BUTCHERY IN THE EARLY BRONZE AGE (BY KRETUONAS 1C SETTLEMENT DATA)

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Abstract

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. We analyse the butchering technology of the Early Bronze Age based on Kretuonas 1C's osteological material. 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.

Key words: butchering technology, Kretuonas 1C, Early Bronze Age, East Lithuania.

Introduction

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. The peculiarities of diet in prehistoric East Baltic settlements and cemeteries have been researched via stable isotope data by G. Eriksson (Eriksson 2006, pp.183-215) (human data from the Zvejnieki burial ground, faunal data from the Zvejnieki I and II habitation sites (in Latvja)); I. Antanaitis, N. Ogrinc (2000, pp. 3-12); I. Antanaitis-Jacobs, M. Richards, L. Daugnora, R. Jankauskas, N. Ogrinc (2009, pp.12-30) (Kretuonas 1B, Plinkaigalis, Gyvakarai, Kirsna, Turlojiškė burial grounds; Lithuania); L. Lõugas, K. Lidén, D. E. Nelson (1996, pp. 399-420) (Narva, Tamula, Kudruküla, Naakamäe, Loona burial grounds, Estonia). These human data suggest that the people's physical environment and particular locations of food resources were very important factors in their diet.

The aim of this article is to evaluate the methods of butchery used by the Early Bronze Age people of the Kretuonas 1C settlement by means of macroscopic analysis of the skeletal material.

Man and the environment around Lake Kretuonas in the Early Bronze Age

Multidisciplinary research data (zooarchaeological, archaeological, palynological) illustrate that environmental conditions around Lake Kretuonas in East Lithuania in the Stone and Bronze Ages (Figs. 1A, B) were sufficiently good for habitation; the people could subsist from the resources in their environment – the fish in Lake Kretuonas and other water bodies in its basin, the heterogeneous vegetation and fauna that lived in the mixed forests, and, starting the end of the Neolithic – from animal husbandry as well, as indicated by the fields-pastures surrounding the settlements and the osteological material found within the settlements (Daugnora, Girininkas 2004, Girininkas 2008 pp.15-32). The determination of the natural environment enables a rather detailed reconstruction of human diet from both foraging and farming at Kretuonas 1C during the Early Bronze Age.

The various postglacial sediments that formed around Lake Kretuonas later conditioned the heterogeneous formation of the soil. In the larger part of the basin where morainic clayey loam hills dominate, turfy-ashen grey weakly podsolized soils had already formed in the Neolithic. In the southwestern part of the lake and basin where sandy parent material dominates, there are ashen grey- ilainiai soils. The depressions contain marshy, ashen-grey-marshy soils (Garunk tis *et al* 1974, pp.18-19; Seibutis 1974, pp.41-51). Different vegetation grew in the corresponding, different soils and different species of animals propagated. Dry pine forests were widespread in the basin's western part, which transformed into deciduous trees-hazel, birch, and alder covering the low-lying marshland-around Lake Kretuonas in the southwest. Juniper groves grew in the basin's eastern part, especially on the morainic hills, while pine forests grew inbetween them in the sandy tracts (Girininkas 2008, pp. 22-23).

The Early Bronze Age is associated with the Late Subboreal. Birch and pine forests spread around Lake Kretuonas and peat formation continued in the bog zone although it became drier, while alder dominated and spruce groves increased in the depressions of the lake basin. The linden and elm groves that flourished in the Neolithic yielded the drier soils to birch and pine groves, while oak groves changed little. The largest

Fig. 1. A Location of Kretuonas 1C settlement in Lithuania, B Location of the settlement around Lake Kretuonas.

amount of grass pollen of the entire prehistoric period in the Kretuonas basin is observed in the sediments of this period (Kabailienė, Grigienė 1997, pp. 44-52). This fact is undoubtedly associated with the increased plots of cultivated land and pastures. Zooarchaeological data also confirm this. At Kretuonas 1C, which is the most distinctive Early Bronze Age site in the area, the amount of domesticated animal bone increased up to 18% (MNI) (Daugnora, Girininkas 2004, pp.155, 165) and the amount of pollen of cultivated cereals increased (Girininkas 2008, pp. 22-23). The inhabitants still had populated the lakeshores where Neolithic habitation sites also are found. This is very clear from the topography of Kretuonas 1C and other Early Bronze Age settlements.

The settlement was established on the eastern shore of Lake Kretuonas right next to the mouth of the Žaugėda rivulet. It was a pile dwelling site, on the sand bar of the flooded rivulet and lake. Birch groves grew around the settlement, pine groves – in the higher places, alder, hazel, and much oak – alongside the lake, with the addition of fir trees on the slopes of the morainic hills. Abundant ash groves (*Fraxinus excelsior* L.) grew on the first terrace; they flourished in hewed out, burnt out, and abandoned plots. Meadows with fences could be found east of the settlement, with a hoed up field nearby. An agrarian type of landscape extended around the settlement. This is confirmed by zooarchaeological (Daugnora, Girininkas 2004, pp.233-250) and palynological data (Kabailienė, Grigienė 1997, pp.44-52).

