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Abstract

The social life of animals in the societies of the past was mostly that of ritual. One can have a closer look at the question by examining the so-called animal burials (= animal deposits). In this paper the case area shall be Kujavia, a region situated in central Poland. The collection of data on animal deposits, made here by the populations of the Late Neolithic Globular Amphora culture, has – when compared to data for other regions – a number of specific characteristics. Special mention deserves the clear tendency to place deposits in pits within settlement bounds. A smaller group is made up of deposits in direct or indirect connection with graves of human beings. In this way dead (killed?) and intentionally buried animals mostly became part of space used by the living members of the community. Another important observation concerns preferences in selecting animals for use in different spheres of human activity including ritual ones.

Zusammenfassung

In urgeschichtlichen Gesellschaften spielten Tiere häufig auch eine Rolle im kulturellen Zusammenleben. Aufschluss können die sog. Tierbestattungen (= Tierniederlegungen) geben, die in diesem Beitrag im Zeitraum der spätneolithischen Kugelamphorenkultur im Gebiet von Kujawien in Mittelpolen untersucht werden. Verglichen mit Daten aus anderen Regionen, lassen sich hier einige Charakteristika herausarbeiten: Es überwiegen eindeutig Niederlegungen in Siedlungsgruben, für eine geringere Anzahl ist eine direkte oder indirekte Verbindung zu menschlichen Bestattungen nachzuweisen. So wurden tote (oder getötete?), intentionell begrabene Tiere Teil des Raumes, der von den lebenden Mitgliedern der Gemeinschaft bewohnt wurde. Darüber hinaus sind Präferenzen bei der Auswahl der Tiere für die verschiedenen menschlichen Lebensbereiche – einschließlich der rituellen – festzustellen.

Streszczenie

Społeczne życie zwierząt w dawnych społecznościach było w dużej mierze życiem rytualnym. Kwestii tej można się przyjrzeć na przykładzie tzw. pochówków zwierzęcych (= depozytów zwierzęcych). W artykule obszarem badań są Kujawia, region leżący w środkowej części Polski. Rozpatrywany w niniejszej pracy zestaw informacji dotyczących depozytów zwierzęcych, składanych tam w późnym neolicie przez ludność kultury amfor kulistych, posiada – na tle danych z innych regionów – szereg cech specyficznych. Na podkreślenie zasługuje przede wszystkim zdecydowana tendencja do lokowania depozytów w jamach na terenie osiedli. Mniejszą grupę stanowią

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depozyty składane w bezpośrednim lub pośrednim związku z grobami ludzkimi. W ten sposób martwe (uśmiercone?) i intencjonalnie pogrzebane zwierzęta stawały się najczęściej częścią przestrzeni wykorzystywanej przez żyjących członków społeczności. Ważne wydają się obserwacje dotyczące preferencji przy wyborze zwierząt do różnych sfer aktywności ludzi, w tym do różnych działań rytualnych.

