

ANTHROPOLOGICAL ANALYSIS OF THE HUMAN REMAINS FROM THE DESA-CASTRAVIȚA NECROPOLIS (DOLJ COUNTY)

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Abstract. *We present an anthropological analysis of late Hallstatt human bones from the Desa - "Castravița" necropolis, Dolj county, Romania. The bones from nine of the ten graves excavated from Mound 1 were available for analysis, grave 9 missing the reported skull. We identified remains from 18 individuals, mostly adult males, two females and two children/adolescents skulls. All skeletons presented segment degradation due to physical agents (soil compression, moisture, bacteria, plants, soil minerals). Five graves contained scattered human bones (mainly skulls, humeri and femur shafts) in addition to the „main” skeleton. Often the upper limbs and the skull were missing for certain skeletons, a fact consistent with human intervention (more or less deliberate), either during or after the construction of the mound, although none of these interventions were identified archaeologically. The missing skeletal segments from some graves and the scattered human bones found in others, might suggest a deliberate selection of the inhumated skeletal segments and/or the addition of scattered human bones. In three of the graves there were identified fragments of animal bones.*

Keywords: *Anthropological analysis, Basarabi culture, Iron Age, necropolis, scattered human bones, animal bones.*

Introduction

The osteological material originates at Desa *Castravița*, Dolj county, from archeological work by P. Gherghe and F. Ridiche during 2002 (barrow 1 only). Skeletons from barrows 2 and 3 were not available for anthropological analysis. Consisting in few skeletons, in a rather precarious state of preservation, the osteological material belongs to the Basarabi type discoveries, which were rarely analyzed anthropologically.

Methods used for analysis and osteological material

For the bones identification, description and siding, were used the osteological atlases of WHITE (1991) and WHITE & FOLKENS (2005) and the book of SCHEUER & BLACK (2004) for the childrens skeletons. Sex was determined using cranial and post-cranial sexual features, according to the methods of P. Walker from the books of BUIKSTRA & UBERLAKER (1994, 15-38) and WHITE & FOLKENS (2005, 387-397).

Ages of death were established using the dental wear, according to the methods of Lovejoy (WHITE & FOLKENS 2005, 367-369), degree of obliteration of the cranial sutures using the methods of P. Walker (WHITE & FOLKENS 2005, 360-371) and the resorption of the spongy tissue (ACSÁDI & NEMESKÉRI 1970, 127-128, fig. 22). The estimation of the age of death of the child skeleton was made using tooth eruption and the union degree of the epiphyses to the diaphysis of the bones (UBERLAKER 1980, 47, fig. 2; SCHEUER & BLACK 2004, 149-179).

Identification and description of pathology has been achieved using the book of ORTNER (2003).

Metric data were collected using the methods of Martin (BRÄUER 1988). Stature was calculated based on the maximum lenght of the femur by the method of PEARSON (1899), and the weight using the antero-posterior diameter of the femoral head (AUERBACH & RUFF 2004, 331-342).

Osteological materials were generally very fragmented. Missing and destroyed parts were due to soil conditions (perhaps increased humidity), to interventions before/after the initial grave excavation, and, in some cases, due to archaeological work. With few exceptions all bones presented exfoliated surface, and many bones (especially the facial skeleton, chest, spine, hands and feet bones) appeared „melted” in the soil. Therefore, we measured dimensions only in a few cases in which the periosteum was not very affected. The skull from grave 9 and the skeletons from barrows 2 and 3 haven't reached us. Some missing teeth and epiphyses of long bones were due to bone destruction in the course of site sampling, given the fragility of these segments. Additionally, some bones, especially teeth and shafts, were taken for DNA analysis and ¹⁴C before being anthropologically analysed, only descriptions and photos being kept (Tab. 1)¹.

Tab. 1. Bone samples taken for DNA and ¹⁴C analysis.

Barrow/Grave no./Skeleton	DNA samples	¹⁴ C samples
B 1/Gr. 1/Sk. A	3 molars	Proximal half of the right femur shaft
B 1/Gr. 2/ Sk. A	1 canine/1 premolar/2 molar	Left tibia shaft
B 1/Gr. 3/ Sk. A	-	Talus and first right metatarsal
B 1/Gr. 5/ Sk. 1	5 molars	Left femur shaft
B 1/Gr. 5/ Sk. 2	5 molars	-
B 1/Gr. 6	1 canine/1 incisor/3 molars	-
B 1/Gr. 8	1 incisor/1 premolar/3 molars	-
B 1/Gr. 10	3 molars	-

¹ DNA samples were analysed by Georgeta Cardoso and A. Rodewald at Institut für Humanbiologie, Hamburg and by dr. Florin Stanciu at the Forensic Science Institute from Bucharest. The ¹⁴C samples were analysed by dr. B. Kromer, at Institut für Umweltphysik, Heidelberg.