At that time approximately one-fifth of meat products were obtained from the animals reared by the settlers. Cultured cereal plant pollen is found in the sediments of the settlement's cultural layer. In addition to growing cereal grains and raising animals, the people intensively hunted and fished. A five meter long creel was found right next to the settlement in the channel of a rivulet, while the largest amount of hunted game was comprised of elk, red deer, and furbearing animals which were needed for trade in order to get metal products, amber.

In living here approximately 300 years, the people of the Early Bronze Age Kretuonas 1C settlement left a rather impressive cultural layer, already very similar to the agrarian type of settlements of Central Europe; it was from 5-10 cm to 120 cm thick with many and various artefacts (Girininkas 1988, 1990, 1992; Daugnora, Girininkas 2004, pp.233-250). Large rubbish heaps were found near the settlement in which were found many broken pottery sherds, along with items made from bone, horn, stone, wood, and flint.

According to the archaeological research data of Kretuonas 1C, it can be said that this was a settlement base near which there were animal enclosures and winter dwellings for the animals that protected them from wild beasts and other hostile tribes. With its surrounding fields, enclosures, metal recasting and fishing loci, we can call this settlement a large and unified economic unit. Research conducted in the surrounding areas suggests that an entire line of economic products existed not in the settlement itself, but rather in this tribal community's controlled territory. Thus the Kretuonas 1C community can be considered a local territorial community with a strictly defined and owned territory for the acquisition of raw material and land suitable for farming, in which existed a clear division of labor and social differentiation.

The butchering locus, the blows, and the animal bone analysis

A very interesting and significant feature for research into Early Bronze Age people's diet is an area of very large accumulation of zooarchaeological material found in the eastern part of the Kretuonas 1C settlement during excavations in 1987 and 1988, a place which we named "the slaughterhouse" (Fig. 2). The accumulation locus was approximately 180 m^2 large. Skeletal bone, antlers, bone fragments of both wild and domestic animals were found in this location. By both the preserved skeletal freagments of separate fauna and by the settlement's inventory, this butchering locus is dated to the Early Bronze Age - 2000-1700/1650 BC (Table 1).

Analysis of the identified bones from the "slaughterhouse" showed that single teeth dominated (28.33% of the identifed bones) because the majority of skulls and large part of the mandibles (11.74%) were split in separating the body from the *ramus mandibula* (Fig. 3) (Daugnora, Girininkas 1996, p.89) and removing the canine teeth that were used to make amulet pendants (Daugnora ir Girininkas 1995, p.88, Fig. 3). Single chop marks were observed on the joints of the analysed bones, either at the surface or where the muscles had been attached (Plate I:2), but healthy long bones or skulls virtually were not found in the butchery locus; what dominated there were rib and skull fragments, wrist and heel bones, metacarpal/ metarsal bones, phalanges, and sesamoid bones. The large amount of proximal and distal parts of long bones and fragments of these bones show some butchering and bone splitting methods that traditionally were used by Mesolithic and Neolithic hunters (Daugnora, Girininkas, 2004, pp.114-115; 139; Daugnora, Girininkas, 1996, pp.29-30). Also found were antlers, which in most instances still had parts of the frontal bone (*os frontale*) attached.

Analysis of the axial skeleton shows that the elk's first and second neck vertebrae were chopped though (Figs. 4-5). This not only means that the neck was separated from the head, but also that this area was separated into the left and right sides. Many rib bodies (*corpus costae*), without their heads (*caput costae*) were found in the butchering area. On the exterior posterior surface below the *procesus/facies articularis caudalis* of an excavated horse's cervical vertebra, two long cuts were found (Plate I:1). Three cuts were found on the front surface of a thoracic vertebra of an elk near the connection with the *discus intervertebralis*. Chop marks also were observed on the side of a bovine tail vertebra (*vertebrae caudales* Ca IV or Ca V).

While analyzing 40 front leg scapula fragments, we determined that 20 of them are distal fragments and belong to artiodactyls (aurochs, elk, red deer, roe deer, boar, cattle, sheep/ goat, pig). Single chops were found in the neck area of a pig's scapula or near the beginning of the *spina scapula*, along the sides. Twaddlers and small spades were made from the proximal part of the mentioned fauna (Daugnora, Girininkas, 1995; 1996).

