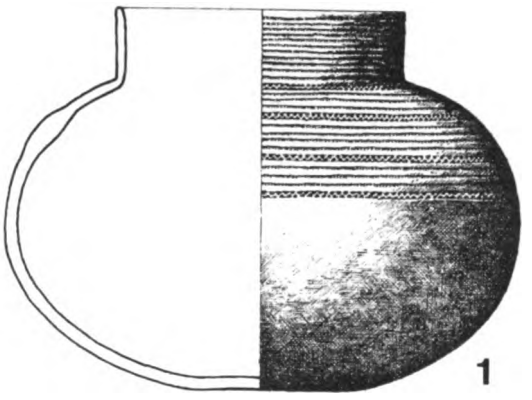
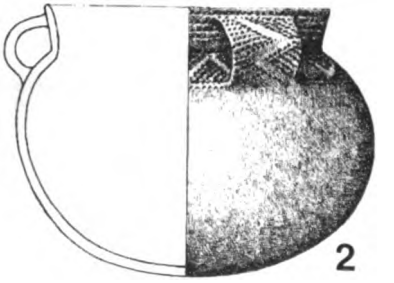
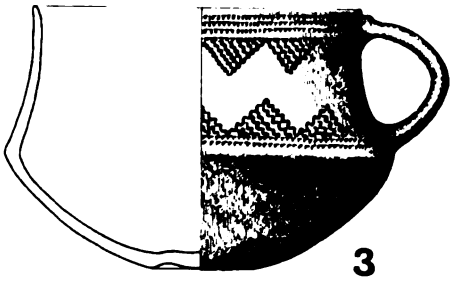
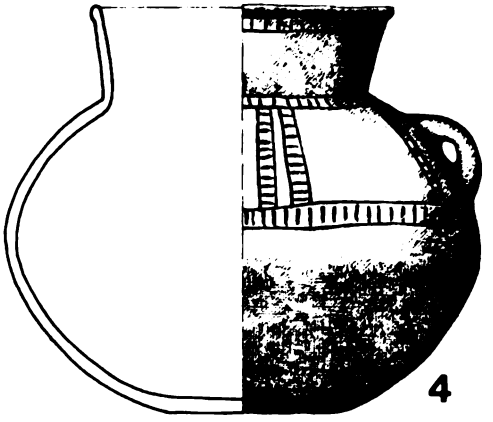


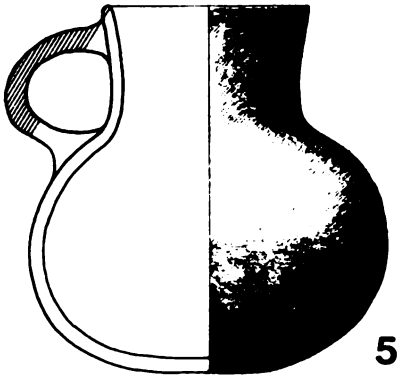
Plate XL – Tools from Ljubljansko Barje (Ig)

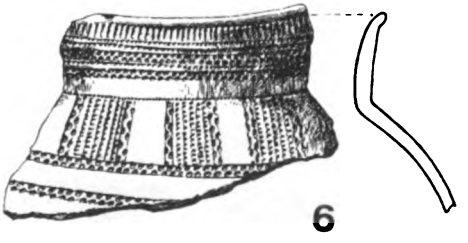


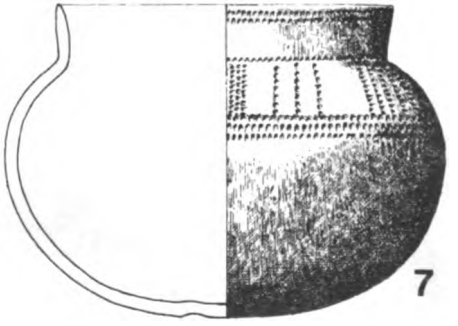












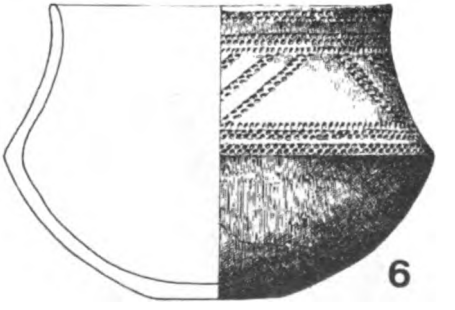


Plate XLI – Pottery of the final phase of the Vučedol culture complex.
The Ljubljana culture

