

HUMAN OSTEOLOGICAL REMAINS FROM COSTIȘA, ROMANIA – ANTHROPOLOGICAL ANALYSES

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Keywords: Neolithic, Bronze Age, Medieval period, anthropological analyses, skeleton graves.

Abstract: This study represents an analysis of the human remains discovered during the archaeological excavations at Costișa (Neamț county) in the years of 2001, 2004, 2005, 2006. 8 skeletons and 7 fragments of bones from 15 individuals were analyzed. 4 children and 11 adults; 8 female, 4 male, and 3 with sex unknown were identified.

Cuvinte-cheie: neolitic, epoca bronzului, perioada medievală, analize antropologice, morminte de înhumăție

Rezumat: Acest studiu reprezintă analiza osemintelor umane descoperite la Costișa (jud. Neamț) în timpul campaniilor arheologice din anii 2001, 2004, 2005, 2006. Au fost analizate 8 schelete și 7 fragmente de oase ce provin de la 15 indivizi. Au fost identificați 4 copii și 11 adulți, ca vârstă; pe sexe, 8 sunt de sex feminin, 4 de sex masculin și la 3 dintre ei nu s-a putut stabili.

I. Foreword

This study represents an analysis of the human remains discovered during the archaeological excavations at Costișa (Neamț county) in the years of 2001, 2004, 2005, 2006. The osteological materials were provided by dr. R. Băjenaru and dr. A. Popescu from the “V. Pârvan” Institute of Archaeology in Bucharest.

II. Materials and method

8 skeletons and 7 fragments of bones from 15 individuals were analyzed. All the bones were washed in water, restored, and identified.

For recognition of the adult bones and for age and sex determination of adults the book of T. White, *Human Osteology*, San Diego, 1991, was used. For recognition of the children bones B.J. Baker, T.L. Dupras, M.W. Tocheri, *The Osteology of Infants and Children*, Texas A & M University Press, 2005, was used. For skeletal inventory was applied J.E. Buikstra, D.H. Ubelaker (eds.), *Standards for Data Collection from Human Skeletal Remains*, Arkansas Archaeological Survey Research Series no. 44, 1994; for age estimation of subadults was used teeth eruption after D.H. Ubelaker¹, and the length of long bones after M. Stloukal and H. Hanakova². For sex determination the morphognostic features was used the paper of H. Schutkowski³, and for stature were taken the measurements of long bones, see Visser's work⁴.

¹ D. H. Ubelaker, *Human Skeletal Remains*, Washington, 1980, p. 47, fig. 2.

² M. Stloukal & H. Hanakova, *Die Länge der Längsknochen alt slawischer Bevölkerungen unter besonderer Berücksichtigung von Wachstumsfragen*, *Homo* 26, 1978, p. 53-69.

³ H. Schutkowski, *Sex determination of infant and juvenile skeletons: I. Morphognostic features*, *American Journal of Physical Anthropology* 90, 1993, p. 199 – 205.

⁴ E.P. Visser, *Little Waifs: Estimating Child Body Size from Historic Skeletal Material*, *International Journal of Osteoarchaeology* 8, 1998, p. 413-423.

III. Osteological analysis

Plateau A

M 1, square E IV, 2001

1. Skeletal inventory:

1 – present complete; 2 – present fragmentary;
3 – absent (postmortem); 4 – postmortem loss.

	Left		Right		Left		Right	
Frontal		<u>2</u>		Maxilla	<u>1</u>		<u>1</u>	
Parietal	<u>2</u>		<u>2</u>	Nasal	<u>1</u>		<u>1</u>	
Occipital		<u>4</u>		Ethmoid			<u>4</u>	
Temporal	<u>4</u>		<u>1</u>	Lacrimal	<u>4</u>		<u>4</u>	
Zygomatic	<u>4</u>		<u>4</u>	Vomer		<u>4</u>		
Palate	<u>1</u>		<u>1</u>	Sphenoid		<u>2</u>		
Mandible	<u>2</u>							
		Left		Right		Left		Right
Body		<u>2</u>		<u>1</u>		Ramus	<u>3</u>	<u>2</u>

Dentition

M³	M²	M¹	Pm⁴	Pm³	C	/	I¹	I¹	I²	C	Pm³	Pm⁴	M¹	M²	M³
/	/	/	Pm ₄	Pm ₃	C	I ₂	I ₁	I ₁	I ₂	C	Pm ₃	Pm ₄	M ₁	M ₂	M ₃

	Left		Right		Left		Right
Clavicle		<u>4</u>		<u>4</u>	Hyoid		<u>4</u>
Humerus	<u>1</u>		<u>1</u>		Manubrium	<u>4</u>	
Radius	<u>1</u>		<u>1</u>		Sternum		<u>4</u>
Ulna	<u>1</u>		<u>1</u>		Scapula	<u>2</u>	<u>2</u>
Ilium	<u>1</u>		<u>1</u>		Ribs	<u>4</u> # 0	<u>2</u> # 0
Ischium	<u>2</u>		<u>2</u>		Atlas		<u>4</u>
Pubis	<u>2</u>		<u>2</u>		Axis		<u>4</u>
Femur	<u>1</u>		<u>1</u>		Cervical 3-7		<u>1</u> # 3
Tibia	<u>1</u>		<u>1</u>		Thoracic 1-12		<u>1</u> # 4
Fibula	<u>2</u>		<u>2</u>		Lumbar 1-5		<u>1</u> # 2
Sacrum		<u>1</u>			Patella	<u>4</u>	<u>4</u>
Carpals 1-8	<u>4</u> # 0		<u>4</u> # 0		Tarsals 1-7	<u>1</u> # 2	<u>4</u> # 0
Metacarpal 1-5	<u>4</u> # 0		<u>4</u> # 0		Metatarsal 1-5	<u>1</u> # 2	<u>4</u> # 0
Prox Phalanx	<u>4</u> # 0		<u>4</u> # 0		Prox Phalanx	<u>4</u> # 0	<u>4</u> # 0
Med Phalanx	<u>4</u> # 0		<u>4</u> # 0		Med Phalanx	<u>1</u> # 1	<u>4</u> # 0
Distal Phalanx	<u>4</u> # 0		<u>4</u> # 0		Distal Phalanx	<u>4</u> # 0	<u>4</u> # 0

2. Age at death:

27 – 30 years old, phase Todd V⁵.

3. Sex determination:

Female, preauricularis sulcus indicates births⁶.

4. Stature: 149.453 cm⁷.

⁵ White, *op. cit.*, p. 316-317, fig. 16.5.

⁶ P. Houghton, *The Relationship of the Pre – auricular Groove of the Ilium to Pregnancy*, American Journal of Physical Anthropology 41, 1974, p. 381-390.

⁷ K. Pearson, *On the Reconstruction of the stature of Prehistoric Races*, Philosophical Transactions of the Royal Society, ser. A, 192, 1899, p. 169-244.