Analysis of 56 humeri of elk, red deer, and boar (excluding those of beaver (*Castor fiber*)) revealed 27 proximal fragments and 29 distal fragments (Figs. 6 and 7). The body of the humerus was struck while splitting it or separating the distal end (*Trochlea humeri*), while in seven instances the established blow separated the

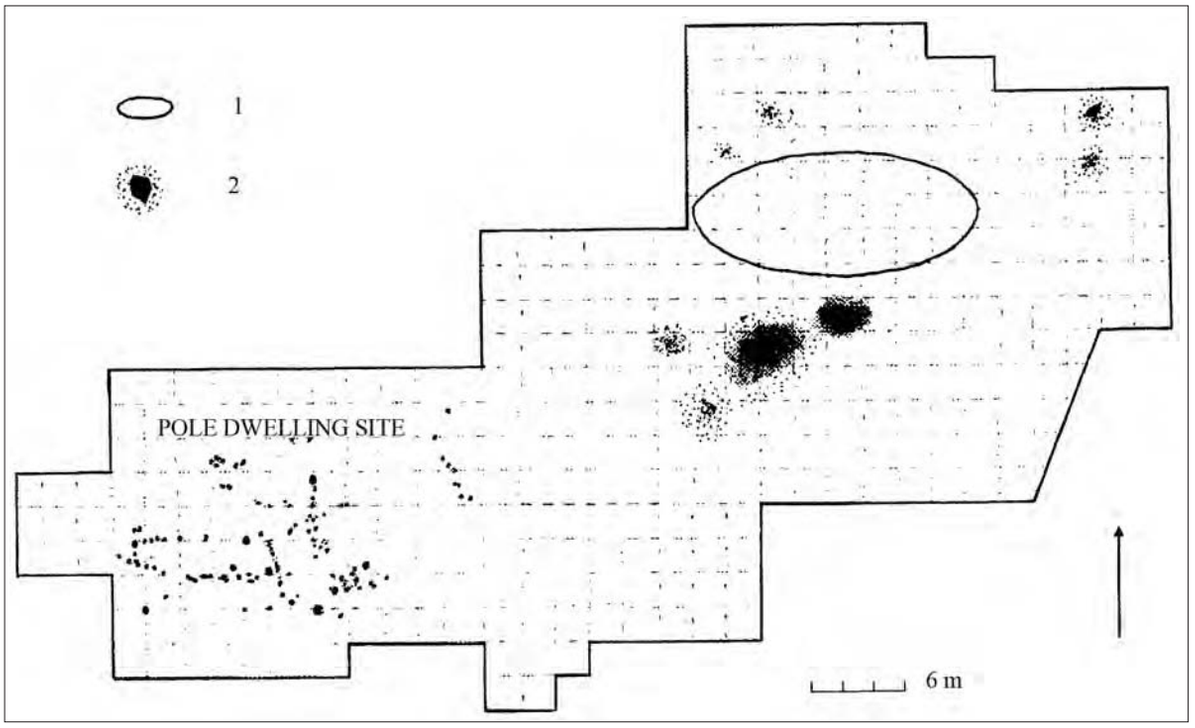

Fig. 2. Kretuonas 1 C settlement's excavation area: 1- buthcering locus, 2 - ceramic concentration.

Table 1. Radiocarbon dates of bones found in Kretuonas 1 C's butchering locus

Bone sample	**Lab. Nr.**	**^{14}C data (BP)**	**Uncalibrated**	**Calibrated (BC) 2σ Max.-min.**	**Calibrated 1 σ range**
Equus Caballus	Ki-10102	3460±70	1510±70	1879–1839; 1829–1791 1785–1729; 1725–1689	1945–1603 1553–1537
Capra Hircus	Ki-101030	3520±70	1570±70	1935–1933; 1921–1745	2031–1989 1985–1685 1667–1663
Bos bovis	Ki-11043	3610±70	1860±70	2193–2179; 2141–1855 1847–1769; 1757–1749	2119–2097 2087–2085 2039–1881
Bos bovis	Ki-11084	3580±50	1630±50	2115–2099; 2037–1855 1847–1769; 1757–1749	2015–1997 1979–1879 1839–1829 1789–1787
Bos bovis	Ki-11085	3620±50	1670±50	2137–2077; 2069–1879 1841–1829; 1793–1785	2107–2105 2033–1915 1903–1889
Bos bovis	Ki-11086	3600±50	1650±50	2135–2081; 2045–1873 1843–1809; 1801–1775	2025–1995 1981–1885
Bos bovis	Ki-11087	3600±37	1650±37	2113–2101; 2035–1879 1839–1829; 1791–1785	2013–1999 1979–1915 1905–1887
Martes Martes	Ki-10101	3590±70	1640±70	2109–2105; 2033–1877 1841–1827; 1795–1779	2137–2079 2067–1747
Esox lucius	Ki-11042	3550±70	1600±70	2123–2097; 2089–2085 2039–1733; 1717–1689	2009–2001 1975–1967 1959–1859 1845–1771

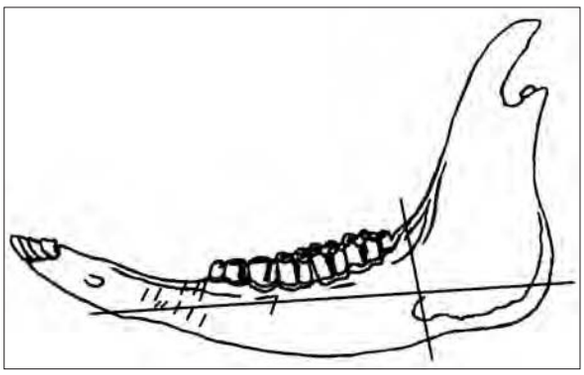

Fig. 3. Mandible-splitting diagram.

