

PREFACE

This twelfth volume of *Archaeologica Baltica* is devoted to an examination of the role of food and diet in prehistory by examining the interrelationships of food, paleo-anthropology, biology, archaeology and ecology. The production and consumption of food can tell us much about how different cultures constructed and perceived their environment. In this volume different authors analyze how archaeological evidence can be used in reconstruction of diet in prehistory and early history time.

In their article “Diet in early Lithuanian prehistory and the new stable isotope” Indre Antanaitis-Jacobs, Mike Richards, Linas Daugnora, Rimantas Jankauskas and Nives Ogrinc research food resources exploited in the Lithuanian Stone and Bronze Ages and presents the new direct, biochemical stable isotope evidence. Stable carbon and nitrogen isotope analyses were performed on 75 Stone and Bronze Age animal bone samples and 23 human bone samples. In this article authors discuss how the obtained values relate to diet and other evidence of diet, compare the obtained values with regional stable isotope data, and consider sociocultural implications.

In their article Marie-Lorraine Pipes, Janusz Kruk, Danuta Makowicz-Poliszot and Šarūnas Milišauskas describes the economic subsistence practices of the Funnel Beaker occupation at Bronocice, southeastern Poland (Małopolska) were examined through the analysis of a large faunal assemblage recovered from three distinct phases, 1, 3, and 4 (3800-3100 BC). The results of the analysis revealed several trends that reflected long-term cultural traditions. Even so, the analysis also found indications of modifications in livestock management practices over time that were probably influenced by increasing population density, social complexity and specialization both within the village as well as without, and by the physical requirements of increasing numbers of livestock. This article examines some of the broader observed trends and changes, and considers potential social and physical factors that might have been involved. It also compares the data with other faunal assemblages from sites in southeastern Poland and offers explanations for apparent differences.

The analysis also considered the overall range of body parts represented for domesticated species and observed a disparity with regard to pig remains. Whereas cattle and sheep were generally indicated by a wide range of skeletal elements and body parts, pig were not. The minimum number of pigs determined for each phase was great when compared to the actual number of skeletal elements recovered. Therefore it seems that pigs may have been butchered outside of the village and brought in as meat, especially during the first two phases. Age at death profiles support this conclusion as there are almost no juveniles represented overall. During Phase 4 there was a marked increase in the presence of juvenile pigs suggesting that by this time pigs were being reared in the settlement.

The interpretation of shifting trends and patterns over time focused on mainly on social explanations but also on the physical requirements of both animals and people. The two are linked and as such when considered together may in fact serve to expose necessary relationships between groups of people. Physical requirements such as pasturage, fodder, control over movement and breeding involve the cooperation and interaction of groups of people. Access and acquisition to animal resources may also have entailed interactions between groups. The data suggest that hunting may not be the only viable explanation for the presence of wild mammal remains at Bronocice.

Human food sources, the development of diet, butchery, the peculiarities of food preparation and its conservation still are little researched themes in East Baltic prehistory. In their article „Butchery in the Early Bronze Age (by Kretuonas 1C settlement data)” Linas Daugnora, Algirdas Girininkas analyse the butchering technology of the Early Bronze Age based on Kretuonas 1C’s osteological material.

Analysis of the osteological and archaeological material discovered at the Early Bronze Age settlement of Kretuonas 1C suggests that the settlement’s hunted game and reared animals were slaughtered within the settlement, not far from the dwellings. Butchering techniques and skeletal bone, antlers, bone fragments of both wild and domestic animals were found in this

location showed that among the most hunted animals were elk, red deer, auroch, boar, marten, while pig, sheep, goat and cattle – among domestic animals. The tools used for butchering and the macroscopic analysis of the slaughtered artiodactyls' axial skeleton and long bones enabled an assessment of split bone in the butchering area, as well as of chop and cut marks acquired during the butchering process.

In her article "To Make a Mark on Land. Fossil fields systems and the social implication of agriculture during the Pre-Roman Iron Age on Gotland, Sweden" Anna Arnberg discusses in detail agriculture process in Gotland. The paper therefore starts with a presentation of the surveys and excavations carried out mainly by the Department of Human Geography at Stockholm University and Valter Lang and his colleagues in Estonia, and the results of these projects. As a complement to these research projects, A. Arnberg turns to questions regarding the social consequences of agriculture. She mainly interested in why people chose to maintain this kind of agricultural practice for a thousand years or more. Why did people continue to cultivate their fields in a manner which they knew from experience would deprive the fields of their fertility? What values, apart from the strictly nutritional, did cultivation and its material effects offer people in the pre-Roman Iron Age?