M 2, S III, 2004, skeleton 1

1. Skeletal inventory:

1 – present complete; 2 – present fragmentary;
3 – absent (postmortem); 4 – postmortem loss.

	Left	Right		Left	Right
Frontal	<u>2</u>	<u>2</u>	Maxilla	<u>4</u>	<u>2</u>
Parietal	<u>2</u>	<u>2</u>	Nasal	<u>4</u>	<u>4</u>
Occipital	<u>2</u>	<u>2</u>	Ethmoid	<u>4</u>	<u>4</u>
Temporal	<u>2</u>	<u>4</u>	Lacrimal	<u>4</u>	<u>4</u>
Zygomatic	<u>4</u>	<u>4</u>	Vomer	<u>4</u>	<u>4</u>
Palate	<u>4</u>	<u>4</u>	Sphenoid	<u>4</u>	<u>4</u>
Mandible	<u>4</u>				
	Left	Right		Left	Right
Body	<u>4</u>	<u>4</u>	Ramus	<u>4</u>	<u>4</u>

Dentition: Canine, right maxillary; First premolar, right maxillary; Second premolar, right maxillary; Molar 1, right maxillary.

	Left	Right		Left	Right
Clavicle	<u>4</u>	<u>4</u>	Hyoid		<u>4</u>
Humerus	<u>2</u>	<u>2</u>	Manubrium	<u>4</u>	<u>4</u>
Radius	<u>2</u>	<u>4</u>	Sternum		<u>4</u>
Ulna	<u>2</u>	<u>2</u>	Scapula	<u>4</u>	<u>2</u>
Ilium	<u>2</u>	<u>2</u>	Ribs	<u>2</u> # 4	<u>2</u> # 5
Ischium	<u>1</u>	<u>1</u>	Atlas	<u>1</u>	
Pubis	<u>4</u>	<u>4</u>	Axis	<u>4</u>	
Femur	<u>1</u>	<u>1</u>	Cervical 3-7	<u>4</u> # 0	
Tibia	<u>1</u>	<u>2</u>	Thoracic 1-12	<u>1</u> # 3	
Fibula	<u>2</u>	<u>2</u>	Lumbar 1-5	<u>1</u> # 3	
Sacrum	<u>2</u>		Patella	<u>4</u>	<u>4</u>
Carpals 1-8	<u>4</u> # 0	<u>4</u> # 0	Tarsals 1-7	<u>1</u> # 3	<u>1</u> # 4
Metacarpal 1-5	<u>4</u> # 0	<u>4</u> # 0	Metatarsal 1-5	<u>1</u> # 2	<u>1</u> # 5
Prox Phalanx	<u>4</u> # 0	<u>4</u> # 0	Prox Phalanx	<u>4</u> # 0	<u>1</u> # 1
Med Phalanx	<u>4</u> # 0	<u>1</u> # 1	Med Phalanx	<u>4</u> # 0	<u>4</u> # 0
Distal Phalanx	<u>4</u> # 0	<u>4</u> # 0	Distal Phalanx	<u>4</u> # 0	<u>4</u> # 0

2. Age at death

Over 55 years (all the cranial sutures are closed)⁸.

3. Sex determination

Female, preauricularis sulcus indicates births⁹.

Stature: 151.089 cm¹⁰.

M 2, S III, 2004, skeleton 2

1. Skeletal inventory:

1 – present complete; 2 – present fragmentary;
3 – absent (postmortem); 4 – postmortem loss.

⁸ Buikstra, Ubelaker (eds.), *op. cit.*, p. 38, fig. 14.

⁹ Houghton, *op. cit.*, p. 381-390.

¹⁰ Pearson, *op. cit.*, p. 169-244.

	Left	Right		Left	Right
Frontal		<u>1</u>	Maxilla	<u>4</u>	<u>2</u>
Parietal	<u>2</u>	<u>2</u>	Nasal	<u>4</u>	<u>4</u>
Occipital		<u>4</u>	Ethmoid		<u>4</u>
Temporal	<u>4</u>	<u>2</u>	Lacrimal	<u>4</u>	<u>4</u>
Zygomatic	<u>4</u>	<u>4</u>	Vomer		<u>4</u>
Palate	<u>4</u>	<u>4</u>	Sphenoid		<u>4</u>
Mandible	<u>4</u>				
		Left		Left	Right
Body		<u>4</u>	Ramus	<u>4</u>	<u>1</u>

Dentition: Canine, right maxillary; first premolar, right maxillary; right half of mandible (with both premolars and all three molars).

	Left	Right		Left	Right
Clavicle		<u>1</u>	Hyoid		<u>4</u>
Humerus	<u>1</u>	<u>1</u>	Manubrium		<u>4</u>
Radius	<u>2</u>	<u>1</u>	Sternum		<u>1</u>
Ulna	<u>4</u>	<u>2</u>	Scapula	<u>2</u>	<u>2</u>
Ilium	<u>2</u>	<u>2</u>	Ribs	<u>2</u> # 4	<u>2</u> # 5
Ischium	<u>2</u>	<u>2</u>	Atlas		<u>4</u>
Pubis	<u>2</u>	<u>2</u>	Axis		<u>4</u>
Femur	<u>1</u>	<u>1</u>	Cervical 3-7		<u>1</u> # 1
Tibia	<u>2</u>	<u>1</u>	Thoracic 1-12		<u>2</u> # 10
Fibula	<u>2</u>	<u>2</u>	Lumbar 1-5		<u>2</u> # 3
Sacrum		<u>1</u>	Patella	<u>4</u>	<u>1</u>
Carpals 1-8	<u>4</u> # 0	<u>4</u> # 0	Tarsals 1-7	<u>1</u> # 3	<u>1</u> # 3
Metacarpal 1-5	<u>4</u> # 0	<u>4</u> # 0	Metatarsal 1-5	<u>1</u> # 2	<u>1</u> # 1
Prox Phalanx	<u>4</u> # 0	<u>4</u> # 0	Prox Phalanx	<u>4</u> # 0	<u>4</u> # 0
Med Phalanx	<u>1</u> # 5	<u>4</u> # 0	Med Phalanx	<u>4</u> # 0	<u>4</u> # 0
Distal Phalanx	<u>4</u> # 0	<u>4</u> # 0	Distal Phalanx	<u>4</u> # 0	<u>4</u> # 0

2. Age at death

20 – 21 years, phase Todd II¹¹.

3. Sex determination

Female, preauricularis sulcus indicates births¹².

4. Stature: 153.74 cm¹³.

M 2, S III, 2004, skeleton 3

1. Skeletal inventory:

1 – present complete; 2 – present fragmentary;
3 – absent (postmortem); 4 – postmortem loss.

