Scattered human bones on prehistoric camp site Dudka, NE-Poland, as indication of peculiar burial rite

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Résumé

Des os isolés et dispersés du campement préhistorique à Dudka, le nord-est de la Pologne: indice d'un rite funéraire spécifique

Des os humains isolés et dispersés apparaissent parfois dans les sites archéologiques mésolithiques et paranéolithiques en Pologne, en Scandinavie du Sud et dans les pays baltiques. Selon une interprétation, ce sont des traces de tombes détruites. Selon une autre hypothèse, il s'agit ici de témoignages du cannibalisme ou de violence. Des vestiges de ce type (275 pièces) ont été trouvés à Dudka, au nord-est de la Pologne, dans un campement préhistorique de chasseurs-cueilleurs. Ces vestiges montrent quelques caractères spécifiques: ils sont mieux conservés que des os d'animaux, ils ne portent pas de traces d'incision ni du rongement. Par contre, ils sont plus souvent brûlés et ils révèlent aussi une certaine sélectivité anatomique. Leur distribution (avec quelques concentrations) n'est pas aléatoire, et leur liaison avec des parures et de la poterie de luxe est bien évidente. La découverte d'une sépulture collective de 3 individus a jeté une lumière nouvelle sur cette question. Certains os manquaient dans cette sépulture (quelques os longs et une mandibule) et d'autres os ont été en déplacés. À mon avis, il s'agit ici d'une inhumation secondaire. On peut admettre alors que les anciens habitants du site à Dudka ont pratiqué un rite funéraire spécifique se déroulant en deux étapes. Les os dispersés ainsi que les parures seraient des traces d'inhumations "primaires", temporaires. Ensuite, les vestiges (mais pas tous les os!) ont été ramassés et enterrés de nouveau; cette étape est attestée par des sépultures collectives – "secondaires". Les deux types de sépultures existaient sur le même cimetière.

Traduction: Hanna Kowalewska-Marszalek

Zusammenfassung

Gestreute menschliche Knochen in einem vorgeschichtlichen Lagerplatz in Dudka, Nordost Polen, der als Hinweis für besondere Bestattungspraktiken gilt.

Die Funde von gestreuten, einzelnen menschlichen Knochen kommen gelegentlich auf den mesolithischen und paraneolithischen Fundplätzen in Südskandinavien, Polen und Ostseeländern vor. In der Regel werden sie als Zeugnisse des Kannibalismus und der Gewalt oder als Überreste zerstörter Gräber interpretiert. Eine relativ Große Anzahl solcher Überreste (275 Stück) fand man in einem Jägerplatz in Dudka in Nordost Polen. Die menschlichen Knochen aus Dudka weisen viele spezifische Merkmale auf. Im Vergleich zu den Tierknochen sind sie besser erhalten und haben keine Spuren von Einschneiden oder Zernagen. Sie sind öfter verbrannt, weisen eine deutliche anatomische Selektivität, untypische Verteilung und Konzentration sowie schließlich einen auffalenden Zusammenhang mit den Überresten von Bestattungsbeigaben (Schmuck und kostspielige Keramik) auf. Erst der Fund eines Sekundärsammelgrabes mit 3 Personen, in Unordnung, denen manche Langknochen und der Unterkiefer fehlten, hat zu der Annahme geführt, dass in Dudka Bestattungspraktiken in 2 Etappen stattgefunden haben. Die losen Knochen und der Schmuck gehören zu den Überresten der Zwischengräber, aus denen später einige (aber nicht alle!) Knochen in die Sekundärsammelgräber auf das in der Nähe gelegenen Gräberfeld in Dudka gebracht wurden.

Übersetzt von: Agnieszka Sieja

Introduction

At the Mesolithic and Para-Neolithic settlement sites scattered human bones sometimes occur particularly in Southern Scandinavia as well as in Poland and East Baltic Countries (Newell *et al.*, 1979: fig. 2; Larsson *et al.*, 1981; Wyszomirska 1984: 165, 193; Andersen 1985: 56; Andersen and Johansen 1986: 57; Fisher *et al.*, 1987: 57, 106; Wyszomirska 1988: 196; Larsson 1990: 285; Andersen 1991: 26, 36; Andersen 1993: 78, 87; Kannegaard Nielsen and Brinch Petersen 1993: 76; Meiklejohn *et al.*, 1998: 205; Gramsch and Kloss 1989: 322; Szlachetko *et al.*, 1964: 69; Wiercinska and Szlachetko 1977: 187; Ilkiewicz 1989: 24; Bagniewski 1990: 167; Kobusiewicz and Kabacinski 1991: 14-15; Okulicz 1973: 71-72; Rimantiene 1992: 115, 123). Such cases are left uncomment, or they are interpreted in two main ways. The first group stray human bones considered as evidence of cannibalism, sacrifice, or violence, while the second group as destroyed graves. Excavations at Dudka indicate another possibility - the peculiar burial rite.