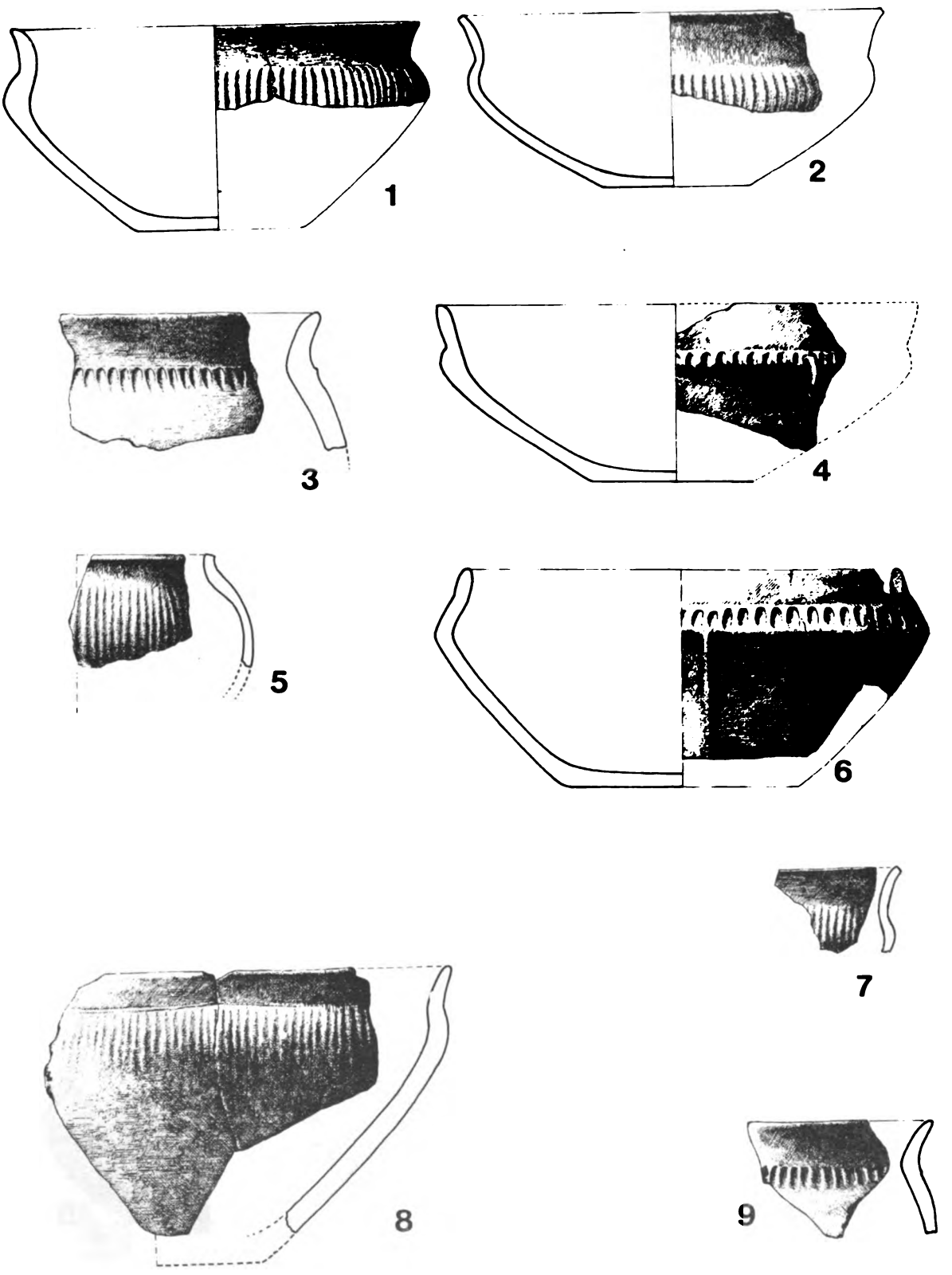


Plate XLII – Pottery of the early and the middle Eneolithic on the Adriatic coast

