SELECTIVE SURVEY OF ARCHAEOLOGICAL RESEARCH IN EASTERN EUROPE

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In this article I present a selective overview of research conducted by archaeologists since the mid-1970s in the so-called socialist countries of eastern Europe. For the purpose of this article I use the journalist's definition of eastern Europe, which includes all the Marxist countries. This definition is spatially imprecise; for example, Prague, Czechoslovakia, is located to the west of Vienna, Austria. My survey includes the central European countries of Czechoslovakia, East Germany, Hungary, and Poland as well as the southeastern European countries of Bulgaria, Romania, and Yugoslavia. I also include several republics of the Soviet Union, including Byelorussia, Latvia, Lithuania, Russia, and the Ukraine.

Several archaeologists have surveyed European archaeology in *American Antiquity* (Bogucki 1985; Dyson 1982; Price 1983; Sterud 1979; Sterud et al. 1980; Wells 1984), including Evans and Rasson (1984) who reviewed Neolithic and Chalcolithic research conducted in Bulgaria, Hungary, Romania, and Yugoslavia. My study therefore stresses the remaining eastern European countries. Furthermore, I place greater emphasis on the Palaeolithic and Neolithic than the later periods. My discussion of findings is preceded by some comments about the structure and conduct of archaeology in eastern Europe.

Eastern Europe is saturated with archaeologists. There are approximately 250 of them in East Germany and 800 (M.A.s and Ph.D.s) in Poland. This translates into one archaeologist per 431 km² (166 square miles) in East Germany and one archaeologist per 391 km² (151 mi²) in Poland. Based on the density of prehistorians in East Germany, one would expect to find approximately 300 archaeologists in New York State, but one finds only 100 archaeologists (1 per 1,284 km²; 496 mi²) at colleges, universities, museums, and state agencies. Furthermore, the majority of New York State archaeologists conduct their research outside the state or even the United States, while East German and Polish archaeologists predominantly work in their own countries. Eastern European archaeologists rarely conduct excavations in other Marxist countries. Probably Bulgaria is the favorite country for archaeologists of Marxist countries to conduct field research (Pavuk and Čochadžiev 1984). In addition, Soviet, Polish, and East German archaeologists are working outside eastern Europe, e.g., Near East and Africa.

For archaeological purposes, eastern Europe cannot be treated as one homogeneous area, for the distinct history of each country has influenced its archaeological development. For example, East Germany did not exist as a sovereign entity before 1945—the archaeological research conducted in pre-war East Germany territory, therefore, reflects the history of German archaeology. Czechoslovakia, Hungary, and Poland already had a rich history of archaeological research before World War II. Since the 1950s Czech and Polish archaeologists have exhibited great dynamism and pioneered new approaches in eastern European archaeology.

All archaeological institutions in eastern Europe are state controlled. The archaeological institutes of the academies of sciences, e.g., East German, Hungarian, or Polish, are preeminent research institutions (Harding 1983). In the Soviet Union, each republic has its own academy of sciences, which controls most of its area's research. The national and provincial museums in the eastern European countries also conduct extensive archaeological investigations, but the universities are not as important for archaeological research as in the United States.

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The organization of archaeological institutions in eastern Europe differs markedly from that of the archaeological institutions in the United States (Hensel 1984). For illustrative purposes, I will use East Germany as an example of the organizational structure of the archaeological institutions in eastern Europe. In East Germany, the Central Institute for Ancient History and Archaeology of the Academy of Sciences in Berlin is responsible for conducting long-term research projects. Archaeologists can also get a Ph.D. from the Academy of Sciences. In addition, five major museums, Dresden, Halle, Potsdam-Babelsberg, Schwerin, and Weimar are responsible for preservation and excavation of archaeological sites in their provinces. The Weimar Museum is responsible for Thuringia, Schwerin for Mecklenburg, Potsdam-Babelsberg for Brandenburg, Halle for the Halle and Magdeburg districts, and Dresden for Saxony. These museums are also noted for their expertise in certain periods of prehistoric research. For example, the Halle museum specializes in the Palaeolithic, Neolithic, and Migrations periods, while the Potsdam-Babelsberg museum is noted for its research on the Mesolithic, Bronze Age, and Slavic periods. Smaller regional museums, such as at Cottbus, also perform similar duties but on a smaller scale. The museums and the Academy of Sciences publish their own periodicals and monographs. Major syntheses, for example, on the Germanic and Slavic people, were published by the Academy (Herrmann 1970; Krüger 1976, 1983). The University institutes at Berlin and Halle offer undergraduate and graduate training in archaeology.