The site

Dudka (Gizycko district) is situated in the north-east Poland in the Masurian Lake District. The Dudka site is a large and flat island (15 ha) in a vast peat-bog (c. 25 km²) which remained after a dried-up lake (fig. 1). During the Stone Age till the end of the Neolithic, i.e. to the Middle

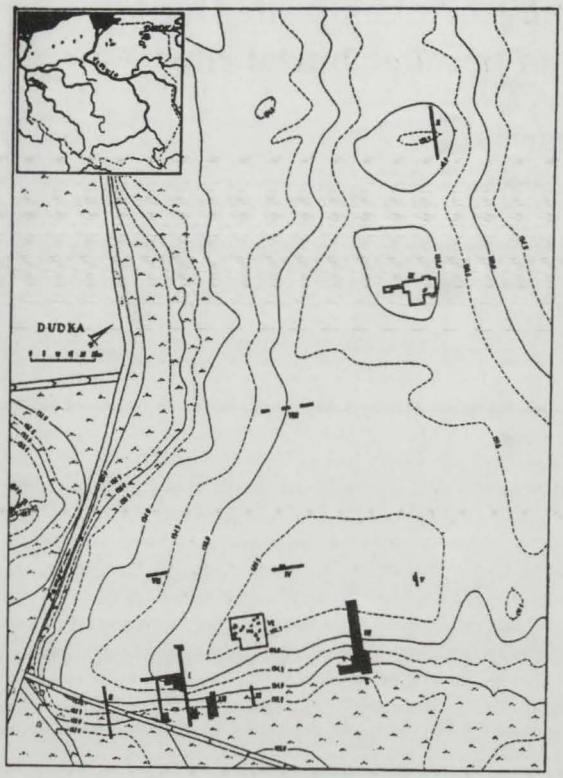


Figure 1. Localisation of the Dudka in Poland, SE part of the Dudka island. Trenches are marked in black or by black borders. Graves in trench no. VI and IX are shaded.

Subboreal it was one of the Great Masurian Lakes. From the Late Palaeolithic, through the entire Mesolithic and Neolithic the Dudka island has been seasonally (mainly in spring) occupied by fisher-hunter-gatherer groups. Even in the Neolithic the main source of protein came from hunting and fishing, however some bones of domesticated animals (swine, cattle and in the later Neolithic also sheep/goat) have been found in the Neolithic layers, but they never exceeded 10% of game mammals. Dog came to the Dudka island as a men companion at least from the middle Mesolithic (late Boreal), most likely as early as from the earliest Mesolithic (from the late Preboreal). Cultivation was not introduced till the end of the Neolithic. The main cause for camping on the island was spawning time fishing, which was doing yearly (?) in spring. Others springtime activities - fowling, catching tortoises, and perhaps collecting eggs were practising as well. In some of Mesolithic and Neolithic periods also a late summer/early autumn activity is confirmed for instance by hazelnuts gathering or by broken off antlers from red deer skulls (Guminski 1995; 1997; 1998; 1999).

According to stratification, spread of finds, and forty three radiocarbon dates, 7.500 years of the Stone Age settlement on the Dudka island has been divided into eight periods of habitation. There were as follow: the late Palaeolithic (Tanged Points culture complex), early Mesolithic (Maglemose culture complex), middle Mesolithic, late Mesolithic (Post-Maglemose), early Zedmar culture (Para-Neolithic), Zedmar, Zedmar/Neolithic (classical = Funnel Beaker and Globular Amphora cultures), and late Neolithic (Corded Ware culture) (Guminski 1995: Tab.9; Guminski 1999: Tab.4). In most of distinguished periods some scattered human bones occurred (Table 1).

Animal versus human bones

Excavations at the Dudka site in ten trenches of the total area 372 m² produced c. 94.000 animal and fish bones, as well as 275 human bones. Animal remains are intensively fragmented, except of these from the late Palaeolithic, and these which have been found in the former submerged layers. Probably the presence of dogs on the island from the beginning of the Mesolithic is result from. Animal bones are very rarely burned.

Otherwise appeared human bones, which are more frequently burned (13.7%), but have not got any traces of gnawing or cutting. As a rule, no cranial bones and jaws are in the best part or almost wholly preserved. It concerns not only to main long bones, but to flat bones too, such as pelvis, scapula, and ribs, which are much more fragile then others. Only calottes of skulls are heavily broken up, and dispersed, some of pieces more than 10 m away. Similar refers to teeth belonging to one individual, which were found up to a few meters one from another (figs. 2-4).

Frequency of appearance of particular human bones is not in conformity to a human skeleton, what the Table 2 and the fig. 5 present. The disproportion is particularly visible between calottes and jaws, which cannot be explained by differences in fragility or identifiable. Taking into account, that the ratio between jaw and main long bones is like 1:12 in entire skeleton, human long bones from Dudka are also distinctly lacking. Moreover, some disproportion between particularly long bones, for instance femur and tibia is visible too (fig. 5).

The distribution of human bones within the site is distinctly irregular and different in comparison with animal ones, what the Table 3 and figs. 2-4 presents.

Individuals

From 275 human bones 85 individuals have been distinguished on the grounds of anthropological and odontological features, as well as of distribution and stratigraphic location. It means that only one or a few bones represent a real individual. There are two main circumstances in which bones of each distinguished person usually appeared. One group is represented by a single no cranial bone ("x" on the figs. 2-4), eventually by a pair of an anatomical unite, such as clavicle and scapula, humerus and ulna, 4 bones of metatarsal. Few pieces of calotte and/or some teeth ("o" on the figs. 2-4) represent the second group of individuals. Moreover, in trenches no. III and IV (with most numerous human bones) there are places in which no cranial bones (well preserved) predominate, and other wider zones where pieces of calottes and teeth take over.

