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Preliminary Results from the Investigation of Human Bone Remains from South Necropolis of Roman Deultum. Complexes with Cremation Burial Ritual

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The study includes preliminary results from the investigation of human bone remains from 28 complexes with cremation burial ritual from the necropolis of the Roman colony of Deultum.

Key words: South necropolis, Roman colony, cremations.

Materials and Methods

During archaeological excavations on the necropolis 35 complexes with cremation are investigated, dated in the 1st-2nd c. AD, which are 41.67% from graves from the Roman period [10]. The anthropological investigation is held on field and aims at deriving maximum information from this poorly preserved material. At first all the available material is collected and analyzed, aiming recognition of the anatomical specific sites of human bones on available fragments. As in most cases cremation had been performed on place, position of the recognized fragments is documented during the investigation in order of reconstruction of body position on the burial pyre.

In anthropological identification fragments with identifiable anatomical sites are used (**Fig. 1**). For age achievement are applied methods for assessment of dental development [5, 9], epiphyseal fusion [4] and cranial sutures obliteration [7, 8]. In most cases the age is identified after data for cranial sutures obliteration, or in nine individuals, 75% from the identified in more concrete age groups (**Table 1**). For three of these cases the results from the cranial sutures obliteration are supported by other features. The sexual identification is performed by complex of dimorphism on pelvic bones [1, 7], cranial bones markers [6] and standard tables for diameters of femoral, humeral and radial heads, femoral and humeral bicondylar breadth [2, 4]. The metrical methods identified 10 of the individuals, or 62% from identified, for 12% from which obtained results are supported from additional features (**Table 2**). In the preliminary investigations is included material from 28 graves with cremation burial ritual.