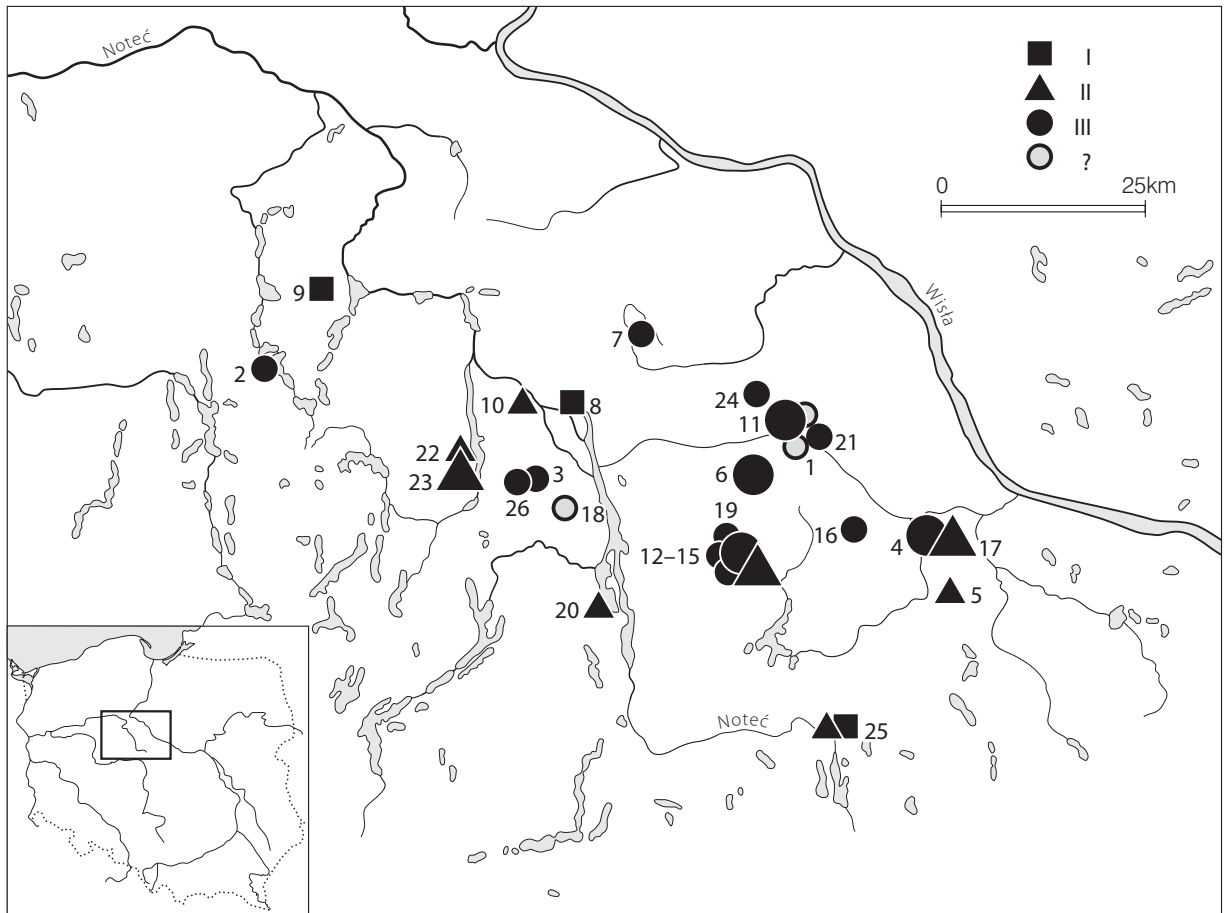


Fig. 1. Distribution of the Late Neolithic animal deposits in Kujavia. I = deposit within a human grave; II = deposit close to a human grave; III = deposit in a settlement. 1 Adolfin; 2 Biskupin 2a; 3 Bożejewice 22/A2; 4 Brześć Kujawski 4/1.2.3.4.5; 5 Dębice Kolonia; 6 Dobre 6/I.II; 7 Gąski 18; 8 Inowrocław-Szymborze 1; 9 Kierzkowo 1; 10 Krusza Zamkowa 13; 11 Kuczkowo 1/A132.A136.A148.C2; 12 Opatowice 1/1.38; 13 Opatowice 3/64; 14 Opatowice 35/34; 15 Opatowice 36/67.101A.123; 16 Osłonki 1; 17 Pikutkowo 5/I. II; 18 Polanowice 4; 19 Radziejów 4; 20 Rzeszynek 1; 21 Siniarzewo 1/148; 22 Strzelce 2; 23 Strzelce 3; 24 Zarębów 1; 25 Zdrojówka 1; 26 Żegotki 2/A113 (after Szmyt 1996, with amendments).

Introduction

It is a truism to say that animals do not only supply food and raw materials for humans. The role of animals in the life of both human societies and individuals has always gone far beyond that. The social life of animals in the societies of the past was mostly that of ritual. We shall have a closer look at the question by examining the so-called animal burials known from the Late Neolithic in central Europe. The case area shall be Kujavia, a region situated in central Poland (Fig. 1).