Periods	Chronozones	Chronology in radiocarbon years conv. bc		Duration in radiocarbon years	No. of human bones	No. of individuals
		From	to			
l. Neolithic	e./l. SB	2250	1750	500	120	33
Zed/Neol.	e. SB	2750	2250	500	68	19
Zedmar	l. AT/e. SB	3100	2750	350	74	26
e. Zedmar	l. AT	3600	3100	500	7	3
l. Mesol.	e. - m./l. AT	5700	3600	2100	-	-
m. Mesol.	l. BO - /e. AT	6700	5700	1000	5	3
e. Mesol.	l. PB – e. BO	7750	6700	1050	1	1
l. Palaeol.	l. AL. - e. PB	9250	7750	1500	-	-
Stone Age	l. AL. - l. SB	9250	1750	7500	275	85

Table 1. *Periodisation, chronology and human bones at Dudka.*

Kind of bone	Number of bones	Percentage
calotte	184 (54)*	66.9% (37.2%)*
jaw	2	0.7%
teeth	39	14.2%
long bones	26	9.5%
others	24	8.7%
Total	275 (145)*	100.0%

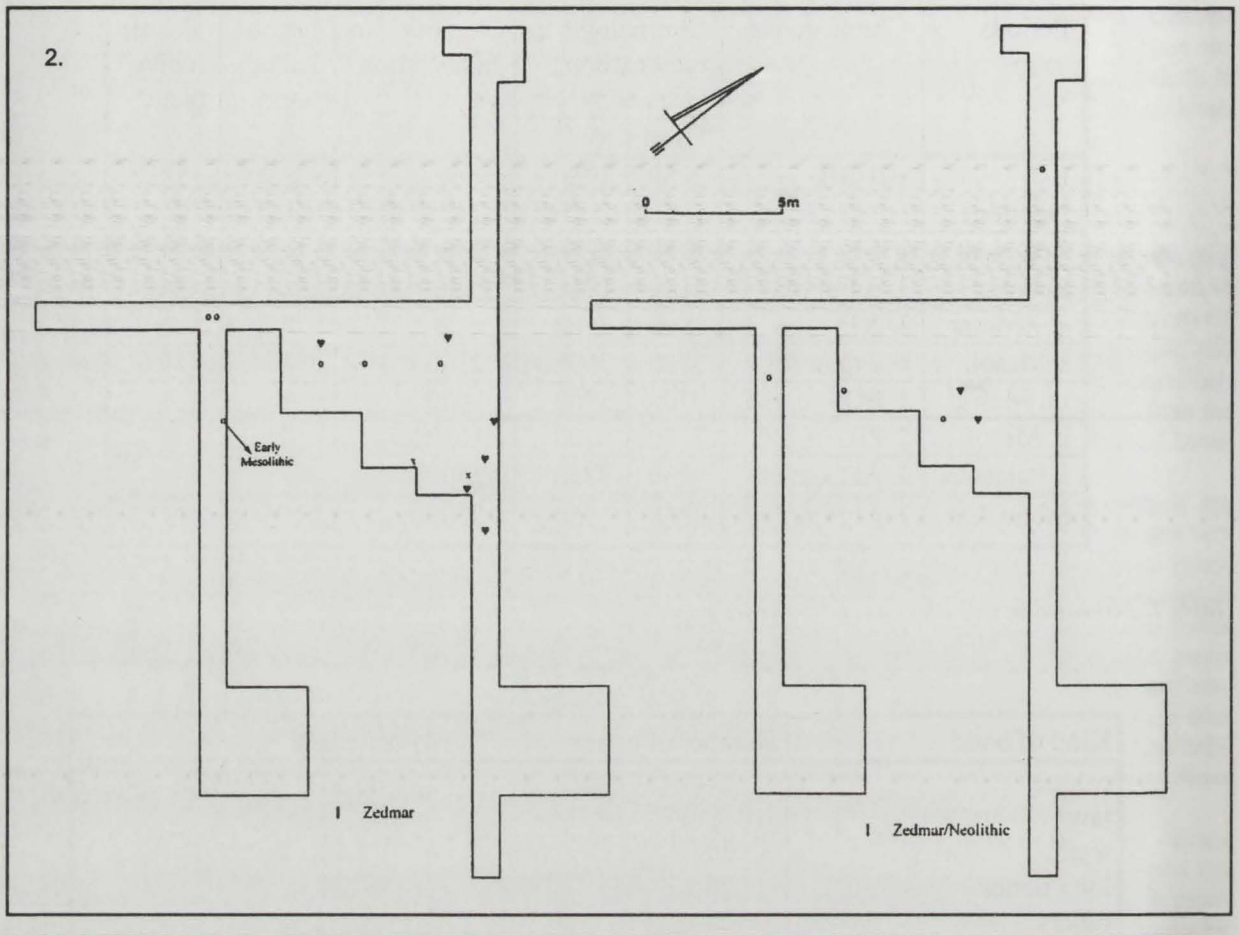
* *In fact 184 pieces of calottes come from 54 individual skulls, so they are 145 separate bones.*

