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Between East and West: Archaeology in the New Eastern Europe

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The collapse of Communism in eastern Europe has led to significant changes in the research climate for archaeology. Traditional sources of funds have evaporated while others are becoming available. Personnel have changed and many institutions find themselves in a precarious position. Nonetheless, archaeological research has continued throughout the waning days of the People's Democracies and into the new era of market economies. This article surveys the state of archaeological research in eastern Europe between the Elbe and the Pripet Marshes and between the Baltic and the Adriatic during the late 1980s and early 1990s.

KEY WORDS: Eastern Europe.

INTRODUCTION: ARCHAEOLOGY IN A NEW WORLD

My assignment for this journal is to cover archaeological developments in a swath of Europe reaching from the Baltic to the Adriatic and from the Elbe and Danube to the Pripet Marshes and the Black Sea. This is a region that used to be called "Eastern Europe" (capital "E" in "Eastern"), the "Land of People's Democracies," "behind the Iron Curtain," or the "Warsaw Pact + Yugoslavia." Indigenous archaeologists were linked by a common bond of working under suboptimal research conditions and limited opportunities for foreign travel. The "Western" archaeologists (generally British and American) who carried out fieldwork in this region were united by their competence in exotic languages, a willingness to work under suboptimal research conditions, and a fascination with some of the most

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abundant and information-laden archaeological remains anywhere in the world.

In culture-historical terms, as well as in 20th century political contexts, this region of "Eastern Europe" was an artificial entity, divided by many natural barriers and with lines of communication, such as the Danube, that cut through it at angles. During the Neolithic, for instance, the earliest farming settlements of Bulgaria have more in common with their Near Eastern antecedents than with subsequent developments in Poland, which in turn exhibit greater connections westward in Germany and the Netherlands. Nonetheless, modern language barriers and pre-1989 political divisions led to a north–south sharing of research interests, among both indigenous and foreign archaeologists in eastern Europe.

In the post-1989 world, it is now time to see the archaeology of eastern Europe as part of an integrated European prehistory, just like that of the Iberian peninsula, the British Isles, or Scandinavia. The region of eastern Europe is used here for convenience of coverage. The Elbe and Danube do not form significant ideological boundaries anymore; prehistoric peoples never viewed them as barriers. The Adriatic and Black Seas delimit the Balkan Peninsula to the east and west, but this region's distinctiveness from other parts of Mediterranean Europe should not be overstated.

The political changes of 1989–1990 have altered conditions of archaeological research considerably, both for the better and for the worse (Milisauskas, 1990). Overstaffed institutions are being forced to rationalize their payrolls. Funding for archaeological research from local and national authorities has become scarce. Due to fluctuations in currency, what had seemed like a large grant in 1989 was a pittance in 1990. Journals and monographs, which appeared irregularly in countries such as Poland in the late 1980s due to paper shortages, have now become expensive to produce and to purchase. Many have suspended or ceased publication. On the other hand, "doing business" is easier. Fuel for field vehicles and food for field crews can be purchased more readily. Rising unemployment has routed many able-bodied laborers to seasonal archaeological work. Telecommunication via fax machine and electronic mail has linked hitherto-isolated research centers to the global scholarly community.

Perhaps the most significant changes in many countries have been in terms of personnel. Although as a general rule, archaeology in Communist Europe was not as politicized as some other fields (e.g., history), there were certainly any number of individuals in leadership positions who owed their jobs more to Party loyalty than to scholarly accomplishment, either by choice or by necessity. The decommunization of archaeology has taken different forms in different countries. In places where there was relative freedom of personal expression such as Poland and Hungary, the involvement

of the Party in archaeology was relatively subtle. Its vestiges have been removed largely by retirements and normal personnel turnover. Elsewhere, such as in Czechoslovakia and Bulgaria, the Party tended to be overtly involved in many aspects of scholarly life, and it was almost impossible to avoid some measure of interaction with the Party in order to remain active in the field and to advance professionally. A number of these countries have undertaken strict decommunization policies that ban former Party members from holding positions, which may have the effect of removing some individuals who were previously influential. The effect of this on the hierarchical structure of archaeological research in these countries, particularly in the Soviet-style "academies of science" that were established in the 1940s and 1950s, will certainly be some measure of disorientation and dislocation of research programs. In some places, a younger cadre of archaeologists, many with a broader perspective and a willingness to think in innovative ways, has been able to move forward. On the other hand, a scarcity of research and museum jobs will no doubt cause constriction of the field particularly on a regional level.

Prior to 1989, the funding of archaeological research came largely from state money channeled through various agencies. With the post-1989 transition to market economies, the money for scientific research is far scarcer, and new methods have arisen to compete for funds. In Poland, a new national funding agency, the Committee on Scientific Research (Komitet Badań Naukowych; KBN), has established a competitive funding system for scientific research. Archaeology has been included in this program, despite the traditional location of the field in Poland among the "humanistic sciences," and a number of projects have received support. A similar organization has been established in Hungary. Elsewhere, there is a great eagerness to engage the interest of foreign archaeologists with access to outside funds in collaborative ventures. Although the level of foreign interest in eastern European archaeology was always high, recent changes have made the archaeological establishments of many countries even more open to the participation of outside archaeologists—provided they can bring their own money! *Quid pro quo* arrangements have also been reported, involving, for example, sponsorship of students in foreign universities and the provision of computer equipment to eastern European institutions.

As a foreign archaeologist working in Poland, I have found the new changes exciting yet sometimes disconcerting. A visitor to Eastern Europe in the mid-1980s observed that "life behind the Iron Curtain is like living with your parents forever—literally in some cases. There are a million do's and don'ts" (O'Rourke, 1988, p. 90). Relaxation of myriad Communist rules about foreign currency exchange has affected many aspects of a foreigner's

life there, making the logistics of archaeological research closer to what one might expect in the West. In 1989, when I wanted to buy gas for our field vehicle, I needed fuel vouchers issued only for hard currency. Otherwise, I needed either to get a Pole to buy gas for me or park around the corner and visit the gas station with a jerrycan. In 1990, I could pull into the station, pump the fuel myself, and pay with złotys. Money exchange in 1988 meant extralegal dealings; in 1989, a visit to a newly legal but shady back-alley money changing operation; from 1990 onward, a routine visit to a bank. Younger colleagues who had chafed under better-connected elders have been able to improve their positions and have a greater impact on charting the course of scholarly research. While I do not want to generalize from personal and somewhat idiosyncratic experience, similar rapid developments have probably occurred in other former Communist states as well.

At the same time, life in the old Communist days had a gray regularity. One worked out a set of responses to a set of known and predictable environmental conditions. Limitations were clear, and expectations could be modest yet constant. The post-Communist developments in these countries have introduced perturbations in the environment of archaeology, both within the field and in its dealings with external conditions, which will require some period of adjustment. A Neolithic farmer with extraordinary longevity might be able to see some similarities to the transition from the Atlantic to the Subboreal ca. 5000 B.P.—a different kind of environment, of course, but an irresistible metaphor. The eventual outcome will be a stronger and more vigorous research climate, but in the short term uncertainty and stress will prevail.