Estimation of age and identification of animal bones was made using SCHMID (1972)².

Desa Castravița 2002, Gr. 1 from Barrow 1

Skeleton A: has kept very few skeletal fragments, heavily damaged by the action of natural agents. Right parietal and the squama of the corresponding temporal bone, has been broken on the anterior side and around bregma during excavation. One fragment from the right side of the frontal bone shows recent damage above the superciliary arches, with the corresponding zygomatic process in connection with a fragment of maxilla. Also from the right maxilla there is a small fragment probably around molars 1 or 2. There is a fragment from the body of the right mandible, damaged recently around the molars, with the second molar *in situ* (Tab. 2). Other small fragments belong probably to the parietal bone and right side of the frontal. Fragments from vertebral arches and first sacral vertebra were identified, and from os coxae only the right iliopubic ramus and acetabulum were recovered.

Femurs and tibiae consisted in shafts fragments and a portion of the right femoral head. The left femur and tibia show traces of green pigments, probably from a bronze object.

Sex and age: based on the skull and long bones, we identified a female individual, with a pronounced dental attrition, indicating an age of death above 40 years.

Skeleton B: a shaft from a left femur has been identified among the bones, coming from an individual whose sex cannot be determined and an age of death which can be estimated as adult (Fig. 1/Grave 1).

Pathology: the vertebral body of the first sacral vertebra shows a few traces of osteoarthritis.

In addition to human bones there was identified a fragment from a right humerus shaft, from a *Sus domesticus* or *Sus scrofa*.

Tab. 2. Dentition of the skeleton from Grave 1³.

-	/	/	/	/	/	/	/	-	/	/	/	/	-	-	-
-	/	/	-	-	-	-	/	/	-	-	/	-	-	M ₂	-

Desa Castravița 2002, Gr. 2 from Barrow 1

Skeleton A: from the skull there are parts from the anterior side of the parietals, connected along the sagittal suture. The fragmented mandible during the excavation has the anterior part of the body, partially preserving alveoli of the incisor 2, canine and premolar from the right side, and the left first premolar (Tab. 3). Part of the vertebrae C 3-4 were recovered and small fragments from great sciatic notches. The right femur has the shaft and a partially preserved distal epiphysis, while the left one has only the shaft. Right tibia has the distal epiphysis broken anciently, and the left one is represented by the shaft and distal epiphysis. From the right foot talus, navicular and first metatarsal are complete, while the calcaneus has a fragment from the plantar surface, heavily damaged anciently.

Sex and age: we are dealing probably with a male, roughly estimated as adult, because few features were available for a better determination.

Skeleton B: is represented by a shaft from a right humerus, more robust comparing to the other skeletons and tainted with green pigment, probably from a bronze object. It belongs to an individual, whose sex cannot be determined, roughly estimated as adult (Fig. 1/Grave 2).

Skeleton C: is also represented by a shaft from a very gracile right humerus, probably belonging to a female or an infans/adolescens individual (Fig. 1/Grave 2).

Tab. 3. The dentition of the skeleton A from Grave 2.

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	/	-	-	-	-

Desa Castravița 2002, Gr. 3 from Barrow 1

Skeleton A: has only bone fragments belonging to long bones. Right humerus shaft and the inferior 1/3 from the left one, right cubitus have partially the proximal epiphysis and the radius shaft from the same side. We have the femur shafts, while tibiae lacks anciently only the proximal epiphyses (Tab. 4). We also have both tali (the left one highly eroded because of the soil), naviculars, right first and second cuneiforms, fragments from the left calcaneus and first right metatarsal.

Sex and age: the robust bones indicate a male individual, the age of death being roughly estimated as adult.

Skeleton B: is represented by left humerus shaft, belonging to an adult, whose sex cannot be determined (Fig. 1/Grave 3).

² The analysis of the animal bone was carried out by Elek Ioan Popa (elekpopa@yahoo.com), collaborator of the National Center for Interdisciplinary Research from the Romanian National History Museum, Bucharest.

³ Denture explanation: M² = present in alveoli; - = absent; / = *passim*; Y = lost post-mortem; Z = lost ante-mortem; W = resorbed alveola; N = unerupted.