Table 2. *The frequency of particular human bones at Dudka.*

Trenches	Density of bones per 10 m²		Coefficient of human bones	Number of human bones	Number of individuals
	animals	human			
I – settlement	7994	1.5	0.2	12	8
III, IV	1682	16.0	9.5	233	65
VI – cemetery	973	26.3	27.0	c. 100*	*
others	353	1.4	4.0	13	9

* *Numerous stray human bones from trench no. VI, where a cemetery was discovered lately, have not been analysed yet.*

Table 3. *The distribution of bones at Dudka.*


2.
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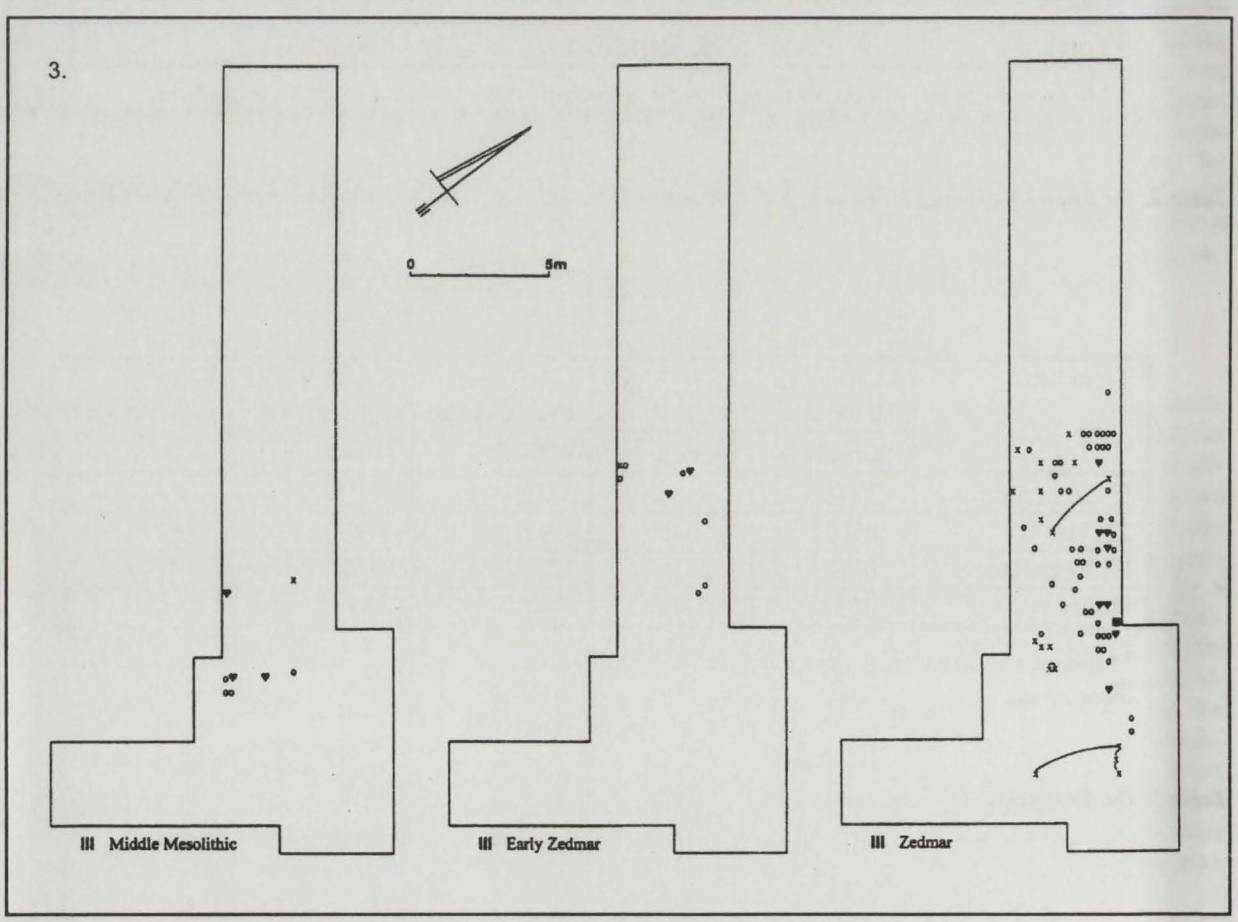
Early
Mesolithic
I Zedmar
I Zedmar/Neolithic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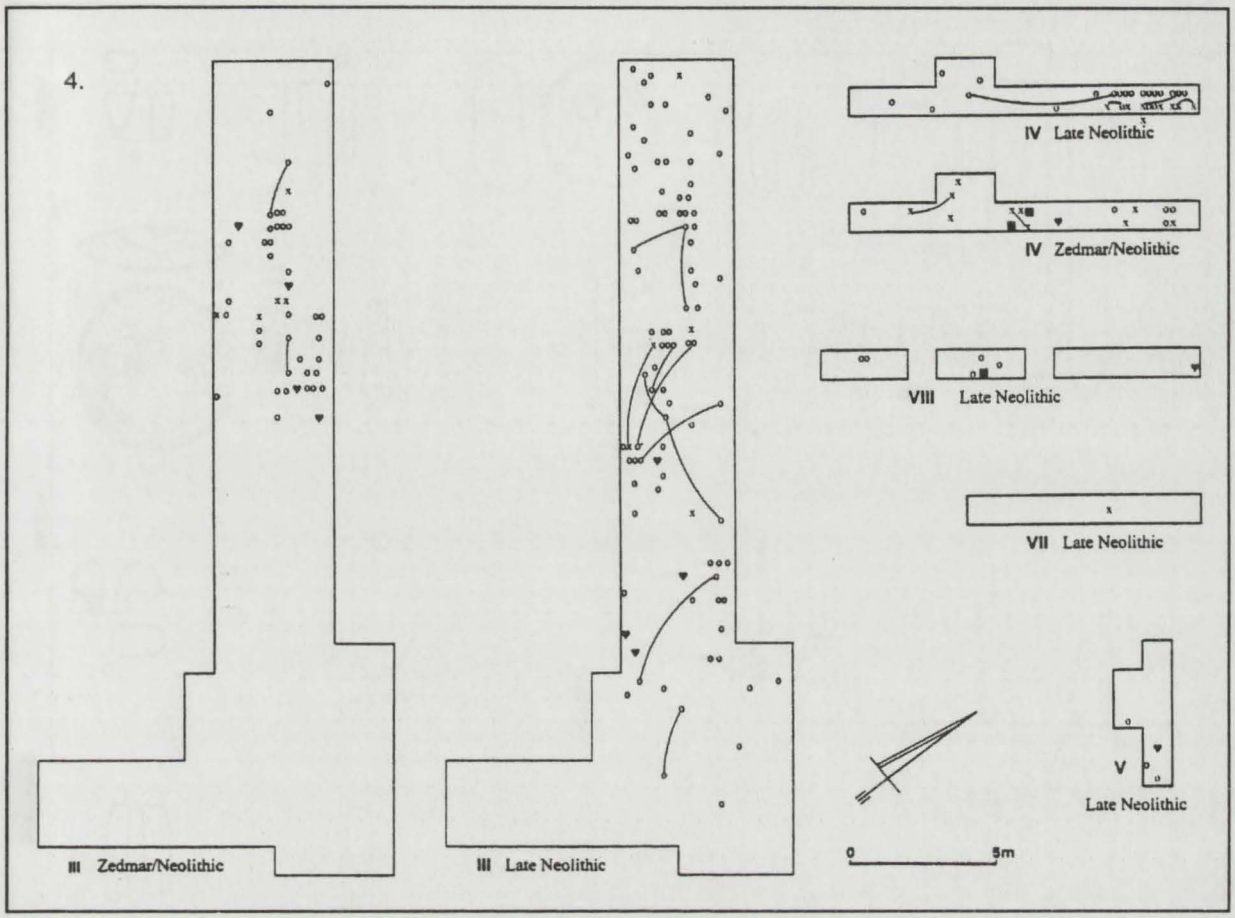
III Middle Mesolithic
III Early Zedmar
III Zedmar