By the concept of "animal burial" (or best "animal deposition"; see Pollex 1999, 542) we shall mean an animal whose body (complete or only a part of it), arranged anatomically and bearing no traces of consumption, was intentionally placed in a pit or a grave of a human being(s). Thus, the defining characteristics of an animal burial are a lack of consumption traces, preservation of the anatomical arrangement of the deposited fragment or the whole body and intentionality primarily observable in the care taken to keep the body deliberately arranged (Węgrzynowicz 1982). An optional, though frequent, element are objects accompanying the animal.

Abb. 1. Verbreitung der spätneolithischen Tierniederlegungen in Kujawien. I = Niederlegung innerhalb eines Körpergrabes. II = Niederlegung in der Nähe eines Körpergrabes. III = Niederlegung in einer Siedlung (nach Szmyt 1996, mit Ergänzungen).

"Animal burials" in Neolithic Europe

Deposits of non-consumption animal remains are found in central Europe in broad time brackets (Behrens 1964; Andrałojć 1993; Zalai-Gaál 1998; Kadrow & Makowicz-Poliszot 2000; Józwiak 2004). The first time when their incidence was high coincided with the Late Neolithic (otherwise called the Eneolithic or Chalcolithic period), i.e. 3500–2200 BC. At that time, animal burials are encountered at the sites of different cultural units such as Salzmünde, *Tiefstichkeramik*, late Funnel Beaker, Walternienburg, Bernburg, Corded Ware or Schönfeld, however, a vast majority of the burials are connected with two cultures: Baden and Globular Amphora. Until now, the most attention has been given to the so-called cattle burials (see Pollex 1997; 1999; Zalai-Gaál 1998; see both for older references), although remains of various other animals have been deposited in a manner interesting us as well (Behrens 1964; Andrałojć 1993).

"Animal burials" in Late Neolithic Kujavia

Kujavia is one of several regions on the North European Plain where the beginnings of the early agrarian settlement, tied to early *Linearbandkeramik*, date back to the middle of the 6th millennium BC (Czerniak 1994). In the local process of cultural transformations a special role was played by the adaptation of early agrarian societies to lowland ecological conditions, interactions between early agrarians and the groups of hunter-gatherers and the active participation of the former in supraregional structures of information exchange.

Table 1. Radiocarbon datings from Late Neolithic "animal burials" in Kujavia.

Site / feature	¹⁴ C-datings of animal bones	References
Funnel Beaker phase V		
Inowrocław 58	Gd-7118: 4270±50 BP	Cofta-Broniewska & Bednarczyk 1998
Krusza Podlotowa 2	Gd-1983: 4250±70 BP	Koško & Kurzawa 1997
Krusza Zamkowa 13	Bln-2187: 3920±60 BP	Koško 1989
Globular Amphora Culture phases IIb–IIIa		
Bożejewice 22 / A2	Ki-6914: 4305±45 BP	Szmyt 2000
Kierzkowo 1	GrN-15412: 4270±40 BP;	Bakker 1992
Krusza Zamkowa 13	GrN-14022: 4330±35 BP	Koško 1989; see also Gd-309: 5140±140 BP (charcoal)
Kuczkowo 1 / A132	Ki-6509: 3910±40 BP	Szmyt 2000
Kuczkowo 1 / A136	Ki-6927: 4420±55 BP; Ki-6917: 4415±45 BP; Ki-6929: 4400±50 BP; Ki-6928: 4385±45 BP; Ki-6926: 4370±50 BP	Szmyt 2000
Kuczkowo 1 / C2	Ki-6238: 4970±30 BP; Ki-6920: 4525±45 BP; Ki-6496: 4520±45 BP; Ki-6919: 4490±40 BP; Ki-6921: 4480±40 BP	Szmyt 2000
Opatowice 1 / 38	Gd-8035: 3900±60 BP; Gd-8036: 3820±60 BP	Szmyt 2001
Opatowice 3 / 64	Gd-4117: 4230±110 BP	Szmyt 2001
Opatowice 35 / 34	Ki-5595: 3950±60 BP	Szmyt 2001
Opatowice 36 / 67	Gd-6438: 4010±100 BP	Szmyt 2001
Opatowice 36 / 101A	Ki-5137: 3920±60 BP; Gd-8037: 3850±50 BP	Szmyt 2001
Opatowice 36 / 123	Gd-6522: 4350±120 BP; Ki-5136: 4180±70 BP	Szmyt 2001
Siniarzewo 1 / I48	Ki-5910: 4350±45 BP	Szmyt 2000
Żegotki 2 / A113	Ki-6221: 4030±60 BP	Szmyt 2000

Table 2. Globular Amphora Culture "animal burials" in Kujavia. ¹ = definition I–III see p. 6; ² = definition a–c see p. 5; P = part(s) of animal(s).