Tab. 4. Measurements of the skeleton A tibiae from Grave 3.

Tibia	Measurements and indices (Martin number)	Right	Left
	6. Maximum distal epiphyseal breadth	–	27.5
	8. Sagital diameter of the mid-shaft	–	30.65
	8a. Sagital diameter at the nutrient foramen	–	22.5
	9. Transverse diameter of the mid-shaft	–	24.00
	10b. Minimum circumference of the shaft	72	71
	Section diaphysis index (9:8)		81.81
	Cnemic index (9a:8a)	–	78.30

Desa Castravița 2002, Gr. 4 from Barrow 1

Skeleton A: is represented by a fragment of the right parietal bone, most of it fragmented during the excavation, and fragments of the femuri and tibiae shafts.

Sex and age: taking into account the size of the bones it is possible to belong to a female individual, the age of death not being determined.

Skeleton B: is represented by a right femur shaft, sex and age being undetermined. (Fig. 1/Grave 4).

Skeleton C: is represented by the inferior-anterior region of the right parietal bone, belonging to an individual assessed as *infans II* or *juvenis*; the bone fragment has been binded together with another parietal bone fragment identified as Skeleton B/Gr. 10 (Fig. 1/Grave 10/4).

Desa Castravița 2002, Gr. 5 from Barrow 1

Skeleton 1 (the inferior one): from the skull were identified parts from both parietal bones, with small missing parts lost during excavation and some fragments from frontal and occipital bones. The mandible has two fragments from the anterior side of the body and also five teeth were recovered (Tab. 5). Left scapula has only the medial side, the corresponding humerus lacks the distal epiphysis and partially the distal one, while the right one has only three small shaft fragments. Left cubitus has the proximal epiphysis, and from the spine and thorax there are only fragments of vertebral bodies, arches and ribs preserved, all of them unidentifiable. There are also fragments of the acetabular fossa, auricular surface and greater sciatic notch of the left ox coxae. The femur heads could not be restored because of soil induced degradation, although the femurs and tibiae shafts are better preserved. The right patella has been partially destroyed during excavation.

Sex and age: a skull and ox coxae features, the big size of the femoral heads and dentition indicates a male individual. The very small dental attrition indicates an age of death around 25-35 years.

Pathology: third left molar shows a strong deflection probably during growth, on the inferior part of the root.

Tab. 5. Dentition of the skeleton 1 from Grave 5.

–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
/	/	/	–	–	–	–	/	–	–	–	–	–	–	–	/

Skeleton 2 (the upper one): relatively well preserved, shows some missing parts destroyed anciently and during the excavation. Parietal bones have broken parts on lateral sides, the occipital being broken around the inferior nuchal crest. Temporals have the squamas broken during excavation and the frontal has a fragment from the left orbital margin and small parts from the bone which couldn't be restored. The right zygomatic process is broken off, the mandible lacks the mandibular condyle, most of the dental alveoli being fragmented during excavation (Tab. 6). The right scapula is fragmented, right humerus has the head broken and partially preserved, cubitus and radius from the same side lacking the inferior thirds. Some fragments of ribs and vertebral arches cannot be identified because of the destructions they suffered. Among a few fragments of the ox coxae, a part of the right acetabulum have been identified, the left femoral head and the shafts of the femurs and tibiae being the only parts preserved from the leg bones.

Sex and age: the big mastoid processes, prominent nuchal lines and occipital crest, and the big size of the long bones, indicate a male individual. Dental attrition, the complete exocranial suture closure of *pars obelica* and the significant endocranial obliteration of the sagital suture, indicate an age of death over 40 years.

Pathology: premolars and molars from the right maxilla have a pronounced attrition from the occlusal surface towards lingual one, while the mandibular dentition doesn't show these transformations.

A medium size caries affected the mesial surface of the second premolar and the distal surface of the first molar, from the maxilla.

Tab. 6. Dentition of the skeleton 2 from Grave 5.

–	–	–	–	–	–	–	–	Y	Y	Y	P ¹	P ²	M ¹	Y	–
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P ₁	P ₂	Y	M ₂	Y

Skeleton 3: is represented by fragments of the frontal, parietals and four decidual teeth from the maxilla (Tab. 7).

Sex and age: sex is undetermined, while individual's age can be approximated by the preserved dentition to 3-5 years.

Tab. 7. Dentition of the skeleton 3 from Grave 5.