Tragically, in some parts of this region, notably parts of the former nation of Yugoslavia, archaeological research, sites, and museums are threatened by war and a breakdown of civil order. The museum in Vukovar in Croatia, for instance, which housed materials from the Copper Age tell at Vučedol (Fig. 1) among other sites, was leveled in the Serbian siege of 1991. Elsewhere, one worries about the looting of archaeological sites and museums to feed an emerging antiquities market, hints of which are seen in an article in the *New York Times* of March 15, 1992, entitled "East European Antiquities Shed Light on a Hidden World"—"hidden," perhaps, from art dealers but certainly not from scholars. Bailey (1993) describes the emergence of an illicit trade of artifacts in Bulgaria. Bronze specimens from the Bronze and Iron Ages seem to have particular potential for collection. Previously, tight enforcement of national antiquities laws kept such behavior in check, but with borders now open and funds tight, one suspects that there will be more looting and trafficking in ill-gotten antiquities in years to come.

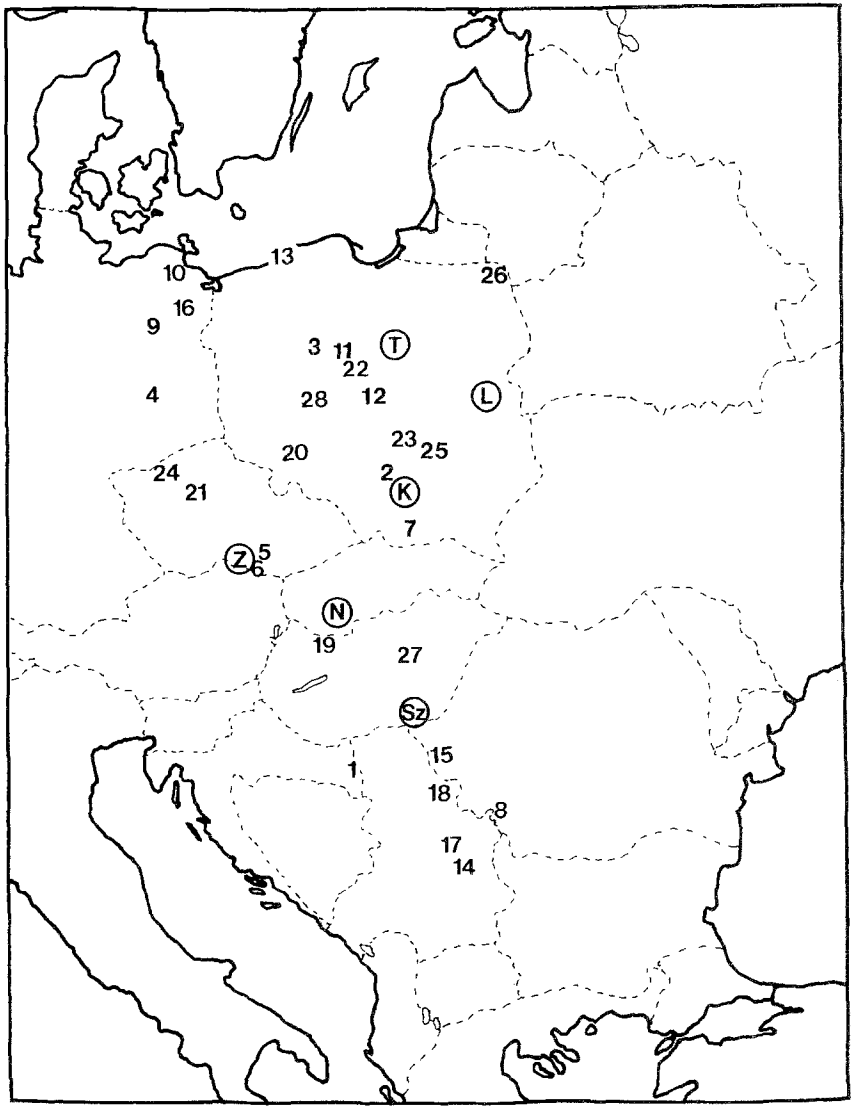

Fig. 1. Map of Eastern Europe with political divisions as of January 1, 1993, and locations of sites, modern towns, and other localities mentioned in the text. The numerical order follows the sequence of occurrence in the text. (1) Vučedol; (2) Iwanowice; (3) Biskupin, Sobiejuchy, Izdebno, Jankowo; (4) Bilzingsleben; (5) Stránská Skala; (6) Dolní Vestonice; (7) Obłazowa; (8) Schela Cladovei; (9) Friesack; (10) Tribsees; (11) Dęby; (12) Alexandrów; (13) Dąbki; (14) Blagotin; (15) Foeni; (16) Zollchow; (17) Selevac; (18) Opovo; (19) Ikrény; (20) Zarzyca; (21) Bylany; (22) Osłonki, Brześć Kujawski; (23) Krzemionki; (24) Msecké Zehrovice; (25) Jakuszowice; (26) Jegliniec; (27) Tiszapolgár-Czöszhalom; (28) Łęg Piekarski. K, Kraków; L, Liwiec River; N, Nitra; Sz, Szeged; T, Toruń; Z, Znojmo.

What to call this new world? "Eastern Europe" now seems a bit of a misnomer, since the vast expanse of European Russia, Belarus, Ukraine, the Baltic Republics and Moldova remains farther to the east. Moreover, many inhabitants of these countries never really considered themselves "eastern" and looked west culturally and intellectually. As a Polish colleague told me last year, "Eastern Europe now starts on the Bug (River)." "Central Europe," on the other hand, is linked to the Germanic concept of *Mitteleuropa*, encompassing Germany, Austria, Switzerland, and perhaps Hungary. Where does that leave Poland, the Czech lands, Slovakia, and the countries of southeastern Europe? "East-central Europe" works for the northern tier. The term "Balkan" evokes mixed emotions, but "the Balkan Peninsula" seems properly parallel to "the Iberian Peninsula." Coming to grips with geographical nomenclature will be but one aspect of adjustments to be made in the coming decade.

KEY ISSUES IN THE ARCHAEOLOGY OF EASTERN EUROPE

The following is a highly selective and somewhat idiosyncratic outline of the major research questions in eastern European archaeology that is intended as a guide for the section on current research that follows. It is not meant to be exhaustive but rather to provide a way for the reader to relate the ongoing research in eastern Europe to issues that confront archaeologists elsewhere in the world.

Paleolithic

Stone Age research has been a field that has great antiquity in eastern Europe, having begun as in western Europe in the early nineteenth century. The upland zones of eastern Europe, from the Dinaric Alps and the Carpathians in the south to the travertine formations of the Elbe and Danube drainages in the north, harbor traces of Paleolithic settlement. A fundamental problem is the establishment of the earliest human occupation of this area by representatives of the species *Homo erectus* with their Lower Paleolithic tool assemblages. An even greater issue, however, is the potential research role that eastern Europe can play in examining the transition from *Homo erectus* to *Homo sapiens*, Data from this region, particularly from the Balkan peninsula, may have considerable relevance to the current debate in palaeoanthropology between the *in situ* evolution and the "out-of-Africa" hypotheses for the origin of *Homo sapiens*.

Paleolithic research in eastern Europe is routinely conducted within a multidisciplinary framework of Quaternary studies. Scholars in this field tend to be more "international" in their outlook than many who work on later periods. In the Middle and Upper Paleolithic, in particular, there are a number of open sites, in contrast to the rock-shelter and cave sites that have been dominated Paleolithic research elsewhere in Europe. Lithic raw material sourcing studies are emerging as particularly important ways to approach late Pleistocene life in the area (e.g., Svoboda, 1984; Oliva, 1991).