The centralized organization of the archaeological research in eastern Europe has its positive and negative points. Financial support for select projects is predictable; thus in the long run, they can produce impressive results. Resources can be mobilized for projects based on one, two, or five year plans. As Philip Kohl (1984:245–246) noted, "Large-scale horizontal exposures of sites ultimately are to be attributed not to extensive financial backing which is as deficient as it is in the West, but to this assured continuity of support." On the other hand, it is difficult for younger archaeologists to start attacking new problems or concentrating on their particular areas of interest.

The number of references made to English archaeologists in eastern European publications decreases sharply as the political distance from Cambridge and London increases. For example, Colin Renfrew, a distinguished English archaeologist, is often referred to in American journals, but seldom cited in eastern European publications. Renfrew is cited only once in Sovetskaya Arkeologiya (Soviet Archaeology), 1985 (Nos. 1, 2, 3, 4); the reference is in an article co-authored by an Italian on radiocarbon dates (Dolukhanov et al. 1985). In contrast, Renfrew is cited in six articles in American Antiquity 1985 (Vol. 50, Nos. 1, 2, 3, 4).

Eastern European archaeology is heavily oriented toward the excavation of individual sites. By now thousands of site reports have been published in eastern Europe—it would be a long, arduous task and a major accomplishment just to list them all. Some eastern European countries, such as Bulgaria and Yugoslavia, have received much attention from archaeologists throughout Europe for excavations of spectacular sites such as Ezero (Georgiev et al. 1979) and Varna (Ivanov 1978a, 1978b) in Bulgaria. Similarly, the excavations of Lepenski Vir in Yugoslavia made Srejović's (1971, 1972) name widely known.

WORK BY AMERICAN AND ENGLISH ARCHAEOLOGISTS IN EASTERN EUROPE

The limited work by the small number of American and English archaeologists has had a relatively small impact on eastern European archaeology; however, their research adds diversity to the local archaeology. American and English archaeologists are able to pursue their particular archaeological interests—they do not work on centrally planned projects. Moreover, the interests usually reflect contemporary approaches pursued in the United States and England. Americans are able to conduct large-scale field projects in eastern Europe, since the financial support they receive from various American foundations is generous. In contrast, English archaeologists exude enthusiasm for their work, but have very little money for their research.


**HISTORY OF EASTERN EUROPEAN ARCHAEOLOGY**

Eastern European archaeologists have published several major works on the history of archaeology. V. F. Gening (1982) published a book on the history of Soviet archaeology from the mid-1920s to the mid-1930s. Marxism was established as a dominating force in Soviet archaeology during this period. More recently O. Soffer (1983) published an interesting article on the history of Soviet Palaeolithic archaeology. Davis (1983) and Howe (1976) have reviewed theoretical issues in Soviet Palaeolithic archaeology. Elsewhere, H. Behrens (1984), former Director of the Halle Museum in East Germany, wrote a history of archaeology in East Germany from 1945 to 1980. This book is quite critical of Marxist-Leninist dominance in East German archaeology. It should be noted that Behrens moved to West Germany after his retirement. Andrzej Abramowicz (1983) has written several publications on the history of Polish archaeology. Czech archaeologists have also made important contributions to the study of the history of archaeology. Sklenář (1983) wrote a history of central European archaeology up to World War II. Judging by Sklenář’s book, English archaeologists up to that time at least, had made hardly any contributions to the study of central and eastern European prehistory. For example, V. G. Childs is not even mentioned in Sklenář’s book.

The development of archaeology from 1919 to 1968 in Bohemia and Moravia was synthesized by various Czech archaeologists (Krumphanzlova 1972, 1975). J. Vignatová (1975) reviewed the early history of archaeological work in Moravia. Bouzek, Buchvaldek, Kostomitsopoulos, and Sklenář (1983/1984) have written a textbook in Czech on the history of archaeology.

