Pan-grave faunal practices – Ritual deposits at five cemeteries in Lower Nubia

Pernille BANGSGAARD

Natural History Museum of Denmark, Copenhagen University, Øster Voldgade 5-7, 1350 Copenhagen K (Denmark) pernille.bangsgaard.snm.ku.dk

Banksgaard P. 2013. — Pan-grave faunal practices – Ritual deposits at five cemeteries in Lower Nubia. *Anthropozoologica* 48 (2): 287-297. http://dx.doi.org/10.5252/az2013n2a7

ABSTRACT

Middle Nubian Horizon faunal material has rarely been the main focus of study, both in relation to the daily consumption of animals as well as the symbolic and ritualised use of fauna in a burial context. Owing to the excavation history of the area, the data available in the archaeological literature is often based on other sources than actual excavated faunal material. This article presents an interpretation based on an analysis of five Pan-grave cemeteries excavated by the Scandinavian Joint Expedition to Sudanese Nubia (SJE) in 1961-64, focusing on the large SJE 47 cemetery. The results reveal a consistent tradition of faunal deposit practices and the existence of two distinct types of deposits varying in both context and content. The most characteristic evidence is the large number of cut and painted skulls of goat (*Capra hircus*), sheep (*Ovis aries*) and cattle (*Bos taurus*), deposited in circular ditches around the graves. Through the use of ethnographic analogies and an in-depth analysis of these Pan-grave faunal remains the aim is to position this evidence in a wider context of ritual practices and cultural consumption.

KEY WORDS
Pan-grave,
ritual practices,
Nubia,
faunal remains,
painted skulls.

RÉSUMÉ

Les pratiques Pan-grave impliquant les animaux - dépôts rituels de cinq cimetières en basse Nuhie.

L'étude des faunes du complexe « *Middle Nubian Horizon* » a été rarement abordée. Elle concerne aussi bien l'alimentation carnée au quotidien que l'utilisation des animaux dans les pratiques funéraires. Les données disponibles dans la littérature sur la Basse Nubie sont souvent basées sur d'autres sources que celles issues du matériel faunique mis au jour lors des fouilles archéologiques. Cet article propose une interprétation issue de l'analyse de cinq cimetières Pangrave fouillés par la *Scandinavian Joint Expedition to Sudanese Nubia* (SJE) entre 1961 et 1963. L'accent est mis sur l'importante nécropole SJE 47. Les résultats révèlent qu'il existe une longue tradition dans la pratique de dépôts fauniques dans les tombes. On en distingue deux types selon le contexte et le contenu. Le fait le plus caractéristique réside dans le nombre important de crânes d'animaux

MOTS CLÉS
Pan-grave,
pratiques rituelles,
la Nubie,
faune,
crânes peints.

provenant de chèvre (*Capra hircus*), de mouton (*Ovis aries*) et de bœuf (*Bos taurus*), parfois peints, déposés dans des fosses circulaires autour des tombes. En se basant sur une analyse détaillée des restes fauniques des pan-graves ainsi que sur des analogies ethnographiques, il est possible de replacer ces pratiques dans leur contexte culturel de cette partie du Soudan.

INTRODUCTION

The Pan-grave was first identified by Flinders Petrie during the excavations at Diospolis Parva in Upper Egypt in 1898-99 (Petrie 1901). The Pan-grave people are thought to come from the eastern desert of Lower Nubia (Adams 1977: 215), but the archaeological record includes remains from an extended area stretching from Middle Egypt in the north down to the 3rd cataract and possibly further south (Säve-Söderbergh 1989: 15). The Pan-grave culture belongs to the Middle Nubian Horizon and as such is contemporary with the late C-Group or phases II/b and III, according to Bietak's chronology (Bietak 1968), with Kerma Moyen and Kerma Classique (2050-1480 BCE) and with the Second Intermediate Period in Egypt. They gradually disappear from the archaeological record along with the C-Group during the New Kingdom occupation of Lower Nubia through increased adoption of Egyptian style objects and practices (Edwards 2004: 100).