In some parts of eastern Europe, there is a great deal of data on the transition from the adaptations of the Weichsel glaciation to the establishment of postglacial environmental conditions. This so-called epi-Paleolithic or "final Paleolithic" has great potential for the examination of the origins of postglacial foraging groups in areas such as the Carpathian basin and the North European Plain (e.g., papers in Burdukiewicz and Kobusiewicz, 1987; Bower and Kobusiewicz, 1988).

Mesolithic

The study of post-Pleistocene adaptations in eastern Europe has steadily grown in the last 30 years. In some areas, such as the Hungarian Plain, data on Mesolithic foragers are still scarce, but elsewhere numerous sites have been found. Mesolithic studies in eastern Europe, in surprising contrast to the research on the Paleolithic, have been dominated by a typological and culture-historical approach, which has hindered their development. This situation is perhaps an artifact of the earlier position of this period as an orphan child between the Paleolithic and the Neolithic, with a concomitant lack of institutional research interest. Perspectives are changing, however, and interest in this period should continue to grow, with settlement patterns and subsistence emerging as important issues (e.g., Keiling, 1985; Vencl, 1991).

Neolithic

Eastern Europe has traditionally been a focus of Neolithic research. The work of V. Gordon Childe early in this century did much to bring the Danubian cultural sequence into the consciousness of world prehistory. As in other parts of Europe, Neolithic (and later) studies have been framed in terms of the interaction of various "cultures" defined on the basis of pottery styles. The widespread use of radiocarbon dating has ended many of the typology-based chronological debates of the mid-twentieth century,

and in recent years, the Neolithic record of eastern Europe has provided the data with which to investigate a range of process-oriented issues.

These issues include the study of the first farmers of Europe, since one pathway for the introduction of agriculture based on Near Eastern cultigens and livestock was through the Balkans, up the Danube valley, and eventually north along the Elbe, Oder, and Vistula. One key problem is somehow to differentiate between colonization by agricultural peoples and the adoption of food production by indigenous foragers. The question of forager–farmer interaction is very significant in areas such as the Danube Gorges on the Romanian–Serbian border and the North European Plain in norther Poland and Germany (e.g., Chapman, 1989; Bogucki, 1987; Prinz, 1987; Voytek and Tringham, 1989; Zvelebil and Dolukhanov, 1991).

Important issues in the study of early farming in southeastern and east-central Europe include the refinement of regional sequences, the reconstruction of subsistence economics, and the study of changing settlement patterns and site organization. In the late 1980s and early 1990s a number of studies appeared that addressed these issues (e.g., Srejović, 1988; Manson, 1990; Milisauskas and Kruk, 1989, Chapman and Muller, 1990; Neustupný, 1991; Kuna, 1991; Raczkowski, 1991; Bogucki and Grygiel, 1993). A number of large sites, some of which were excavated in the 1950s, 1960s, and 1970s, have also been published in recent years (e.g., McPherron and Srejović, 1988; Milisauskas, 1986a; Pavlů *et al.,* 1987; Heger and Hiller, 1989).

Another important topic in which data from the eastern European Neolithic have played a role has been in the emergence of social and economic complexity between ca. 6000 and 4000 B.P. Large, internally organized sites appear in the eastern Balkans at this time (e.g., Todorova, 1986, 1989) and there is a great elaboration in symbolic behavior expressed in figurines across this region (e.g., Bailey, 1990). Mortuary remains also assume increased importance (e.g., Meisenheimer, 1989; Panajotov, 1989; Nogaj-Chachaj, 1991). Many of the data used to infer the intensified use of animal resources during this period come from east-central and southeastern Europe (e.g., Greenfield, 1988; Milisauskas and Kruk, 1991). In Poland, the trade in exotic raw materials, particularly different types of flint, is especially pronounced at this time (Borkowski, 1991). Copper from Carpathian sources began to be used first in the Balkans and later in north-central Europe (e.g., Gumiński, 1987). Settlement expanded into zones that had not been previously settled by Neolithic farmers (e.g., Valde-Nowak, 1988).

Recently, there has been a growing trend in this region to examine prehistoric households as loci of social and economic behavior and the units among which differential access to status, power, and wealth first occurs.

The architectural remains of recurring complexes of domestic features, which might be called "household clusters" in other parts of the world, make the household analytical approach particularly attractive (Tringham, 1991). As Hodder (1990) points out, Neolithic archaeology in central and southeastern Europe is settlement archaeology. The household approach provides a useful way to analyze large, complex residential sites (e.g., Grygiel, 1986), along with permitting detailed glimpses of domestic production activities (e.g., Grygiel and Bogucki, 1990).

Another important new dimension of the period between 6000 and 4000 B.P. in east-central Europe is the discovery of large numbers of sites demarcated by earthworks (e.g., Nemejcová-Pavúková, 1986; Pavúk, 1991). These sites, many of which are concentrated in Slovakia and the Czech Lands, often have circular earthworks up to 160 m in diameter enclosing settlement remains. The common interpretation is that the earthworks served as fortifications. Other sites without houses or domestic rubbish pits are called "rondels," whose function is unclear. This parallels a trend seen in the Neolithic of west-central Europe as larger areas are excavated beyond the primary concentrations of domestic refuse and features.

Bronze Age

In contrast to the Neolithic case, Bronze Age archaeology in eastern Europe has long been focused on mortuary remains, some of which are quite spectacular (e.g., Kitov *et al.,* 1991). Elaborate typological schemes, not only of pottery but also of metal artifacts, have been developed. Radiocarbon dating has helped to anchor some previously floating sequences (e.g., Bankoff and Winter, 1990; O'Shea, 1991), particularly during the transition from the Late Neolithic/Copper Age to the Early Bronze Age. Although some attempts have been made to infer social distinctions from mortuary remains, there is much work to be done in integrating these data with information on substance and settlement. Some beginnings have been made in this direction (e.g., Furmánek, 1990; Kadrow, 1991a, b). Kadrow's study of an early Bronze Age site at Iwanowice, excavated by the Polish Academy of Sciences and the State University of New York at Buffalo, represents one of the first full spatial analyses of a Bronze Age settlement in central Europe. One major research question lies in the understanding of the transition from the Neolithic or Chalcolithic (or Copper Age, as the copper-using terminal Neolithic cultures are sometimes called) to the Bronze Age, particularly the elaborate Early Bronze Age mortuary finds such as the Únětice culture. The Middle Bronze Age shift in inhumation to cremation burial (Klosińska, 1991) is accompanied by other significant

developments, such as the construction of mortuary buildings over certain graves (Gedl, 1984). In southeastern Europe, the existence of large stratified sites begs for study of local patterns of resource use and exchange. On the North European Plain, where the fortified waterlogged settlement of Biskupin has been known since the 1930s, the existence of similar sites such as Sobiejuchy, Izdebno, and Jankowo, with preserved wooden houses and ramparts, demands interpretation of their development and eventual abandonment (Ostoja-Zagórski, 1989).

Iron Age and After

Many of the research challenges presented by the Bronze Age in eastern Europe apply equally to the Iron Age, particularly the need to examine settlement remains to complement the long-standing focus on burials. Technology is emerging as a major research theme for the first millennium B.C. (e.g., Romsauer, 1991). An additional research frontier in this period is the question of the rise of the town and urbanism, particularly in central Europe (Wells, 1984), as well as incipient state formation in southeastern Europe, for instance, in Thracia and Dacia along the lower Danube. The Roman frontier cuts across east-central Europe, with areas to the south of it eventually incorporated into the Roman empire and with areas to the north falling under varying degrees of Roman social and economic influence.