No.	site/feature	Context of deposit ¹	Form of deposit ²	cattle	pig	sheep/ goat	dog	deer	aur- ochs	References and notes (sex/years of age)
1	Adolfin	?	a	5	.	.	.	.	.	Wiślański 1966
2	Biskupin 2A	III	a	.	1	.	1	.	.	Dąbrowski 1957
3	Bożejewice 22/A2	III	a	.	.	.	1	.	.	undef./4–5; Makowiecki & Makowiecka 2000
4	Brześć Kuj. 4 / 1	III	c	1	2 P	.	.	.	.	fem./>9; Świeżyński 1958
5	Brześć Kuj. 4 / 2	III	a	2	.	.	.	.	.	masc./3,5–4,5; undef./3,5–4; ibidem
6	Brześć Kuj. 4 / 3	III	a	2	.	.	.	.	.	undef./adult; undef./juvenile; ibidem
7	Brześć Kuj. 4 / 4	III	a	1	.	.	.	.	.	undef./juv.; ibidem
8	Brześć Kuj. 4 / 5	III	a	2	.	.	1	.	.	masc./2,5–3,5; masc./5,5; ibidem
9	Dębice Kolonia	II	a?	1	.	.	.	.	.	masc./3; Świeżyński 1966
10	Dobre 6 / I	III	a	1	.	.	.	.	.	fem./3–3,5; ibidem
11	Dobre 6 / II	III	c	2 + 2P	+ P	1	.	.	.	cattle: masc./6–9; fem./2,5–3; undef./adult; sheep/goat: undef./adult; pigs: undef./juvenile; ibidem
12	Gąski 18	III?	?	+	.	.	.	.	.	B. Stolpiak, pers. commun.
13	Inowrocław-Szymborze 1	I	a	1	.	.	.	.	.	Wiślański 1966
14	Kierzkowo 1	I?	?	+	.	.	.	.	.	Bakker 1992
15	Krusza Zamkowa 13	II	b	6 P (legs)	.	.	.	.	.	1 x masc., 5 x fem.
16	Kuczkowo 1 / A132	III	a	.	.	1	.	.	.	undef./3–4; Makowiecki & Makowiecka 2000
17	Kuczkowo 1/ A136	III	a	1	.	.	.	.	.	masc./3–4(5); ibidem
18	Kuczkowo 1/ A148	III	a	1	.	.	.	.	.	undef./3,5–5; ibidem
19	Kuczkowo 1/ C2	?	a	1	.	.	.	.	.	masc./2,5–3; ibidem
20	Opatowice 1/ 1	II?	b	a few P	.	.	.	.	.	Wiślański 1966
21	Opatowice 1 / 38	II?	b	3 or > P	.	.	.	.	.	masc./>3,5; undef./>3,5; undef./>3,5
22	Opatowice 3 / 64	III	a	1?	.	.	.	.	.	Koško 1991
23	Opatowice 35 / 34	III	a	1	.	.	.	.	.	masc./9–11; D. Makowiecki, pers. commun.
24	Opatowice 36 / 67	III	b	1 P	.	.	.	.	.	undef./3,5
25	Opatowice 36 / 101A	III	a	1	.	.	.	.	.	undef./>5–7
26	Opatowice 36 / 123	III	a	1	.	.	.	.	.	fem./>3
27	Ośłonki 1	III?	?	+	.	.	.	.	.	Grygiel 1993
28	Pikutkowo 5 / I	II	c?	5	1	+ P?	+ P?	.	.	masc.; fem.; 2 x undef./juvenile; 1 x calf; Świeżyński 1966
29	Pikutkowo 5 / II	II	c	2	+ P	.	.	.	.	ibidem
30	Polanowice 4	?	?	+	.	.	.	.	.	Dzieduszycka 1978
31	Radziejów 4	III?	a	2	.	.	.	.	.	Czerniak et. al.1977
32	Rzeszynek 1	II	a	1	.	.	.	.	.	Wiślański 1966
33	Siniarzewo 1/I48	III	b	.	.	.	.	.	1 P	masc./>3,5; Makowiecki & Makowiecka 2000
34	Strzelce 2	II	a	1	.	.	.	.	.	Krysiak 1959
35	Strzelce 3	II	a	.	.	.	.	1	.	masc./4; Kubasiewicz 1966
36	Strzelce 3	II	a	.	.	.	1	.	.	ibidem
37	Zarębowo 1	III?	?	+	.	.	.	.	.	T. Wiślański, late excavation
38	Zdrojówka 1	II	a	2	.	.	.	.	.	fem./2,5–3; fem./3,5
39	Zdrojówka 1	I	a	4?	1?	1?	.	.	.	Wiślański 1966
40	Żegotki 2 / A113	III	a	1	.	.	.	.	.	fem./7–10; Makowiecki & Makowiecka 2000