Figures 2-4. *Human bones in particular trenches and periods. "o" - fragment of a calotte or tooth, "x" - other human bone, "heart" - pendant, "solid square" - handled pot, connection lines - refitted bone or anatomical unit.*

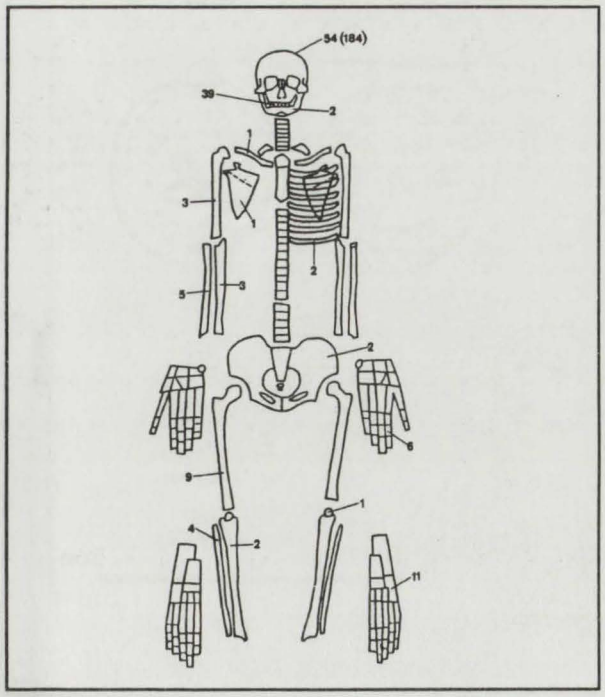


Figure 5. *Numbers of particular human bones found at Dudka apart of graves.*

Burial goods

The most important argument that we have to deal with intentionally, however partial burials is the distribution of pendants ("hearts" on the figs. 2-4). Almost all of them have been found among biggest concentrations of human bones, particularly skull fragments. These ornaments are made of animal teeth, bones, amber, or lime fossils. Apart from the lime, all but one had got broken hole (fig. 6). This suggests that each singular pendant was lost from a string. In the middle Neolithic also vessels of special form, i.e. handled and sophisticated ("solid squares" on the figs. 2-4) could be given to deceased as well, since such pottery were found usually close to human bones. These vessels however were probably intentionally crashed.