In the first millennium A.D., the issue of state formation presents itself again, this time in east-central Europe in Moravia, Bohemia, and Poland. Complex chiefdoms of the first centuries A.D., as reflected in the burials at Łęg Piekarski in Poland and elsewhere, give way to urban states in the ninth and tenth centuries. The research focus tends to be on ethnohistory and culture history (e.g., Parczewski, 1991; Pieta, 1991), without much theoretical discussion of the processes of state formation as has taken place in Mesoamerican and Near Eastern archaeology. Settlement patterns are beginning to receive greater attention however (e.g., Klápště, 1991; Meduna and Černá, 1991). It would be very interesting to examine central European cases, known both archaeologically and ethnohistorically, in light of the models proposed for other parts of the world. Along the Baltic, trading emporia provide another element of economic complexity (Jagodziński, 1991).

This brief excursion through some of the central research issues has been very cursory and idiosyncratic. The author apologizes for any major oversights and gaps, as well as any unintended bias toward his own research province in the northern part of this zone. Two important points need to be made: (1) the archaeological data from eastern Europe are indeed rich,

and (2) the questions that can be addressed in this region have relevance to anthropological archaeology on a global scale.

CURRENT ARCHAEOLOGICAL RESEARCH

Based on the above outline, this section highlights some significant ongoing research in this region. Again, the coverage is selective and personal, based on information available to the author. The last major review of the archaeology in this area by Sarunas Milisauskas appeared in *American Antiquity* in 1986. That year, then, is taken as the baseline for the literature cited in this review. In some places research may have begun on a particular topic somewhat earlier.

Paleolithic

Paleolithic research continued in eastern Europe through the 1980s. A particular focus was on the sites associated with the 1974 *Homo erectus* find at Bilzingsleben in eastern Germany. The Bilzingsleben find is dated between 350,000 and 300,000 B.P. (Mania, 1989), and considerable research has been devoted to the reconstruction of the prehistoric environment and the subsistence economy associated with the find.

Upper Paleolithic research in the Czech lands and Hungary has continued throughout the late 1980s and early 1990s. Of particular importance has been the excavation of several sites at Stránská Skála (Svoboda, 1991), where important stratigraphic and archaeological evidence from ca. 40,000 B.P. through the late Glacial period has been recovered. There have also been additional specimens added to the series of Upper Paleolithic skeletal materials from Dolní Vestonice (Bahn, 1988; Klíma, 1990), along with new data on fired clay technology (Vandiver, 1989). Viola Dobosi of the Hungarian National Museum has investigated a series of late Gravettian campsites on Pleistocene terraces along the Danube.

Paweł Valde-Nowak continued his research on Paleolithic sites in the Polish Carpathians in 1992, which had already been going on for more than a decade (Valde-Nowak, 1991). This work has revealed numerous traces of Stone Age settlement in an area where virtually none had been recorded previously. Obłazowa Cave has both Middle and Upper Paleolithic deposits. Perhaps its most significant find was a carved mammoth tusk interpreted as a boomerang in a Gravettian layer (Valde-Nowak *et al.,* 1987). In the Kraków-Częstochowa upland, Krzysztof Cyrek of the Mu-

seum of Archaeology and Ethnography in Łódź continues his research on cave sites.

On the lowlands of the North European Plain, Final Paleolithic sites have been studied since 1984 by a collaborative research program between Iowa State University (John Bower) and the Institute of the History of Material Culture in Poznan (Michał Kobusiewicz). This program has a bi-continental comparative perspective in that alternating seasons were spent in Poland and Iowa, excavating sites with broadly comparable adaptations (Bower and Kobusiewicz, 1988).

Mesolithic

There has been increased interest in the Mesolithic of eastern Europe during the 1980s. In Romania, annual excavations at Schela Cladovei were resumed in 1982, with great potential for expanding our knowledge of the complex foraging adaptation in the Danube Gorges seen also at the Serbian sites of Lepenski Vir and Vlasac (Boroneant, 1990). Several new burials have provided additional information on the mortuary behavior of the inhabitants of these sites—skeletons in a variety of positions, traces of red ocher—which will add to the corpus of data on Mesolithic burials emerging all over Europe.

In northeastern Germany, the important early Mesolithic site at Friesack located northwest of Berlin has provided important new information on Boreal period adaptations (Gramsch and Kloss, 1989). The site was waterlogged; in addition to an extensive assemblage of chipped stone and a large faunal collection, wood, bark, and plant fiber artifacts were found. Farther north another early Mesolithic site at Tribsees near Stralsund has yielded a number of antler artifacts (Keiling, 1985). A controversial late Mesolithic site at Dęby in north-central Poland has yielded a small faunal assemblage, with several bones alleged to be those of domestic sheep and goat well in advance of the appearance of local Neolithic settlements (Domańska, 1989). At Alexandrów near Łódź, Ewa Niesiołowska of the Museum of Archaeology and Ethnography in Łódź has been investigating a complex of Mesolithic settlements.

On the Polish Baltic coast, seven excavation seasons between 1978 and 1986 at the site of Dąbki have revealed a lakeside settlement with ceramic and stone that resembles in many respects the Ertebølle culture of the west Baltic zone (Ilkiewicz, 1989). Dąbki has been the subject of extensive paleoenvironmental research; a large faunal sample includes 20 species of mammals, 15 bird species, 13 fish taxa, and 1 reptile. Radiocarbon dates place the site between 6300 and 5200 B.P. Although currently

only 1.5 km from the coast, Dąbki would have been an inland site during the Atlantic period; subsequent marine transgressions have moved the coastline much closer to it. Dąbki is the first Ertebølle-like site found in Poland; despite the probable obliteration of many coastal sites, there are probably more to be found in the current littoral zone along the southern Baltic and, perhaps, submerged offshore as well.

Neolithic

The Neolithic of eastern Europe has seen considerable research through the 1980s and early 1990s. New light has been shed on the earliest farmers throughout the region. At the southern end, Haskel Greenfield of the University of Manitoba has collaborated with Serbian and Romanian archaeologists in the investigation of new settlements of the Starčevo culture at Blagotin (Serbia) and Foeni (Romania). At the northern end, considerable work was done during the 1980s in extending the frontier of early Neolithic settlement northward on the North European Plain. In northeastern Germany, the Linear Pottery site of Zollchow near Prenzlau has provided a good corpus of ceramics, flint tools, and faunal remains (Heussner, 1989). In the area north of the city of Toruń in north-central Poland, only a handful of Neolithic sites were known prior to 1980. Since then, several hundred have been discovered, largely by archaeologists from Mikołaj Kopernik University and the Regional Museum in Toruń and the Grudziadz Museum, including a number that belong to the Linear Pottery culture (Kirkowski, 1987). Radiocarbon dates place these sites as contemporaneous with early Linear Pottery settlements of the loess belt of central Europe, so they cannot simply be regarded as a late extension of settlement in the lowland zone (Kirkowski, 1990).

Research on Middle and Late Neolithic settlements (including those of the so-called "Copper Age") is probably one of the most active areas in eastern European archaeology. In Serbia, following on the heels of the important excavations at Selevac in the late 1970s (Tringham and Krstić, 1990), collaborative and interdisciplinary research took place at Opovo in the Voivodina region (Tringham and Bruckner, 1985; Tringham *et al.,* 1992). Selevac and Opovo are both Vinča culture sites, but they reflect very different kinds of adaptations. In neighboring Croatia, excavations took place between 1984 and 1991 at the Vučedol mound with its important sequence of Copper Age settlement.