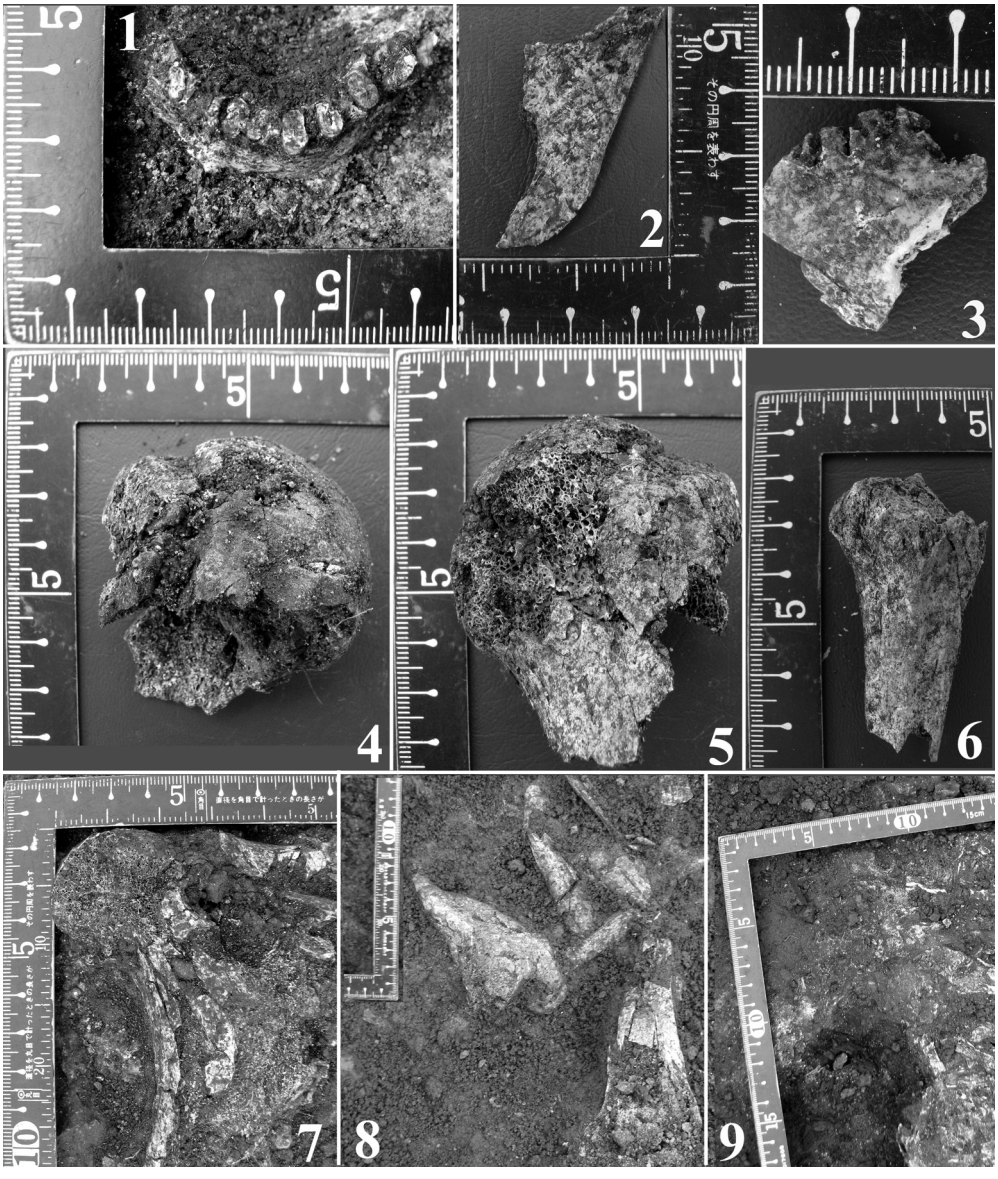

Fig. 1. Roman south necropolis, Deultum. Identifiable fragments. **1.1.** Grave N 16, field situation, mandible; present permanent teeth, pronounced mental tubers. **1.2.** Grave N 13, mandible, oval mandibular angle. **1.3.** Grave N 46, cranial fragment, parietal bone, lack of obliteration in the lambdoid suture. **1.4.** Grave N 46, head of right humerus, measurable vertical diameter, fused epiphysis. **1.5.** Grave N 46, head of left humerus, measurable vertical diameter, fused epiphysis. **1.6.** Grave N 46, head of left humerus, unfused epiphysis. **1.7.** Grave N 52, field situation, proximal part of left femur, measurable diameter of the head. **1.8.** Grave N 5, field situation, distal parts of both femurs, measurable bicondylar breadth. **1.9.** Grave N 42, field situation, left pelvic bone, narrow form of greater sciatic notch

Table 1. Distribution of the identified material in regarding to age of the individual after the available features for used methods

Age identifying features	Concrete age		Defined only as grown-ups	
	N	%	N	%
Dental development	3	25.00	1	7.14
Dental development and epiphyseal fusion		0.00		0.00
Craneal sutures obliteration	6	50.00		
Cranial sutures obliteration, epiphyseal fusion	3	25.00		
Epiphyseal fusion			13	92.86
Total	12		14	

Table 2. Distribution of the identified material in regarding to sex of the individual after the available features for used methods

Sex identifying features	N	%
Dimensions	8	50.00
Craneal feature	2	12.50
Craneal features, Massiveness, Dimensions	2	12.50
Massiveness and dimensions	2	12.50
Massivness	2	12.50
Total	16	

Results and Discussion

The investigated material allows identification of some of the individuals in broad limits of age specific groups of infants/adolescents, adults and matures for 11 complexes or 40.74% from the included in the preliminary investigation, which provide information for 12 individuals, who comprise 42.86% from defined individuals. In addition, in some more cases or 14 complexes are recognized remains, characteristic for grown-up individuals in opposite to adolescents, which couldn't obtain more precise determination of the age. Only material from eight individuals (28.7%) provide small amount of data for some more precise identification of age and sex (**Table 3**).

In age distribution is notable the small number of individuals identified as infants in the preliminary investigation (**Tables 3, 4**). This still remains a result of included material, at this stage of investigation excluding complexes, which identification was difficult on field as they presented very little number of fragments with very small dimensions. One of the explication of this state of the material in these complexes could be that they/or some of them present infant individuals. Nevertheless, without any identifying fragment their identification still remains problematic at the preliminary stage of the investigation. As in most anthropological series from the preindustrial period relative number of individuals, who died in the age of adults, between their 20-40's can be apprised as high or 66.67% in contrast to these who reached higher age at the time of death (25%) (**Table 3**). The lack of the individuals in senile age is to be explained with difficulties in recognition in the cremated material of features characteristic to that age, parallelly to the small expected number of such individuals, characteristic for preindustrial periods. The results doesn't show differences in survivorship between males

Table 3. Age and sex distribution of the identified individuals

	Infans I	Adultus		Maturus		Defined	Total
		M	F	M	F		
N	1	2	3	1	1	8	28
def %	12.50	25.00	37.50	12.50	12.50	28.57*	96.4

* – % from total investigated material.

Table 4. Age distribution of the identified individuals

	Infans I	Adultus	Maturus	Def. Age	>20 y.	Total >20 y./Inf
N	1	8	3	12	26	27
%	8.33	66.67	25.00			
%*	3.70				96.30	

* – % from identified as infants/grown-up individuals.

and females (**Tables 3, 5**), which still shell be explained more with the small number of individuals, who could receive both age and sex identification rather than with demographic specifics of the population. In individuals, who received sex identification, is visible a tendency for clear prevailer of female ones. Preliminary data from the graves with inhumation with simultaneous date with no clustering of areas of the necropolis with preference of one of the rituals [10] show possible interpretation of the latter result with preference of cremation burial ritual for females in the population. In one case (Grave N 46) was ascertained a double burial after material from an infant and a male individual (**Fig. 1**).

Table 5. Sex distribution of the identified individuals

	Adultus		Maturus		Def. Sex/ Age	Undef >20 y.		>20 y.		Def. Sex
	M	F	M	F		M	F	M	F	
N	2	3	1	1	7	2	7	5	11	16
%	25.00	37.50	12.50	12.50				31.25*	68.75*	

* – % from all individuals with defined sex.

In 24 from the studied complexes was ascertained position of the cranial fragments, which in burial ritual of the cremation on place gives some information about position of the body on the burial pyre. In directions prevail NW and SE ones with 16.67% each (**Fig. 2**). In three cases (12.5%) fragments are found at about the middle of the pit.

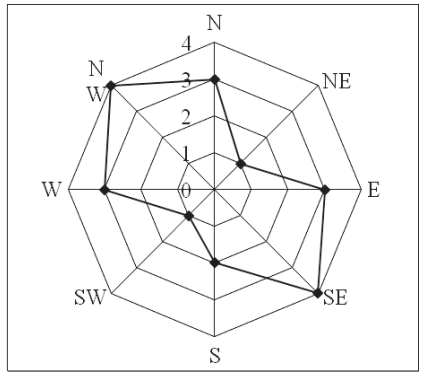

Fig. 2. Orientation of the body on the burial pyre after location of cranial fragments in grave pits

Conclusions

In spite of highly fragmentary state of the materials from graves with cremation burial ritual they could provide some information about age and sex of the individuals. These data have high value for interpretation of these complexes in the necropolis.

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