-	/	/	/	-	-	-	-	-	-	/	-
-	-	-	-	-	-	-	-	-	-	-	-

In addition to the bones of the skeletons 2 and 3 there is also a lumbar vertebra from an adult (3-4 years old) *Cervus elaphus*, having the cranial half severed. The vertebra shows traces of disarticulation on the articular surface of the proximal epiphysis.

Desa Castravița 2002, Gr. 6 from Barrow 1

It is represented only by the cranial skeleton, most of the missing bones being related to archaeological work. The skull is highly deformed along his length because of the soil pressure, missing parts on the right parietal, basilar part of the occipital, temporal squama, mandibular body and left ramus (Tab. 8). The atlas, axis, and C1 vertebra are present. The right side of maxilla and the corresponding zygomatic process are missing.

Sex and age: sexual traits of the skull indicates a male individual, with an advanced age of death, above 60 years, indicated by the high dental attrition and the complete closure of all the cranial sutures.

Tab. 8. Dentition of the skeleton from Grave 6.

Z	Z	Z	Z	P ¹	Y	I ²	Y	-	-	-	-	-	-	-	-
Y	M ₂	Y	P ₂	P ₁	Y	Y	Y	I ₁	Y	Y	P ₁	P ₂	Y	Y	Y

Desa Castravița 2002, Gr. 7 from Barrow 1

There are only leg bones recovered, right femur and left tibia shafts being well preserved, while the other two shafts are highly eroded and fragmented anciently. Right talus is also very well preserved.

Sex and age: due to poor conservation, an exact diagnosis is difficult to asses. However the dimensions of linea aspera, and the more robust dimensions of the bones, may indicate and male individual. Age of death is not determinable.

Desa Castravița 2002, Gr. 8 from Barrow 1

One of the best preserved skeletons, with nearly all skeletal segments being more or less represented.

The skull has been almost entirely restored, but because of the soil pressure deformation, some fragments could not be joined during the reconstruction. The frontal bone lacks the whole right side, with both ancient and modern breaks, although the right zygomatic was preserved throughout. Parietal bones have missing parts especially to the extremities, while the occipital lacks a significant part of the left side and the basilar part. The left temporal has the mastoid process and partially the *squama*, broken anciently. The mandible has only the right side, very fragmented during excavation (Tab. 9).

The right humerus has a small shaft fragment, and from the spine there is a part of the first sacral vertebra and also fragments of bodies and arches, that cannot be properly identified. Ox coxae lacks parts of the ilium and both of the ischium and pubis. The distal epiphysis of the right femur and both epiphyses on the left side are missing; the tibiae lacks the distal epiphysis on the left and the proximal one on the right. There are also small fragments from fibula's shaft. The right calcaneus has only the medial half.

Sex and age: prominent nuchal lines and occipital crest, the narrow great sciatic notch, the shape of the orbit and supraorbital margin, the large femoral head and the large dentition, indicate a male individual. Age of death can be framed in the time span 30-40 years.

Pathology: right tibia shows a slight swelling of the periosteum in the medio-inferior side of the shaft caused by periostitis.

Tab. 9. Dentition of the skeleton from Grave 8⁴.

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M ₃	M ₂	M ₁	Pm ₂	Pm ₁	C	/	-	-	/	/	/	-	-	-	-

Desa Castravița 2002, Gr. 9 from Barrow 1

One of the well preserved skeletons, unfortunately lacking the cranial bones, which were not available for analysis.

Clavicles have both epiphyses broken post-mortem, scapulas being highly fragmented during the archaeological work, lacking mainly the extremities. Humeri lack both epiphyses. Both cubitus bones have only the

⁴ Molars 1-3, premolar 1 from the right side and the second left incisor 2 were taken for DNA analysis.

proximal thirds, while the right radius (the only one recovered) lacks epiphyses. From the spine and ribs there are only a fragment from the anterior right side of the sacrum, small unidentifiable pieces from the vertebral bodies and some ribs. Parts of the ilium and the ischium were broken during excavation, while the femurs were affected around distal epiphyses and trochanters. Both patellae are complete, left tibia has the medial condile broken the right one having the proximal epiphysis bronken off. Left fibula is missing the proximal third, while the right one was not recovered. From the left foot bones, we have both tali, the anterior side of the right calcaneus being broken during excavation. Also present were the cuboid, navicular, intermediate and lateral cuneiform and 1-5 metatarsals.

Sex and age: the traits of the long bones and os coxae indicate a male. Age of death could only be approximated at over 30 years.