To the north in Hungary, a series of Last Neolithic sites in the upper Tisza valley has been thoroughly excavated and reported in preliminary form (Raczky, 1987). Recently, Raczky has continued excavations at

Tiszapolgár-Csöszhalom on the edge of the Hungarian Plain. These sites have yielded important architectural evidence for the study of settlement patterning. Farther south in the Tisza valley, near the city of Szeged, Ferenc Horváth of the Móra Ferenc Museum has investigated a Neolithic tell site, with well-preserved architectural remains. Construction of the Vienna–Budapest highway has led to the investigation of a large Copper Age settlement at Ikrény under the direction of András Figler, which has provided yet more data on prehistoric structures.

From roughly the same period, a series of sites with ditched enclosures of the Lengyel culture has recently come to light in Moravia and Slovakia near the towns of Znojmo and Nitra (Podborský, 1988; Pavúk, 1991). A similar Lengyel earthwork has also been identified in southwest Poland at Zarżyca (Prus and Wojciechowski, 1990), and in 1991 and 1992 Magdalena Midgley excavated such a site at Bylany in Bohemia. The function of these "rondels," as they are generically known, is unclear, but both defensive and symbolic purposes have been suggested.

Beginning in 1989, excavations have taken place annually at the Neolithic settlement at Osłonki (Fig. 2) under the direction of the author and Dr. Ryszard Grygiel, now director of the Museum of Archaeology and Ethnography in Łódź. In 1989 and 1990 the Osłonki excavations were supported by the National Geographic Society, and in 1991 by the Wenner-Gren Foundation for Anthropological Research. Beginning in 1992, the Osłonki excavations will be supported by the Komitet Badań Naukowych (KBN). The site at Osłonki was located in 1985 by Dr. Grygiel as part of the Archeologiczne Zdjęcia Polski (AZP) survey program. Excavations have revealed traces of a large settlement of the Lengyel Culture, ca. 5500–5300 B.P., with over a dozen trapezoidal longhouses and nearly 70 graves so far. Excavations in 1992 revealed traces of a ditch and palisade enclosure. Contemporaneous with the site at Brześć Kujawski located 8 km to the east, the settlement at Osłonki reflects an agricultural economy and the intensive use of the local landscape. A peat bog adjacent to the site holds great potential for palaeoenvironmental reconstruction.

Elsewhere in Poland, Andrzej Pelisiak of the Museum of Archaeology and Ethnography in Łódź is investigating Neolithic flint workshops in the Kraków-Częstochowa upland, while the State Archaeological Museum in Warsaw has continued its research on flint mines at Krzemionki.

Bronze Age and Later

The number of excavations of later prehistoric sites increases steadily from the Bronze Age onward. Sites from these periods are more broadly

Fig. 2. Neolithic longhouses at Osłonki during 1991 excavations. The length of the longhouse is 23 m. Photo by Władysław Pohorecki.

distributed, have greater archaeological "visibility," and, in many cases, are not complicated to excavate. For instance, in Poland and eastern Germany, vast numbers of Late Bronze Age cremation cemeteries of the Lusatian culture are known, and each year more come to light during construction and agricultural work. There are also many more prehistoric settlements coming to light from the Bronze Age (e.g., Piekalski, 1988).

In southeastern Hungary, a collaborative project has been under way since 1987 involving John O'Shea of the University of Michigan and researchers from the Móra Ferenc Museum in Szeged in the investigation of Early Bronze Age settlements (O'Shea, 1991). A set of reports published in parallel in Hungary and the United States is due to appear shortly, and

plans call for the integration of the settlement data with regional survey results.

Beginning in 1982 and continuing through much of the 1980s, a joint research program involving the University of Durham and the Poznań branch of the Institute of History of Material Culture carried out research at the fortified site of the Lusatian culture at Sobiejuchy in northwestern Poland (Ostoja-Zagórski, 1989). The site at Sobiejuchy is similar to the well-known preserved wooden settlement at Biskupin, located several kilometers to the south. The Sobiejuchy research is conducted within a theoretical framework that emphasizes human ecology and palaeodemography, an unusual contrast to the standard typological-chronological approach.

Elsewhere, well-known sites have been revisited. There is a permanent archaeological station at Biskupin in Poland, for instance, that conducts some excavations almost annually. In Bohemia, the Celtic site of Mšecké Žehrovice, source of the well-known stone head that illustrates many books on the Iron Age (Megaw, 1988), has been the scene of additional excavations through much of the 1980s (Venclová, 1989).

In southern Poland, excavations since 1982 at the multiperiod settlement at Jakuszowice have yielded considerable data on the Early Bronze Age (Górski, 1991) and LaTène through Roman Iron Age (Godłowski, 1991). The Roman period settlement has yielded the largest number of Roman coins known from a single site beyond the Roman frontier, a wealth of subsistence data, and information on metallurgical production that parallels that seen at sites in west-central Europe such as Kelheim. Metallurgical production is also an important focus of research during the 1980s in southeastern Europe, especially in Slovenia (Teržan, 1990).

In northeastern Poland, excavations between 1984 and 1990 at the Jegliniec hill fort have revealed a settlement of the Jatvingian culture from the first millennium A.D. with rich metal finds (Iwanowska, 1991). A bit to the south, in the drainage of the Liwiec river, about 100 km east of Warsaw, only about 40 sites from the tenth to thirteenth centuries A.D. were known prior to 1980. Now 360 new sites have been identified, most by the Department of Archaeology at the University of Warsaw. Although this area lay on the edge of the early Polish state, these new discoveries have considerable research potential in an analytical framework that studies core–periphery relationships.

CONCLUSION

Archaeology in east-central and southeastern Europe continues in varying degrees of intensity, except in the Balkan war zones. Increased op-

portunities for foreign travel and the new possibilities for telecommunication (even letters take only a few days from the United States now) will mean increased interaction with the global archaeological community and the introduction of new methods and interpretive frameworks. There is also urgency in the archaeology of this region, as development and improvements to infrastructure, particularly highways, will threaten sites (e.g., Černá, 1987). While the transition will be difficult, the results by the end of the 1990s should be flourishing national programs of archaeological research and publication in most countries.

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REFERENCES

Bahn, P. G. (1988). Triple Czech burial (Paleolithic grave site found at Dolní Vestonice). *Nature* **332**: 302–305.

Bailey, D. (1990). *The Social Reality of Figurines in Northeastern Bulgaria*, Ph.D. dissertation, University of Cambridge, Cambridge.

Bailey, D. (1993). Plundering Bulgaria's past: A revolution in looting. *Archaeology* (in press).

Bankoff, H. A., and Winter, F. (1990). The Later Aeneolithic in Southeastern Europe (ca. 3200-2300 B.C.). *American Journal of Archaeology* **94**: 175–192.

Bogucki, P., and Grygiel, R. (1993). The first farmers of central Europe. *Journal of Field Archaeology* **20**(3) (in press).

Borkowski, W. (1991). Possibilities of investigating Neolithic flint economies, as exemplified by the banded flint economy. Special Section: A panorama of Polish archaeology. *Antiquity* **65**: 607–628.

Boroneant, V. (1990). Les enterrements de Schela Cladovei: nouvelles données. In Vermeersch, P. M., and van Peer, P. (eds.), *Contributions to the Mesolithic in Europe*, Leuven University Press, Leuven, pp. 121–125.