Temporary burials

Recalling above features concerning scattered human bones – special treatment, selectivity, distribution, concentrations, accompaniment – one can suggest that they are remnants of temporary burials. However, no traces of grave pits, timber or stone structures were found. So then, what kind of burial custom they are traces from?

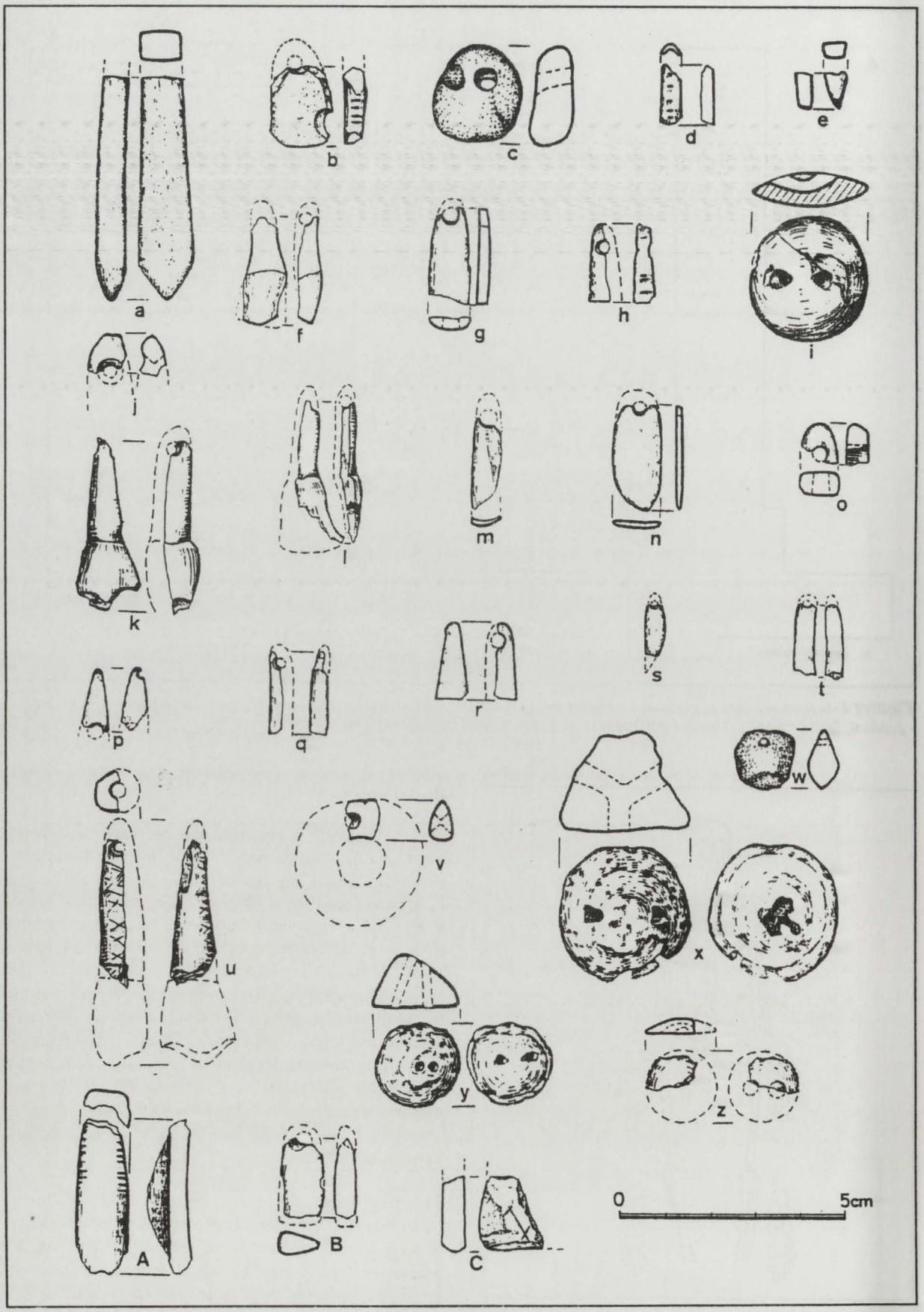


Figure 6. *Pendants found at Dudka apart of graves; a-b,e,i,o,v,z,B - amber; c,w-y - lime fossil; d,g,m-n,A,C - bone; f,h,j-l,p-u - tooth; a-c - middle Mesolithic; d-e - early Zedmar; f-m,u-x,z,A - Zedmar; n-r,B - Zedmar/Neolithic; s-t,y,C - late Neolithic.*