Fig. 4. Top cervical vertebrae (a*tlas*): modern elk's (in center) and chopped first cervical vertebrae fragments found at Kretuonas 1C.

Fig. 5. Second cervical vertrebrae (a*xis*). Kretuonas 1C.

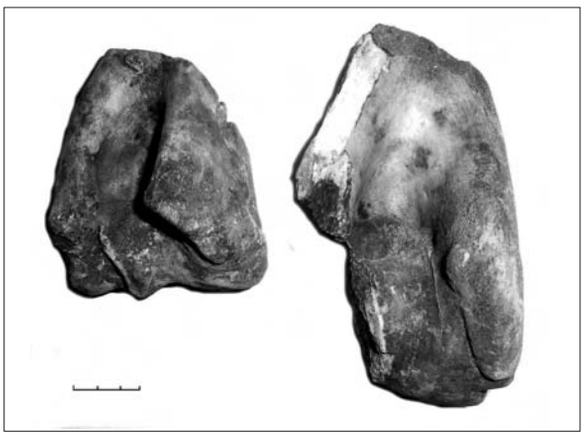

Fig. 6. Distal parts of elk and red deer humeri, chopped transversely and longitudinally. Kretuonas 1C.

humerus's distal disk transversely (Plate I:3). Cuts also were found on the edges of a pig's/ boar's and elk's humeri's *fossa olecranii* (Plate I:4).

Analysis of the 107 fragments of artiodactyl foreleg (*ossa antebrachii*) bones showed that the body of the foreleg bone also was split with an axe. A fair amount of proximal (16) and distal (11) parts of radii and chopped through ulna proximal tuberosity (6) would confirm this thought (Fig. 8).

Metacarpal and metatarsal bones (*ossa metacarpalia et metatarsalia*) were used in the production of tools (tool sheaths, chisels). Of the 151 metacarpal/ metatarsal bone fragments found in the butchering locus, 46 proximal and distal parts (Fig. 9) were found with single blows.

Split pelvic bone fragments in which *acetabula* dominated were found upon analysis of rear leg bones.

The splitting of femurs, as one of the largest accumulations of bone marrow, was similar to humeri splitting technology, i.e., both the proximal part of the bone (the head of the femur – *caput femoris* – and the greater trochanter – *trochanter major*, together or separate) and the distal end of the femur were found (Fig.10). Single cut marks were found on the distal part of the femur near the *tuberositas supracondylaris lateralis et medialis*, to which attach the *caput medialis musculi gastrocnemii et caput lateralis musculi gastrocnemii*.

Analysis of the second rear leg's long bone, the tibia, showed no difference from the splitting of other long bones. The proximal and distal parts of the tibiae were picked out from the butchering locus's accumulation of bones (Fig. 11). The body of the bone usually was chopped up into small fragments or used for tool manufacture.

We believe that the heel bones were split for other reasons. This probably was done wanting to disarticulate the feet from the top end of the bone that has more meat. Of the 31 heel bones or *calcaneus* of the various species of fauna analysed (including horse), the lower part of the heel bone was struck in 18 instances (Fig. 12). Ankle bones – the *talus* – generally were not struck except for two instances. Single cuts were found on the plantar side of the central heel bone (elk, *os centroquartale*).

Examination of front and rear leg phalanxes (90) revealed a large amount of split bones (69, with artiodactyl phalanxes dominating); the proximal and distal parts of the first and second phalanxes were found mostly. Round holes were found in the bodies of some of the phalanxes (Fig. 13).

