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SUMAR / SOMMAIRE / CONTENTS

PALEOLITIC / PALÉOLITHIQUE / PALAEO LITHIC

- Marin CÂRCIUMARU
Stylistic traditions and conjunctural constraints. The Palaeolithic female figurine from Piatra Neamţ 5

NEO-ENEOLITIC / NÉO-ÉNÉOLITHIQUE / NEO-ENEOLITHIC

- Mihaela GOLEA
Corpusul descoperirilor arheobotanice neo-eneolitice din sud-estul României 17
Corpus of Neo-Eneolithic archaeobotanical finds from south-eastern Romania

EPOCA BRONZULUI / L'ÂGE DU BRONZE / BRONZE AGE

- Stefan ALEXANDROV
Bronze Age gold torques from Bulgaria 49

EPOCA FIERULUI / L'ÂGE DU FER / IRON AGE

- Benno ZICKGRAF, Torsten RIESE, Emilian TELEAGA
Topographical investigation and magnetometer prospection of the Agighiol tumulus, Tulcea County (4th century BC) 69
- Dragoş MĂNDESCU, Mihai CONSTANTINESCU
Înmormântări din situl arheologic de la Cetăţeni 77
Burials in the archaeological site from Cetăţeni

EPOCA GREACĂ / EPOQUE GRECQUE / GREEK PERIOD

- Pierre DUPONT
West-Pontos black-glazed and red-figured wares: towards the end of the illusive attic supremacy? 121
- Pierre DUPONT
Reconsidering Zeest's "Samian" and "Protohasian" archaic lineages of transport amphoras 137
- Ergün LAFLI, Martin HENIG
Hellenistic and Roman gems and jewellery from south-western Turkey 147

EPOCA ROMANĂ / EPOQUE ROMAINE / ROMAN PERIOD

- Ciprian CREŢU, Mircea DABÎÇA, Andrei Dorian SOFICARU
Insights from the South Sector at Histria. New archaeological and anthropological data 171

EPOCA MEDIEVALĂ / ÉPOQUE MÉDIÉVALE / MIDDLE AGES

- Alexandru MORINTZ, Marian COMAN
Cimitirele medievale de la Buftea–La Cârna/Măneşti. O interpretare pe baza monedelor depuse în morminte 211
The medieval cemeteries from Buftea–La Cârna/Măneşti. An interpretation based on the coins in the burials

Franceska ȘTIRBU, Gabriel VASILE	
You can('t) take it with you: the anthropological analysis of the individuals from burials dated with coins (14 th –15 th centuries) from the mediaeval cemetery at Buftea	233
Daniela MARCU ISTRATE, Sebastian Ovidiu DOBROTĂ, Botond REZI, Szilárd Sándor GÁL	
Noi cercetări arheologice la cetatea Saschiz I. Incinta exterioară	253
New Archaeological Research at Saschiz Fortress I. The Outer Ward	

RECENZII / COMPTES RENDUS / BOOK REVIEWS

Sergiu Popovici, <i>Cultura Usatovo. Arheologia funerară a unei societăți din epoca bronzului/The Usatovo culture. Funeral archaeology of a Bronze Age society</i> , Cetatea de Scaun Publishing House, Târgoviște, 2023, 475 pagini, 242 planșe, ISBN: 978-606-537-623-6 (<i>Adina Boroneanț</i>)	275
Abrevieri / Abréviations / Abbreviations	277

YOU CAN('T) TAKE IT WITH YOU: THE ANTHROPOLOGICAL ANALYSIS OF THE INDIVIDUALS FROM BURIALS DATED WITH COINS (14TH–15TH CENTURIES) FROM THE MEDIAEVAL CEMETERY AT BUFTEA

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Keywords: Middle Ages, Wallachia, cemetery, bioarchaeology, graves with coins

Abstract: Following the preventive archaeological research carried out in 2020–2021 in the town of Buftea, the site Buftea – La Cârna/Mănești (Ilfov County) brought back into the attention of the scientific community a large mediaeval cemetery, previously discovered and studied by Aristide Ștefănescu between 1972–1982. On this occasion, 1053 burial complexes were recovered, grouped chronologically into two funerary horizons: one from the 14th–15th centuries and a second one from the 16th–17th centuries, the latter comprising graves surrounding a brick church. The current research focuses on the anthropological analysis of a sample of graves belonging to the first burial horizon, namely that of the 14th–15th centuries. Regarding the sampling of skeletal material, only burial complexes datable through associated coins were selected for analysis. Thus, we are dealing with 12 individual graves and five double graves. First and foremost, the research focused on determining the demographic profile of this skeletal sample, establishing the minimum number of individuals, determining the anthropological sex, and estimating the age-at-death of the individuals. In order to reconstruct the biological profile of the population, cranial and postcranial measurements were performed; based on the latter, the skeletal stature and weight of the individuals could be calculated. The lifestyle of the analysed individuals was also highlighted by recording pathological changes, traumatic injuries, and skeletal and dental anomalies.