Computed stature based on maximum length of the femurs is 157.83±3.3 cm, and weight values based on anterior-posterior diameter of the femoral head (Fig. 10) are 68.08 kg.

Pathology: there are slight traces of osteoarthritis on the margins of the femoral head. On the distal part of the tibia, in the insertion area of *Flexor Hallucis Longus* there is a small bone traumatic or inflammatory bone excrescence, also a similar exostosis being identified laterally, on the anterior portion of the distal shaft of the left tibia, just under *Tibialis Posterior*.

In addition to the human bones there is also a first phalanx⁵ belonging to a *Sus domesticus*, 1-2 years old.

Tab. 10. Measurements of the skeleton from Grave 9.

Martin No. / Dimensions and indices	Values		Martin No. / Dimensions and indices	Values	
	Right	Left		Right	Left
Clavicle			15. Vertical diameter of the neck	34	33.2
4. Vertical diameter of mid-shaft	9.8	9.5	16. Antero – posterior diameter of the neck	25	26
5. Sagittal diameter of mid-shaft	-	10.1	17. Circumference of neck	89	88
6. Circumference of mid-shaft	-	22	18. Medio – lateral head diameter	47.5	-
Diaphysis section index (4:5)	-	94.05	19. Transverse diameter of the head	46.11	-
Humerus			Pilastric index (6:7)	86.20	87.93
5. Maximum diameter of mid-shaft	-	21.5	Platymeric index (10:9)	66.21	70.64
6. Minimum diameter of mid-shaft	-	18.5	Patella		
7. Least circumference of the shaft	-	52	3. Maximum thickness	20	19.5
7a. Mid-shaft circumference	-	56	Tibia		
Diaphysis section index (6:5)	-	86.04	6. Maximum distal epiphyseal breadth	-	55
Femur			8. Sagital diameter of the mid-shaft	-	30
1. Maximum length	414	414	8a. Sagital diameter at the nutrient foramen	-	35.2
2. Physiological length	412	412	9. Transverse diameter of the mid-shaft	-	26
6. Anterior – posterior diameter of the mid – shaft	25	25.5	9a. Transverse diameter at the nutrient foramen	20.5	21.2
7. Medio – lateral diameter of the mid – shaft	29	29	10b. Minimum circumference of the shaft	69	70
8. Circumference of the mid – shaft	75	75	Section diaphysis index (9:8)	-	86.66
9. Subtrochanteric transverse diameter	37	38.5	Cnemic index (9a:8a)	-	60.22
10. Subtrochanteric anterior – posterior diameter	24.5	27.2			

Desa Castravița 2002, Gr. 10 from Barrow 1

Skeleton A: only skull fragments were recovered, deformed by the soil, while the humerus fragment indicated in the description of the achaeological context did not reach us for analysis. There are parts of parietals, with the sagittal suture partially preserved and some occipital fragments connected with the parietals through the lambdoid suture. There is also a fragment from the anterior side of the frontal bone, parts of the right zygomatic, left temporal and small pieces from the occipital. Mandible has both rami broken off, with two teeth *in situ* (Tab. 11).

Sex and age: in the absent of indicators, sex determination is difficult to estimate. The pronounced dental attrition, complete obliteration of the sagittal suture, and the partial obliteration of the coronal suture in the bregma area are indicators for a minimum age of death of 40 years.

Skeleton B: is represented by the inferior-posterior region of the right parietal bone, belonging to an individual framed as *infans II* or *juvenis*; the bone fragment has been binded together with another parietal bone fragment identified as Skeleton C/Gr. 4 (Fig. 1/Grave 10/4).

Tab. 11. Dentition of the skeleton from Grave 10.

-	-	-	-	-	-	-	-	-	-	-	P ¹	-	-	-	-
W	W	W	W	W	Y	Y	W	W	I ₂	C ₂	W	P ₂	Y	W	W

⁵ Measurements were taken after VON DEN DRIESCH 1976, Gl=40.8; Bp=16.92; SD=12.44; Bd=14.46 (all values are in mm).

Disparate osteological fragments from Desa burials

Most of the graves examined contained human bone fragments, which could not be correlated with the "core" skeletons from the studied graves (Tab. 12). Graves 1 (left femur), 2 (right humerus), 3 (left humerus), 4 (right femur), 5 (skull), contained among the bones of "main" skeletons, bones from other individuals, designated B or C skeleton. Their presence is problematic because during the excavations, only M 3 exhibits a possible post-inhumation intervention at the inferior zone of the skeleton (GHERGHE *et al.* 2003, 115-116). Following planimetric layout of the graves and comparing additional bones from the mentioned tombs, we note that texture and size of the B skeletal bones (left femur)/Gr. 1 are different from those of skeleton B/ Gr. 7, the nearest placed one, as well as from all other bones from the analyzed graves.