Bower, J., and Kobusiewicz, M. (1988). Late Quaternary palaeogeography of Middle Europe and the northcentral United States: A framework for comparative studies of prehistoric manland relationships. *Geoarchaeology* **3**: 117–125.

Burdukiewicz, J. M., and Kobusiewicz, M. (1987). *Late Glacial in Central Europe. Culture and Environment*, Ossolineum, Wrocław.

Černá, E. (ed.) (1987). *Archäologische Rettungstätigkeit in den Braunkohlengebieten und der Problematik der siedlungsgeschichtlichen Forschung*, Archeologicky Ústav, Prague.

Chapman, J. (1989). Demographic trends in Neothermal south-east Europe. In Bonsall, C. (ed.), *The Mesolithic in Europe*, John Donald, Edinburgh, pp. 500–515.

Chapman, J., and Müller, J. (1990). Early farmers in the Mediterranean basin: The Dalmatian evidence. *Antiquity* **64**: 35.

Domańska, L. (1989). Elements of a food-producing economy in the late Mesolithic of the Polish lowland. In Bonsall, C. (ed.), *The Mesolithic in Europe*, John Donald, Edinburgh, pp. 447–454.

Domańska, L. (1991). *Obozowisko Kultury Janisławickiej w Dębach, woj. Włocławskie, Stanowisko 29*, University of Poznań-University of Łódź, Poznań-Inowrocław.

Furmánek, V. (1990). *Radzovce: Osada L'udu Popolnicovch Polí*. Veda, Vydavatel'stvo Slovenskej Akadémie Vied, Bratislava.

Gedl, M. (1984). *Wczesnołużyckie Groby z Konstrukcjami Drewnianymi*, Ossolineum, Wrocław.

Godłowski, K. (1991). Jakuszowice—a multi-period settlement in southern Poland. Special Section: A panorama of Polish archaeology. *Antiquity* **65**: 662–676.

Górski, J. (1991). *Osada Kultury Trzcinieckiej w Jakuszowicach*, Institut Archeologii UJ, Kraków.

Gramsch, B., and Kloss, K. (1989). Excavations at Friesack: An early Mesolithic marshland site in the northern plain of central Europe. In Bonsall, C. (ed.), *The Mesolithic in Europe*, John Donald, Edinburgh, pp. 313–324.

Greenfield, H. (1988). The origins of milk and wool production in the Old World. *Current Anthropology* **29**: 573–593.

Grygiel, R. (1986). The household cluster as a fundamental social unit of the Brześć Kujawski Group of the Lengyel Culture. *Prace i Materiały Muzeum Archeologicznego i Etnograficznego w Łodzi* **31**: 43–334.

Grygiel, R., and Bogucki, P. (1990). Neolithic manufacture of antler axes at Brześć Kujawski, Poland. *Archaeomaterials* **4**(1): 67–76.

Gumiński, W. (1989). *Gródek Nadbużny. Osada Kultury Pucharów Lejkowatych*, Ossolineum, Wrocław.

Heger, N., and Hiller, S. (eds.) (1989). *Tell Karanova und das Balkan-Neolithikum*, Institut für Klassische Archäologie der Universität Salzburg, Salzburg.

Herrmann, J. (ed.) (1989). *Archäologie in der Deutschen Demokratischen Republik. Denkmale und Funde*, 2 vol., Konrad Theiss, Stuttgart.

Heussner, K.-U. (1989). Bandkeramische Funde aus Zollchow, Kreis Prenzlau. *Bodendenkmalpflege in Mecklenburg* **1988**: 7–23.

Hodder, I. (1990). *The Domestication of Europe*, Basil Blackwell, Oxford.

Ilkiewicz, J. (1989). From studies on cultures of the 4th millennium BC in the central part of the Polish coastal area. *Przegląd Archeologiczny* **36**: 17–55.

Iwanowska, G. (1991). Excavations at the Jegliniec hillfort—recent developments in Balt archaeology. Special Section: A panorama of Polish archeology. *Antiquity* **65**: 684–696.

Jagodziński, M. (1991). The early medieval craft and commercial centre at Janów Pomorski near Elblag on the South Baltic Coast. Special Section: A panorama of Polish archaeology. *Antiquity* **65**: 696–716.

Kadrow, S. (1991a). Iwanowice, Babia Gora site: Spatial evolution of an early Bronze Age Mierzanowice Culture settlement (2300-1600 BC). Special Section: A panorama of Polish archaeology. *Antiquity* **65**: 640–651.

Kadrow, S. (1991b). *Iwanowice—Stanowisko Babia Góra. Cześć I. Rozwój Przestrzenny Osady z Wczesnego Okresu Epoki Brązu*, Ossolineum, Wrocław.

Keiling, H. (1985). *Steinzeitlicher Jäger und Sammler in Mecklenburg*, Museum für Ur-und Frühgeschichte, Schwerin.

Kirkowski, R. (1987). Kultury cyklu wstegowego na Ziemi Chełmińskiej. In Wiślański, T. (ed.), *Neolit i Początki Epoki Brązu na Ziemi Chełmińskiej*, Mikołaj Kopernik University, Toruń, pp. 55–63.

Kirkowski, R. (1990). Boguszewo, gmina Gruta, województwo toruńskie, stanowisko 41, obiekty 3 i 5. In Jankowska, D. (ed.), *Z Badań nad Chronologią Absolutną Stanowisk Neolitycznych z Ziemi Chełmińskiej*, Mikołaj Kopernik University, Toruń, pp. 9–14.

Kitov, G., Panajotov, I., and Pavlov, P. (eds.) (1991). *Mogilni Nekropoli v Loveshkiya kraj. Ranna Bronzova Epokha*, Institute of Archaeology, Sofia.

Klápště, J. (1991). Studies of structural change in medieval settlement in Bohemia. Special Section: Archaeology in Czechoslovakia: Trends and approaches. *Antiquity* **65**: 396–406.

Klíma, B. (1990). Der pleistozäne Mensch aus Dolní Vestonice. *Památky Archeologické* **81**: 5–16.

Klosińska, E. (1991). Early phase of Lusatian Culture barrow burial ground in Lower Silesia at Mikowice, Opole Voivodship site 1. Special Section: A panorama of Polish archaeology. *Antiquity* **65**: 651–662.

Kuna, M. (1991). The structuring of prehistoric landscape. Special Section: Archaeology in Czechoslovakia: Trends and approaches. *Antiquity* **65**: 332–348.

Manson, J. (1990). *A Reanalysis of Starčevo Culture Ceramics: Implications for Neolithic Development in the Balkans*, Ph.D. dissertation, Southern Illinois University, Carbondale.

McPherron, A., and Srejović, D. (1988). *Divostin and the Neolithic of Central Serbia*, Department of Anthropology, University of Pittsburgh, Pittsburgh.

Meduna, P., and Černá, E. (1991). Settlement structure of the early Middle Ages in northwest Bohemia: Investigations of the Pětipsy basin area. Special Section: Archaeology in Czechoslovakia: Trends and approaches. *Antiquity* **65**: 388–396.

Megaw, R. (1988). The stone head from Mšecké Žehrovice: A reappraisal. *Antiquity* **62**: 630–642.

Meisenheimer, M. (1989). *Das Totenritual, Geprägt durch Jenseitsvorstellen und Gesellshftsrealität. Theorie des Totenrituals eines kupferzeitlichen Friedhofs zu Tiszapolgár-Basatanya (Ungarn)*, BAR International Series 475, Oxford.