Cuvinte-cheie: Ev Mediu, Muntenia, cimitir, bioarheologie, morminte cu monede

Rezumat: Cercetările arheologice preventive desfășurate în perioada 2020–2021 în localitatea Buftea, situl Buftea – La Cârna/Mănești (județul Ilfov), au readus în atenția comunității științifice un mare cimitir medieval, descoperit și studiat anterior de Aristide Ștefănescu, între anii 1972–1982. Cu această ocazie, au fost recuperate 1053 de complexe funerare, grupate cronologic în două orizonturi funerare: unul din secolele XIV–XV și un al doilea din secolele XVI–XVII, acesta din urmă cuprinzând morminte care înconjoară o biserică de cărămidă. Cercetarea actuală se concentrează pe analiza antropologică a unui eșantion scheletic aparținând primului orizont funerar și anume cel din secolele XIV–XV. În ceea ce privește eșantionarea materialului scheletic, au fost selectate pentru analiză doar complexele funerare databile prin intermediul monedelor asociate. Astfel, avem de-a face cu 12 morminte individuale și cu cinci morminte duble. În primul rând, cercetarea s-a axat pe determinarea profilului demografic al acestui eșantion scheletic, pe stabilirea numărului minim de indivizi, pe determinarea sexului antropologic și pe estimarea vârstei la deces a indivizilor. Pentru a reconstitui profilul biologic al populației, au fost efectuate măsurători craniene și postcraniene; pe baza acestora din urmă, au putut fi calculate statura și greutatea scheletică a indivizilor. De asemenea, a fost evidențiat stilul de viață al indivizilor analizați, prin înregistrarea modificărilor patologice, a leziunilor traumatice și a anomaliilor scheletice și dentare.

INTRODUCTION

The archaeological excavations conducted between 2020 and 2021 at the mediaeval burial grounds from Buftea – La Cârna/Mănești unveiled a significant find, as we are most probably dealing with the largest mediaeval cemetery from Wallachia¹.

¹ For a better understanding of the archaeological context, see Morintz, Coman 2024, in this volume.

The first excavations carried out at Buftea – La Cârna/Mănești had a systematic character and were conducted by Aristide Ștefănescu between 1972 and 1982. According to his partially published research, approximately 400 graves were investigated². The archaeological excavations

² The anthropological literature also records several studies and references on the anthropological analysis of the three skeletal series (I, II, III) from Buftea: Georgescu, Georgescu 1998; Georgescu 1978; 1979; 1992; 1997.