	Left	Right		Left	Right
Frontal		<u>2</u>	Maxilla	<u>2</u>	<u>2</u>
Parietal	<u>2</u>	<u>2</u>	Nasal	<u>4</u>	<u>4</u>
Occipital		<u>2</u>	Ethmoid		<u>4</u>
Temporal	<u>2</u>	<u>2</u>	Lacrimal	<u>4</u>	<u>4</u>

¹¹ White, *op. cit.*, p. 316-317, fig. 16.5.

¹² Houghton, *op. cit.*, p. 381-390.

¹³ Pearson, *op. cit.*, p. 169-244.

Zygomatic	<u>4</u>	<u>4</u>	Vomer	<u>4</u>
Palate	<u>4</u>	<u>4</u>	Sphenoid	<u>2</u>
Mandible	<u>2</u>			
	Left	Right	Left	Right
Body	<u>2</u>	<u>2</u>	Ramus	<u>2</u>

Dentition

/	m ¹	pm ⁴	/	/	/	/	/	/	/	/	pm ³	pm ⁴	m ¹	m ²
m ₂	m ₁	/	/	/	/	/	i ₁	i ₂	c	/	/	/	m ₁	m ₂

	Left	Right		Left	Right
Clavicle		<u>4</u>	Hyoid		<u>1</u>
Humerus	<u>1</u>	<u>1</u>	Manubrium	<u>4</u>	
Radius	<u>1</u>	<u>2</u>	Sternum		<u>4</u>
Ulna	<u>2</u>	<u>2</u>	Scapula	<u>2</u>	<u>2</u>
Ilium	<u>1</u>	<u>1</u>	Ribs	<u>4</u> # 0	<u>2</u> # 1
Ischium	<u>4</u>	<u>1</u>	Atlas	<u>4</u>	
Pubis	<u>4</u>	<u>4</u>	Axis	<u>4</u>	
Femur	<u>2</u>	<u>2</u>	Cervical 3-7	<u>4</u> # 0	
Tibia	<u>2</u>	<u>1</u>	Thoracic 1-12	<u>1</u> # 3	
Fibula	<u>2</u>	<u>2</u>	Lumbar 1-5	<u>2</u> # 1	
Sacrum		<u>2</u>	Patella	<u>1</u>	<u>1</u>
Carpals 1-8	<u>4</u> # 0	<u>4</u> # 0	Tarsals 1-7	<u>4</u> # 0	<u>4</u> # 0
Metacarpal 1-5	<u>4</u> # 0	<u>4</u> # 0	Metatarsal 1-5	<u>4</u> # 0	<u>4</u> # 0
Prox Phalanx	<u>4</u> # 0	<u>4</u> # 0	Prox Phalanx	<u>4</u> # 0	<u>4</u> # 0
Med Phalanx	<u>4</u> # 0	<u>4</u> # 0	Med Phalanx	<u>4</u> # 0	<u>4</u> # 0
Distal Phalanx	<u>4</u> # 0	<u>4</u> # 0	Distal Phalanx	<u>4</u> # 0	<u>4</u> # 0

2. Age at death

15 years (\pm 36 months), teeth eruption¹⁴.

14 years, length of humerus and tibia¹⁵.

3. Sex determination

Female: ilium and mandible¹⁶.

4. Stature

Right humerus has 253 mm and the stature is 1456.16 ± 125 mm; left humerus has 255 mm and stature is 1465.51 ± 125 mm; right tibia is 295 mm and the stature is 1394.65 ± 97 mm¹⁷.

M 2, S III, 2004, skeleton 4

1. Skeletal inventory:

1 – present complete; 2 – present fragmentary;
3 – absent (postmortem); 4 – postmortem loss.

	Left	Right		Left	Right
Frontal	<u>2</u>		Maxilla	<u>4</u>	<u>4</u>
Parietal	<u>2</u>	<u>2</u>	Nasal	<u>4</u>	<u>4</u>
Occipital	<u>2</u>		Ethmoid	<u>4</u>	<u>4</u>

¹⁴ Ubelaker, *op. cit.*, p. 47, fig. 2.

¹⁵ Stloukal, Hanakova, *op. cit.*, p. 53-69.

¹⁶ Schutkowski, *op. cit.*, p. 200, fig. 1 and 201, fig. 2.

¹⁷ Visser, *op. cit.*, p. 415.

Temporal	<u> 2 </u>	<u> 2 </u>	Lacrimal	<u> 4 </u>	<u> 4 </u>
Zygomatic	<u> 4 </u>	<u> 2 </u>	Vomer	<u> 4 </u>	
Palate	<u> 4 </u>	<u> 4 </u>	Sphenoid	<u> 2 </u>	
Mandible	<u> 4 </u>				
	Left	Right		Left	Right
Body	<u> 4 </u>	<u> 4 </u>	Ramus	<u> 4 </u>	<u> 4 </u>

Dentition:

No teeth were preserved.

	Left	Right		Left	Right
Clavicle	<u> 2 </u>	<u> 4 </u>	Hyoid		<u> 4 </u>
Humerus	<u> 1 </u>	<u> 1 </u>	Manubrium	<u> 4 </u>	
Radius	<u> 4 </u>	<u> 4 </u>	Sternum		<u> 4 </u>
Ulna	<u> 4 </u>	<u> 4 </u>	Scapula	<u> 4 </u>	<u> 4 </u>
Ilium	<u> 4 </u>	<u> 4 </u>	Ribs	<u> 2 </u> # 5	<u> 2 </u> # 5
Ischium	<u> 4 </u>	<u> 4 </u>	Atlas	<u> 4 </u>	
Pubis	<u> 4 </u>	<u> 4 </u>	Axis	<u> 4 </u>	
Femur	<u> 4 </u>	<u> 2 </u>	Cervical 3-7	<u> 4 </u> # 0	
Tibia	<u> 4 </u>	<u> 4 </u>	Thoracic 1-12	<u> 1 </u> # 2	
Fibula	<u> 4 </u>	<u> 4 </u>	Lumbar 1-5	<u> 4 </u> # 0	
Sacrum	<u> 4 </u>		Patella	<u> 4 </u>	<u> 4 </u>
Carpals 1-8	<u> 4 </u> # 0	<u> 4 </u> # 0	Tarsals 1-7	<u> 4 </u> # 0	<u> 4 </u> # 0
Metacarpal 1-5	<u> 4 </u> # 0	<u> 4 </u> # 0	Metatarsal 1-5	<u> 4 </u> # 0	<u> 4 </u> # 0
Prox Phalanx	<u> 4 </u> # 0	<u> 4 </u> # 0	Prox Phalanx	<u> 4 </u> # 0	<u> 4 </u> # 0
Med Phalanx	<u> 4 </u> # 0	<u> 4 </u> # 0	Med Phalanx	<u> 4 </u> # 0	<u> 4 </u> # 0
Distal Phalanx	<u> 4 </u> # 0	<u> 4 </u> # 0	Distal Phalanx	<u> 4 </u> # 0	<u> 4 </u> # 0

2. Age at death

18 months, length of humerus¹⁸.

