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# ANIMAL REMAINS IN POST-MEROITIC BURIALS IN SUDAN

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**Abstract:** The author analyzes faunal remains from tumuli burials of post-Meroitic date (4th–6th century AD) from cemeteries at Hammur, El-Zuma, Tanqasi and New Amri. The offerings include “consumption” waste (camel, cattle, sheep and goat) and remains of a symbolic, “sacral” character (dogs and fox).

**Keywords:** Nubia, post-Meroitic, faunal remains, predator, dog, burial

An archaeozoologist examining faunal remains on site deals with material either from settlement sites or cemeteries. In the first case, the assemblages are abundant and consist mainly of post-consumption remains, kitchen refuse to be precise. In Sudan to date,<sup>1</sup> the author has studied material of this kind from sites excavated by Polish teams in Old Dongola, Banganarti, Affad (Gauza 2005; Osypińska 2004a; 2004b; Osypińska, Osypiński 2003). Faunal remains from cemeteries are of a totally different nature, posing different and possibly

even more complex research questions.

Animal bones from burial grounds that the present author has had the opportunity to examine to date originated exclusively from cemeteries of post-Meroitic date (4th–6th century AD). The designation refers to a cultural horizon characterized by a fairly homogeneous form of tumuli burials. Grave goods included different ceramic vessels, weapons, ornaments and textiles. Settlements of post-Meroitic date are virtually unknown, making tombs the sole source of information on this culture.

## DOMESTIC ANIMAL OFFERINGS IN GRAVES

The osteological material discussed in the present article came from two neighboring regions of Sudan: the Southern Dongola Reach and the Fourth Cataract. The first of

these regions is represented by animal bone assemblages from cemeteries at Hammur, El-Zuma, Tanqasi and New Amri, the second by finds from the island of Saffi and

<sup>1</sup> 2005, when this article was read at the PCMA “Continuity of traditions and manifestations of mortuary practices” conference at the Institute of Archaeology, University of Warsaw.

from the site of Sadda on the eastern bank of the Nile.

The first mentioned faunal assemblage originated from Mahmoud El-Tayeb's excavations in 1998 at the site of Hammur Abbasiya (El-Tayeb 2003). Bones, altogether 88 fragments, were discovered in two chambers inside Tumulus 4. They proved to be either camel (*Camelus dromedarius*) or small ruminants (goat or sheep). The anatomical composition of the two groups, camel and ovicaprids, was identical: no skull bones, teeth or neck vertebrae, nor any distal limb parts. Instead, bones from the meatiest cuts exclusively. In the case of both groups, the slaughtered animals had been morphologically immature, but had already achieved near to adult size.

Traces of deboning were present on the remains of both camels and small ruminants. There can be no doubt that the meat had been carefully filleted and the best cuts selected for deposition in the two burial chambers.

The second assemblage came from El-Tayeb's excavations in 2005 at the tumuli field in el-Zuma. An animal offering was recorded in three chambers of Tumulus 2. Archaeozoological analysis identified the

remains as a camel (*Camelus dromedarius*) and two sheep (*Ovis orientalis f. domestica*). In this case also, the bones represented the choicest cuts of meat and the slaughtered animals had been of adult size (except for one sheep which was a mere 5 months old), but morphologically still immature. All the bones revealed cuts suggestive of chopping and division of the meat into smaller pieces.

Excavations by Włodzimierz Godlewski in 2006 at Tanqasi produced a rich collection of 151 faunal remains from a tomb dated to the middle of the 5th century AD. The species represented included cattle (*Bos primigenius f. domestica*) and goat (*Capra aegagrus f. domestica*). The number of unique bones led to the determination of the number of animals represented in the assemblage: at least two goats and one cattle specimen. The osteological material comprised chiefly proximal limb parts. The goats represented morphologically immature animals; their approximate age at slaughter was determined based on bone epiphysis at about 2 years. The cattle specimen proved to be mature, that is, more than four years old and measuring 114 cm at the withers. This made it a representative of small-sized cattle species corresponding to