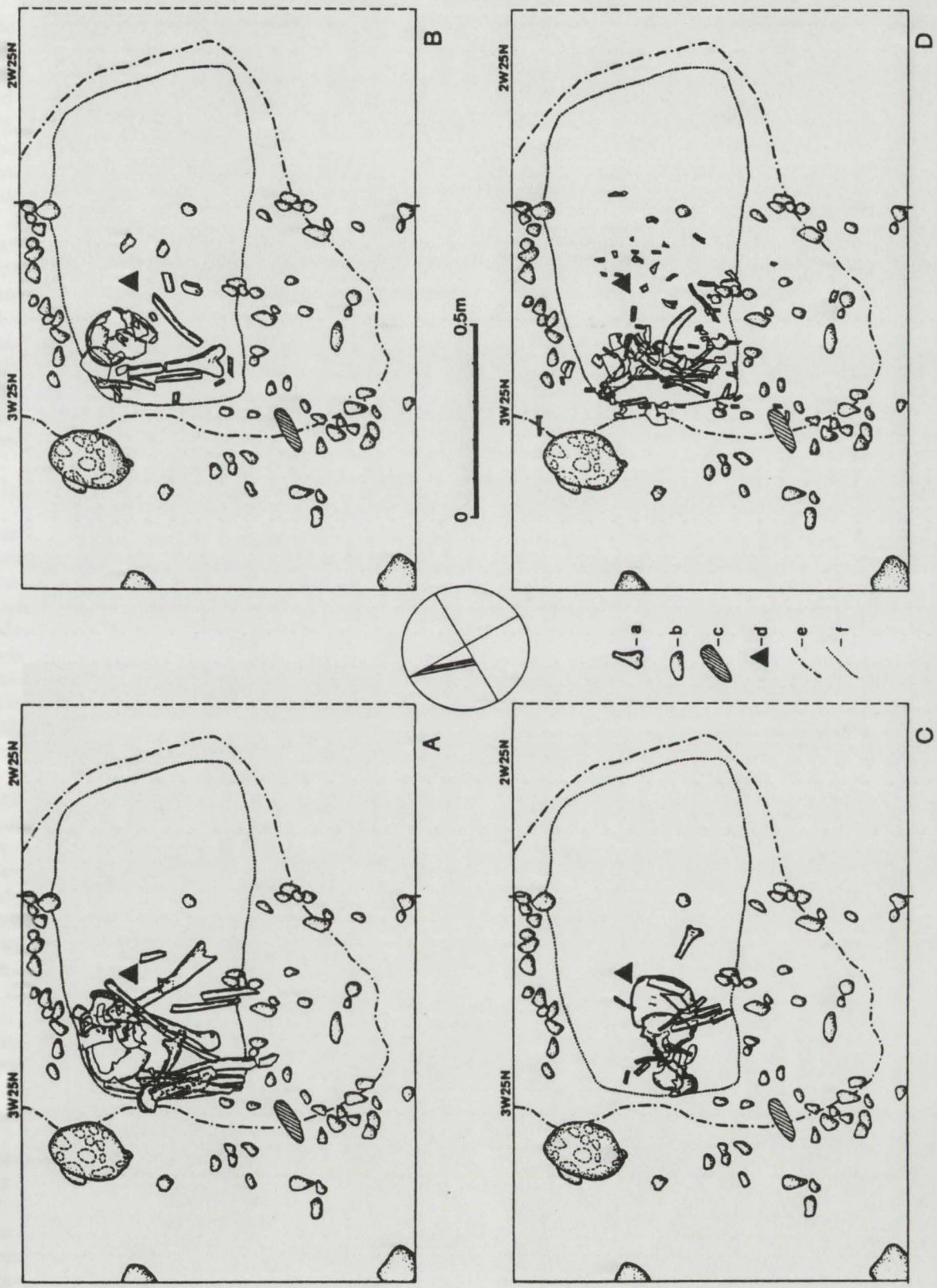


Figure 7. *Plan of the grave no.VI-1. Bones of each individual are on separate plan (A-C), D - bones not to fit to particular person. a- bone, b- stone, c- axe-like polish plate, d- fragment of a handled amphora, e-f- borders of a pit-grave.*