It is in such environment, in the second half of the 5th millennium BC, that we notice the appearance of first animal deposits, or rather "cattle burials" (¹⁴C-datings: Siniarzewo 1, Ki-6887 5470±55; Kucz-kowo 1, Ki-6888 5510±60 BP; Józwiak 2004). In the Late Neolithic, in Kujavia, we find one of the largest concentrations of animal burials (26 sites with 43 features), most of which belong to the period from 3250 BC to 2250 BC (Table 1–2). 40 (93 %) of them are related to the Globular Amphora Culture (GAC; Szmyt 1996; 2000) while only three (7 %) to the late Funnel Beaker Culture (Radziejów stage, phase V; see Koško 1989; Koško & Kurzawa 1997; Cofta-Broniewska & Bednarczyk 1998).

In the further discussion, I shall concentrate only on the series of GAC features. Similarly to animal deposits from other regions, they can be discussed from different points of view. In this paper, the scope of analysis is set by the following four questions:

- (1) In what form were animals placed in the studied features?
- (2) What was the functional context of the "burials"?
- (3) What is the species, sex and age structure of buried animals?
- (4) What was the relationship between the rules determining meat consumption and those defining the ritual value of animals?

Forms of deposits

A distinction must be made between two forms of deposits (Fig. 2): (a) a complete animal(s) (26 features = 64 %) or (b) a specific part(s) of an animal body (5 features = 12.5 %). Finds are also made of (c) mixed form deposits where a complete animal is accompanied by a part of a carcass of another animal (4 features = 10 %).

(a) In the burials of complete animals cattle dominates (Fig. 3). It occurred in 21 such features. A pig was recorded once, a dog four times, a sheep/goat twice and a deer just once. It must be added that three features were discovered which contained three to six complete animal carcasses, with dominating cattle carcasses (two to five individuals) being accompanied by other animals (a single pig or a dog, in one case a pig and sheep/goat). In most cases, the animals were laid on their sides (without clear orientation rules), sometimes with strongly flexed legs (originally tied?). Rarely, traces of additional practices are discovered as, for instance, crushing the animal with a large boulder (Fig. 3). In 23 % of the deposits, animals were accompanied by intentionally placed objects (e.g. vessels, bone discs, bone tools). In the case of further 42 %, only a small number of potsherds were found, which gives rise to the question about the intentionality of their placement (a possible effect of destroying vessels during rituals?). Some pits, in which animals had been placed, had some structural elements such as sides built of rubble or paved floors; the latter were sometimes made of carefully placed bits of vessels.

(b) Features with partial deposits (Fig. 4) contained remains of cattle (from one to six individuals) and only once the head of an aurochs. As partial cattle burials legs (Fig. 4) or front parts of carcasses were deposited. In three features, cattle fragments lay alongside such objects as vessels, a clay drum or a clay spindle bob. The deposits were sporadically accompanied by structured stone elements.