3. Sex determination

No features were available for sex determination.

4. Stature

Right humerus has 112.1 mm and the stature is 797.73±125 mm; left humerus has 113.2 mm and the stature is 802.87±125 mm¹⁹.

M 2, S III, 2004, skeleton 5:

– 1 fragment from frontal bone, 6 from parietals, right half of mandible; 1 fragment of right humerus diaphysis; 2 fragments from left humerus (epiphysis and 1/3 of diaphysis); epiphysis of right ulna; epiphysis of left radius; a fragment of left coxae; lateral condyle of left femur; epiphysis of left tibia;

– Sex determination = male;

– Age estimation = 45 – 55 years.

M 3, S V, 2004

1. Skeletal inventory:

1 – present complete; 2 – present fragmentary;
3 – absent (postmortem); 4 – postmortem loss.

¹⁸ Stloukal, Hanakova, *op. cit.*, p. 53-69.

¹⁹ Visser, *op. cit.*, p. 415.

	Left		Right		Left		Right
Frontal		<u>1</u>		Maxilla	<u>1</u>		<u>1</u>
Parietal	<u>1</u>		<u>1</u>	Nasal	<u>1</u>		<u>1</u>
Occipital		<u>1</u>		Ethmoid			<u>2</u>
Temporal	<u>1</u>		<u>1</u>	Lacrimal	<u>2</u>		<u>2</u>
Zygomatic	<u>1</u>		<u>1</u>	Vomer		<u>2</u>	
Palate	<u>1</u>		<u>1</u>	Sphenoid		<u>2</u>	
Mandible	<u>1</u>						
		Left			Left		Right
Body		<u>1</u>		Ramus	<u>1</u>		<u>1</u>

Dentition

M²	/	Pm⁴	Pm³	C	I²	/	I¹	I²	C	Pm³	Pm⁴	M¹	M²
M₂	M₁	Pm₄	Pm₃	C	I₂	I₁	I₁	I₂	C	Pm₃	Pm₄	M₁	M₂

	Left		Right		Left		Right
Clavicle		<u>1</u>		Hyoid			<u>3</u>
Humerus	<u>1</u>		<u>1</u>	Manubrium		<u>1</u>	
Radius	<u>3</u>		<u>1</u>	Sternum			<u>1</u>
Ulna	<u>1</u>		<u>1</u>	Scapula	<u>2</u>		<u>2</u>
Ilium	<u>1</u>		<u>1</u>	Ribs	<u>1</u> # 6		<u>1</u> # 7
Ischium	<u>2</u>		<u>2</u>	Atlas		<u>1</u>	
Pubis	<u>2</u>		<u>2</u>	Axis		<u>1</u>	
Femur	<u>1</u>		<u>1</u>	Cervical 3-7		<u>1</u> # 2	
Tibia	<u>1</u>		<u>1</u>	Thoracic 1-12		<u>1</u> # 7	
Fibula	<u>2</u>		<u>2</u>	Lumbar 1-5		<u>1</u> # 1	
Sacrum		<u>1</u>		Patella	<u>3</u>		<u>3</u>
Carpals 1-8	<u>3</u> # 0		<u>3</u> # 0	Tarsals 1-7	<u>1</u> # 1		<u>1</u> # 2
Metacarpal 1-5	<u>3</u> # 0		<u>3</u> # 0	Metatarsal 1-5	<u>3</u> # 0		<u>3</u> # 0
Prox Phalanx	<u>3</u> # 0		<u>3</u> # 0	Prox Phalanx	<u>3</u> # 0		<u>3</u> # 0
Med Phalanx	<u>3</u> # 0		<u>3</u> # 0	Med Phalanx	<u>3</u> # 0		<u>3</u> # 0
Distal Phalanx	<u>3</u> # 0		<u>3</u> # 0	Distal Phalanx	<u>3</u> # 0		<u>3</u> # 0

2. Age at death

Below 20 years because the third molar is not erupted and some epiphyses are not fused²⁰.

3. Sex determination

Female, preauricularis sulcus indicates births²¹.

4. Stature: 152.287 cm²².

M4, S V, 2004

1. Skeletal inventory:

1 – present complete; 2 – present fragmentary;
3 – absent (postmortem); 4 – postmortem loss.

	Left		Right		Left		Right
Frontal		<u>1</u>		Maxilla	<u>1</u>		<u>1</u>
Parietal	<u>2</u>		<u>1</u>	Nasal	<u>2</u>		<u>2</u>
Occipital		<u>1</u>		Ethmoid		<u>2</u>	

²⁰ White, *op. cit.*, p. 314, fig. 16.4.

²¹ Houghton, *op. cit.*, p. 381-390.

²² Pearson, *op. cit.*, p. 169-244.

Temporal	<u>1</u>	<u>1</u>	Lacrima	<u>2</u>	<u>2</u>
Zygomatic	<u>1</u>	<u>1</u>	Vomer	<u>2</u>	
Palate	<u>1</u>	<u>1</u>	Sphenoid	<u>2</u>	
Mandible	<u>1</u>				
	Left	Right	Left	Right	
Body	<u>1</u>	<u>2</u>	Ramus	<u>1</u>	<u>1</u>

Dentition

M³	M²	M¹	C	I²	I¹	I¹	I²	C	m¹	m²	M³
M₃	M₂	M₁	C	I₂	I₁	I₁	I₂	C	m₁	m₂	M₃

	Left	Right		Left	Right
Clavicle	<u>1</u>	<u>1</u>	Hyoid		<u>3</u>
Humerus	<u>1</u>	<u>1</u>	Manubrium	<u>1</u>	
Radius	<u>1</u>	<u>1</u>	Sternum		<u>1</u>
Ulna	<u>1</u>	<u>1</u>	Scapula	<u>2</u>	<u>2</u>
Ilium	<u>1</u>	<u>2</u>	Ribs	<u>1</u> # 5	<u>1</u> # 7
Ischium	<u>1</u>	<u>1</u>	Atlas	<u>1</u>	
Pubis	<u>1</u>	<u>1</u>	Axis	<u>1</u>	
Femur	<u>1</u>	<u>1</u>	Cervical 3-7	<u>1</u> # 4	
Tibia	<u>1</u>	<u>1</u>	Thoracic 1-12	<u>1</u> # 12	
Fibula	<u>1</u>	<u>2</u>	Lumbar 1-5	<u>1</u> # 5	
Sacrum	<u>1</u>		Patella	<u>1</u>	<u>1</u>
Carpals 1-8	<u>1</u> # 6	<u>1</u> # 4	Tarsals 1-7	<u>1</u> # 5	<u>1</u> # 6
Metacarpal 1-5	<u>1</u> # 5	<u>1</u> # 5	Metatarsal 1-5	<u>1</u> # 5	<u>1</u> # 5
Prox Phalanx	<u>1</u> # 4	<u>1</u> # 3	Prox Phalanx	<u>1</u> # 3	<u>1</u> # 4
Med Phalanx	<u>1</u> # 4	<u>1</u> # 5	Med Phalanx	<u>1</u> # 5	<u>1</u> # 5
Distal Phalanx	<u>1</u> # 5	<u>1</u> # 4	Distal Phalanx	<u>1</u> # 4	<u>1</u> # 4

2. Age at death

11 years (\pm 30 months), teeth eruption²³.