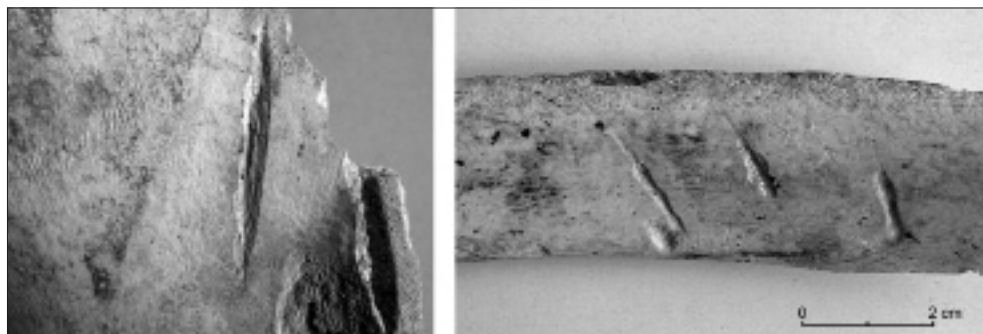


Fig. 1. Cuts attested on a camel rib from the El-Zuma burial ground (All photos and charts M. Osypińska)

African short-horn cattle (Epstein 1971; Lasota-Moskalewska 2005; Grigson 2005). No traces of quartering of the meat could be distinguished on the bones. Gnawing by rodents was attested on a few remains.

The importance of the assemblages from the Fourth Nile Cataract studied by the author lies in their comprehensive excavation and analysis. Examination of faunal assemblages from Saffi 56 and el-Sadda, two sites at the opposite ends of the cataract area under investigation, permitted an evaluation of the actual frequency of animal bones in post-Meroitic tumuli, leading in effect to an appraisal of how common the practice of making animal offerings in graves actually was.

In the course of two seasons of excavations at the site of Saffi 56, co-directed by Bogdan Żurawski and Piotr Osypiński, all the tumuli manifest on the ground were explored. Three out of close to 20 tombs produced animal remains. Despite evident plundering of the graves, animal bones were always found in original context in the burial chambers. All the recorded bones were identified as domestic small ruminants, either goat or sheep; in two cases the identification of the bones as belonging to sheep was unquestionable. The anatomical composition in all three tomb sets was the same: no skull bones, teeth or distal limb parts. Ribs and proximal limb parts predominated. In all cases, the bones came from single animals and despite being considerably disturbed during the plundering of the burial chambers, it was possible to reconstruct the anatomical arrangement. It turned out that no specific model existed with regard to the meat offering deposited in burials on Saffi. Sometimes it was a leg and shoulder with ribs, another time the pelvic part of

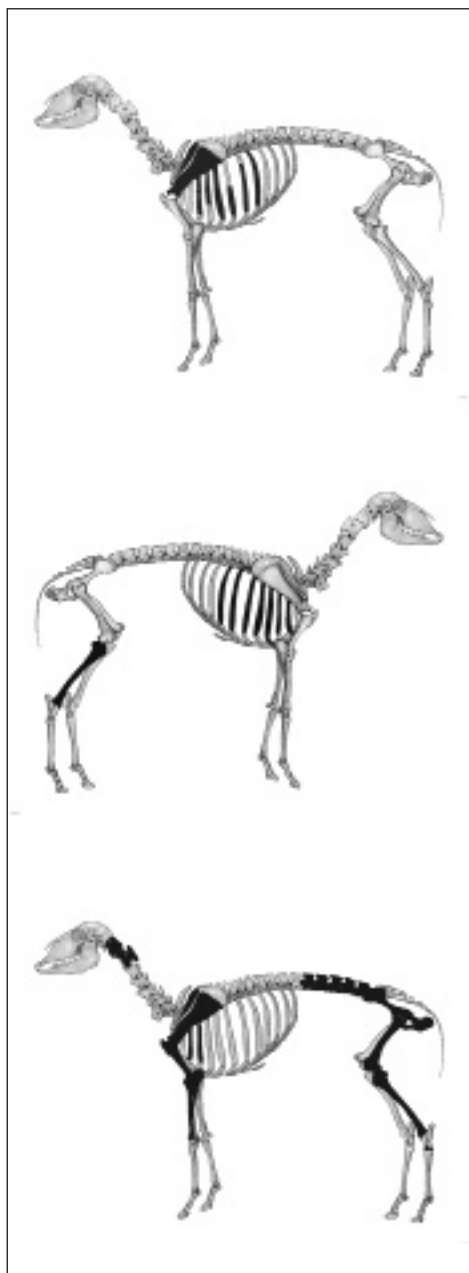


Fig. 2. Anatomical make-up of sheep remains from the El-Zuma burial ground, successive graves

the limb, finally the whole carcass without head and distal limb parts. Again, all the animals were morphologically immature, slaughtered before they had reached two years of age. No evidence of quartering was noted in the material from Saffi.