The field systems, as they are visible today in Gotland, according to the author, are the result of a process in time. The procedure stayed more or less the same for up to a thousand years or longer. As a consequence, cultivation was not the concern of one generation solely, but an act that linked generations together. The older members of society passed the tradition on to the younger members while working side by side with them. Hence, knowledge has in this context as much to do with conversations and with people's bodily engagements with the world, as with abstract thought. The knowledge, completed in the progression of agricultural techniques, acquired physical form by repeatedly being handed down to the next generation. In the field systems the acts carried out were materialized, acts that over the centuries involved a great number of people.

Because the ard depleted the soil of the plot, areas formerly used for cultivation were eventually transformed into infertile land. According to the A. Arnberg, this kind of agricultural technique could best be described as the deterioration of natural resources. But the question is: how did the cultivators perceive their depletion of fertile land? Presumably it was not in such negative terms. For though some steps were taken to prolong the fertility of the plot, which may mean that people found the depletion somewhat problematic, they nevertheless

continued to treat the land as they always had done. According to the author, traditions like this one do last, not because people are unable to carry out tasks in other ways, but because traditions offer something to the people maintaining them. The values that agriculture offered people in the pre-Roman Iron Age, besides providing them with food, might partly be explained as involving them in a historically established process. It was a way of maintaining land that as a phenomenon and material expression reached beyond the individual and the individual's lifetime. In other words, this tradition did not just connect people in a contemporary perspective. In the landscape of conjoined plots, relations between people, between present and past, and between people and place attained physical form. Through the continuance of the agrarian techniques, the cultivators were literally woven into these materialized relations, at the same time as these cross-generational connections were preserved. What might be considered, as the deterioration of fertile land, might with these associations instead have been perceived as something attractive and desirable. Perhaps it was these associations that "justified" the waste of productive land.

In their article "What did the Order's brothers eat in the Klaipėda castle? (The historical and zooarchaeological data)" Vladas Žulkus and Linas Daugnora research historical data and zooarchaeological material about Klaipėda castle found during the 1997-1999 archaeological excavations and dated to the 14th-17th centuries.

According to the authors, the analysis of the historical data and zooarchaeological material showed that in the 14th-17th centuries, the inhabitants of the Klaipėda castle (the Order's brothers, their servants, the outwork's artisans, and the townspeople who hid in the outwork) reared and slaughtered domesticated animals, hunted large game and consumed its meat, processed cheese, ground grain, drank mead and ale. The bulk of the meat consisted of beef, mutton, and pork, as well as goats' meat starting 1434. An examination of the species and number of bones of domestic and wild animals in Klaipėda's castle shows that in all of the Klaipėda castle time periods analysed, differences were found between the historical source information and the zooarchaeological collection. Domestic animal bones dominated in the latter, especially that of ruminants (cattle, sheep, goats); pigs comprised the second group according to quantity. The growing quantity of small ruminants (sheep, goats) starting 1434 also is reflected in the zooarchaeological material; from the 16th to 17th centuries, the number of bones of these animals doubled. The amount of riding horses markedly grows in the inventory books starting the middle of the 15th century, and this also is confirmed by

zooarchaeological material. When comparing the results of the zooarchaeological material's analysis with the known 14th-16th century inventories of Klaipėda's castle in which there are data regarding the domestic animals (cattle, sheep/ goats, horses, pigs) reared for the castle's needs and the food eaten by the castle's inhabitants, changes are observed in the faunal species and amounts of the zooarchaeological material that post-date 1521, when 31.25% consists of pig (*Sus suis*) bones, while the number of species and bone counts of large wild animals (aurochs/ European bison, elk, red deer) and fur-bearing animals (beaver, bear) grows significantly (from 5.5% to 22.92%). Various kinds of fish caught in the sea near Klaipėda and in the Curonian Lagoon held an important place in the diet of the castle's garrison. Fowl comprised only a small part of the food.