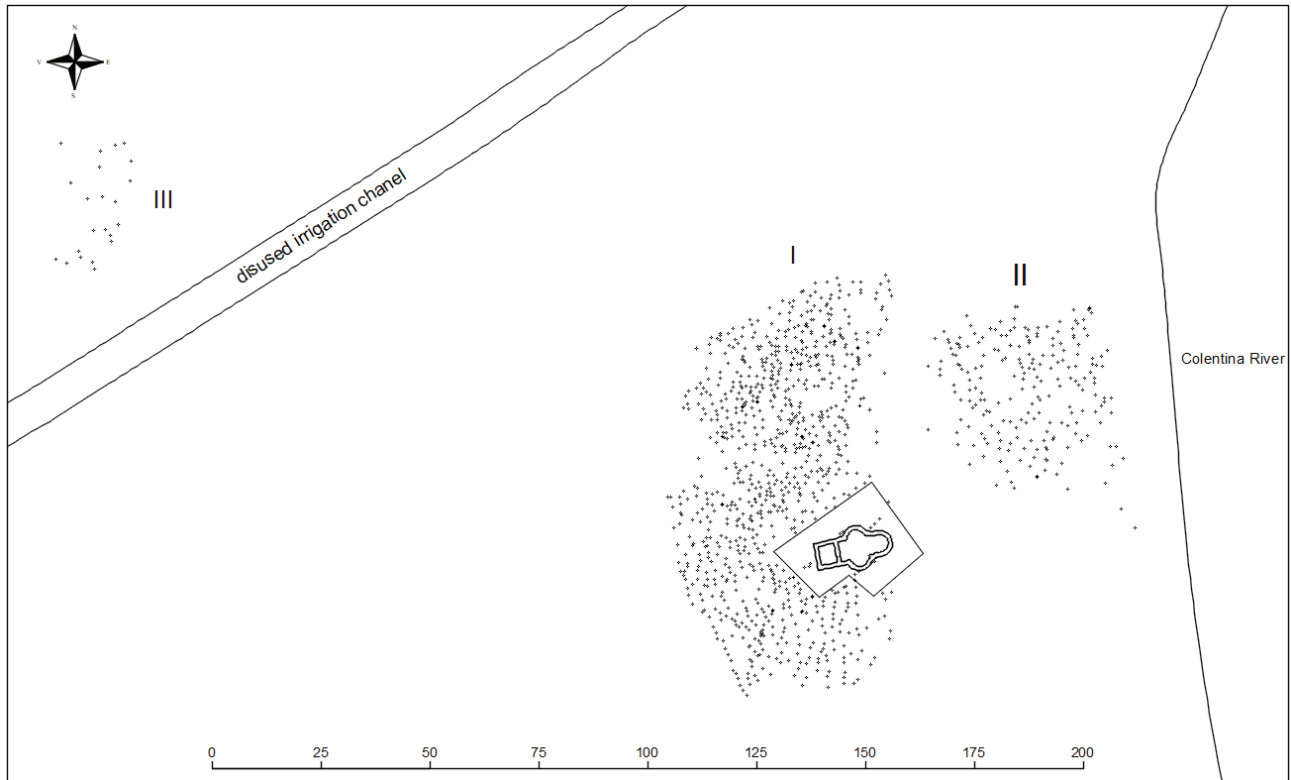


Figure 1. The general plan of the Buftea – La Cârna/Mănești cemetery (after Alexandru Morintz).

were reopened in 2020, this time as part of a preventive archaeology project. On this occasion, another 1053 funerary structures were recovered, chronologically grouped into two burial horizons: one from the 14th–15th centuries (cemeteries II and III) and the other from the 16th–17th centuries (cemetery I), the latter including graves surrounding a brick church. As for the burial horizon from the 14th–15th centuries, it is composed of two funerary areas, one concentrated in the eastern part of the cemetery, while the second one is in its northwest (Fig. 1).

To further define the terms and argue the choice of the topic, the research area was delineated around the funerary horizon belonging to the 14th–15th centuries. The rationale behind this selection is based not only on its historical significance, especially considering the limited documentation available in Romanian historiography for this period, but also on the extensive research perspectives it offers, such as the potential for comprehensive bioarchaeological examinations and the opportunity to develop valuable interdisciplinary collaborations.

Given the preliminary nature of the extensive cemetery research, it was obvious from the outset that selective sampling of specific burials would be imperative. Therefore, our initial focus was on the meticulous examination of select burials within this cemetery, commencing in 2023 with the exploration of contemporary multiple burials, several of which are also encompassed in this investigation³. Subsequently, for the present study, we

delved into the analysis of burials dated by coins, motivated by the imperative to gain deeper insights into the burials that have hitherto provided a chronological framework for the 14th–15th centuries funerary horizon (Fig. 2).

Hence, the sampling procedure primarily relied on the temporal context of the burial horizon, specifically the 14th–15th centuries. Subsequently, an additional criterion was incorporated into the sampling methodology: the identification of numismatic artefacts within the graves, culminating in a set of 17 burials.

Thus, the examination of the skeletal remains is expected to yield significant insights into the biological profiles, health conditions, and potential familial connections of the interred individuals, thereby enhancing our understanding of the burial practices associated with coin deposits and their cultural implications within the milieu of Mediaeval European civilizations.

METHODOLOGY

The anthropological analysis was conducted on a group of 22 individuals from five double graves and 12 individual graves, one of which represented a reburial. While the anthropological study has been fully completed, we have opted to present only select characteristics of the analysed individuals in this paper. Particularly pertinent at this stage of cemetery research are the determination of the anthropological sex, age-at-death estimation, skeletal

³ Știrbu, Vasile 2023.