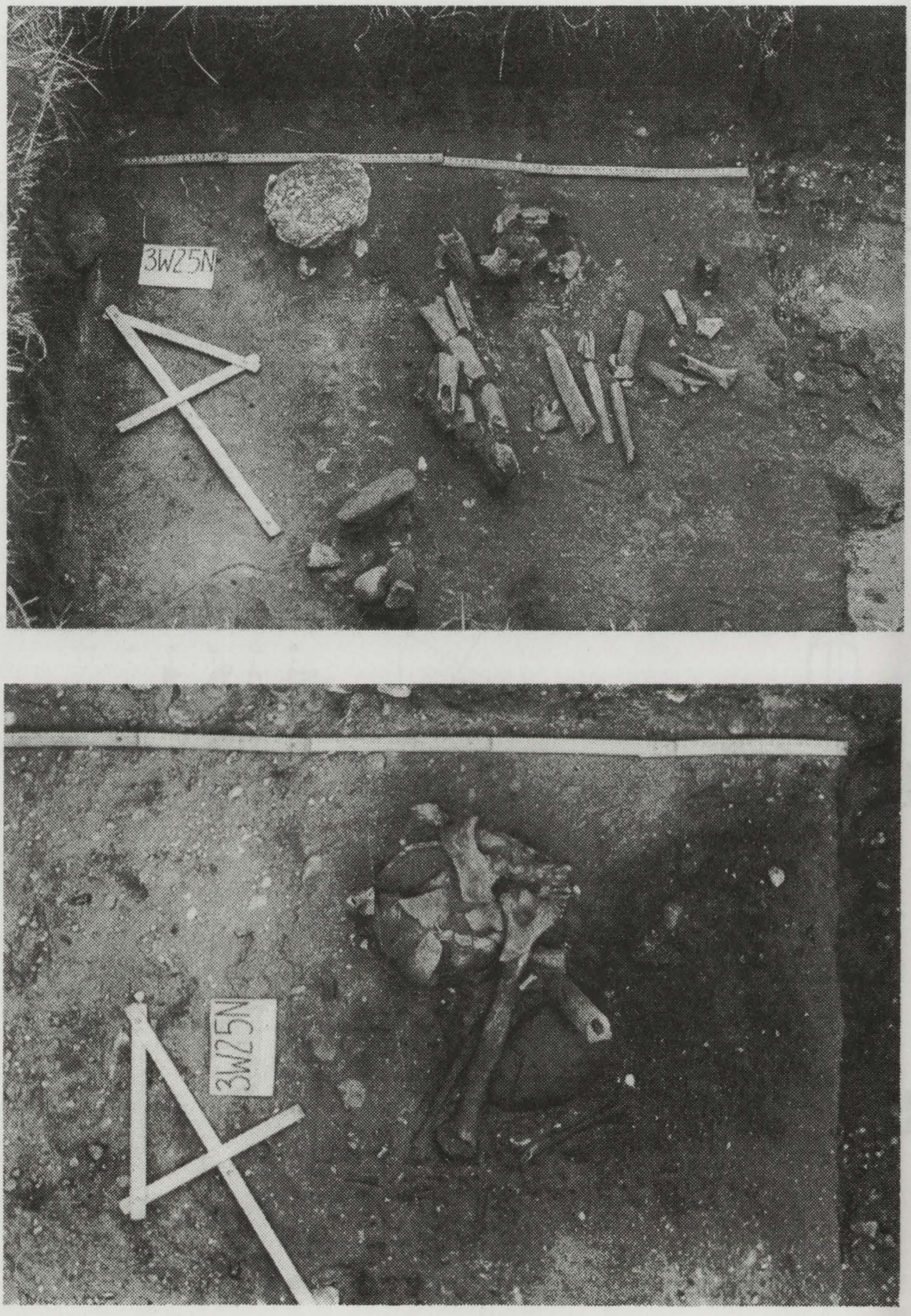


Figure 8. *View of the grave no. VI-1. A - top; B - bottom.*

Secondary burials

The explanation of the occurrence of scattered human bones came with the exploration one of the few collective-burial - grave no. VI-1 situated within encampment zone and cemetery at the same time, i.e. in the trench no. VI (fig. 1). Bones of three adult persons were buried in a small pit together with a fragment of handled amphora, a stone polished plate resembling a stone axe, and a big lime disk. The bones were mutually jumbled up some of them in vertical or diagonal position (figs. 7-8). Jaws were separated from their skulls moreover three skulls were accompanied only by two jaws. Anthropological examination showed other shortages, including some of fundamental long bones. One can infer, that this was a secondary, post-exhumation grave containing the greater part (but not all!) previously selected bones from three skeletons, which were laid elsewhere before. It means that scattered human bones appear mainly in trenches no. III and IV are complementary to such a grave.

A hypothetical scenario of two-stage burial rite

Once in spring, just deceased person was laid on the ground within encampment area somewhere in vicinity of trench III or IV. He was furnished with a string of pendants, sometimes also with a vessel of special form. The cadaver was covered by branches (?) in order to protect the body against birds; other scavengers were less likely (except winters frozen) because the event took place at the well separate island. Then, the rest of inhabitants together with theirs dogs left the island. One (?) year later the same community returned to the island for fishing and burring the dead, actually the skeleton. If remains of the body still persisted, they burnt them. In any case the skull was crushed (to rescue the soul?); the same was happened with the vessel. After such ceremony most of bones (and burial goods?) were collected into a sack, which was put down and buried into a final, post-exhumation, secondary grave. However, a certain bone(s) of limb, trunk or jaw (the key is unknown) was (were) left on the original spot. Some of the broken pieces of skull and knocked out teeth, as well as damaged and dropped out singular pendants could be lost. The main string of pendants was not buried in the secondary grave with the principal set of bones. This was transferred somewhere else, or was inherited.

Conclusion

Carefully examination of scattered human bones in various bearings suggests that they are traces of a specific burial custom. Prehistoric forager communities from Dudka practised two way of burial. The first way compounded from two stage burials: first – temporary, after which strayed human bones remained, and next – secondary post-exhumation burials, for which a good example is the grave no. VI-1. The second way was burying a deceased person immediately and decisively in primary grave, which is most common all over the world. Each kind of such burials – temporary (extremely selected and rejected, up to one stray bone fragment), secondary (a set of jumbled up bones from one or few skeletons), and primary (skeleton in anatomical position) occur at the one cemetery (trench no. VI) in Dudka (fig. 1). Skeletons in primary graves, apart of classical lay in contracted position, there prevail in a very unusual sitting-squatting position.

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