The other examined assemblage came from the cemetery at el-Sadda explored by Piotr Osypiński. In the course of three seasons, the excavations covered altogether 40 burials of post-Meroitic date, 11 of which contained faunal remains. Of these 10 tumuli were situated in the southern part of the burial ground, that is, in group I. All the bones in this set were identified as belonging to goats. The number of bones in individual graves differed, but for the most part they came from larger cuts, representing rather both sides of the body and always the meatiest parts (one grave only, tumulus 4, produced just a few ribs). There were no skull bones, teeth or distal limb parts. Apart from one deposit (tumulus 77), the remains represented animals that were morphologically

immature and in all cases they were single animals.

The offering from the eleventh tumulus, no. 67, located at the opposite end of the site, in a group of tombs where none other contained any faunal remains, turned out to be quite distinctive. The collection was relatively big: 43 bones which had been placed in large baskets in the western chamber. The chamber contained only grave goods. A few sheep bones were discovered by the feet of the individual buried in the southern chamber. Archaeozoological analysis identified the remains as one sheep and two goats. In anatomical terms, the situation was no different than in other cases: only the choicest parts of meat were represented. All three animals were morphologically immature and one of the goats could even be said to be very young. Evidence of meat quartering was noted on a few bones. The number of animals (more than one) and the presence of sheep distinguished this burial from others with meat offerings discovered in el-Sadda.

## BONES OF PREDATORS

The post-Meroitic burials also produced faunal remains of a completely different nature, namely skeletons of predators found in the shafts or in the dromoi of the tumuli. One of the tumuli in el-Sadda produced bones of a canid (*Canis lupus f. domestica*). Archaeological analysis of the remains indicated that the stones, among which the bones were found, were part not of the superstructure, but of the blocking of the burial-chamber. The dog had been buried whole without doubt and it is very probable that broken pieces of the mummified body had been thrown

out. Articulated remains of the head, jaw and right paw, found in one piece, and the presence of even the carpal bones and third phalanxes stand in favor of this idea. No long bones or pelvic girdle were found, however, suggesting that the skeleton had been scattered around the tomb during the plundering, like the stones from the blocking wall. Parts which were quickly covered with sand were preserved, others left on the surface would have disintegrated.

The well preserved skull of the dog permitted a reconstruction of the morphotype (Driesch, Bowsneck 1974). It was smaller

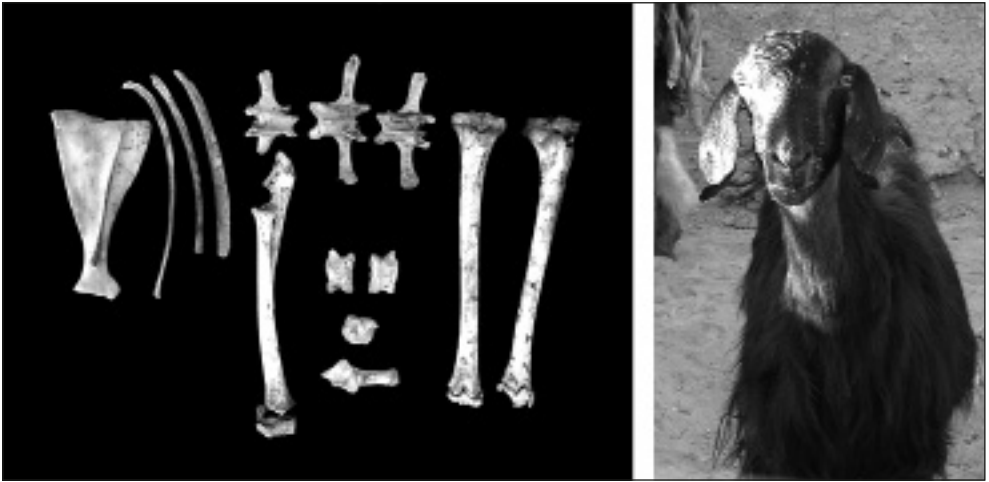


Fig. 3. Deposit of goat remains from a tumulus in el-Sadda (left) and goat from the village today