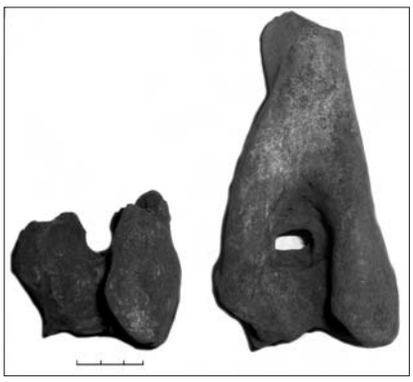

Fig. 7. Distal parts of boar's humerus. Kretuonas 1C

Fig. 8. Chopped ulna o*lecranon*. Kretuonas 1C

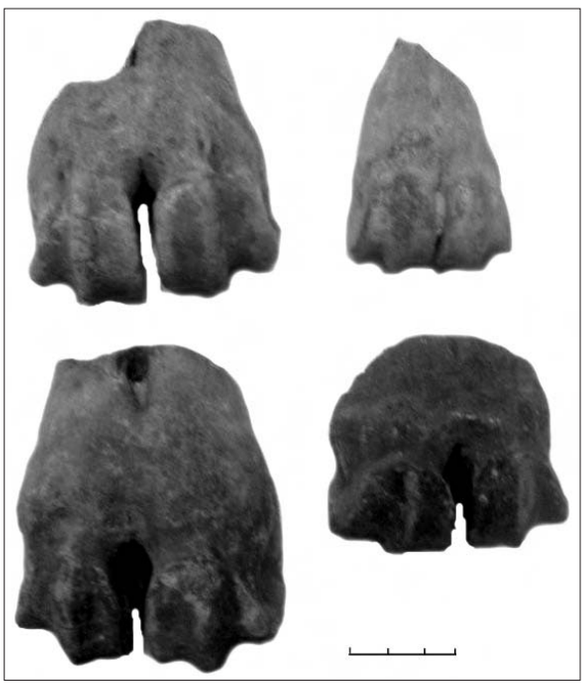

Fig. 9. Distal parts of artiodactyl metacarpals and metatarsals (*ossa metacarpalia/metatarsalia*). Kretuonas 1C

Discussion

A place intended for butchering animals was found for the first time among Lithuania's Stone and Bronze Age settlements. Approximately 70% of all the osteological material excavated from Kretuonas 1C was found in the settlement's butchering locus. Undoubtedly there had to be more such loci in other habitation sites of the same period. The radiocarbon dates obtained from the animal bones (Table 1) from the butchering area's accumulation of bones shows that people lived in this place approximately 300 years, and revealed the people's conception of ecology and sanitary conditions. It is interesting to note that the community members of the Kretuonas 1C settlements lived in pile dwellings, while their economic activities occurred on land, in the territory east of the confluence of a stream and the lake, where the butchering locus was found.

The work tools found in the territory of the Kretuonas 1C settlement help to answer the question of which tools were used to process the carcass meat. A large amount of flint axes were found which were used in processing the meat (Fig. 14). These are hafted flint axes with polished blades, on the surfaces of which work traces from chopping bones with an axe have remained. These preserved features were observed while analysing the flint axe blades via trace analysis. Hafted stone axes with polished surfaces, flint and bone daggers, and knives also could have been used in the butchering process. We believe that flint knives made from wide and massive flakes were used for cutting the meat during the slaughtering process (Fig. 15). Microwear from contact with meat and a hard bone surface can be seen on the tops of their blades. Flint burins also were used to divide long bones longitudinally (Fig. 16). The bones (e.g., metacarpal/ metatarsal) were split in the necessary place with the aid of burins. Needles for weaving nets, spearheads, chisels, and other manufactured items were made from these bones. Flint scrapers and massive scrapers were used for working hides and furs (Girininkas 1994, p.206).

The bone fragments, fracture types, and fragmentation level of the bones (Outram 2005 p. 33-34) encountered in the settlement's butchering locus help to determine the animals' slaughtering technologies (Fig. 17). Butchery methods, only from earlier Palaeolithic to Neolithic periods, were researched by many scientists (Mateos 2005; Magnell 1996, 2005; Outram 2005; Hill *et al.* 2008; Baroz *et al*. 2008). Macroscopic changes in the bone also are described in the mentioned authors' works, and five stages of butchery are distinguished (Rixson 1989). Results of the macroscopic analysis of bone material dated to the Bronze Age support the proposition that the Early Bronze Age inhabitants used the slaughter methods of earlier periods and continued processing carcass meat as their ancestors did. After removing the head from the body and opening the brain cavity, the brains were removed. Skulls were smashed, and parts of the skull around the horns' rosettes were "chopped off," because many splintered skull fragments and horns with frontal bone (*os frontale*) remains were found in the butchering locus. Horns were used for the

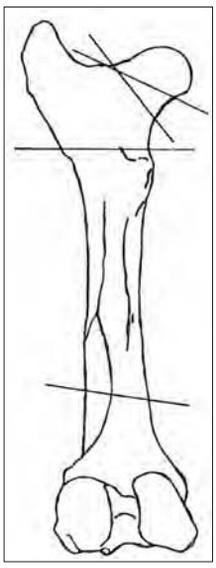

Fig. 10. Fracturing places artiodactyl femurs. Kretuonas 1C.

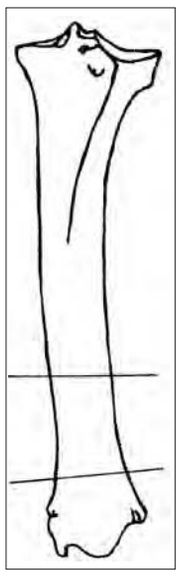

Fig. 11. Fracturing places artiodactyl tibiae. Kretuonas 1C.