Milisauskas, S. (1986a). *Early Neolithic Settlement and Society at Olszanica*, Museum of Anthropology, Ann Arbor, MI.

Milisauskas, S. (1986b). Selective survey of archaeological research in Eastern Europe. *American Antiquity* **51**: 779–798.

Milisauskas, S. (1990). People's revolutions of 1989 and archaeology in Eastern Europe. *Antiquity* **64**: 283–286.

Milisauskas, S., and Kruk, J. (1989). Neolithic economy in central Europe. *Journal of World Prehistory* **3**: 403–446.

Milisauskas, S., and Kruk, J. (1991). Utilization of cattle for traction during the later Neolithic in southeastern Poland. *Antiquity* **65**: 562–567.

Nemejcová-Pavúková, V. (ed.) (1986). *Internationales Symposium über die Lengyel-Kulture*, Archaeologicky Ústav Slovenskej Akademie Vied- Institut für Ur- und Frühgeschichte der Universität Wien, Nitra-Wien.

Neustupný, E. (1991). Community areas of prehistoric farmers in Bohemia. Special Section: Archaeology in Czechoslovakia: Trends and approaches. *Antiquity* **65**: 326–332.

Nogaj-Chachaj, J. (1991). The stone-packed graves of the Funnel Beaker culture in Karmanowice, site 35. Special Section: A panorama of Polish archeology. *Antiquity* **65**: 628–640.

Oliva, M. (1991). The Szeletian in Czechoslovakia. Special Section: Archaeology in Czechoslovakia: Trends and approaches. *Antiquity* **65**: 318–326.

O'Rourke, P. J. (1988). *Holidays in Hell*, Vintage Books, New York.

O'Shea, J. (1992). A radiocarbon-based chronology for the Maros Group of southeast Hungary. *Antiquity* **65**: 97–102.

Ostoja-Zagórski, J. (1989). Changes in the economic and social structures in northern Poland at the transition from the Bronze Age to the Iron Age. In Sørensen, M. L. S., and Thomas, R. (eds.), *The Bronze Age-Iron Age Transition in Europe*, BAR International Series 483, Oxford, pp. 389–407.

Panajotov, I. (1989). *Yamnata Kultura v Bulgarskite Zemi*, Institute of Archaeology, Sofia.

Parczewski, Michał (1991). Origins of Early Slav culture in Poland. Special Section: A panorama of Polish archaeology. *Antiquity* **65**: 676–684.

Pavlů, I., Rulf, J., and Zápotocká, M. (1987). Theses on the Neolithic site of Bylany. *Památky Archeologické* **77**: 288–412.
Pavúk, J. (1991). Lengyel-culture fortified settlements in Slovakia. Special Section: Archaeology in Czechoslovakia: Trends and approaches. *Antiquity* **65**: 348–358.
Piekalski, J. (1988). Osada z okresu wpływów rzymskich w Nędzy, woj. Katowice. *Silesia Antiqua* **30**: 123–164.
Pieta, K. (1991). The North Carpathians at the beginning of the Migration Period. Special Section: Archaeology in Czechoslovakia: Trends and approaches. *Antiquity* **65**: 376–388.
Podborský, V. (1988). *Těšetice-Kyjovice 4. Rondel Osady Lidu z Moravskou Malovanou Keramikou*, Universita J. E. Purkyně, Brno.
Prinz, B. (1987). *Mesolithic Adaptation on the Lower Danube: Vlasac and the Iron Gates Gorge*, BAR International Series 330, Oxford.
Prus, O., and Wojciechowski, W. (1990). Befestigte Siedlungen der Lengyel-Kultur in Niederschlesien. *Jahresschrift für Mitteldeutsche Vorgeschichte* **73**: 225–230.
Raczkowski, W. (1991). A Baltic view of Neolithicization. *Antiquity* **65**: 732–736.
Raczky, P. (ed.) (19877). *The Late Neolithic of the Tisza Region*, Directorate of Szolnok County Museums, Szolnok.
Romsauer, P. (1991). The earliest wheel-turned pottery in the Carpathian Basin. Special Section: Archaeology in Czechoslovakia: Trends and approaches. *Antiquity* **65**: 358–368.
Srejović, D. (1988). *The Neolithic of Serbia: Archaeological Research 1948-1988*, Center for Archaeological Research, University of Belgrade, Belgrade.
Srejović, D., and Tasić, N. (1990). *vinča and its World: The International Symposium on the Danubian Region from 6000 to 3000 B.C.*, Serbian Academy of Arts and Sciences, Belgrade.
Stanković, S. (1988). *Neolithic Settlement at Stragari*, Center for Archaeological Research, University of Belgrade, Belgrade.
Svoboda, J. (1984). Raw material sources in Early Upper Palaeolithic Moravia. *Anthropologie* (Brno) **21**: 147–158.
Svoboda, J. (1991). Stránská Skála. V sledky v zkumu w letech 1985-1987. *Památky Archeologické* **82**: 5–47.
Teržan, Biba (1990). *The Early Iron Age in Slovenian Styria*, Narodni Muzej, Ljubljana.
Todorova, H. (1986). *Kamenno-mednata Epokha v Bulgariya* (The Stone Copper Age in Bulgaria), Bulgarskata Akademiya na Naukite, Sofia.
Todorova, H. (1989). *Durankulak, Vol. 1*, Bulgarskata Akademiya na Naukite, Sofia.
Tringham, R. (1991). Households with faces: The challenge of gender in prehistoric architectural remains. In Gero, J., and Conkey, M. (eds.), *Engendering Archaeology: Women and Prehistory*, Oxford, Basil Blackwell, pp. 93–131.
Tringham, R., and Bruckner, B. (1985). The Opovo Project: A study of socioeconomic change in the Balkan Neolithic. *Journal of Field Archaeology* **12**: 425–444.
Tringham, R., and Krstić, D. (eds.) (1991). *Selevac. A Neolithic Village in Yugoslavia*, Institute of Archaeology, University of California, Los Angeles.
Tringham, R., Bruckner, B., Kaiser, T., Borojevic, K., Bukvić, L., Steli, P., Russell, N., Stevanović, M., and Voytek, B. (1992). Excavations at Opovo, 1985-1987: Socioeconomic change in the Balkan Neolithic. *Journal of Field Archaeology* **19**: 351–386.
Valde-Nowak, P. (1988). *Etapy i Strefy Zasiedlenia Karpat Polskich w Neolicie i na Początku Epoki Brązu*, Ossolineum, Wrocław.
Valde-Nowak, P. (1991). Studies in Pleistocene settlement in the Polish Carpathians. Special Section: A panorama of Polish archaeology. *Antiquity* **65**: 593–607.
Valde-Nowak, P., Nadachowski, A., and Wolsan, M. (1987). Upper Palaeolithic boomerang made of a mammoth tusk in southern Poland. *Nature* **329**: 436–438.
Vandiver, P. B. (1989). The origins of ceramic technology at Dolní Vestonice, Czechoslovakia. *Science* **246**: 1002–1009.
Vencl, S. (1991). On the importance of spatio-temporal differences in the intensity of Palaeolithic and Mesolithic settlement in Central Europe. Special Section: Archaeology in Czechoslovakia: Trends and approaches. *Antiquity* **65**: 308–318.
Venclová, N. (1989). Mšecké Žehrovice, Bohemia: Excavations 1979-88. *Antiquity* **63**: 142–147.