11 years, length of humerus, tibia and femur²⁴.

3. Sex determination

Male: ilium and mandible²⁵.

4. Stature²⁶

Right humerus = 211 mm (1259.89 \pm 125); left humerus = 212 mm (1264.57 \pm 125);

Right tibia = 237 mm (1225.98 \pm 97); left tibia = 234 (1215.44 \pm 97);

Right femur = 299 mm (1254.02 \pm 124); left femur = 298 (1251.03 \pm 124);

Costișa 2005, S II, square 11f, Monteoru layer

– Femoral head, uncertain side, adult, sex unknown; with burn traces.

Costișa 2005, S II, square 7g, Monteoru layer

– Fragment of the right body (with ramus) of mandible;

– Sex determination = probable female;

– Age estimation = adult.

²³ Ubelaker, *op. cit.*, p. 47, fig. 2.

²⁴ Stloukal, Hanakova, *op. cit.*, p. 53-69.

²⁵ Schutkowski, *op. cit.*, p. 200, fig.1 and 201, fig. 2.

²⁶ After Visser, *op. cit.*, p. 415.



Fig. 1. Grave 1: a. Maxilla and mandible; b. Skull fragments; c. Humerus; d. Ulna and radius.



Fig. 2. Grave 1: a. Pelvic girdle; b. Femurs; c. Tibias.

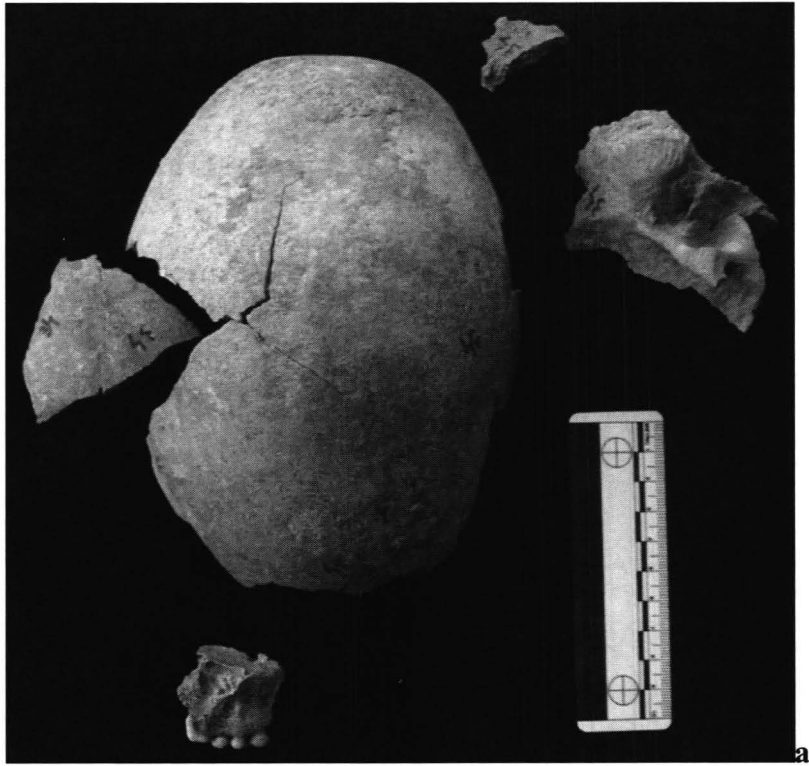


Fig. 3. Grave 2, skeleton 1: a. Skull fragments; b. Humerus; c. Ulna.

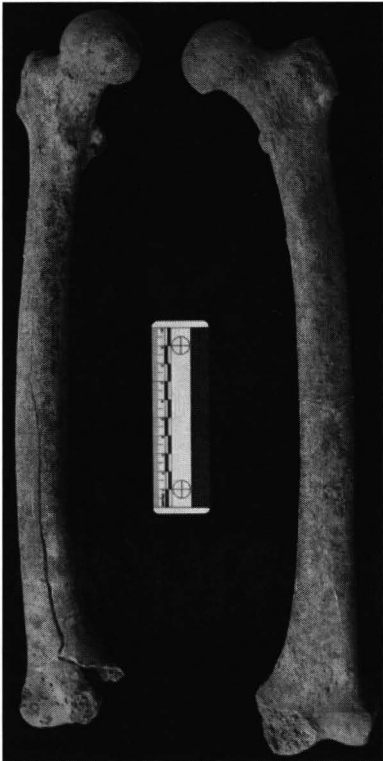


Fig. 4. Grave 2, skeleton 1: a. Pelvic girdle; b. Femur; c. Tibia.