**METHOD AND THEORY**

Traditional archaeological approaches dominate in eastern Europe. As Schild (1980) notes, “...the main areas of interest have always concentrated around chronology, typology, and cultural taxonomy, all serving a goal of a much higher, ultimate order—the establishment of origin of ethnic groups, their culture and the detection of the influence and contacts these groups exercised.” There is no need to apologize for these approaches—they produce impressive results. However, as in all parts of the world, archaeologists are not fully satisfied with traditional approaches. The Polish archaeologist, Witold Hensel (1980:15), confirms this observation by noting “...that the defining of archaeological cultures or their groups and the description of various types of artefacts, although
important, have only a limited informative value. In other words, we must occupy ourselves more fully with the entire historical process which took place in the past . . ." Thus, in recent years, a greater number of eastern European archaeologists are working on ecology, demography, economy, trade, mortuary practices, settlement systems, social organization, spatial analysis, and quantitative methods.

Eastern European archaeologists, at least nominally, have adopted the Marxist paradigm, and as one would expect in Marxist societies, there are publications dealing with the application of dialectical and historical materialism to archaeological studies (Zakharuk 1983). While this gives some unity to the discipline, it does not imply that archaeologists are devoting most of their time to the study of productive activities. A variety of studies deal with the ethnic, linguistic, social, and ritual aspects of prehistoric cultures. Furthermore, archaeology is considered a part of history in eastern Europe, while it is a social science in the United States.

Several archaeologists in eastern Europe are closely following the developments in American and British archaeology (Klejn 1977; Kobylińska and Urbanczyk 1984; Tabaczynski 1984). This can be illustrated by their response to D. L. Clarke's (1968) book, Analytical Archaeology, which was not even reviewed in American Antiquity. It seems that Clarke's book created more interest in eastern Europe than most other archaeology books published in the West. S. Tabaczynski and E. Pleszczyńska (1974) evaluated Clarke's book in an article over 80 pages in length. It is interesting that Tabaczynski, an archaeologist, cooperated with Pleszczyńska, a mathematician, in evaluating Analytical Archaeology. Furthermore, Tabaczynski (1984) reviews the developments in contemporary theoretical archaeology in the United States and England in the context of evaluating the work of J. Topolški (1983). A small group of archaeologists in eastern Europe are conducting research that, in the United States, would be called new archaeology. For example, E. Neustupný (1974, 1979, 1983a) in Czechoslovakia and J. Kruk (1973, 1978, 1980a, 1980b), and Z. Kobyliński and P. Urbanczyk (1984) in Poland, can be considered as archaeologists who share American research interests. Some Czech (Malina 1977; Pavlů 1977; Pavlů and Zápotocká 1978, Podborský et al. 1977) and Polish (Koško 1979) archaeologists are neopositivists in their work.

The concept of type and archaeological culture is being discussed by some eastern European archaeologists (Fedorov-Davydov 1970; Herrmann 1965; Klejn 1982; Pałubicka 1974). Fedorov-Davydov (1970) discussed these concepts as used by David Clarke in Analytical Archaeology. A number of studies also concern typology and attribute analysis (Deopik and Dervitz 1985; Oblomsky 1985; Todorova 1980).

Some archaeologists are stressing the importance of model building in archaeological research (Godłowski 1976). Cognitive approaches and application of computers to archaeology were discussed by Urbanczyk (1980, 1983). The titles of some articles in Polish publications, e.g., "Simulation, Idealization and 'Inductionism' in Studies of Ancient Ceramics" (Kobylińska and Kobyliński 1985) remind one of arguments among American archaeologists.