Fig. 12. Elk's and red deer's chopped through heel bones (*calcaneus*). Kretuonas 1C.

Fig. 13. Elk's phalanxes (*phalanx proximalis*) with small holes. Kretuonas 1C.

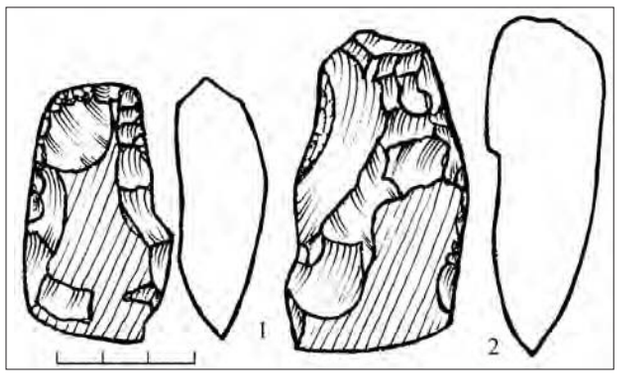

Fig. 14. Flint axes with polished surfaces and blades. Kretuonas 1C.

production of various tools. At the same time, the animals' mandible would be removed, as were, probably, the teeth, used for amulets-ornaments. The mandible and its disarticulation through the diastema and *ramus mandibula* apparently were necessary for quick access both to the animal's tongue and to the separation of the mandible's joint.

After cutting the shoulder blade's muscles, the forelimb was disarticulated from the chest. The detachment of the rear leg could have ocurred in three ways. By the first and second method, it would be disarticulated using an axe and cutting off the wings of the hip bone (*ala ossis illii*) or the head of the femur, leaving it together with the *acetabulum* after the blow, and in the third method – by separating the head of the femur from the *acetabulum* by knife through the hip joint (*articulatio coxae*), i.e., by cutting off the ligament (*lig. capitis ossis femoris)*. This is confirmed by the chopped up bone fragments found at the Kretuonas 1C settlement as well as authors who have written about such bone chopping (Legge, Rowley-Conwy 1988; Outram, 1999, 2001, 2002, 2004). The appearance of cervical, thoracic, and lumbar vertebral bodies (*corpus vertebrae*) in halves in Kretuonas 1C's osteological material shows the division of the animals into parts. Moreover, many chopped up ribs were found in the butchery locus, whose heads (*capitulum costae*) were separated from the body (*corpus costae*) of the ribs. Large amounts of rib bodies and halved vertebrae or their processes are found in later periods (e.g., in Roman period settlements).

Regarding the articulations of the leg bones, the three bones comprising the elbow joint (*humerus, radius, ulna*) are difficult to separate and were not chopped through uniformly. Thus, the humerus first is separated from the foreleg bones, and the proximal part of the ulna (*olecranon*) needs to be cut. The cuts intended to separate the elbow joint at Kretuono 1C were found nearer the *tuber olecranii*, which we believe to be as-

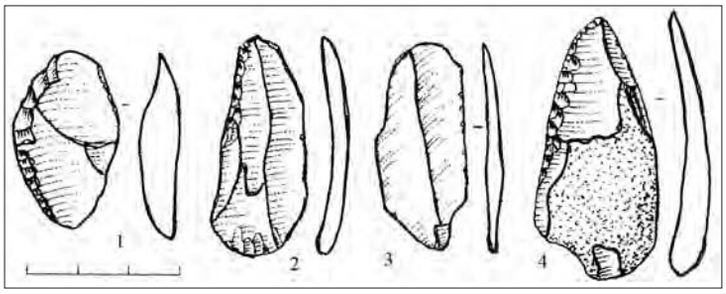

Fig. 15 Flint knives. Kretuonas 1C.

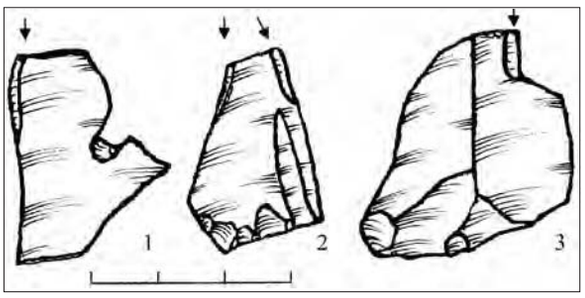

Fig. 16. Flint burins. Kretuonas 1C.