The right humerus from Gr. 2, designated as B skeleton, consists of the proximal half diaphysis and could theoretically originate from the right humerus of the skeleton A/Gr. 3, their thickness being similar. However the humerus from the B/Gr. 2 skeleton is impregnated with bronze pigment, while the humerus of the A/Gr.3 skeleton is not, even though a fragment of a bronze bracelet is apparent close to the right knee of the skeleton A/Gr.3 (GHERGHE *et al.* 2003, 115-116). Considering color and size, right humerus (Skeleton C/Gr.2) is not similar to the bones from the other graves investigated. In a similar situation is the left humerus, labeled Skeleton B/Gr.3, which is dissimilar in texture and overall dimensions to the corresponding skeletal bone segment from other graves.

Skeleton B/Gr. 4, represented by the diaphysis of a right femur, cannot be attributed by size and color to the skeletons from the neighboring tombs (Gr. 5 and 6). However, the lack of a post-cranial skeleton of Gr. 6 may be interpreted as a sign of a post-burial disturbance, and in this context the femur can be hypothetically linked to Gr. 6, without a clear and direct evidence of this relationship.

Interesting is the case Gr. 5, where, besides the two partially overlapping skeletons (a lower one Skeleton 1 and an upper one Skeleton 2) identified during the archaeological research, a fragmentary skull appeared from an infans aged individual.

Graves 4 and 10 revealed fragments from a right parietal bone, which attached to each another, and were assessed as *infans II-juvenis*. Judging from the age of death and color, the bones are different from those of the child from Grave 5 (Skeleton C).

So, the inability to correlate the bones designated as skeleton B, C or 3 from the above mentioned graves, with other skeletons excavated in mound 1, leads us to believe that their presence is not due to a mix of material from the archaeological research. This opinion runs against the facts that some of the graves were explored in stages due to the presence of the archaeological sections; we have not received for analysis some of the skeletal segments (see skull skeleton of Gr. 9) illustrated in the archaeological report, and some bones (especially diaphyses) had lost parts during field research.

An overarching explanation for the presence of these bones is difficult. One can consider the possible disturbance of other tombs (see skull fragments found in Gr. 4, 5/skeleton C and 10) during the construction of the mound (although no human bones are reported outside the graves investigated), the deposit of bone fragments at the funeral, or subsequent interventions in the graves, eventually a mixture of the material during the archaeological research. Explaining the presence of these scattered bones in the graves remains a topic for subsequent investigations.

Tab. 12. Sex, age and anatomical segments missing from the „inventory” of each analyzed skeleton and the accompanying disparate human bones (* fragments belonging to the same individual).

Mound/Tomb nr/ skeleton	Sex/age	Missing anatomical sergments	Scattered human bones
M 1/Gr. 1/Sch. A	♀/over 40 years	Upper limbs	-
M 1/ Gr. 1/Sch. B	Undeterminable/adultus ?	-	Left femur
M 1/ Gr. 2/Sch. A	♂/adultus ?	Upper limbs	-
M 1/ Gr. 2/Sch. B	Undeterminable/adultus ?	-	Right humerus
M 1/ Gr. 2/Sch. C	Ind./?	-	Right humerus
M 1/ Gr. 3/Sch. A	♂/adultus ?	skull	-
M 1/ Gr. 3/Sch. B	Undeterminable /adultus ?	-	Left humerus
M 1/ Gr. 4/Sch. A	♀/?	Upper limbs	-
M 1/ Gr. 4/Sch. B	Ind./?	-	Right femur
M 1/ Gr. 4/Sch. C*	Undeterminable /infans II-juvenis	-	skull
M 1/ Gr. 5/Sch. 1	♂/25-35 years	-	-
M 1/ Gr. 5/Sch. 2	♂/over 40 years	-	-
M 1/ Gr. 5/Sch. 3	Undeterminable /3-5 years	-	skull
M 1/ Gr. 6	♂/over 60 years	Post-cranial skeleton	-
M 1/ Gr. 7	♂/?	Skeleton and upper limbs	-
M 1/ Gr. 8	♂/30-40 years	Partial upper limbs	-
M 1/ Gr. 9	♂/over 30 years	-	-
M 1/ Gr. 10/ Sch. A	Undeterminable /over 40 years	Post-cranial skeleton	-
M 1/ Gr. 10/ Sch. B*	Undeterminable /infans II-juvenis	-	skull