RECENT RESEARCH ON PREHISTORIC HUNTERS AND GATHERERS

Numerous research projects concerning Palaeolithic hunters and gatherers have been conducted in recent years or are currently in progress. The Homo erectus site of Bilzingsleben in East Germany has received extensive attention (Burdukiewicz et al. 1979; Mania et al. 1980) including Mania and Dietze's (1980) popular book with beautiful color illustrations. In addition, W. Baumann and D. Mania (1983) published a monograph on new data from the Markkleeberg site. P. I. Boriskovskij (1984) edited Paleolit SSSR (Palaeolithic of the SSSR), a large compilation of information on the Lower and Upper Palaeolithic periods in Russia. Interestingly, in this study the Middle Palaeolithic is not recognized as a separate period but is lumped together with the Lower Palaeolithic. A guide book on some of the Upper Palaeolithic sites on the Russian Plain with fairly detailed descriptions was edited by Velichko (1981). Another book by Velichko (1984), Late Quaternary Environments in the USSR, was published by the University of Minnesota Press. Furthermore, Gerasimov and Velichko (1982) edited a book on the paleogeography of Europe, which contains a set of brief articles plus about 20 color maps on environments, ice sheet extent, vegetation, and permafrost in the last
100,000 years. Dolukhanov (1982) summarized in English the Upper Pleistocene occupations of the Russian Plain.

The Kostenki-Borshevo region of Russia continues to attract archaeologists after 100 years of excavation (Praslov and Rogachev 1982). Each of the Kostenki-Borshevo sites, some of which have quantitative data as well as an article on the physical anthropology of the burials, have been summarized (Praslov and Rogachev 1982). Furthermore, excavation of various sites in the Kostenki-Borshevo region is being continued under the directorship of N. D. Praslov. In the summer of 1984, Praslov found fragments of burnt clay animal figurines at Kostenki I-2 just like those found at Dolni Věstonice in Czechoslovakia. Kostenki I-2 is located about 10–20 m from Kostenki I-1, therefore, it is unclear whether Kostenki I-2 is actually a separate site. Praslov (1977) has also edited a book on eastern and central European Palaeolithic. Twenty-two scholars contributed articles to this book. Ornaments or motifs found on bone artifacts from the Kostenki sites have been analyzed by M. D. Gvozdover (1985). The sculptured designs on these artifacts represent female images. G. P. Grigor’ev is also excavating the Upper Palaeolithic site of Avdeevko, which is very similar to Kostenki I-1.

Elsewhere in the USSR Palaeolithic research continues to attract attention. N. L. Kornietz and M. I. Gladikhi are continuing to excavate the Mezhirich in the Ukraine. By now they have uncovered four mammoth bone dwellings as well as numerous storage pits and artifacts. The Palaeolithic site of Rusanikha has been found near the Sungir site (Mikhailova 1985). Interestingly, the mammoth remains at this site lack lower jaws. Renewed excavations have been carried out at the Upper Palaeolithic site of Yudino on the Sudos’t River by Z. A. Abramova and L. V. Grekhova. This site is quite spectacular and has been sporadically excavated since the late 1940s. It has numerous mammoth bone dwellings and a rich assemblage of worked bone artifacts. Furthermore, Grekhova (1985) recently has summarized data from the Late Palaeolithic site of Eliseevichi II. N. B. Leonova is conducting excavations at the base camp of Kamennaya Balka II near Rostov. She is doing spatial analyses of the faunal remains and looking at differential utilization of various taxa. A major publication on the excavations of the Mousterian site of Molodova I has been published (Goretskij and Ivanova 1982).

A decade ago, the Polish Academy of Sciences published a large book on the Palaeolithic (Chmielewski 1975; Schild 1975) and Mesolithic (Więckowska 1975) in Poland. Also, J. K. Kozłowski and S. K. Kozłowski (1975, 1977) synthesized the European and Polish Palaeolithic. M. Chmielewska (1978) analyzed Late Palaeolithic sites in central Poland. Furthermore, R. Schild and Z. Sulagowska are conducting very important Palaeolithic excavations at Zwolen in the Radom district, Poland. This open air site is located on the North European Plain, approximately 90 km south of Warsaw. It is dated from the end of the Riss to the early phases of the Würm and has Late Lower Palaeolithic and Middle Palaeolithic occupations. Zwolen is a kill site with remains of over 30 horses and other animals such as reindeer. It seems that by the Riss/Würm Interglacial, humans were efficient hunters. This contrasts with arguments recently put forth by L. R. Binford (1985) who suggests that hunting of moderate-to-large-sized mammals by hominids first occurs just prior to the appearance of Homo sapiens sapiens.