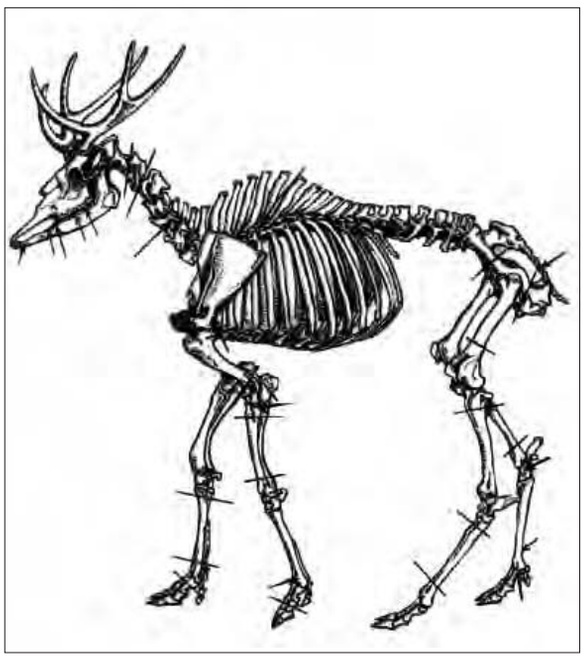

Fig. 17. A generalized artiodactyl skeletal view with indicated cut mark areas by Kretuonas 1C settlement data; elk (*Alces alces*).

sociated with the disarticulation of the *humero-radial-ulnari* joint. However, the stroke separating the distal part of the humerus together with the elbow joint might have served two purposes: to disarticulate the elbow joint and to open the humerus cavity, thereby making it easier to reach the bone marrow. One more very difficult part of the leg to disarticulate is the *articulatio coxae*. D. Rixon successfully accomplished this with a chopper that weighed 1.8 kg (Rixson 1989, p.50), separating the proximal part of the femur from the pelvic bone.

Not only a large amount of phalanxes was found in Kretuonas 1C's butchering locus (13.96% of the general bone count) (Daugnora, Girininkas 1996, p.89), but also phalanxes with drilled holes (Fig.14). Analogous phalanxes (*phalanx proximalis et medium*) with holes have been found not only in the coastal East Baltic ventoji complex of sites (Lithuanian Veterinary Academy, Osteological Laboratory collection), but also in Switzerland's Stone Age habitation sites (Schibler 1980, p.41, Abb.42).

The cut marks observed on the surface of the bones found in the Kretuonas 1C butchering locus show intensive work separating muscles, tendons, and connective tissues from the bony surface (Figs. 4, 7, 10, 11). By microscopically analysing the cuts, it is possible to determine the tools (stone or metal) by which the soft tissues were detached (Greenfield 1999, 2006; 2008; Greenfield *et al*. 2006).

We did not find a portion of the wild animals' front and back leg long bone bodies because of their usage in tool production (Daugnora, Girininkas 2004, pp.239-241; 1995, pp. 88-91). This is confirmed by a large quantity (531 pieces) of horn and bone artefacts found in the settlement territory of Kretuonas 1C. Twaddlers and small spades were made from the proximal part of the scapula, foreleg bones were broken or split when wanting to separate the radius from the ulna before producing daggers and icepicks; metacarpal and metatarsal bones show that they were used in the production of chisels and sheaths for tools (Daugnora, Girininkas 1995, pp.87-89; 1996, p.117). It is interesting to note that the tools usually were made not from the bones of not domestic animals, but rather of wild game. Such a situation is noted not only in the Baltic region, but also in other Northern European settlements, not only in the Bronze Age, but also in later times (Charniavski 2007, pp.35-36; MacGregor 1985).

We consider it a peculiarity of the Kretuonas 1C people's butchering technology that polished flint and stone work tools usually were used throughout the

butchering process, since metal artefacts, with the exception of a small wire fragment, were not found in the settlement.

Conclusions

1. We consider the large bone concentration in the eastern part of the Kretuonas 1C settlement to be a buthcering locus.

2. According to the observed split animal bone as well as the chop and cut marks on the bone, the community members of the Kretuonas 1C settlement used to use polished stone and flint axes, knives, daggers, scrapers, and massive scrapers, as well as bone awls and daggers.

3. Macroscopic analysis of the bone material suggests that the Early Bronze Age inhabitants used the same butchery methods as used earlier in the Mesolithic and Neolithic and continued to process the carcass meat in the same way their ancestors did.

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SKERDIMO TECHNOLOGIJA ANKSTYVAJAME BRONZOS AMŽIUJE (PAGAL KRETUONO 1 C GYVENVIETĖS TYRIMŲ DUOMENIS)

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Santrauka

Analizuojant ankstyvojo bronzos laikotarpio Kretuono 1C gyvenvietėje (Rytų Lietuva) aptiktą osteologinę, archeologinę medžiagą, nustatyta, kad gyvenvietėje sumedžioti žvėrys ir auginami gyvuliai buvo skerdžiami gyvenvietės teritorijoje netoli gyvenamųjų būstų esančioje skerdykloje. Tarp Lietuvos ankstyvojo bronzos amžiaus gyvenviečių pirmą kartą aptinkama gyvūnų skerdimui skirta vieta. Kretuono 1C gyvenvietės skerdyklos vietoje rasta apie 70% visos šioje gyvenvietėje iškastos osteologinės medžiagos. Radiokarboninės datos iš gyvūnų kaulų (1 lent.), gautos iš skerdyklos kaulų sankaupos vietos, rodo, kad šioje vietoje žmonių gyventa apie 300 metų, ir išryškino bronzos amžiaus žmonių buvusią sampratą apie ekologiją ir sanitarines sąlygas.