The Pan-grave is typically described as semi-nomadic or nomadic, although the archaeological remains are confined to cemeteries, mainly along the Nile Valley. The identification is therefore to a large extent based on the presence of various grave objects such as adornments, made up of Nerita sp. shell and mother-of-pearl, thus establishing a link to the Red Sea area. The cemeteries are generally of a moderate size, with rarely more than 150 to 200 graves while Pan-graves are included as a minor element at larger C-Group cemeteries. As the name Pan-grave suggests, the typical grave consists of a shallow circular shaft with a low stone or mud-brick reinforced tumulus on top, thus giving the appearance of large upside-down frying pan. Grave goods include local hand-made pottery, leather garments, various beads, characteristic bracelets and necklaces made of shell and mother-of-pearl and faunal deposits (Säve-Söderbergh 1989: 17-19).

DESCRIPTIONS OF FAUNA IN THE ARCHAEOLOGICAL LITERATURE

Faunal remains at the Pan-grave cemeteries are not often mentioned by scholars and the few available descriptions in the archaeological literature are limited in scope. There is therefore clearly a lack of information and the evidence typically originates from earlier excavations, where only the most spectacular finds are described in any detail, such as the cattle skull from the Pan-grave cemetery at Mostagedda, bearing the name Qeskaant in hieroglyphs, a warrior with a shield, axe and club, found with some forty other skulls (Brunton 1937: 120-121).

Adams states that cattle (*Bos taurus*) skulls are most frequently found associated with Pan-graves, but such skulls can also be found near C-Group graves (Adams 1977: 694, nt. 32). Trigger states that animal skulls painted with patterns in red and black and placed outside the superstructure are found among the late C-Group cemeteries, but in agreement with Adams he also states that this type of deposit originates with the Pan-grave (Trigger 1976: 99-100). The statement is partly corroborated by Bietak, who describes the use of bucrania among the C-Group cemeteries as an influence from the Pan-grave (Bietak 1986: 121). These faunal deposits are later described in more detail and consist of gazelle (Gazella sp.) and goat (Capra hircus) bucrania, sometimes painted with red dots. The bucrania are located in small separate pits and not inside the grave shaft (Bietak 1986: 124). Säve-Söderbergh is in accordance with the other scholars, when he describes the use of decorated goat and cattle skulls found in grooves around the stone superstructure as a typical element of the Pan-graves (Säve-Söderbergh 1989: 17). In the *Lexikon der Ägyptologie*'s definition of the Pan-grave the typical offering is described as goat, gazelle and sometimes cattle bucrania. These are deposited around the shaft and often decorated with dots (Lexikon der Ägyptologie, band IV: 999).

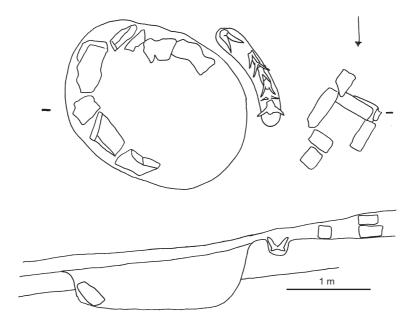


Fig. 1. - Grave 10 at cemetery SJE 47 (SJE archive, Museum Gustavianum, Uppsala University).

The consensus amongst scholars suggests that the presence of animal skulls is either typical of the Pangrave or at least a common feature at the cemeteries. The faunal deposits appear to be characterised by painted skulls, located outside the tumulus or around the grave shaft. Gazelle is frequently mentioned, but goat, cattle and sheep are also present in the descriptions. It is against this backdrop that a collection of faunal remains from five Pan-grave cemeteries will be examined in order to explore whether the information available in the archaeological literature can be corroborated by actual remains.

FAUNA FROM FIVE PAN-GRAVE CEMETERIES

The remains of animals have been unearthed at a number of Pan-grave cemeteries and I will refer to these as fauna or faunal remains for the rest of this article. The term faunal deposit is used throughout to describe a single event of deposition. Such single deposits may include bones from one or multiple individuals and species and may be located inside the grave shaft or in a separate pit.

The faunal remains from five Pan-grave cemeteries in Lower Nubia form the basis of the primary analysis. All five sites were excavated by the Scandinavian Joint Expedition to Sudanese Nubia (SJE), which worked in the Lower Nubian area from 1961 to 1964 as part of the large scale UNESCO salvage campaign. Although the expedition intended to focus on survey, it excavated numerous sites in the 55 kilomters long concession area located along the eastern bank of the Nile, immediately south of the Egyptian-Sudanese border (Säve-Söderbergh 1979: 12-13). The substantial assemblage of faunal remains gathered by the SJE was left unstudied prior to the current project.