In their article "Dental wear patterns in Lithuanian and Latvian paleoanthropological samples" Žydrūnė Miliauskienė and Rimantas Jankauskas research evaluate dental occlusal wear in four samples, based on different chronology and subsistence: Stone Age, Iron Age, Medieval rural and Medieval nobility. The hypothesis tested was if transition from foraging subsistence to agriculture and later social stratification indeed was reflected by dental wear changes. According to results, the remarkable changes in nutrition patterns in the Baltic region occurred only in the Iron Age, which does not correspond with "classical" Neolithization model. The next substantial change in dental wear patterns, according to the authors, is connected with increased social stratification in Late Medieval period.

In her article „Few Aspects of burgesses nutrition in Klaipėda in 16th – 17th century” Ieva Masiulienė research questions associated with Klaipėda old townspeople food sources. On the basis of the archaeological excavation in the basement of the building at Kurpių street 3, osteological and palynological data author writes that in residential home lived traders – nobility city's residents. According to the author, the analysis of the archaeological data and zooarchaeological material showed that in the 16th-17th centuries, the nobility inhabitants of the Klaipėda reared and slaughtered domesticated animals, birds, drank ale in gardens grew vegetables. Various kinds of nuts, different brews held an important place in the diet of the city's residents.

In their article "An insight into the bioarchaeology of the medieval inhabitants of Veselava" Vita Rudovica, Arturs Viksna, Gunita Zariņa and Ilze Melne research osteological material permitted an insight into the palaeodemography and palaeodiet of the medieval inhabitants of Veselava (Cēsis District, Latvia). Soil samples should be taken from various positions around each

skeleton during excavation. Palaeodietary analysis, utilising inductively coupled plasma atomic mass spectrometry (ICP-MS), was undertaken on 40 individuals, determining the concentration of seven elements in the bone. In order to assess the natural background level of these elements, 20 soil analyses were also undertaken.

According to the authors, the elemental content of male and female bone is similar, although the mean level of Zn and Cu in bone is slightly higher for males, which might indicate higher meat consumption. On the other hand, Sr and Mn values are higher for females, indicating a high proportion of plant foods in the diet.

It is thought that the 13th-17th century inhabitants of Veselava often had a meagre diet, and that plant food consumption was higher among women.