Polish archaeologists are actively excavating other Palaeolithic sites. W. Chmielewski is conducting research on the Middle and Upper Palaeolithic site of Kraków-Zwierzyniec I. In the 1970s, J. K. Kozłowski excavated Krakow-ul. Spadzista, which belongs to the Kostenki-Avdeevko culture. This site had remains of structures built of mammoth bones. S. Jastrzębski and J. Libera excavated an open air site, Klementowice, which was classified as Magdalenian. The eastern Gravettian site of Oblazowa cave was excavated by P. Valde-Nowak. This site is located in the Nowy Sącz district, Western Carpathians, and is similar to Dolni Věstonice in Moravia. A boomerang of mammoth bone was found in the Oblazowa cave. The Late Palaeolithic site of Lipnice Wielka in the Western Carpathians was investigated by P. Valde-Nowak and J. Rydlewski. In northeastern Poland, late Palaeolithic sites of the Swiderian culture were surveyed and excavated by K. Szymczak of the University of Warsaw.

Bulgarian and Polish archaeologists have worked in two caves including Bacho Kiro in Bulgaria (Kozłowski 1982), which was first excavated by D. Garrod prior to World War II. The fauna from Bacho Kiro is very diverse, consisting of 14 species of molluscs, 1 amphibian species, 4 reptile
species, 23 species of birds, and 66 mammal species (Kowalski 1982). The site produced a bone fragment engraved with a zigzag motif. This find represents one of the rare instances of evidence for symbolism during the Middle Palaeolithic (Marshack 1982). Sirakov (1983) analyzed the Middle Palaeolithic flint assemblages from Samuilitsa II Cave in Bulgaria.

Czech Palaeolithic archaeology is familiar to many western archaeologists because of the spectacular sites such as Dolni Vértovice. Various Palaeolithic periods, sites, and features in Bohemia and Moravia have been described by Czech archaeologists: Palaeolithic cave occupations (Fridrich and Sklenár 1976), Lower Palaeolithic (Valoch 1984), Middle Palaeolithic (Fridrich 1982), Pavlov II site (Klima 1976), the Dolní Věstonice (Klima 1981, 1983), Předmost site (Absalon and Klima 1977), Brno-Bohunice site (Valoch 1976), Palaeolithic houses (Sklenár 1976), and Pavlovian sites (Valoch 1981). Oliva (1982) has discussed the variability of the Palaeolithic industries and human behavior. Furthermore, he analyzed the technology and raw materials used during the Aurignacian in Moravia (Oliva 1984) and Svoboda (1983) discussed the sources of raw material used during the Upper Palaeolithic in Moravia.

Bárány (1980, 1985) and Bárány and Banesz (1981) surveyed Mousterian, Szeletian, Aurignacian, Gravettian, and Mesolithic sites in Slovakia. No Magdalenian sites were found in Slovakia. An article on the development of culture and society during the Palaeolithic was written by Valoch (1982).

Matyukhin (1984) conducted an interesting experimental study on the use of Acheulian and Mousterian tools for cutting elephant and giraffe carcases. For example, bifaces were efficient tools for cutting and separating muscular tissue from the hide. Also plain flakes were effective cutting tools.


An interesting article on the seasonal differentiation of Mesolithic sites in the Volga-Oka interfluve region has been published by Koltsov (1985). On the basis of faunal, and macrofloral data and use-wear analysis of artifacts, the Dmitrovskoe I site was classified as a summer camp, Chernaya Gryaz I as a summer occupation, and Staraya Konstantinovka IV as a late spring/early summer site. In the steppe regions of the Bug basin, Mesolithic and Palaeolithic sites were surveyed by Stanko and Smolyaninova (1985). An article on the natural environment and the Mesolithic period in the Ukraine was published by Matskevoj, Adamenko, Pashkevich and Tatarinov (1983).