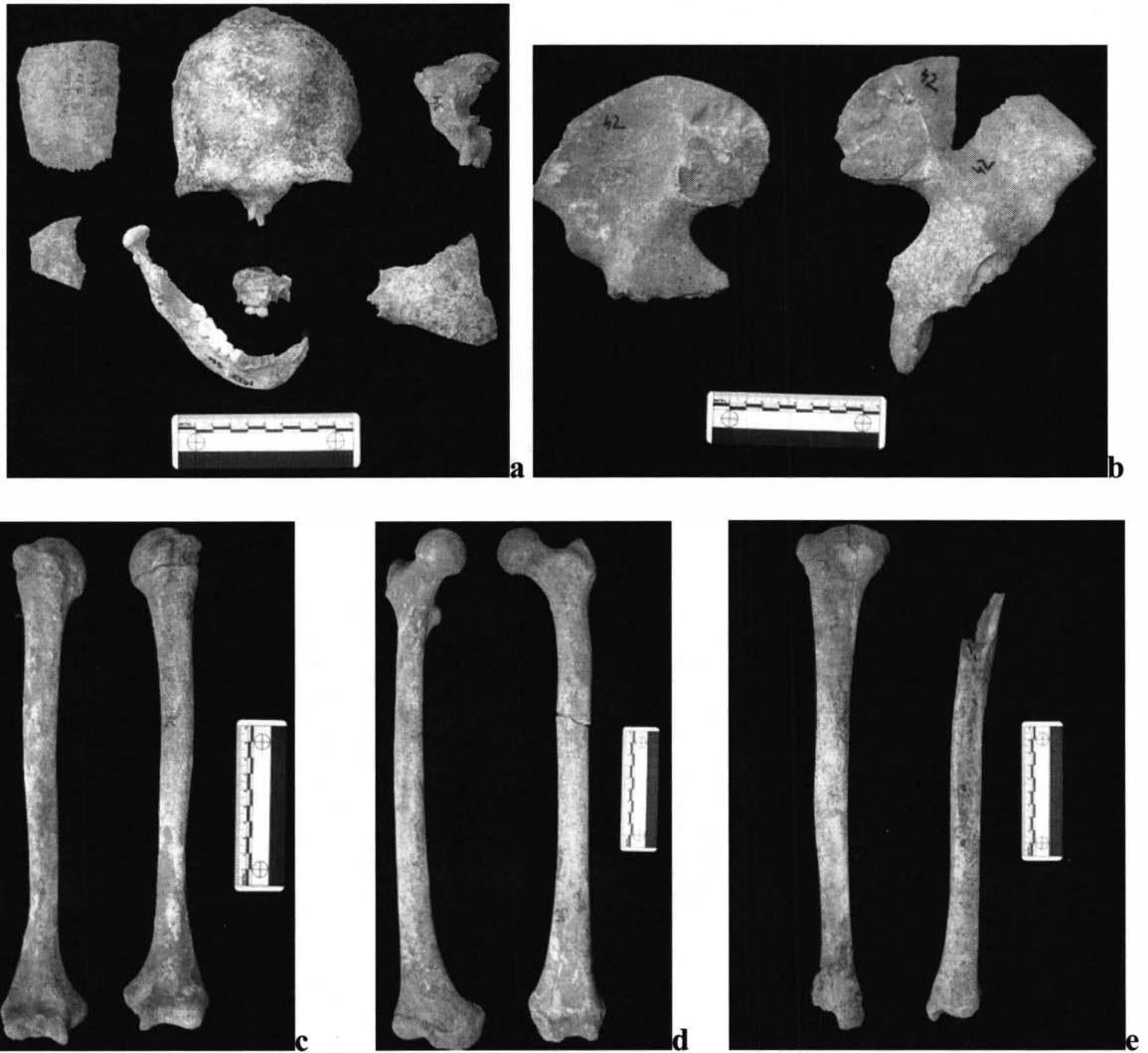


Fig. 5. Grave 2, skeleton 2: a. Skull fragments; b. Os coxae; c. Humerus; d. Femur; e. Tibia.

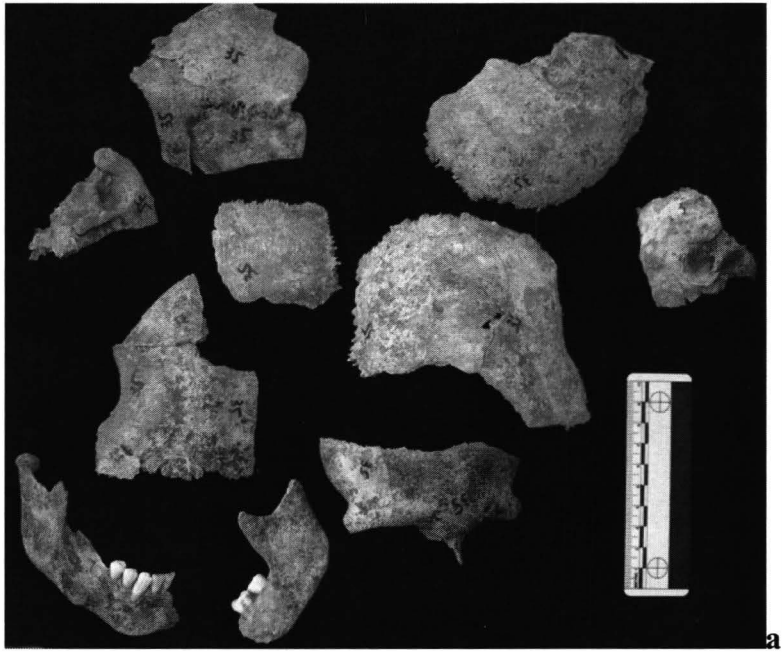


Fig. 6. Grave 2, skeleton 3: a. Skull fragments; b. Humerus; c. Femurs.