Bone changes due to natural agents/post funeral interventions

The archeological report mentions the lack of jaw and skull deformation for the skeletons of Gr: 1, skeletons 1-2 of grave 5, and the skeleton of Gr: 8 (we did not receive skull of Gr: 9, with a similar description). The anthropological analysis, however, revealed fragments of jawbone and teeth of the jaw in both tombs, the alleged distortion of the skull being just an optical illusion caused by skulls compaction under soil pressure. Similarly, in the case of Gr: 10, the lack of the jaw recorded in the field research proved to be wrong, teeth on the maxilla being identified. As we will see in the case of the long bones, the missing jaws are due to natural agents in the soil, which caused destruction of bone and bone surface in all analyzed skeletons.

To the above observations we add the lack of whole skeleton segments in the vast majority of graves, sometimes attributable to natural agents of soil⁶ for ribs, vertebrae, hands and feet bones and epiphyses of long bones in particular, but possibly linked to the subsequent intervention on graves (not identified in the archaeological research)⁷. These interventions, possibly related to the construction in stages of the burial mound⁸, could be an explanation for the presence of scattered bones in some graves. However the fact that the anatomical segments missing from the "main" skeletons of each grave are only the skull and/or the upper limbs, while some of the cases of graves with scattered human bones include humeral diaphyses and skulls, could be evidence of a deliberate selection and inhumation, not only of subsequent disturbances. Also, low mound height and the graves deposited directly on the ancient soil may suggest a possible intervention, more or less deliberate on some of the burial mound graves, during the construction or after this time, a hypothesis which cannot be proven archaeologically.

Conclusions

Bones were identified from 18 individuals, mostly males, only two of the sexed skeletons belonging to women. With the exception of two child's skull, all bone remains seem to come from adult aged individuals, at the least, ages of death being approximated due to the poor conservation and many missing parts of the skeleton. For the same reasons, we could not identify pathological elements or signs of violence that could cause death of some of these individuals (perceived archaeologically as warriors for men). It is remarkable a relatively marked tooth wear, especially for incisors (Gr.5/Skeleton 2, Gr. 6 or Gr. 10), probably due to their use for chewing on tough material (skins, gristles, etc.).

The presence of bones from a child's skull in two graves (i.e. 4 and 10) suggests simultaneous burial, at least for the "main" skeletons of those two graves.

In three cases fragments of animal bones were identified among human bones, a fact that appears not to be singular for burial rituals of the period, given similar finds from Balta Verde and Gogoșu, or those from mound 3 at Desa-Castravița (GHERGHE & RIDICHE 2004, 114).

Unfortunately, comparison with osteological material from the necropolis at Balta Verde, Gogoșu and Basarabi is impossible because for the first two locations anthropological analysis targeted only a small group of skulls, strictly to determine the skull types, and for the third location the material was not analyzed anthropologically. For this study 44 skulls were analyzed, 33 from Balta Verde and 11 from Gogoșu, of which only a fraction were assigned - 9 men, 3 women and 4 individuals of indeterminable sex. Based on this small number of cases, comparing the ages at death (generally adults and rarely seniors), and following the archaeological observations, the Balta Verde has been labeled as a warrior cemetery, and the Gogoșu as a "local population" graveyard (HARASIM 1957, 50-53, tables no. 2-3). However, as with the skeletons of Desa, the state of preservation and the research topic have not yielded anthropological signs of trauma or military violence to support the alleged archaeological classification of warrior cemeteries for these necropolises.

⁶ Similar cases of almost total destruction of the skeleton are reported in Balta Verde, Gogoșu see BERCIU & COMȘA 1956, 321-438 or Basarabi see DUMITRESCU 1968, 182-199.

⁷ Missing parts of the skeleton are mentioned for Gr. 4 from the mound XI, Gr. 5 from the mound XVI, Gr. 4 from the mound XVII of Balta Verde, and attributed to ancient interventions, similar to the graves from several mounds at Gogoșu, whose purpose was robbery (i.e. Gr.1 from mound VII was missing the legs): BERCIU & COMȘA 1956, 344-453. Similar cases appear at Basarabi: DUMITRESCU 1968, 180-199.