Vencel (1971) analyzed the topographic location of Mesolithic sites in Bohemia. Furthermore, he discussed the transition of subsistence strategies from the Mesolithic to the Neolithic (Vencel 1982). L. and K. Jaanits (1978) have excavated the Mesolithic site of Pulli in Estonia.

**REGIONAL SETTLEMENT STUDIES**

regional settlement data to demonstrate the development of a complex society during the Neolithic in southeastern Poland. Settlement changes occurring in the late Iron Age and Roman period in central and southern Poland were analyzed by K. Godłowski (1985). As archaeologists are doing more regional research in eastern Europe, articles on various sampling methods are beginning to appear (Brzeziński et al. 1985).

A number of studies have been conducted to record the location and distribution of archaeological sites in a region or even the scale of an entire country. Since 1966, Hungarian archaeologists are publishing the Magyország Regészeti Topográfiája series, which contains data on all known sites in their country. Polish archaeologists also started to survey their entire country. Archaeologists in Byelorussia, Lithuania, and Ukraine have published monographs containing the location and brief description of all sites for specific prehistoric periods. O. P. Chernysh (1981) edited a monograph on 1,210 Palaeolithic and Neolithic sites in Volynia and Carpathian Ukraine. V. F. Isaenko (1976) covered the Bronze Age sites and L. D. Pobol’ (1983) the Iron Age sites in Byelorussia. Information on Palaeolithic, Mesolithic, and Neolithic sites in Lithuania was published by R. Rimantienė (1974), and E. Grigaliūnienė (1974) and Medieval sites by Tautavičius (1978). I. K. Sveshnikov (1976) published a catalogue of sites for the Lviv and Roven regions in Ukraine (Sveshnikov and Nikolenko 1982). Using these studies as a base, Byelorussian, Lithuanian, and Ukrainian archaeologists can conduct further regional settlement studies.

P. Donat (1980) of East Germany has written a monograph on Germanic and Slavic houses and villages from the seventh to the twelfth century A.D. Z. Bukowski of the Polish Academy of Sciences is contributing greatly to our knowledge about Late Bronze Age and Early Iron Age settlements. He is excavating the Grzybiany site, which has evidence of local metallurgical production. The distribution of houses and the remains of a wooden road at Grzybiany indicate that the settlement was well planned.

PALAEOBOTANICAL STUDIES

By now summaries of palaeobotanical analyses have been published for most countries in eastern Europe. Lisitsyna and Filipovich (1980) synthesized the palaeobotanical finds from various sites in the Balkans, and Yanushevich (1976) presented plant remains from the sites in the southwestern Soviet Union. We know very little about Scythian plant utilization from ancient authors, thus Shramko’s and Yanushevich’s (1985) study of Scythian plant remains from the seventh to third century B.C. is very informative. The main domesticated plants utilized by the Scythians were emmer wheat, club wheat, durum wheat, common barley, naked barley, millet, and pea. The available data on Neolithic plant remains from Bohemia and Moravia were synthesized by Tempir (1979). Hajnalová (1977, 1980, 1983) analyzed plant remains from Neolithic sites in Slovakia and from the Nova Zagora site in Bulgaria. Neolithic and Bronze Age palaeobotanical finds from Poland were summarized in an article by Klichowska (1976). In addition, Gluza (1977, 1984) analyzed Neolithic plant remains from the Nowa-Huta region in Poland. Hartyányi and Máthé (1979) described Neolithic plant remains from the Carpathian Basin. Furthermore, the palaeobotanical finds in Hungary have been summarized in an article by Hartyányi and Novák (1975), and Comşa (1981), discussed plant cultivation during the Neolithic in Romania. M. Godłowska and several archaeologists and palaeobotanists are studying cultural and ecological changes during the Neolithic at Pleszów, southeastern Poland (Godłowska et al. 1985; Wasylikowa 1982; Wasylikowa et al. 1985).

MORTUARY AND POPULATION STUDIES

Mortuary analyses are very numerous in eastern Europe, especially for the Neolithic, Bronze, and Iron Ages. I will limit my observations of mortuary studies to Czechoslovakia, East Germany, Lithuania, and Poland. Edith Hoffmann (1978) analyzed the Linear Pottery and Stroke Ornamented Pottery culture burials in Halle and Magdeburg districts of East Germany. The Funnel Beaker burials and cemeteries in the Halle region were described by Behrens and Schröter (1980).