Remiantis Kretuono 1C gyvenvietės osteologine medžiaga, išanalizuota tuo metu naudota skerdimo technologija. Paskerstų poranagių gyvūnų ašinio skeleto ir ilgųjų kojų kaulų makroskopinė analizė ir naudoti skerdimui darbo įrankiai įgalino nustatyti skerdykloje aptiktų gyvūnų kaulų skaldymą, kirčių ir įkirtų vietas skerdimo procese.

Gyvenvietės skerdyklos vietoje aptikti kaulų fragmentai, skaldymo tipai ir fragmentacijos lygis padeda nustatyti gyvūnų skerdimo technologijas. Makroskopinės kaulinės medžiagos, datuojamos bronzos laikotarpiu, analizės rezultatai leidžia teigti, kad Kretuono 1C gyventojai naudojo ankstesnių laikotarpių gyvūnų skerdimo būdus ir tęsė skerdienos apdorojimą kaip ir jų protėviai. Atskyrus galvą nuo kūno ir atvėrus galvos smegenų ertmę buvo išimamos smegenys. Kaukolės buvo sudaužomos, o apie ragų rozetes kaukolės dalys „nukertamos", nes skerdyklos vietoje aptikta daug sutrupintų gyvūnų kaukolių fragmentų ir ragų su kaktikaulio (*os frontale)* liekanomis. Ragai buvo naudojami įvairių įrankių gamybai. Tuo pat metu buvo atskiriamas gyvūnų apatinis žandikaulis ir, tikėtina, išimami dantys, naudoti amuletams-papuošalams. Apatinis žandikaulis ir jo atidalijimas per diastemą ir apatinio žandikaulio šaką (*ramus mandibula*), matyt, buvo reikalingas kuo

greitesniam priėjimui prie gyvulio liežuvio ir apatinio žandikaulio sąnario atidalijimo.

Atpjovus peties lanko raumenis, priekinė galūnė buvo atskiriama nuo krūtinės. Užpakalinės kojos atidalijimas galėjo vykti trimis būdais. Pirmuoju ir antruoju atveju naudojant kirvį ir nukertant klubakaulio (*ala ossis illii*) sparnus arba šlaunikaulio galvutę, po kirčio ją paliekant kartu su klubaduobe (*acetabulum*), o trečiu atveju – peiliu per klubo sąnarį (*articulatio coxae*) atskiriant šlaunikaulio galvutę nuo klubaduobės, t. y. nupjaunant raištį (*lig. capitis ossis femoris)*. Tą patvirtina Kretuono 1C gyvenvietėje minėtoje vietoje rasti kapoti kaulų fragmentai. Kaklo, krūtinės ir juosmens slankstelių kūnų (*corpus vertebrae*) pusių atsiradimas kaulinėje Kretuono 1C gyvenvietės medžiagoje rodo gyvūno dalijimą į dalis. Be to, skerdimo vietoje aptikta daug sukapotų šonkaulių, kurių galvutės (*capitulum costae*) buvo atkirstos nuo šonkaulio kūno (*corpus costae*).

Kojų kaulų jungtys leidžia teigti, kad alkūnės sąnarį sudarantys trys kaulai (*humerus, radius, ulna*) buvo sunkiai atskiriami ir nevienodai perkertami. Todėl pradžioje buvo atskiriamas petikaulis nuo dilbio kaulų, o tam turi būti kertama proksimalinė alkūnkaulio dalis (*olecranon*). Kretuono 1C gyvenvietėje alkūnės sąnario atidalijimui skirti kirčiai aptikti arčiau *tuber olecranii*, o tai siejasi su *humero-radial-ulnari* atskyrimu. Tačiau kirtis, atskiriantis distalinę petikaulio dalį kartu su alkūnės sąnariu, gali pasitarnauti dviem tikslais: atskirti alkūnės sąnarį ir atverti petikaulio ertmę, tuo lengviau pasiekiant kaulų čiulpus. Dar viena labai sunkiai atidalijama vieta yra šlaunikaulio proksimalinė dalis (*articulatio coxae)*, tam reikia masyvių ar aštrių kirvių. Gyvenvietės teritorijoje aptikti titnaginiai kirviai šlifuotu paviršiumi ir ašmenimis, šlifuoti akmeniniai įtveriamieji kirviai, platūs titnaginiai peiliai, gremžtukai, masyvūs gremžtai, kauliniai ir titnaginiai durklai įgalino sėkmingai sudoroti sumedžiotus žvėris ar auginamus gyvulius.