The majority of the Pan-grave fauna was excavated at cemetery SJE 47, which is located in the northern part of the Scandinavian concession area in the Debeira region. The site was completely excavated in 1961 by B. Schönbäck and T. Eikhom and is the largest of the Pan-grave SJE cemeteries in term of faunal remains (Table 1). It contains 159 units and is described as typical Pan-grave culture with many of the characteristic round shallow shafts (Fig. 1). Due to the diversity of the shaft shape and dimensions (width /length), as well as varia-

TABLE 1. - The Pan-grave cemeteries with faunal deposits.

SJE Site	Total number of excavated units	Total number of faunal deposits	Graves with sheep inside the grave	Graves with painted skull deposits	Skull deposits without a grave associated	Number of skulls
SJE 47	159	29	2	24	3	418
SJE 95	169	5	1	4	0	36
SJE 99	169 33	2	0	2	0	1
SJE 170	48	3	1	2	0	8
SJE 254	20	1	1	0	0	0



Fig. 2. – Deposit of 7 painted skulls and 2 ceramic bowls, Grave 51, SJE 47 (SJE archive, picture no. 6495).

tions in the presence and type of superstructure, it is evident that the cemetery was in use for an extended period of time. The excavators divided this pattern of variation into three stages, where the last stage is described as a "partly Egyptianized stage" (Säve-Söderbergh, 1989: 167), thus suggesting a period of use contemporary with the Second Intermediate Period and into the New Kingdom. The faunal deposits are present across the cemetery and are associated with graves from all three stages. The location of the other four SJE cemeteries spans the entire SJE concession area and although the size of these varies the collection of fauna is limited (11 deposits) compared to SJE 47 (29 deposits).

The analysis of the bones was carried out at the Zoological Museum in Copenhagen using the

extensive comparative collections available there. The primary method is an in-depth MNI (Minimum Number of Individuals) based analysis of the faunal material and the information registered for each fragment includes the place of origin, species, anatomy, fragment size, sex identification, detailed age information from dental age profiling and size variables. All complete bones were measured according to international standards.

The analysis revealed the existence of two distinct types of faunal deposits varying according to the content and context. These two types of deposit will be described in more detail in the following sections.

OFFERINGS OF SKULLS

The deposit principally mentioned by scholars in the archaeological literature consists of cut and decorated skulls from goat, sheep and cattle. These offerings are located on the original ground surface of the cemetery or in shallow pits or ditches, sometimes accompanied by one or more ceramic vessels (Fig. 2). These places of offering accounted for a significant amount of the pottery and for the majority of the faunal remains (Säve-Söderbergh, 1989: 166-174). The deposits are typically associated with a single grave and in some cases the ditches almost encircle the shaft, thus establishing a clear connection between the grave and deposit, but there are also examples of deposits with no clear association with a specific grave. The pit or ditch is typically located to the south or southeast of the shaft. The exact number of skulls in a deposit varies considerably, ranging from two to 65 skulls, but the majority of the deposits contained less than 25 skulls, leaving only five with more than that. Depending on the state of preservation, the remains include the horn cores, frontal and sometimes nasal or part of the parietal and lacrimal. The skulls were skinned and then cut or hacked into the desired triangular shape, a process that can be reconstructed by observing the multiple cut-marks consistent with such treatment.

This deposit type is spatially and possibly temporally separated from the burial event as the skulls are

located outside the grave shaft. Due to the preservation and widespread plundering at all cemeteries, it is not always clear whether the deposits are located inside or outside the tumulus.

The skulls are mainly from goats (*Capra hircus*), with more than 72 %, whereas sheep (Ovis aries) represent 25 % and a few cattle (Bos taurus) skulls amount to just 3 % of the collection (Fig. 3). The gazelle (Gazella sp.) frequently mentioned in the archaeological literature is completely absent at the five SJE cemeteries (Bietak 1986: 124). The exact composition of species in a single deposit varies, but the deposits with a limited number of skulls are dominated by goat or in a few instances sheep, whereas the deposits with larger quantities of skulls also include one to three cattle skulls. According to photographs from the excavation, cattle skulls are located at the end or beginning of the ditch. The remaining sheep and goat skulls are arranged in the middle of the ditch, grouped together by species (Fig. 4).