Nevizánsky (1985) analyzed the mortuary data from the Lengyel sites in Czechoslovakia and Havel (1978) studied the burial rituals of the Bell Beaker people in Bohemia and Moravia. Točik
(1980) described the Early Bronze Age burials from the Výčapy-Opatovce site and Pástor (1978) from the Čaňa and Valalíky sites in Slovakia. Bujna (1982) studied the La Tène period social structure from the burials in the Carpathian Basin and Benadik (1983) has published a catalogue of finds from the Celtic cemetery of Mana. Zápotocký (1973) analyzed the Celtic burials at Litoměřice. Waldhauser (1979) compared analyses by archaeologists and physical anthropologists of male, female, and child frequencies in Celtic cemeteries in Bohemia.

The burial ritual of the Lupawa group of the Funnel Beaker culture in northwestern Poland was described by Weber (1983). Marek Gedl (1982, 1983) of the Jagiellonian University in Kraków, Poland uncovered 3,680 Bronze and Iron Age burials at Kietrz in Silesia. This excavation was conducted for 25 years, from 1956 through 1980. The cemetery at Kietrz occupies 15 ha and it was utilized from Bronze Age II (fifteenth century B.C.) to La Tène C (third century B.C.). T. Malinowski (1979, 1981, 1984) is publishing a catalogue of the Pomeranian culture burials and Jaskanis (1974) described the burials of western Balts.

Data were analyzed from numerous Neolithic cemeteries in Lithuania (Butrimas and Kazakevičius 1985; Butrimas et al. 1985; Česnys 1985; Girininkas 1985; Rimantiene 1985). In Latvia, F. Zagorskis (1974) excavated the Zvejnieki cemetery.

The skeletal material from various Neolithic sites in East Germany was analyzed by Adelheid Bach (1978). It is an excellent source of data for age and sex ratios of various Neolithic populations. Furthermore, A. Bach and H. Bach (1976) analyzed the skeletal material of the Bell Beaker people in East Germany. Mortality rates of human populations were studied by A. Bach and K. Simon (1978). The skeletal material of the Late Neolithic and Early Bronze Age from southeastern Europe was summarized in an article by Xirotiris (1981). Maciej Henneberg (1977) published an interesting article on the population of children in palaeodemographic studies. Evžen Neustupný (1983a, 1983c) made important contributions to demographic studies with an interesting monograph, *Demografie pravěkých pohřebišť* (The Demography of Prehistoric Cemeteries). The book contains an introduction into palaeodemography, demographic models, and examples of demographic studies (Neustupný 1983c).

**STUDIES OF PREHISTORIC ECONOMY AND WARFARE**

Contrary to what most western archaeologists would expect from Marxist societies, studies dealing with prehistoric economy and trade are not numerous in eastern Europe, although a number of excellent studies have been conducted. Early 1970s publications of Tabaczynski (1970) and Pleslosava-Stikova (1972) on the Neolithic economy in central Europe present a good synthesis of data and problems. Kruk (1980b) did an excellent synthesis of the economy of various Neolithic cultures, and Kaufmann (1976) on the Stroke Ornaments culture economy. The Neolithic economy of the Polish lowlands was extensively analyzed by Bogucki (1982, 1984) while Beranová (1980) wrote an interesting monograph on the agriculture of early Slavs. Czerniak and Piontek (1980) presented a model for the Neolithic economy in central Poland. Stockbreeding of the Late Neolithic and Early Bronze Age cultures in the Upper Vistula Basin was analyzed by Makowicz-Poliszot (1983). Evidence for the appearance of the simple plow during the third millennium B.C. in eastern Europe was evaluated by Krasnov (1980). The nutrition of prehistoric farmers was analyzed by E. Neustupný (1983b). Iron Age economy in northwest Poland was studied by Henneberg and Ostoja-Zagórska (1984). New agricultural data on eastern Lithuania was summarized by Volkaitė-Kulikauskienė (1974).