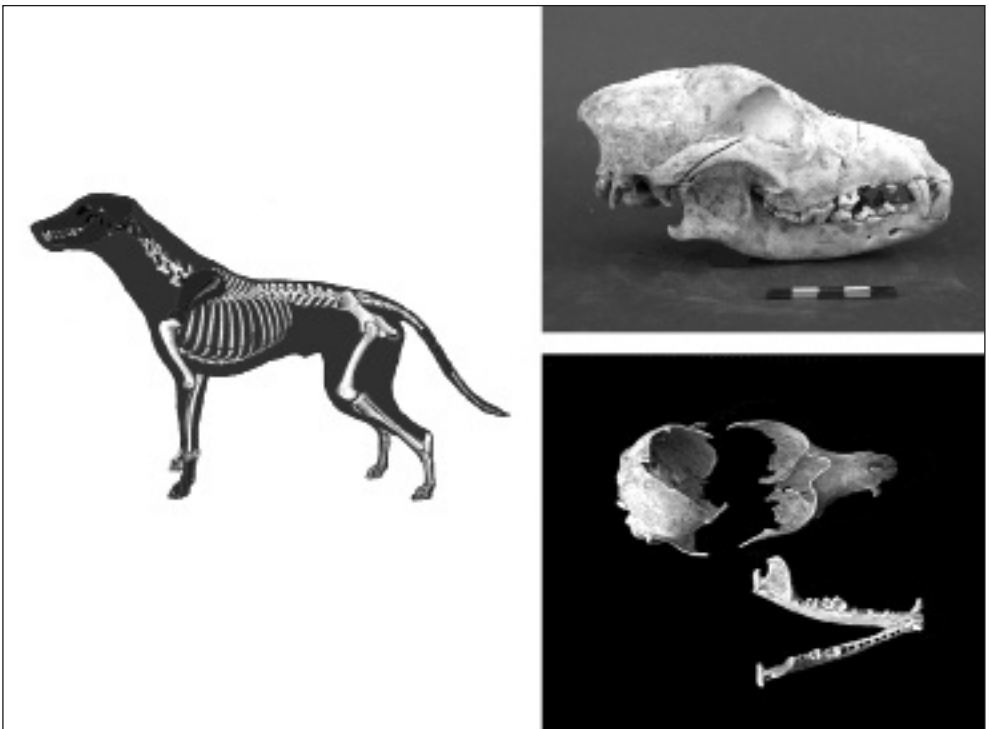


Fig. 4. Predators from post-Meroitic tumuli: anatomical make-up of dog remains from the tumulus at el-Sadda (left); skull of dog from el-Sadda (top right); skull of fox from New Amri (bottom right)

and less massive than modern dogs found in the region. Its height at the withers was 46 cm. Its facial skeleton was evidently shorter, the condylobasal length being suggestive of the spitz breed. Dogs of this type can occasionally be seen on the Fourth Cataract, the Bedouin keeping them as herding dogs. These animals are about 50 cm high, have pointed ears and arched tail. Their coat is longer, sometimes spotted, distinguishing it from the smooth long-headed wild dogs living around the settlement. The dog found in the cemetery at el-Sadda belonged most probably to the “pariah dog” type different from the “greyhound” which is common in the region (Blench 2005).

An analogous set of faunal remains was discovered at the site of New Amri 9, excavated in 2004 by the NCAM French-

Sudanese expedition directed by Yves Lecoq. In the two explored post-Meroitic tombs, skeletons of predators were discovered at the bottom of the shafts, next to walls sealing the burial chambers. In tumulus 8 there were two animals, in tumulus 2 only one. Contrary to the excavators' expectations, the skeletons turned out upon archaeozoological inspection not to belong to dogs, although two of them were indeed members of the canid family. The skeleton from tumulus 2 was that of a large fox (*Vulpes vulpes*), while the remains from tumulus 8 belonged to a fennec (*Vulpes zerda*) and a cat (*Felis f. domestica*). All three skeletons were complete and the two foxes were mature at death, while the cat had not reached the stage of completed ossification.