The collection of goat and sheep skulls was sexed based on the greatest and smallest diameter of the horn core base, or measurements 41 and 42 according to von den Driesch (Driesch 1979: 34), with a number of skulls identified simply as juveniles. The data suggest a herd-like structure in most deposits with large numbers of adult females and a few juveniles and adult males, suggesting that the latter were killed off at a young age, with only a few adult males present for breeding purposes. This age pattern combined with the species distribution could indicate that the deposit represents a typical household or subsistence flock of herded animals, as might be found today in villages across the Middle East and Africa, where the exact composition and size depend on local environmental conditions and wealth (Dahl and Hjort 1976: 88-107).

The visually most prominent feature of the Pangrave skulls is the painted decoration, present on approximately 87 % of the skulls in the SJE collection. Skulls of all three species are painted in red and black, presumably with ochre and carbon, using a finger to create simple geometric patterns of lines, dots, and circles (Fig. 5). In order to study the variations in decoration more systematically, a typology of patterns was created based on the most visually

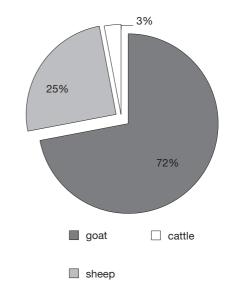


Fig. 3. – The distribution of species in the Pan-grave deposits containing skulls.



Fig. 4. – A deposit of sheep, goat and cattle skulls, grave 18, SJE 47 (SJE Archive, no. 6532).

dominant trait, such as lines or dots, and use of colour. The analysis showed that the choice of pattern was not based on the sex, age category or species of the animals. The cattle skull patterns are of greater complexity, but this may well be related to the size of the frontal and consequently a larger canvas. Typically, multiple patterns are present in a single deposit and there appear to be clear style similarities within a single deposit, although this feature is difficult to

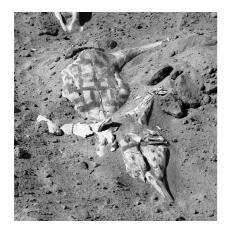


Fig. 5. – Two painted cattle skulls, grave 18, SJE 47 (SJE Archive, no. 6534).

measure. The term style here refers to similarities in the use of space – how far apart are the various elements or how the elements are painted. Are the patterns neat or somewhat sloppy with rough edges? It is difficult to establish whether these variations in style indicate actual families or distinct people but it certainly seems likely that different traditions of decoration existed within a single cemetery.

SHEEP INSIDE THE GRAVE

Faunal remains have been found inside the shaft of the grave in five instances. These five deposits consist of bones from one or two sheep and both crania and sub-crania elements are present. None of the remains amount to a complete skeleton, but more than one part of the body is present, such as part of the body, the skull, the front leg and hind leg. All graves had been disturbed and only in one instance was it possible to establish the original position of the sheep. A photograph documents a location at the southern end of the shaft, probably at the feet of the human skeleton. The articulated state of these undisturbed bones and the complete lack of cut-marks on any of the SJE bones suggest that the sheep were originally deposited as complete and intact animals.

The sheep is of the African type, characterized by extremely long legs, a slender build and the lack of wool, making them very similar to the sheep found at Kerma, which has been studied in considerable detail (Chaix and Grant 1987). The single pelvic bone that could be sexed is male and the long-bone fusion of four of the sheep indicates a majority of young animals as three are under the age of 12 months and one is over 4 years old at the time of death. There is a complete lack of both elderly animals as well as animals with any kind of abnormality, whether mended fractures, osteoporosis, gum infections or any other illnesses visible on the bones.

This type of deposit is not mentioned in the archaeological literature and it is clearly also less common among the Pan-grave cemeteries. The sheep is, however, present at four of the five SJE cemeteries.

CONTEXTUAL EVIDENCE

The faunal remains appear to be part of a wider context at these cemeteries and enough complete graves have been preserved to establish that only some burials were associated with faunal deposits. Due to widespread plundering it is, however, impossible to estimate the exact number of human burials in any one cemetery deemed worthy of such offerings.

There is no apparent pattern as regards the quantity of skulls found in the deposits, and the larger ones are not associated with particularly large or richly furnished graves. Furthermore, there is no difference in the location and structure of the graves, or in the composition of small finds that could distinguish the graves with faunal deposits from the rest of the graves.