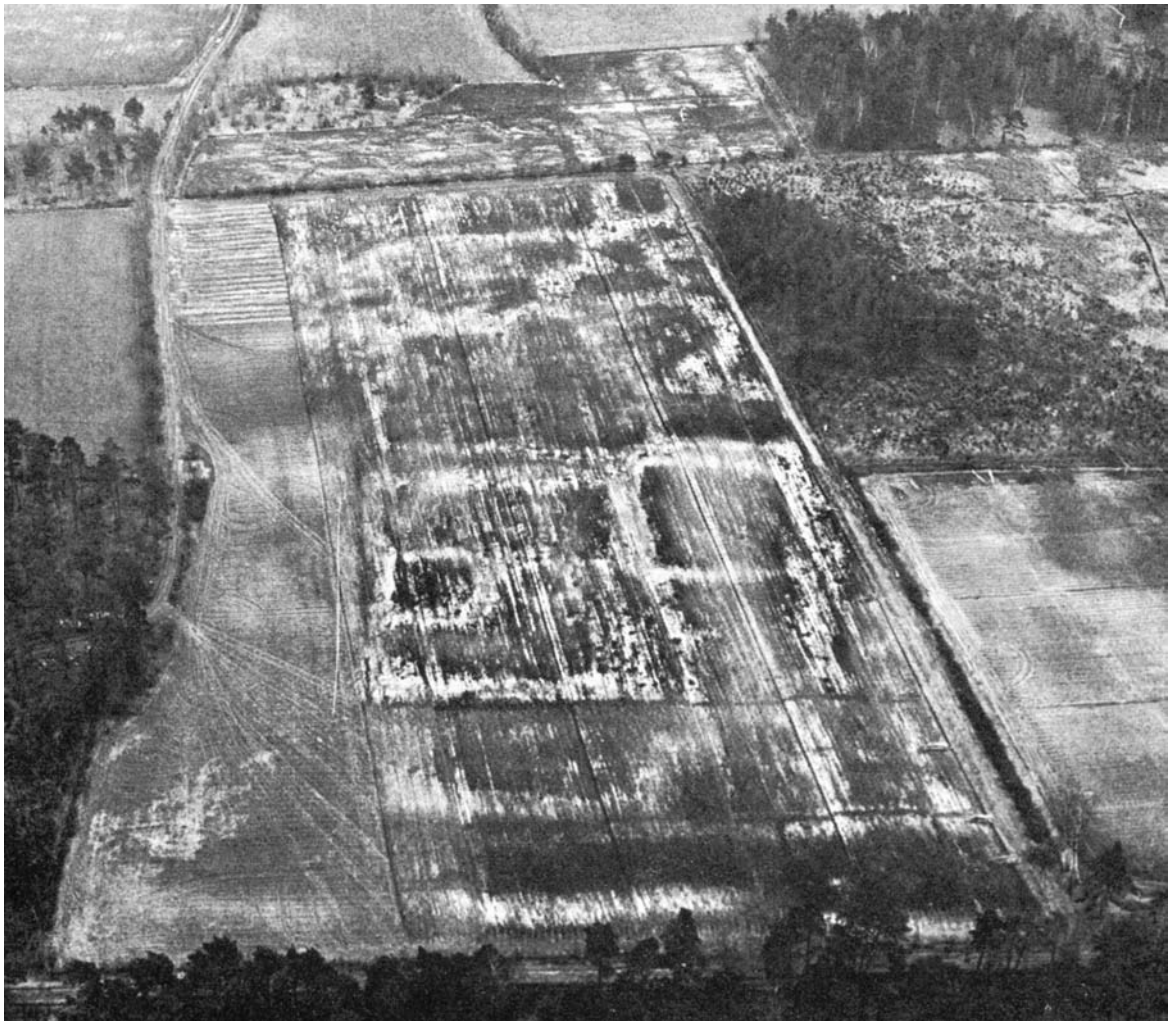
In her article "A note on the "Slavic" bow fibulae of Werner's class I J " Florin Curta discusses in detail about bow fibula from Dailidės (Molėtai district in eastern Lithuania) cemetery that can result to the East Lithuanian Barrow Culture. The specimen of the author's classification belong to J. Werner's class I J. In addition to the Dailidės fibula, nine other fibulae are currently known for this class, four of which have been found in the Baltic region. J. Werner called this and other classes of bow fibulae "Slavic," but the evidence does not support his idea of explaining the distribution of such fibulae in Eastern Europe in terms of migration. Nonetheless, fibulae of Werner's class I J found at considerable distance from each other (e.g., Novi Banovci and Kielary) are very similar. However, the Dailidės fibula appears so far to be a unique piece within its own class, in terms of both size and ornamentation. According to author, using proportions and location of the ornament as criteria, fibulae of Werner's class I J do not differ much from brooches of Werner's class I F, for which clear links can be identified to the late fifth- or early sixth-century metalwork in the Lower and Middle Danube region. Given that the two classes have also similar distributions in Eastern Europe, it is quite possible that fibulae of Werner's class I J were imitations of I F fibulae, with a simple linear ornament replacing the scrollwork decoration. On the other hand, a very similar ornament may be found also on imitations of fibulae of the Csongrád class produced in the early sixth century in Mazuria.

According to the author, if Werner's class I J originated in Mazuria, then the Dailidės fibula, although of local production, may well have imitated a Mazurian original. Relations between the Olsztyn group in Mazuria and communities of the East Lithuanian Barrow Culture are poorly understood, although they must have been responsible for other similar phenomena, such as the silver belt buckle from Ziboliškė near Švenčionys,

or the “Slavic“ bow fibula of Werner’s class I D found in Mikol’tsy near Myadel’. By contrast, no analogies exist in Mazuria for the fibulae from the neighboring regions in Belarus (Nikadzimava), Latvia (Boķi and Striķi), Estonia (Jāgala Jōessu), and the Kaliningrad *oblast’* of Russia (Linkuhnen and Schreitlauken). These investigations showed that Dailidēs fibula may indicate gift-giving exchange between the elites in the region of the East Lithuanian Barrow Culture and in Mazuria, the latter also connected with the distant elites in the Carpathian Basin.

The review part of this volume presents reviews of Roberts Spirģis monograph “*Bruņrupuču saktas ar krūšu važiņrotām un lībiešu kultūras attīstība Daugavas lejtecē 10. – 13. gadsimtā*” (Rīga, 2008) reviewed by Audronē Bliujienē.

Algirdas Girininkas



Aerial photography showing parts of the fossil field systems at Uggårde-Vinarve, Rone parish, Gotland.
Photograph by Peter Manneke (Manneke 1974, p. 35).