## CONCLUSIONS

Observations made in the context of archaeozoological studies of faunal remains from post-Meroitic cemeteries in Sudan lead to a number of conclusions. Animal remains from the tumuli are of two kinds. Firstly, there is what can be referred to as “consumption” waste. These remains were deposited in the burial chambers or in chambers set aside for grave offerings. In the well-preserved burials it was obvious that grave goods — pots, baskets and animal remains — had been placed in specially reserved places, most often by the feet of the deceased. It is worth noting that animal bones were found only in the richly furnished graves.

Four species were identified among the consumption remains: camel, cattle, sheep and goat. Camel bones have been recorded

in the large tombs outside the Fourth Cataract region. Camel meat continues to be popular even today, especially in Egypt, and the hump is considered a delicacy (Lasota-Moskalewska 2005).

Cattle remains have been found only on Tanqasi island. The animal was mature; hence its meat would have been of inferior quality. On the whole, however, beef is valued also today, although it is seldom consumed because of the high price.

Sheep and goat are the most popular species. Remains of more than one of these small ruminants have been documented in the largest tumuli outside the Fourth Cataract region. When identifiable, they were more likely to be sheep. The situation in burial grounds on the Fourth Cataract appeared to be different. Small ruminants

were the only recorded animal remains despite the large sample of tumuli explored. On Saffi island there were sheep exclusively, at el-Sadda almost exclusively goats. For the most part deposits represented single animals, the sole exception being the collection of sheep and goat bones from tumulus 67 at el-Sadda.

The species of animals identified in the tomb deposits are characterized by a lifestyle adapted to the difficult conditions of semi-desert and desert and based on nomadic grazing. Cattle are an exception as they require good fodder. Another shared characteristic of the grave deposits analyzed here is the anatomical composition. The meat included in the grave offerings comprised the choicest, meatiest cuts, this regardless of species and region. Also the age of the animals at death was characteristic: in all but two cases the offerings came from morphologically immature specimens. This was dictated in all likelihood by the quality of the meat, which is much better in younger animals.

Most of the animal bone assemblages demonstrated evidence of quartering and deboning. This suggests care in preparing food for the afterlife.

Faunal remains of a "sacral" rather than "utilitarian" character were also discovered, although much more seldom. This type comprised dog skeletons, which have been recorded in Meroitic as well as post-Meroitic burials. Their presence could have been in connection with a worship of Anubis as part of a mortuary cult. While this god was identified rather with the jackal, it is also true that the dog and jackal were often treated

interchangeably, to the point that the jackal was long considered by scientists as an ancestor of the dog in the Mediterranean basin. Genetic research has demonstrated the falsehood of this prevalent assumption (Lasota-Moskalewska 2005). Irregardless, it seems very likely that the presence of dogs in front of the entrances to burial chambers may have a distant connection with Anubis, god of the necropolis and companion of the dead in the Underworld. Even so, graves with associated dog burials were not common. They should be treated as an exception rather than as a rule. In the assemblage studied here, only one burial of this kind was recorded, in the tumuli field at el-Sadda.

The presence of foxes in the grave at New Amri is more difficult to understand. Perhaps it was a reference to the jackal cult. The cult may have been corrupted so much, that a jackal-like predator was considered satisfactory. The same can be said of the cat. The present author is not aware of other cases of cats in burials. Even so, it appears that the predators were supposed to serve as guardians. Positioning of these burials in the shafts, outside the chamber sealing, can be considered as proof. It is unknown whether the animals were buried alive or were killed before the burial.

The record of species from post-Meroitic tumuli leads to conclusions concerning the economy of this population. Virtually all the data, chiefly the species represented, are in favor of a nomadic pastoral lifestyle. Everywhere except Tanqasi the animals discovered are considered typical of this form of animal husbandry.



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