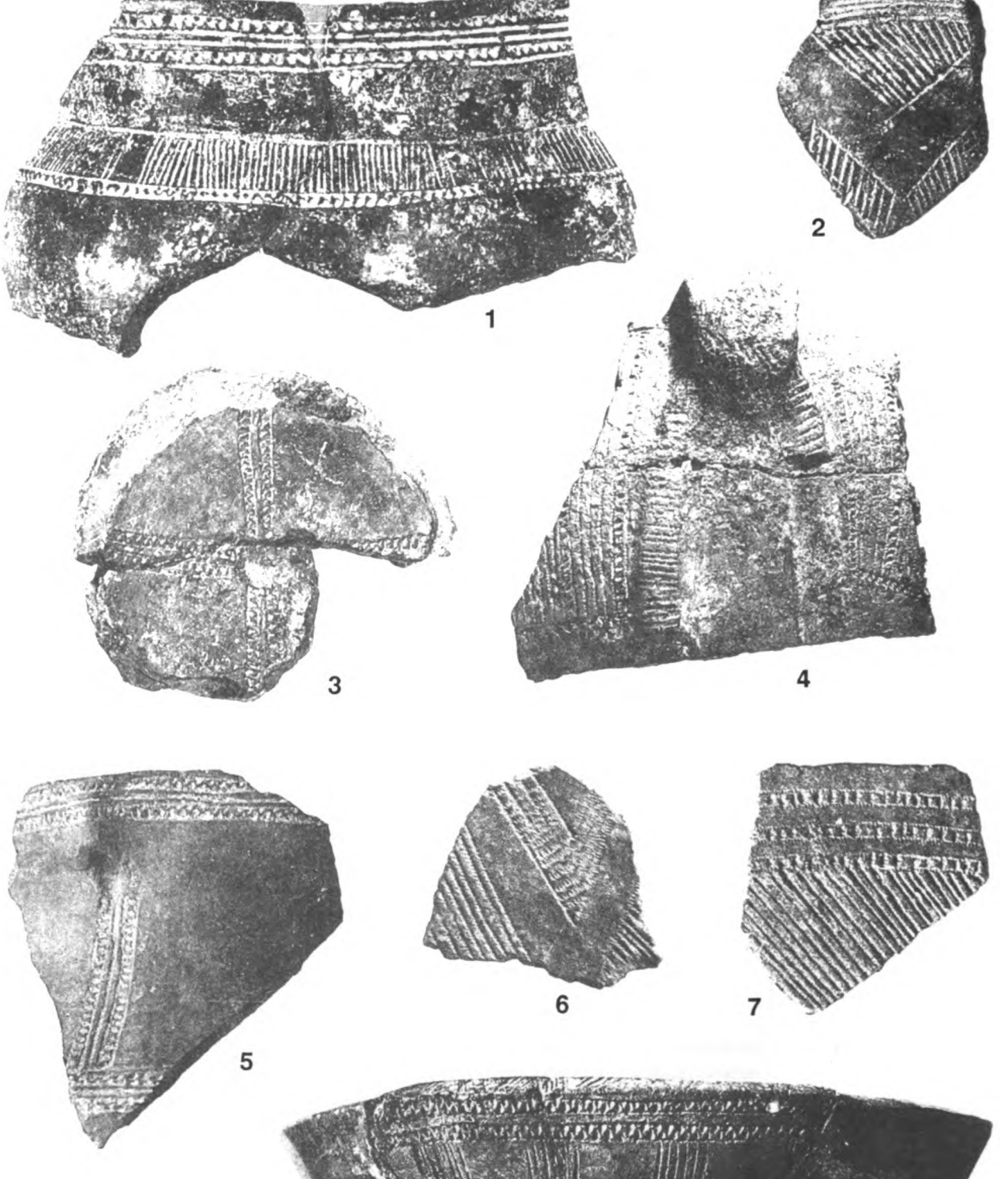


Plate XLIII – Pottery of the final Eneolithic of the Adriatic coast

CIP – Katalogizacija u publikaciji
Narodna biblioteka Srbije

903(497.1)"636"

TASIĆ, Nikola
Eneolithic Cultures of Central and West Balkans / Nikola Tasić; [English translation Ivana Đorđević, Nenad Tasić]. – Belgrade : »Draganić« : Institute for Balkan Studies Serbian Academy of Sciences and Arts, 1995 (Belgrade : Kultura). – 248 pp. Ill. : 24 cm. – (Special Edition / Institute for Balkan Studies Serbian Academy of Sciences and Arts: No 61) (Series *Heritage* / »Draganić«)

Tiraž 1000. – Bibliografija: str 175–190. – Rezime
ISBN 86-441-0117-X

a) Bakarno doba – Balkansko poluostrvo
ID=41559564