(c) Mixed deposits always contained one or two whole cattle carcasses and body parts of other cows as well as pigs. On a single occasion two cows were placed alongside a complete sheep/goat. The arrangement of all the remains gave above all prominence to the bodies of cattle.

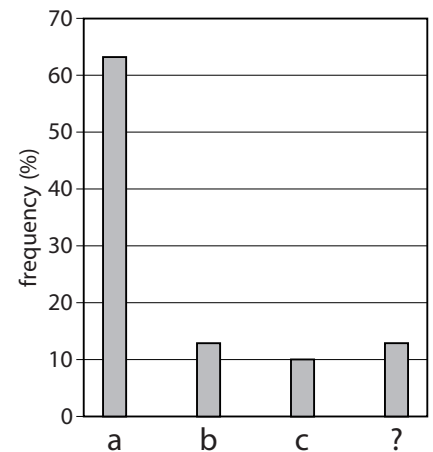


Fig. 2. Animal deposits of the GAC in Kujavia. Frequency of basic deposit forms. a Complete animal. b Specific part of an animal body. c Mixed: complete animal and part of a carcass of another animal.

Abb. 2. Tierniederlegungen der Kugelamphorenkultur in Kujawien. Häufigkeit der Niederlegungsart. a Vollständiges Tier. b Teil des Tierkörpers. c Vollständiges Tier und Teil eines weiteren Tierkörpers.

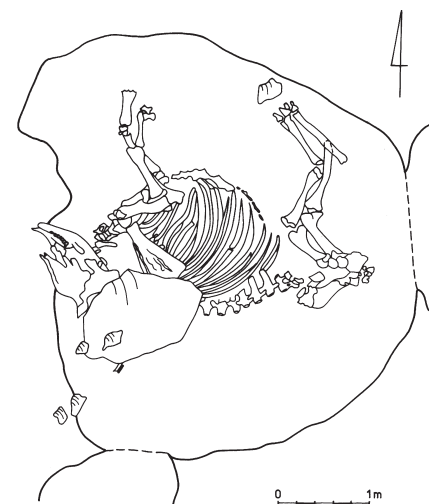


Fig. 3. Żegotki site 2/A113, Kujavia-Pomerania. "Cattle burial", complete deposit (after Szmyt 2000).

Abb. 3. Żegotki Fdst. 2/A113. „Rinderbestattung“, Niederlegung eines vollständigen Tieres (nach Szmyt 2000).

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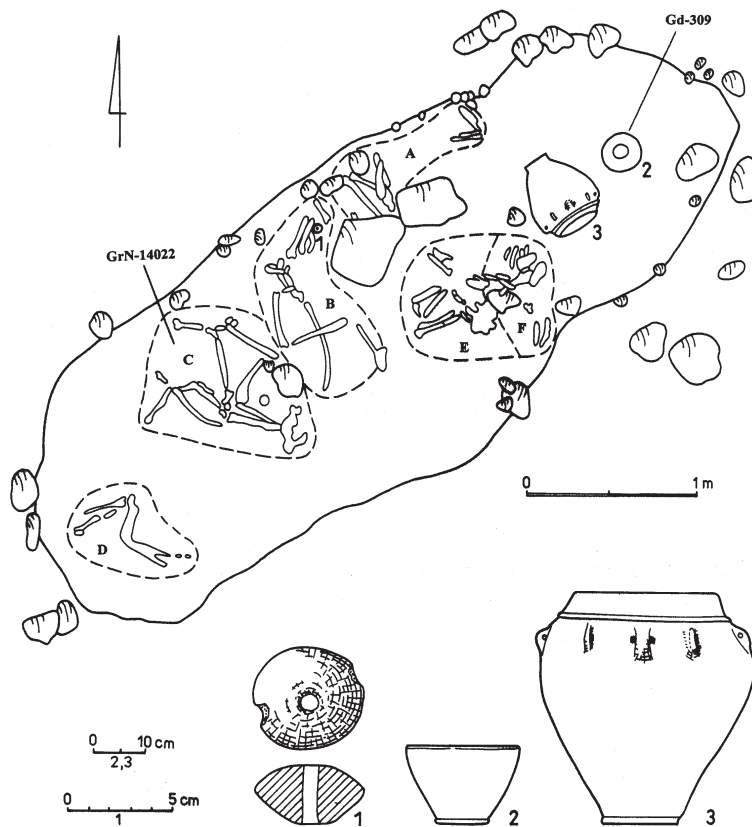


Fig. 4. Krusza Zamkowa site 13, Kujavia-Pomerania. "Cattle burial", partial deposit (after Koško 1989).