All the SJE cemeteries have been heavily plundered and as a result only 100 human skeletons were unearthed in good states of preservation. These include 40 males, 18 females, 26 children and 26 indeterminate adults (Nielsen 1970: 126-128). The burials associated with faunal deposits include four males, two of which are described as either adult or mature skeletons. A fifth burial is described as a child, but no further age estimation was given, which means that the possible age at death could be anywhere between the age of 0 and 18 years old (Nielsen, 1970: 126). Information regarding the sex of the human skeletons is limited, but it is clear that these deposits appear to be exclusively

TABLE 2. — Additional Pan-grave cemeteries with faunal deposits. (Information was obtained from: Brunton 1930, 5 pl V-VI, Petrie 1901, 45-48, Emery and Kirwan 1935, 212-267 and 312-327, Williams 1983, 25-234 and Williams 1993, 25-132)

Site and location	Number of faunal deposits	Number of probable deposit types	Description of the faunal remains	
Cemetery 1300 Qau	2	1	Goat skull Ox horn	
Cemetery 5400 Badari	7	1	2 ox horns, painted red/black 5 gazelle and sheep horns, painted 1 horn, painted red Horns, painted 8 crania and four horns, sheep and goat 9 horns	
Cemetery 4500 Badari	1	1	Gazelle horns and skulls	
Cemetery X Diospolis Parva	12	2	5 goat and 2 oxen heads 3 goat and 3 sheep heads 1 calf, 2 gazelles, 6 goats and 2 sheep heads 138 goats, 5 oxen, 5 calves and 1 sheep head 1 row of goat heads 1 row of goat heads Oxen, 8 goat and 2 sheep heads Oxen, 1 calf, 9 goat and 1 sheep head 2 oxen, 1 calf, 1 sheep and some goat heads 1 row of goat heads Two separate dog burial Dog bones and skulls	
Cemetery K Adindan	5	1	Bovine skulls 22 gazelle skulls, painted red/black 2 gazelle skulls, painted Bovine and gazelle skulls, painted red/black Gazelle horns, some painted	
Cemetery C Serra East	4	2	Animal inside the shaft Four pair goat horns 1 pair of goat horns Goat skulls Goat skulls, 3 "gazelle skulls" painted	

connected to adult graves and not to the graves of young children. The term child here refers to children as a social group and not the osteological category of juvenile. The latter includes individuals as old as 18 years, which in most communities around the world would certainly be perceived as an adult individual and not as a child. Children were buried at the Pan-grave cemeteries and their graves have been found un-plundered and containing the same array and types of grave goods as those found in adult graves. This situation clearly suggests that children were perceived as full social members of the group and were treated accordingly, but did not require animal offerings.

In order to extend the results beyond the limited area of the SJE concession area, an additional six Pan-grave cemeteries are included in the analysis, based on published data alone. These represent the entire geographical extent of the Pan-grave in the archaeological record. They are cemeteries 1300, 4500 and 5400, located in the Qau and Badari area (Brunton 1930: 4-7), cemetery X at Diospolis Parva identified by Flinders Petrie (Petrie 1901: 45-48), cemetery K at Adindan (Williams 1983: 1-23; 79-81) and cemetery C at Serra East (Williams 1993: 121-132); see Table 2 for further detail.

The findings from these cemeteries corroborate most aspects of the evidence from the SJE cemeter-

ies including the cut skulls, the decoration and the location of the deposits, but some variation is detectable. Firstly, there is little mention of any sheep inside the grave shaft, but at Serra East Cemetery C, grave C1 include "remains of animal" as one of the objects found in the shaft (Williams 1993: 126). In the same way, Cemetery X at Diospolis Parva includes two instances of dog burials (Petrie 1901: 48), the latter possibly being a variation of this type of deposit. Secondly, the skull deposits include the usual goat, sheep and oxen, but also many gazelle skulls. A single photograph from cemetery K depicting a deposit with 22 skulls suggests that the presence of gazelle may be a matter of misidentification (Williams 1983: plate 129). Despite the predication of gazelle, the picture clearly shows a row of goat skulls in the foreground and a row of three sheep skulls in the background. This type of misidentification is also found at two other cemeteries; cemetery 167, grave 22, near Riqa (Emery & Kirwan 1935: plate 20) and at cemetery 189, grave 24, near the village of Tûmâs (Emery & Kirwan 1935: 215; plate 20). In both instances, the cemeteries are described as C-Group, but these deposits are clearly of a Pan-grave type.

