Faunal Analysis from Vésztő-Bikeri

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Bone just as any other artifact found at an archaeological site may hold pertinent information about the culture in question. The skeletal remains of fauna at a site are much like time capsules containing information about the time of occupation, including season, climate, environment, farming, butchery, religion and trade (Rackham 1994: 7). Of course nothing in archaeology is as easy as opening up a time capsule and having all of the research questions answered, but with plenty of study material, time, determination, and patience the picture of the past can slowly be revealed.

Tiszapolgar

Tizapolgar is an Early Copper Age culture of the Great Hungarian Plain approximately 4500 – 3900 BC. This culture has been separated from the Late Neolithic Tisza – Herpaly – Csoszhalom complex, which also inhabited the Great Hungarian Plain, due to distinctions in ceramic styles. But Tiszapolgar seems to extend into the Bodrogkeresztur culture of the Middle Copper Age. "The break between the two periods is therefore somewhat arbitrary, and generally corresponds to minor changes in ceramic vessel form and decoration" (Parkinson 1999: 137). The Tizapolgar culture extended throughout the entire Hungarian Plain up to Banat in northern Yugoslavia, south into the mountains of Slovakia, and eastward into the foothills of Transylvania (1999: 126). Even though Tiszapolgar culture is distinguished and covers a substantial amount of area and time within the archaeological record it has not been an area of concentration for study.

Tiszapolgar faunal remains have been recovered from small sections of certain settlements, but most of the available material has been uncovered at cemetery sites

(Bokonyi 1988: 31). Information obtained from this material is bias and provides little information for quantitative analysis concerning domestic and wild animal use by the Tiszapolgar culture. The excavations carried out by the Koros Regional Archaeological Project (KRAP), with its concentration on the Tiszapolgar culture, will hopefully provide the archaeological record with more faunal remains so that a true faunal analysis can be completed for this early Copper Age culture.

Domestic Faunal Identification

Identification of animal domestication is a very long and complicated process that requires time and a large quantity of faunal remains, but the question of whether or not domesticates were held at a particular site is very important. There are several different ways in which evidence for domesticates can be obtained but they are obviously dependent on the preservation of the site and the quantity of faunal remains obtained. Bokonyi notes six ways in which to recognize evidence of domesticates on prehistoric sites and believes the last four to be the most reliable:

1. the proportion of age groups of a domesticable species is not the same as found normally in the wild populations;
2. the proportions of the sexes of a domesticable species is not the same as found normally in the wild populations ;
3. domesticated species appear which have no wild ancestors in that particular region, at least since the Pleistocene;
4. morphological changes appear in domesticated animals;
5. there are artistic representations of domesticated animals;
6. there are objects associated with animal husbandry (1969; 121).

The amount of material recovered from KRAP excavations at this time is too small to formulate ratios of age and sex, and objects or artistic representations associated with animal husbandry have yet to be confirmed. Working with the material from KRAP

2000 and 2001 has confined the investigation of domesticates to a metric analysis of the available faunal remains.

KRAP 2000 and 2001

The focus of this KRAP 2001 season project is to begin to distinguish between wild and domestic Bos and Sus. This identification will eventually aid in formulating sex and age ratios , diet reconstruction, secondary product use, and possibly shed light on Tiszapolgar domestication practices. Eventually, we may be able to discern whether or not Tiszapolgar involved itself in the "domestication fever" of the Great Hungarian Plain. Even though sheep and goat have been identified, they are of little concern at this time because the project is young and they are not indigenous to Hungary, therefore they must have been brought in as domesticates from the south. The presences of loom weights and spindle whirls indicate that the people of Tiszapolgar were using sheep for secondary products. This should be explored further at a later time.

KRAP excavations carried out during the summer of 2000 were test excavations of Veszto 20. For the summer of 2001 the excavations have been concentrated at Veszto 20 with a test excavation at Korosladany 14; therefore, the faunal analysis has been concentrated on the remains from Veszto 20 summer 2000 and 2001.

All unworked bone was identified in the field and bagged separately from worked bone. The faunal remains found during excavations and screening, including the plow zone, at Veszto 20 and Korosladany 14 were brought to the KRAP laboratory and checked-in. The check-in forms record the date checked-in, the excavation unit's approximate bone count, and total bone weight. This information can later be used for spatial analysis purposes.