Voytek, B., and Tringham, R. (1989). Rethinking the Mesolithic: The case of south-east Europe. In Bonsall, C. (ed.), *The Mesolithic in Europe*, John Donald, Edinburgh, pp. 492–499.

Wells, P. (1984). *Farms, Villages, and Cities*, Cornell University Press, Ithaca, N.Y.

Zvelebil, M., and Dolukhanov, P. M. (1991). The transition to farming in eastern and northern Europe. *Journal of World Prehistory* 5(3): 233–278.

BIBLIOGRAPHY OF RECENT LITERATURE

Batóra, J. (1991). The reflections of economy and social structure in the cemeteries of the Chłopice-Veselé and Nitra cultures. *Slovenská Archeológia* **39**: 91–142.

Blajer, W. (1990). *Skarby z Wczesnej Epoki Brązu na Ziemiach Polskich*, Ossolineum, Wrocław.

Chapman, J. C. (1988). Ceramic production and social differentiation: The Dalmatian Neolithic and the Western Mediterranean. *Journal of Mediterranean Archaeology* **1**: 3–25.

Chapman, J. C., Bintliff, J., Gaffney, V. L., and Slapsak, B. (eds.) (1988). *Recent Developments in Yugoslav Archaeology*, BAR International Series 431, Oxford.

Čtverák, V., and Rulf, J. (1989). Nálezy horizontu Jordanovské Kultury z Třebestovic, okr. Nymburk. *Památky Archeologické* **80**: 5–29.

Dergachev, V. (1986). *Moldavia i Sosednie Territorii v Epokhu Bronzy: Analiz i Kharakteristika Kul'turnykh Grup*, Shtiintsa, Chişinau.

Furmánek, V., Veliačik, L., and Vladár, J. (1991). *Slovensko v Dobe Bronzovej*, Slovakian Academy of Sciences, Bratislava.

Gaffney, V. L., Bintliff, J., and Slapsak, B. (1990). Site formation processes and the Hvar Survey Project, Yugoslavia. In Schofield, A. J. (ed.), *Interpreting Artefact Scatters. Contributions to Ploughzone Archaeology*, Oxbow Monographs, Oxford, pp. 59–77.

Gediga, B. (ed.) (1989). *Studia nad Grodami Epoki Brązu i Wczesnej Epoki Żelaza w Europie Środkowej*, Ossolineum, Wrocław.

Gojda, M. (1988). *The Development of the Settlement Pattern in the Basin of the Lower Vltava (Central Bohemia) 200-1200 A.D.*, BAR International Series 447, Oxford.

Govedarica, B. (1989). *Rano Bronzano Doba na Podrucju Istocnog Jadrana*, Akademija Nauka i Umjetnosti Bosne i Hercegovine, Sarajevo.

Hiller, S. (1990). Tell Karanovo. In Höneisen, M. (ed.), *Die Ersten Bauern*, Schweizerisches Landesmuseum, Zürich, pp. 77–86.

Jankowska, D. (ed.) (1990). *Z Badań nad Chronologią Absolutną Stanowisk Neolitycznych z Ziemi Chełmińskiej*, Mikołaj Kopernik University, Toruń.

Jankowska, D. (ed.) (1990). *Die Trichterbecherkultur. Neue Forschungen und Hypothesen. Teil I*, Adam Mickiewicz University, Poznań.

Jankowska, D. (ed.) (1991). *Die Trichterbecherkultur. Neue Forschungen und Hypothesen. Teil II*, Adam Mickiewicz University, Poznań.

Kaminská, L. (1991). Vyznam surovinovej základne pro mladopaleoliticku spoločnost vo vychodokarpatskej oblasti. *Slovenská Archeológia* **39**: 7–58.

Kozłowski, J. K., and Kozłowski, S. K. (eds.) (1987). *Chipped Stone Industries of the Early Farming Cultures in Europe*, University of Warsaw Press, Warsaw.

Kruger, B. (1987). *Waltersdorf: eine germanische Siedlung der Kaiser- und Volkerwanderungszeit im Dahme-Spree-Gebiet*, Akademie-Verlag, Berlin.

Lazić, Miroslav (1988). *Topografija i Tipologia Praistorijskih Tumula u Srbiji i Crnoj Gori*, University of Belgrade, Belgrade.

Lech, J. (1987). Danubian raw material distribution patterns in eastern central Europe. In Sieveking, G. de G., and Newcomer, M. H. (eds.), *The Human Uses of Flint and Chert*, Cambridge University Press, Cambridge, pp. 241–248.

Machnik, A., Machnik, J., and Kaczanowski, K. (1987). *Osada i Cmentarzysko z Wczesnego Okresu Epoki Brązu na "Górze Klin" w Iwanowicach*, Ossolineum, Wrocław.

Milisauskas, S. (1989). Specialized activity areas at Olszanica. In Rulf, J. (ed.), *Bylany Seminar 1987. Collected Papers*, Institute of Archaeology, Prague, pp. 233–242.
Nikolov, V. (1990). Das Flusstal der Struma an der frühneolithischen Strasse von Anatolien nach Mitteleuropa. In Höneisen, M. (ed.), *Die Ersten Bauern*, Schweizerisches Landesmuseum, Zürich, pp. 63–69.
Peške, L. (1989). Animal bones from Bylany. In Rulf, J. (ed.), *Bylany Seminar 1987. Collected Papers*, Institute of Archaeology, Prague, pp. 265–271.
Petrović, J. (1990). Researches at Gomolava. In Höneisen, M. (ed.), *Die Ersten Bauern*, Schweizerisches Landesmuseum, Zürich, pp. 99–109.
Raczkowski, W. (1987). *Kultury Neolityczne na Pojezierzu Krajeńskim*, Adam Mickiewicz University, Poznań.
Schild, R. (1987). The exploitation of chocolate flint in central Poland. In Sieveking, G. de G., and Newcomer, M. H. (eds.), *The Human Uses of Flint and Chert*, Cambridge University Press, Cambridge, pp. 137–150.
Sherratt, A. (1987). Neolithic exchange systems in central Europe 5000-3000 BC. In Sieveking, G. de G., and Newcomer, M. H. (eds.), *The Human Uses of Flint and Chert*, Cambridge University Press, Cambridge, pp. 193–204.
Srejović, D. (1990). The Neolithic of Serbia: A review of research. In Höneisen, M. (ed.), *Die Ersten Bauern*, Schweizerisches Landesmuseum, Zürich, pp. 91–97.
Stalio, B. (1990). Le néolithique en Yougoslavie. In Höneisen, M. (ed.), *Die Ersten Bauern*, Schweizerisches Landesmuseum, Zürich, pp. 87–90.
Todorova, H. (1990). Das Frühneolithikum Nordbulgariens im Kontext des ostbalkanischen Neolithikums. In Höneisen, M. (ed.), *Die Ersten Bauern*, Schweizerisches Landesmuseum, Zürich, pp. 71–76.
Willis, R. (1991). *Late Foragers of the North European Plain: The Functional Analysis of their Stone Tools*, Unpublished doctoral dissertation, University of Newcastle-upon-Tyne.
Willis, R. (1992). The site of Dęby 29 and the transition to farming in the North European Plain. *Mesolithic Miscellany* **13**(2): 18–26.
Wiślański, T. (ed.) (1987). *Neolit i Początki Epoki Brązu na Ziemi Chełmińskiej*, Mikołaj Kopernik University, Toruń.