The human skeletons associated with faunal deposits at the six cemeteries include 6 males, 4 females, 1 juvenile and 1 undetermined child. Thus, once again there is evidence for an association of faunal deposits with adult burials but no skeletons clearly identified as young children.

THE MIDDLE NUBIAN HORIZON AND THE WIDER CONTEXT

As part of the Middle Nubian Horizon, it is relevant to compare the findings from the Pan-grave cemeteries with contemporary cemeteries of the C-Group and Kerma cultures.

The SJE faunal collection includes remains from several C-Group cemeteries, which have been studied in recent years (Bangsgaard, 2010). The analysis revealed the existence of two deposit types, one which is unique to the C-Group and one which is also found in Pan-grave cemeteries. The first type includes skulls located outside the grave shaft in a

shallow pit, but in this instance the skulls are exclusively from cattle. Although the cutting of the skull appears very similar to the Pan-grave examples, there is no evidence for any type of painted decoration and these deposits are generally smaller, with one to six skulls. The second type is in almost all points identical to the Pan-grave deposit of sheep inside the grave with one or two male sheep skeletons deposited at the feet or lower leg of the human body, intact and articulated. This deposit is, however, much more frequent at the C-Group cemeteries. The sole exception is a single female goat skeleton found disarticulated with burn and cut-marks in a small pit at the transitional cemetery SJE 218 (Bangsgaard 2010: 70-71).

At Kerma, studies have revealed a tradition similar in some aspects to the C-Group, but the faunal deposits clearly reflect a different socio-political development. Displays of wealth and power can be identified at the cemetery of Kerma where the content of the deposits varies significantly in the number of animal offerings for a single grave. Some of the complete sheep skeletons are adorned with discs of ostrich feathers or pendants decorated with beads (Chaix 1993: 183) and the cattle skull deposits vary from 12 to 4899 (Chaix 2007: 175). These two deposit types are otherwise identical to the C-Group types, but a third deposit type is present at Kerma, namely cuts of meat, which are located inside the shaft next to the other grave goods (Chaix 1993: 183).

The faunal evidence clearly establishes that all three Middle Nubian Horizon cultures had their own unique tradition of funerary practices, but it also highlights the significant cultural similarities between Kerma and the C-Group. What these funerary practices reveal about the Pan-grave people and their society remains to be clarified.

POSSIBLE INTERPRETATIONS

The religious life of the Pan-grave is not well understood as we simply know very little of this aspect of Pan-grave culture. The material culture of the Pan-grave provides clues for the importance of fauna in social practices, from the widespread use

of skin and hide for clothing and other every-day objects and as part of the funerary rituals where the corpse was wrapped in cow hide and the grave sprinkled with burnt goat dung (Friedman 2001: 22-23), perhaps as a sacralising substance. Based on ethnographic studies, we know that the burial ritual is one of the most important rites in the life cycle of a person, entailing the physical and social passage from the world of the living to the realm of the dead. Therefore, the objects accompanying the dead are not accidentally selected and their presence would have been meaningful to the living community (Bell 1997: 94-95; Fowler 2004: 79-100). The animals selected for burial carried social or symbolic meaning and these symbols were killed and passed on with the dead, either because they were needed for the rite of passage or because the animals and what they symbolised had to die in order for the deceased to pass on and not linger among the living.

The painted skulls are the most characteristic feature of the Pan-grave deposits with over 450 skulls included in the SJE assemblage, decorated with simple geometric designs made up of black and red lines, circles and dots. The skulls are located outside the grave shaft, often in a shallow ditch, whereas the other type of faunal deposit is located inside the grave shaft. The latter is in all points identical to a C-Group deposit, the articulated sheep skeleton, but it is less common at the Pan-grave cemeteries.

The two deposits differ in content and context, the latter suggesting a probable variation in the temporal relationship with the burial event. Based on this temporal pattern and according to the tripartite structure of rites of passage developed by van Gennep (van Gennep 1960), it could be suggested that the sheep deposit, which was part of the burial event, could be associated with the initial phase of the transition; "the separation", whereas the skull deposit located outside the shaft was associated with the last stage of the rite, "the incorporation".