Abb. 4. Krusza Zamkowa Fdst. 13. „Rinderbestattung“, Niederlegung von Teilen von Tieren (nach Koško 1989).

In one case, under the remains of an animal (pig), the body of a one-and-a-half-year-old child was found. The goods included vessels, clay drums and bone tools. No additional structures were recorded.

Contexts of deposition

Animal deposits were placed (Fig. 5):

- (I) within a grave of a human being(s) (7,5 % of features),
- (II) close to a grave of a human being(s) (27,5 % of features) or
- (III) within the bounds of a settlement (57,5 % of features; on the description of GAC settlements cf. Szmyt 2001).

Most of the features belonged to category III and represented type (a) burials. Out of five partial deposits, three belonged to category II, while two represented category III. Out of three mixed deposits, two belonged to category III, while one represented category II. In all the categories cattle burials dominated. Accompanying goods were placed with a slightly higher frequency in settlement features (III). Within settlement bounds, clusters of pits with animal deposits were found containing two to five separate features. In cemeteries, clusters of animal burials were less frequent (two features).

Species of buried animals

In the GAC animal burials in Kujavia, the following species of animals were recorded: cattle, pigs, sheep/goats, a dog and each a single specimen of deer and aurochs (Fig. 6). A clear domination of cattle deposits was observed (85 % of features), in which remains of animals aged 3–5 years prevailed. Only once remains of a very young animal (calf) were identified. There is no clear difference in the fre-

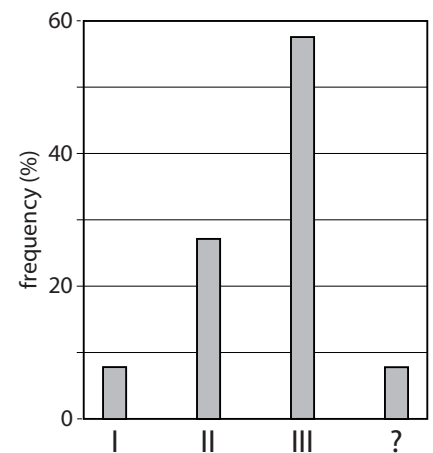


Fig. 5. Animal deposits of the GAC in Kujavia. Frequency of deposits concerning functional context. I = deposit within a human grave; II = deposit close to a human grave; III = deposit in a settlement.

Abb. 5. Tierniederlegungen der Kugelamphorenkultur in Kujawien. Häufigkeit der Niederlegung nach funktionalem Kontext. I = Niederlegung innerhalb eines Körpergrabes. II = Niederlegung in der Nähe eines Körpergrabes. III = Niederlegung in einer Siedlung.

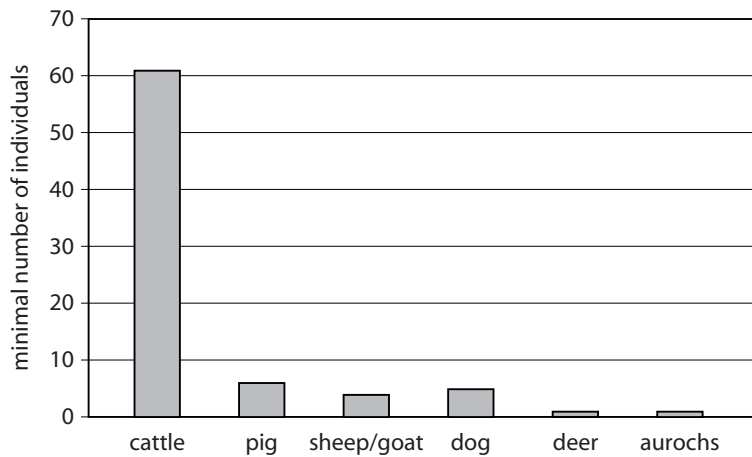


Fig. 6. Animal deposits of the GAC in Kujavia. Number of individuals of different species.