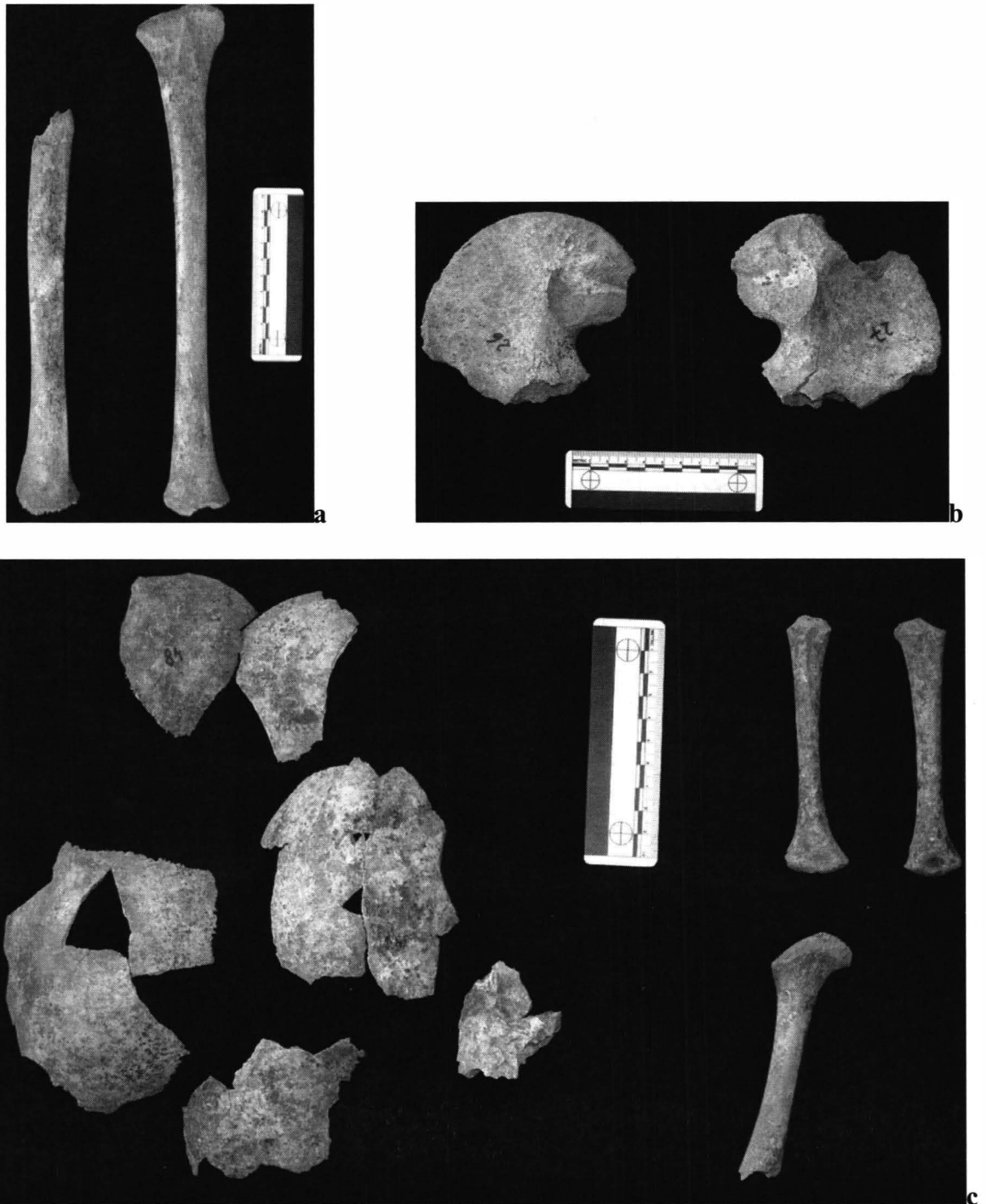


Fig. 7. Grave 2, skeleton 3: a. Tibia; b. Os coxae;
c. Grave 2, skeleton 4.

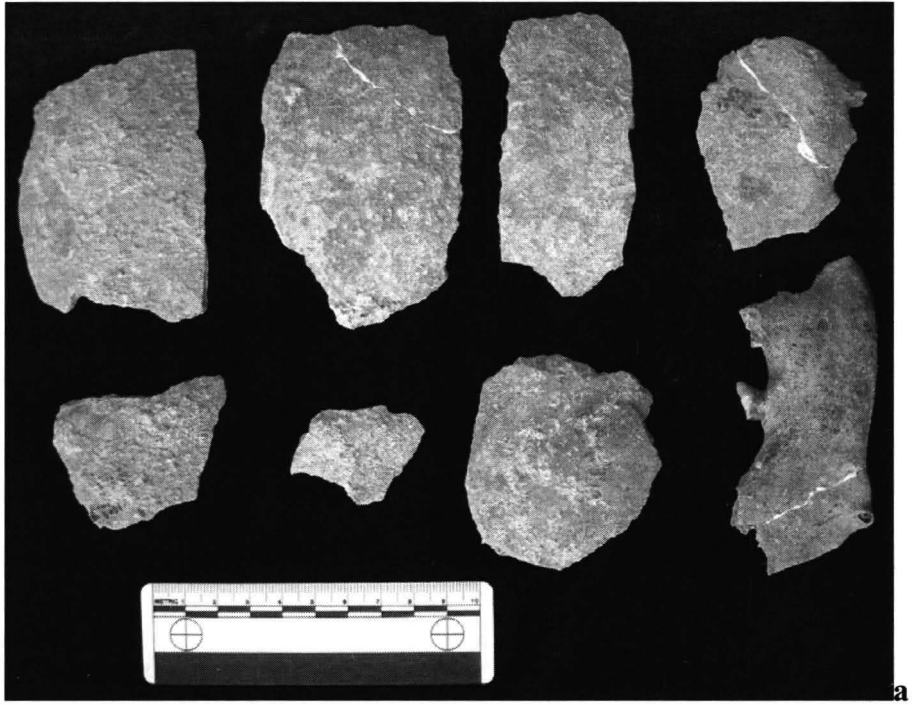


Fig. 8. Grave 2, skeleton 5: a. Cranial fragments; b. Postcranial fragments.

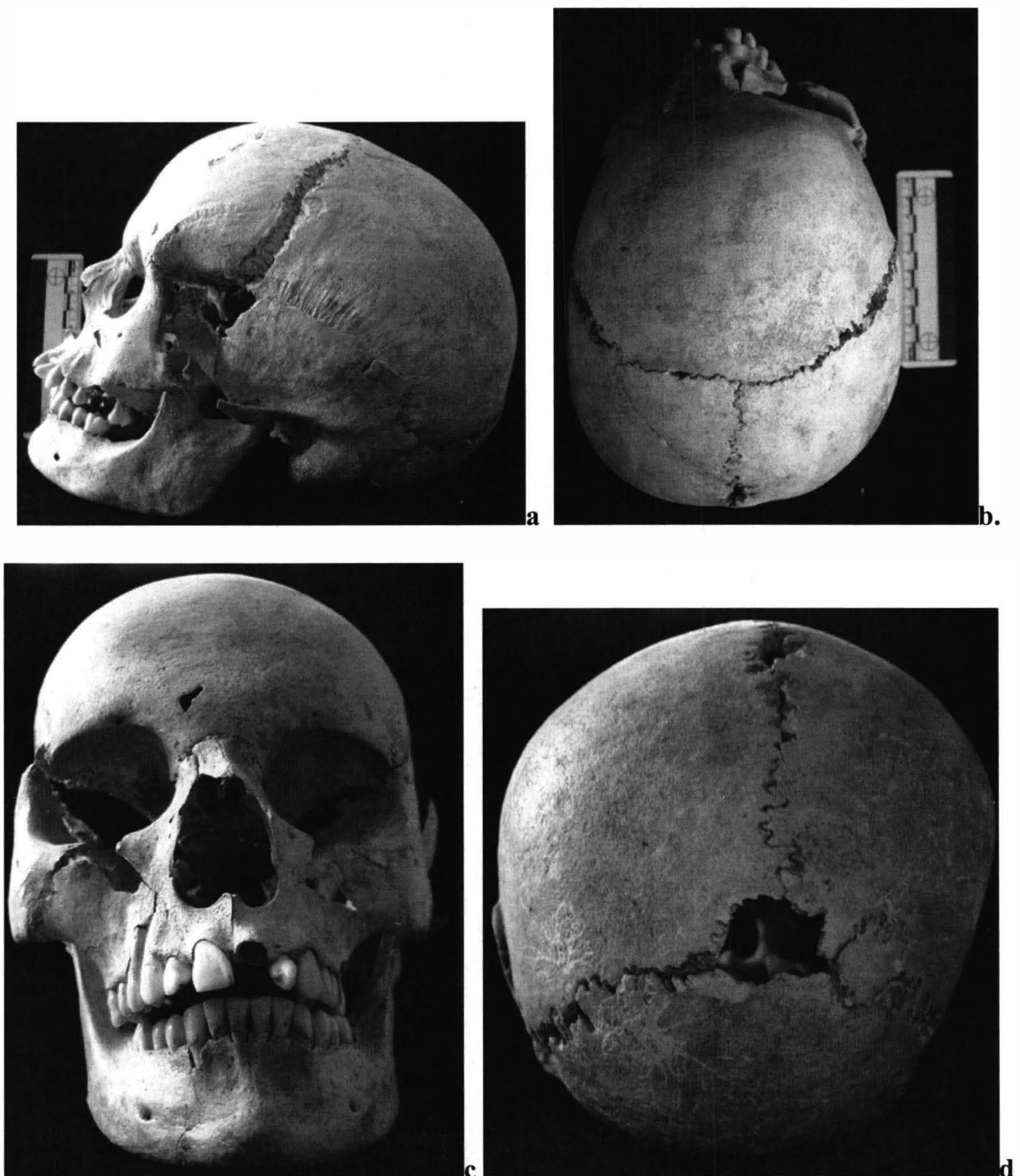


Fig. 9. Grave 3, skull: a. Left lateral view; b. Superior view; c. Anterior view; d. Posterior view.