Present day pastoral groups in East Africa are typically defined by social dependence, rather than dietary dependence, on cattle or livestock. Similarities in material culture, social practices and similar conditions of life, such as a semi-nomadic lifestyle and a social focus on livestock between these modern groups and the Pan-grave makes the first an ideal ethnographic analogy for the latter. These modern groups include a vast array of cultural and historical backgrounds, ethnic affinity as well as the exact form and intensity of the cultural reliance on pastoralism. The social reliance on livestock is visible and ever present in all aspect of life, including the presence of cattle or sheep and goat in many forms of ritual practices connected with birth, coming of age and death, in feasts, as suppliers of metaphors and terms in the language, as bride-wealth payment and as a marker of wealth and status (Herskovits 1926a, 1926b).

Among the Nuer of southern Sudan the significance of cattle has led some scholars, such as Evans-Pritchard, to speak of actual identification between man and oxen and between herd and clan group. There is a collective identification between the ancestors and the herd, with kinship being expressed through the lineage of the ancestral herds presenting a collective identification between the continuity of the herd and the lineage and the continued existence of the clan (Evans-Pritchard 1940: 16-17; Evan-Pritchard 1956). Livestock is often instrumental in ritual practices among these groups, as the means by which the community establishes contact with the ancestors, and funerary rituals are not complete without the sacrifice of a ram, goat or ox. For the Nuer, these sacrifices are especially connected with men who play a religious and ritual role in the community, the so-called leopard-skin-chiefs "Kuaar twac" and the-manof-the-cattle "wut ghok" (Evans-Pritchard 1956: 290-300). Among the Mbanderu of Namibia the cattle can be divided into two herds according to the origin of the original cow, thus one herd belongs to the father's line used only for sacrificial purposes; the other belongs to the mother's line and is used for every day consumption. When the head of a household dies the entire herd from the father's line is sacrificed as part of the mortuary rituals. The meat from the animals is distributed among the mourners according to strict rules and taboos and the process may last as long as a full year. All skulls of the sacrificed animals are subsequently deposited on top of the grave (Sundermeier 2002: 6-9). The latter practice of positioning skulls on top of the grave is also practised among the Shilluk pastoral group of southern Sudan (Westermann 1912: 111-113).

Who the group of people receiving these deposits are and what role they play among the Pan-grave people is not known. The group included adults, females and males, but not young children. Based on the archaeological evidence of the importance of livestock in Pan-grave culture and ethnographic studies of pastoral groups I advance the hypothesis that the group could be defined by particularly strong ties with the community, family or the herd, such as the head of a household or holder of the family herd or alternatively people that had widespread contact with the community through religious or ritual authority.

The skull deposits clearly dominate in number and in frequency. The sheer quantity of skulls in some of these deposits suggests that they could be used for strategies of power display and positioning by mourners. One purpose does not exclude another, and the presence of multiple species is a prominent display of the conceptual single herd or household. The deposit emphasises and embodies social relations within the community or household. Due to the association with the last part of the rites of passage the single herd structure becomes a physical expression of the bonds between the living and the dead, between the living and the ancestors, thereby establishing social order once again after the sudden disruption caused by the death of a group member.

REFERENCES

- ADAMS W. Y. 1977. *Nubia: Corridor to Africa,* Allen Lane, London.
- BANGSGAARD P. 2010. Ritual Cows or just another Flock of Sheep? Faunal Deposit Practises at C-Group and Pan-grave Cemeteries. Unpublished PhD Thesis, Copenhagen University, Copenhagen.
- BELL C. 1997. Ritual, Perspectives and Dimensions, Oxford University Press, Oxford.
- BIETAK M. 1968. Studien zur Chronologie der Nubischen C-Gruppe. Ein Beitrag zur Frühgeschichte Unternubiens zwischen 2200 und 1550 vor Chr., Kommissionsverlag der Österreischen Akademie der Wissenschaften in