A few important excavations should be mentioned, especially because they produced excellent data on subsistence activities. Because of exceptional preservation of the archaeological data, the Neolithic excavations of sites located by the Baltic seacoast in Latvia (Vankina 1970, 1974) and Lithuania (Rimantienė 1979, 1980) not only supplied information on the economy and technology of the prehistoric people, but also evidence was obtained on art and ritual behavior. Rimutė Rimantienė (1979, 1980) conducted excavations of the Neolithic sites at Šventoji near Palanga in Lithuania. These third millennium B.C. Neolithic sites were located by an extinct lake. At Šventoji, objects such as fish nets, wooden bows, wooden paddles, wooden containers, a boat, and even a
wooden human figurine, were preserved. A human face was sculpted on the end of a wooden pole that was 195 cm in length and 10 cm in diameter. The recovered fishing equipment consisted of nets, hooks, floaters, and sinkers. The most commonly found fish was pike (*Esoc lucius* L.). Various decorative objects made of amber were also found at Śventoji.

Polish archaeologists are making extensive contributions to the study of flint artifacts, sources of raw materials, and prehistoric mining. B. Balcer (1975, 1983) examined the frequencies, production, and distribution of Neolithic flint artifacts in Poland, while M. Kaczanowska (1985) did the same for the Middle Danube area. Several studies were made on the flint and stone sources (Kaczanowska and Kozłowski 1976; Prinke and Skoczylas 1980a, 1980b; Schild et al. 1977, 1985; Wojciechowski 1982). Prehistoric mining of flint was examined by Lech (1981, 1983), Dzieduszycka-Machnikowa and Lech (1976), and H. and J. Lech (1984) in Poland.

The appearance of pastoral economy and the postulated sociocultural changes, such as the migrations of groups from eastern to central Europe, are some of the problems concerning the Neolithic studies (Ecsedy 1979; Häusler 1976, 1981, 1983, 1985; Kempisty 1978; Krzak 1980; Machnik 1979; Neustupný 1981; Wetzal 1979; Wiślański 1979). Although most east European archaeologists do not support the postulated migrations mentioned above, we cannot exclude the possibility of ethnic movements during the Late Neolithic, even if it is very difficult to demonstrate.

Evidence for warfare and fortifications occurs in eastern Europe with the appearance of Neolithic farmers. Slawomil Vencl (1983, 1984) of the Czechoslovakian Academy of Sciences has studied warfare in prehistoric times. A number of fortified settlements were excavated such as the early Neolithic settlement at Elsleben in East Germany (Kaufmann 1977, 1982) and the Middle and Late Neolithic fortifications at Bronocice in Poland (Kruk and Milisauskas 1979, 1985). V. Pavúková found ditches at the Lengyl site of Svodín in Slovakia. Vladr (1977) and Gediga (1983) discussed the Early Bronze Age fortified sites, respectively, in Slovakia and Poland. A report on the Bronze Age fortified settlement of Nitriansky Hrádok was published by Točík (1981). It should be noted that not all Neolithic sites with ditches or enclosures are classified as fortified sites. For example, the Neolithic site of Makotřasy in Czechoslovakia was classified as a ritual place (Pleslova-Stikova et al. 1980). The orientation of the enclosures at Makotřasy was consistent with sunrise and sunset at the winter and summer solstice.

CONCLUSION

Eastern European archaeology progressed greatly in the last 20 or 30 years. By now the culture history of most regions is clearly delineated. A number of excellent studies on chronology, typology, technology, settlement patterns, and ecology have appeared. However, studies on prehistoric economy, land use, trade, settlement systems, and social organization, and regional studies are still infrequent by American standards. Some of these are being conducted presently. For example, 43 Czechoslovakian archaeologists and scholars from related disciplines are conducting studies on prehistoric agriculture, and meetings were held on palaeobotany, palaeozoology, natural environment, technology, and agricultural techniques (Beranová 1981). Data from some well-known sites, such as Bylany in Czechoslovakia, are being published (Pavlů and Zápotocká 1984). More universal usage of certain field techniques, such as flotation, would help to increase the data base. The usage of quantitative methods is increasing, but the utilization of computers is still not common.


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