Fig. 10. Grave 3: a. Humerus; b. Ulna; c. Femur; d. Tibia.



Fig. 11. Grave 4: a. Maxilla and mandible; b. Skull; c. Radius, ulna, humerus.



Fig. 12. Grave 4: a. Femur; b. Tibia.

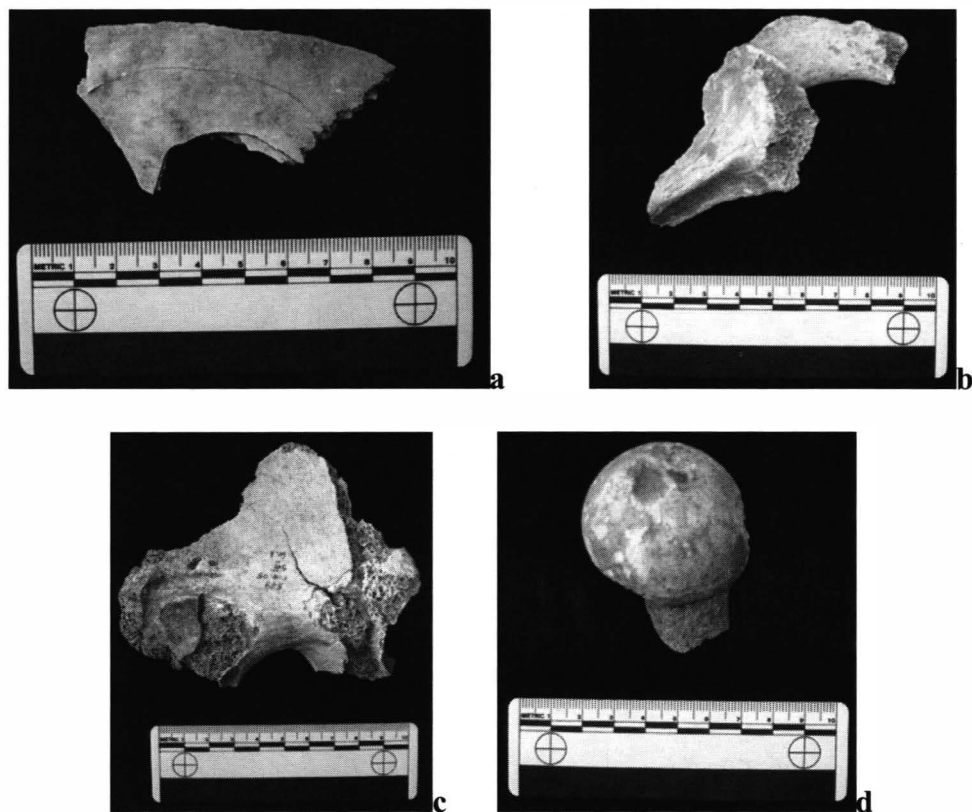


Fig. 13. Bones from Plateau B: a. Left parietal; b. Left scapula; c. Left os coxae; d. Femoral head.

Costișa 2006, plateau A, surface survey S II / 2002

- Fragment of right femur head;
- Sex determination = probable male;
- Age estimation = adult.

Plateau B

Costișa 2005, S VI, pit 1, square 4a, Costișa feature

- A fragment of left parietal (74.6×40.3×4 mm), child.

Costișa 2005, pit 1, square 4a, depth 0.36 – 0.41 m, Costișa feature

- A fragment of left scapula, adult, probable female.

Costișa 2005, S VI, pit 1, square 4 – 5 / b – c, Costișa feature

- A fragment of left coxae bone, adult, female.

Costișa 2006, S VIII, square 5c, depth 0.59 m, Neolithic level

- Femoral head (diameter = 47 mm), adult, probable male.

IV. Results

The main purpose of this concise analysis was to identify and diagnose the human remains and the anthropological data were obtained for each skeleton.

In one of the graves (M.2/2004) 5 skeletons were identified in a commingled position: a female over 55 years old, another one 20 years old, a teenager 14 years old, a child 1.6 years old and a male about 45–55 years old. Analyzing with the archaeologists the position of each skeleton using the original drawings, we could establish a pattern of deposition. Three individuals were in a flexed position (on the left or right side), the fourth one was somewhere outside of them and the fifth one was discovered below the others. The skeletal inventory and the stage of bones preservation (no cutmarks were observed and all the cracks are old and due to natural changes) corroborate this hypothesis. So, we can conclude that the grave contained 5 individuals who died at same time and very probably belonged to the same family.

A future analysis regarding the measurements of bones and the paleopathological condition may create a bioarchaeological image of this Early Bronze Age community.

Name, Plateau A	Age (years)	Sex	Stature (cm)
<i>M 1, square E IV, 2001</i>	25 – 35 y	F	149.453
<i>M 2, S III, 2004, skeleton 1</i>	over 55 y	F	151.089
<i>M 2, S III, 2004, skeleton 2</i>	20 y	F	153.74
<i>M 2, S III, 2004, skeleton 3</i>	14 y	F	139.465±97
<i>M 2, S III, 2004, skeleton 4</i>	1.6	?	80.03
<i>M 2, S III, 2004, skeleton 5</i>	45 – 55 y	M	-
<i>M 3, S V, 2004</i>	under 20 y	F	152.287
<i>M 4, S V, 2004</i>	11 y	M	125.103±124
<i>Costișa 2005, S II, square 11f</i>	Adult	?	-
<i>Costișa 2005, S II, square 7g</i>	Adult	F	-
<i>Costișa 2006, plateau A</i>	Adult	M	-
Name, Plateau B	Age	Sex	Stature (cm)
<i>Costișa 2006, S VIII, square 5c</i>	Adult	M	-
<i>Costișa 2005, S VI, pit 1, square 4a</i>	Child	-	-
<i>Costișa 2005, S VI, pit 1, square 4a, depth 0.36 – 0.41 m</i>	Adult	F	-
<i>Costișa 2005, S VI, pit 1, square 4 – 5 / b – c</i>	Adult	F	-

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