Abb. 6. Tierniederlegungen der Kugelamphorenkultur in Kujawien. Häufigkeit der verschiedenen Tierarten.

quency of depositing female or male animals, although female individuals are in the majority in partial deposits (b), whereas males dominate in settlement features (III). Moreover, in burials containing old individuals (6–10 years) two females and one male were identified. No clear differences in burial goods due to age or sex of the animals were recorded.

Eating and non-eating

From GAC sites in Kujavia, we have a diverse set of animal remains that enables us – at least preliminarily – to identify the rules of selecting animal species for consumption and ritual purposes. To be precise, we have three types of collections:

- (A) post-consumption animal remains from settlements/camps (i. e. remains of "everyday" consumption),
- (B) post-consumption animal remains from graves of a human being(s) (interpreted as remains of ritual consumption, taking place during funerary rituals) and
- (C) animal remains discussed in this paper bearing no traces of consumption and being placed in animal burials.

Due to the differences in the size of collections and gaps in archival records (concerning features explored long ago), an optimal method of analysis seems to be here a comparison of the incidence of remains of particular animal species in the collection types. For the same reason I limit the study to domesticated animals (cattle, sheep/goat, pig) and to one chronological stage of the GAC, the so-called classic one (Szmyt 1996; 1999), i. e. to phases II b and III a (ca. 3250–2250 BC). A diagram (Fig. 7) shows considerable differences in the share of the animals in individual collection types. It can be even claimed that the collection types give three different pictures of the use made of particular animal species:

- The pig was mainly eaten, especially frequently during funerary rituals; the pig itself did not play a role in the sacred sphere.
- Sheep and goat were utility animals of little value in the ritual sphere.
- Only cattle played identical roles both in the profane and sacred sphere. This species was most often used in "everyday" consumption (although its predominance over the pig and sheep/goat was all in this respect) and absolutely dominated in animal burials.

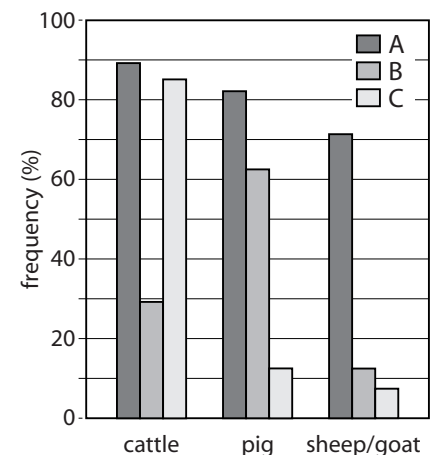


Fig. 7. Animal deposits of the GAC in Kujavia. Incidence of remains of selected species of domesticated animals. A Remains from settlement sites. B Remains from human graves. C Remains without traces of consumption: "animal burials".

Abb. 7. Tierniederlegungen der Kugelamphorenkultur in Kujawien. Vorkommen ausgewählter Haustierarten nach funktionalem Kontext. A Überreste aus Siedlungen. B Überreste aus Körpergräbern. C Überreste ohne Spuren von Verzehr: „Tierbestattungen“.

Conclusions

So far the studies on this subject draw our attention to one category of animal deposits, i.e. to "cattle burials". Without denying their special value for far-reaching interpretations, we should go back, however, to the analysis suggested by H. Behrens (1964), i.e. to attempt to place cattle burials against the background of deposits containing remains of other animal species, in particular domesticated ones.

The collection of data on animal deposits made by the communities of the GAC in Kujavia has – when compared to data in other regions – a number of specific, individual characteristics. There is a clear tendency to place deposits in pits within settlement bounds (category III). A smaller group is made up of deposits in direct or indirect connection with graves of a human being(s). In this way dead (killed?) and intentionally buried animals became part of space used by the living members of the community. In some cases data indicates an intentional placing of deposits along the periphery of a settlement, where they could have marked its bounds. Another important observation concerns preferences in selecting animals for use in different spheres of human activity including different rituals. Although these observations must not be generalized, they are an important stimulus for further research into "animal burials".

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