All of the material recorded from June 21 until July 18 were placed into separate boxes marked by their block number and then placed in ascending order based on the assigned excavation unit (EU). All bags containing measurable items were set aside for identification. All items that were identified Bos or Sus were measured in millimeters using sliding calipers, and the measurements were based on those formulated by Angela Von Den Driesch in *A Guide to the Measurements of Animal Bones from Archaeological Sites.*

After the process of identification was completed there were only nine measurable elements; four pig and five cattle. These elements and measurements are located in Table 1 along with the Bos and Sus measurements that were taken by Dr. Richard Yerkes from field season 2000. Most of the faunal remains retrieved from 2001 season of excavation were shattered shaft pieces, but it should be noted that canines, incisors, molars (sheep/goat, pig, cattle), halves of mandibles (sheep, deer), vertebrate (fish), phalanges (sheep/goat, pig, cattle), metacarpals and metatarsals (pig, sheep/goat, cattle) were identifiable. Even though some of these elements were identified Bos and Sus they were not covered by Von Den Driesch and therefore were not included in the measuring process. The measurements from Bokonyi's *History of Domestic Mammals in Central and Eastern Europe*, pp. 437-526, were used as comparison measurements. Bokonyi used equivalent measurements to Von Den Driesch's measurement guide that was used for this project. The equivalents are shown in Table 2.

Sus

The literature concerning the domestic and wild swine is very scarce for this time period. Once domesticated, pigs have remained a constant throughout domestication

history. Pigs' specialization has not come from utility or change such as cattle, but from their normality. Pigs have been dependable meat producers and they have remained so throughout time. This can be attributed to their quick growth rate within a short period of time, unlike horse or cattle (Bokonyi 1988: 201).

The increase of agricultural societies overtime has had an effect on the size of wild swine. Without the woodlands to support their nutritional needs their body size slowly decreased. This serves as a reminder to compare all material with contemporaneous sites unless the research is directed toward the differences between separate archaeological time periods (Bokonyi 1988: 207).

The actual domestication of wild swine eventually had an effect on the shape and size of the skull. Eventually the skull became shorter and broader which has been called "pug head" (Bokonyi 1988: 204). The prehistoric ancestors for today's domesticated swine "were remarkable on account of their size" (1988: 205). Graves at a Polgar – Basatanya Copper Age site yielded wild boar mandibles that had lower tusks with a length of approximately 300mm and the widest breadth of the tusk was 31mm (1988: 205).

There were four measurable elements of Sus taken from the faunal remains of Veszto 20 summer 2001; maxillary M3, mandibular M3, a female canine, and a male canine (see Table 1 and 3). The breadth and length were taken on both M3's and the greatest diameter was taken on the canines. When these measurements are compared to the domestic measurement data provided by Bokonyi that all fall over 10-20mm short of his standard measurements. This may mean that the specimens that have been measured

from Veszto 20 were immature individuals. Whether or not our specimens are immature has not been determined at this time but can be checked at a later point in time.

Many of the measurements taken from the faunal remains of summer 2000 were not applicable for comparison with Bokonyi's measurements (see Table 3). The measurements of the humerus and the scapula were available for comparison and it appears as though they are relatively close to the domestic measurements of Bokonyi.

Bos

Bokonyi stresses the importance of domestic cattle throughout time because "its economic importance has not been surpassed by any other species" (Bokonyi 1988: 95). In Hungary cattle were the most important and frequently domesticated animals for three reasons. First the geography and climate of the Great Hungarian Plain are well suited for these large grazing animals. Secondly, the wild species of cattle, the Aurochs, flourished in this area because of the geography and climate; therefore, making it easier for the human population to increase their domestic stock as needed. Finally there has been no rival to the "threefold use" of cattle. They are not only used for meat but also milk and draught power (1988: 96). It is very important to note that the Hungarian aurochs are of smaller stature then the aurochs in northern Europe. This may be an example of Bergman's rule that the further south mammals are their stature begins to decline (Grigson 1969: 284). It is very important to make comparisons within the same time period and locality because the aurochs may have been different sizes at different times and locations (1969: 289).

Whether or not Tiszapolgar participated in the "domestication fever" that hit the Carpathian Basin during and throughout the Copper Age is uncertain at this time. From

the few measurements that have been taken (see Table 1) it seems as though there were most likely domestic Bos at Veszto 20. Most of the measurements are within a 5-10mm range when compared with the measured domestic material of Bokonyi 1988. There are two exceptions. The proximal end of a radius (2-114) is 17mm larger than the largest measurement and 30mm larger than the smallest measurement recorded by Bokonyi. The other exception is a distal femur (3-64) that is 8mm larger than the largest measurement and 34mm larger than the smallest measurement. The issue with the femur is not really that it is 8mm larger, but that Bokonyi's measurements for this element begin only with the Iron Age; therefore, there are no contemporaneous measurements to compare with. One final complication with the measurement from the distal femur is that it was taken with sliding calipers instead of a bone box. The bone box was suggested by the manual but unavailable at the time of measuring. Most of the measurements of Bos taking from summer 2000 were applicable (see Table 4). There were no abnormalities and all the measurements were within 5mm of Bokonyi's domestic measurements.

Conclusion

All of the measurements taken from Bos and Sus from Veszto 20 can only be considered preliminary because there has yet to be enough material identified and measurements taken. It appears that there were most likely domesticates at this site, but until further measurements or sex and age ratios can be completed the site the issue is not concluded. With the excavations just beginning we can hope to learn much more about the Tiszapolgar culture from Veszto 20.

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