- Wien, Vienna.
- BIETAK M. 1986. The C-Group and the Pan-Grave Culture in Nubia. in HÄGG T. (ed.) Nubian Culture Past and Present, the Sixth International Conference of Nubian Studies. Kungl. Vitterhets Historie och Antikvitets Akademien, Uppsala.
- Brunton G. 1930. *Qau and Badari III*, British School of Archaeology in Egypt, London.
- Brunton G. 1937. Mostagedda and the Tasian culture. British Museum Expedition to Middle Egypt, London.
- BUZON M. R. 2004. A Biological Perspective on State formation in the Nile Valley, University of California, Santa Barbara.
- CHAIX L. 1993. The archaeozoology of Kerma (Sudan). in DAVIES W. V. & WALKER R. (eds) *Biological anthropology and the study of Ancient Egypt*. British Museum Press, London.
- CHAIX L. 2007. Contribution to the Knowledge of Domestic Cattle in Africa: the Osteometry of Fossil *Bos taurus* L. from Kerma, Sudan (2050-1750 BC). *Documenta Archaeobiologiae*, 5: 169-248.
- CHAIX L. & GRANT A. 1987. A study of a prehistoric population of sheep (Ovis aries L.) from Kerma (Sudan) Archaeozoological and archaeological implications. *Anthropozoologia*, 1: 77-92.
- DAHL G. & HJORT A. 1976. Having Herds, Pastoral Herd Growth and Household Economy, Liber Tryck, Stockholm.
- DRIESCH A. V. D. 1979. A Guide to the Measurement of Animal Bones from Archaeological Sites, Peabody Museum of Archaeology and Ethnology Bulletin, Harvard.
- EDWARDS D. N. 2004. The Nubian Past, An archaeology of the Sudan, Routledge, London.
- EMERY W. & KIRWAN L. P. 1935. The Excavations and Survey Between Wadi Es-Surbua and Adindan 1929-1931 - text, Service des Antiquités de l'Egypte, Cairo.
- EVANS-PRITCHARD E. E. 1940. The Nuer, A Description of the Modes of Livelihood and Political Institutions of a Nilotic People, Oxford, Oxford University Press.
- Evans-Pritchard E. E. 1956. *Nuer Religion*, Oxford, Clarendon Press.
- Fowler C. 2004. *The Archaeology of Personhood, An Anthropological Approach,* Routledge, London.
- FRIEDMAN R. 2001. Excavating in the Nubian Cemeteries. *Nekhen News*, 13: 22-25.
- HERSKOVITS M. J. 1926a. The Cattle Complex in East Africa. *American Anthropologist*, 28(1): 230-272.
- HERSKOVITS M. J. 1926b. The Cattle Complex in East Africa. *American Anthropologist*, 28(2): 361-388.
- NIELSEN O. V. 1970. Human Remains, Metrical and Non-metrical Anatomical Variations, Odense: Andelsbogtrykkeriet.
- PETRIE F. 1901. Diospolis Parva, The cemeteries at Abydiyeh and Hu, The Egypt Exploration Fund, London.
- PETRIE W. M. F. 1907. *Gizeh and Rifeh*, British School of Archaeology in Egypt, London.

- SÄVE-SÖDERBERGH T. 1989. *Middle Nubian Sites* vol 4:1, Uddevalla: Bohusläningens Boktryckeri AB.
- SÄVE-SÖDERBERGH T. 1979. *The Scandinavian Joint Expedition to Sudanese Nubia*, Det Kongelige Danske Videnskabernes Selskab, Copenhagen.
- SUNDERMEIER T. 2002. Sacrifice in African Traditional Religions, in BAUMGARTEN A. I. (ed.) Sacrifice in Religious Experience. Lieden Brill.
- TRIGGER B. C. 1976. *Nubia under the Pharaohs*, London, Thames and Hudson.
- VAN GENNEP A. 1960. *The Rites of Passage*, Routledge, London.
- WAINWRIGHT G. A. 1915. The Excavations at Balabish: Preliminary Notice. *The Journal of Egyptian Archaeology*, vol. 2, 202-203.

- WAINWRIGHT G. A. & WHITTEMORE T. 1920. *Balabish*, George Allen & Unwin ldt, London.
- WESTERMANN D. 1912. The Shilluk People, Their Language and Folklore, Philadelphia, The Board of Foreign Missions of the United Presbyterian Church of N. A.
- WILLIAMS B. B. 1983. C-Group, Pangrave and Kerma Remains at Adindan Cemeteries T, K, U and J, The Oriental Institute, Chicago.
- WILLIAMS B. B. 1993. Excavations at Serra East. A-Group, C-Group, Pan grave, New Kingdom and X-Group Remains from Cemeteries A-G and Rock Shelters, The Oriental Institute, Chicago.
- PFANNENGRÄBER 1982. In Helck W. & Otto E. (eds) Lexikon der Ägyptologie, Megiddo-Pyramiden. Wiesbaden, Otto Harassowitz.

Submitted the 3rd October 2011; accepted the 19 January 2012