⁸ See similar examples at Balta Verde, where in mound X, "The bones from the tomb 4 were found partly misplaced. The skull was under the stones of the lower layer in tomb 1", the tomb 5 in the same mound being placed by the archaeologists as preceding tombs 1 and 2, but contemporary to tomb 4, based on the stratigraphic position. Similarly, /Gr. 2 from mound XVI at Gogoșu is mentioned to have been "buried later": BERCIU & COMȘA 1956, 338, 416. At Basarabi, the author mentions main and secondary graves in almost all Iron Age mounds, without archeologically identifying interventions in the mound, corresponding to the secondary graves: DUMITRESCU 1968, 180-199.

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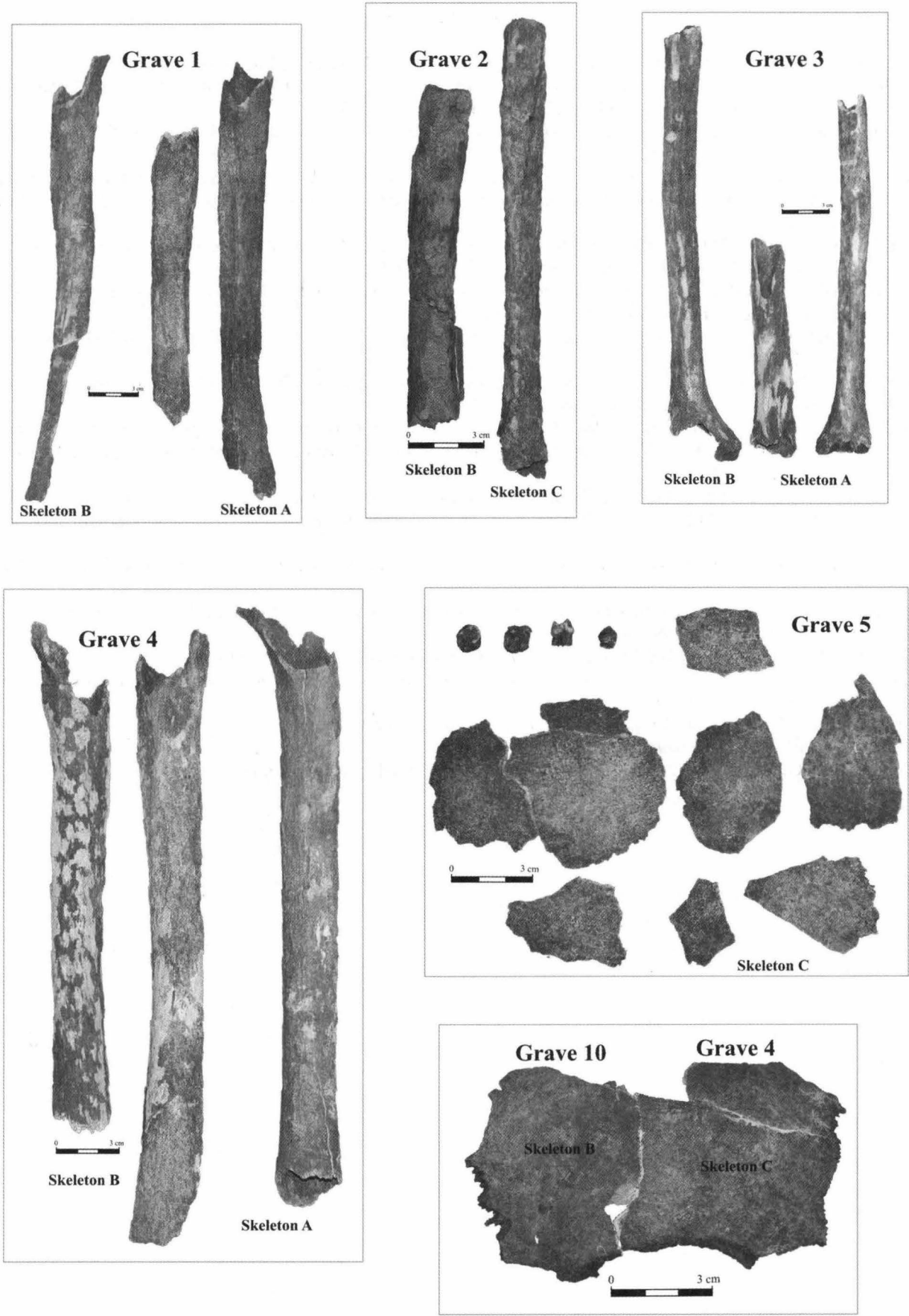


Fig. 1. Graves with scattered human bones from Desa-Castravița.