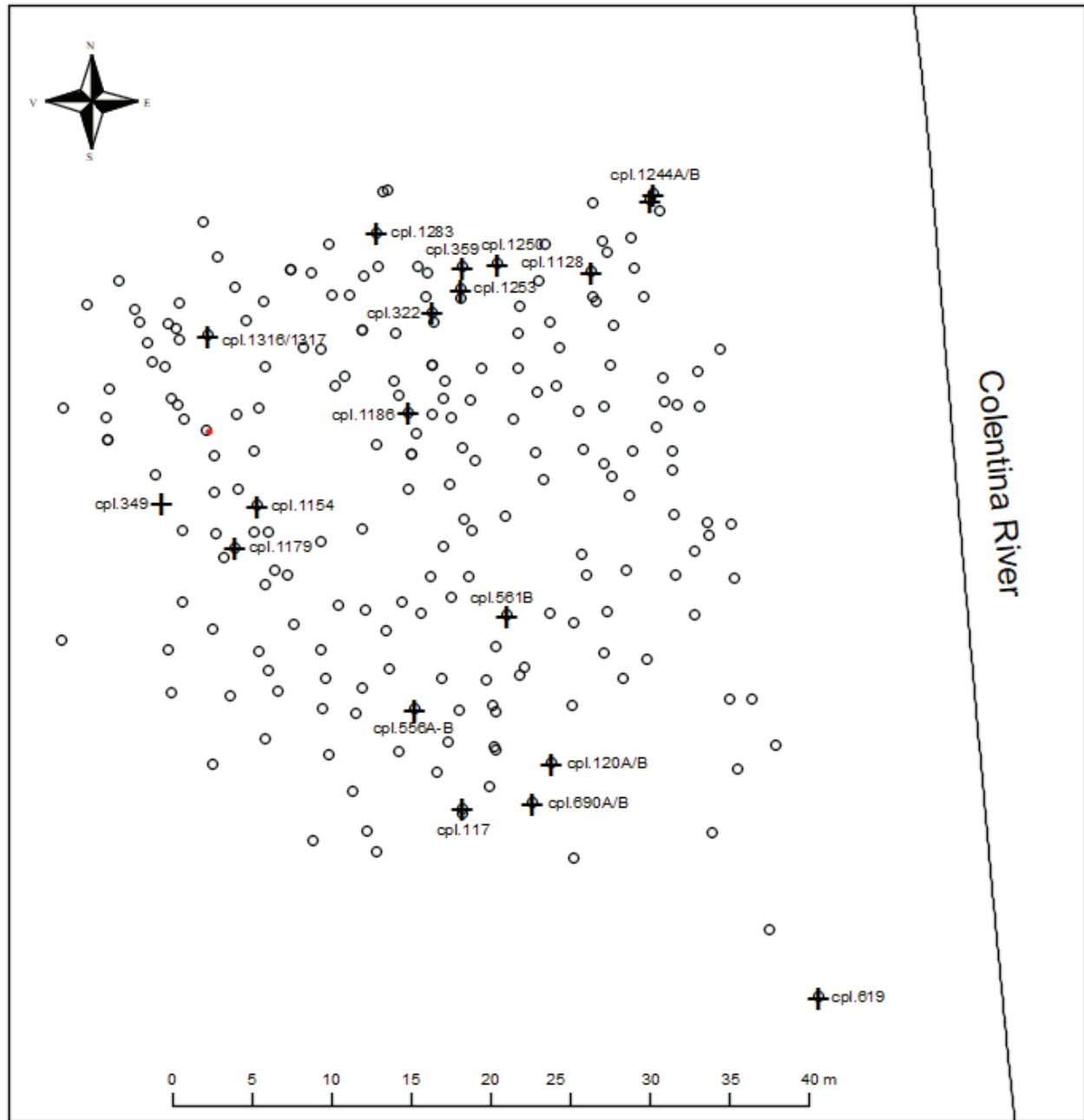


Figure 2. Spatial distribution of the coin-dated graves in Buftea – La Cârna/Mănești cemetery II (after Alexandru Morintz).

statures, and identification of dental and osteological pathologies. Other aspects such as metric, non-metric, and morphoscopic traits, or the robusticity of entheses and the degree of development of enthesophytes, will be subject to further investigation as additional skeletons from the cemetery are incorporated into the analysed sample. This approach aims to yield statistically more relevant results. Additionally, the findings of the anthropological study are succinctly showcased in a catalogue format for each individual, accompanied by photographs illustrating the primary pathological changes observed in the individuals from the skeletal sample.

The anthropological analysis consisted of a preliminary phase in which the sediment was removed from the bones, and human skeletal remains were separated from faunal or other materials such as ceramics, adobe, or lithic fragments. Additionally, bone restoration was performed to determine the minimum number of individuals (MNI), to take measurements, to highlight certain taphonomic, morphological, or pathological aspects, and to evaluate some indicators of biomechanical stress.

The skeletal material was then subject to analysis. Initially, the bones⁴ and teeth⁵ were identified, and their

⁴ White *et alii* 2012, p. 43–100, 129–294.

⁵ White *et alii* 2012, p. 101–128.

laterality/symmetry was determined. Subsequently, the degree of representativeness and preservation for each individual was documented. Individuals were categorised into three groups based on their skeletal inventory: approximately complete, partially represented, and poorly represented. Concerning the preservation status of the skeletons, a model utilising three levels of overall bone surface assessment was employed: good, moderate, and poor condition⁶.

Anthropological/skeletal sex determination was conducted solely for adult and adolescent individuals aged 15.0 years and above. This process involved identifying distinct morphological characteristics between the two sexes, primarily found in the pelvis and the skull⁷. Additionally, to enhance the accuracy of sex determination, a series of measurements of the coxal bones was conducted using the DSP V2 method⁸.

Age-at-death estimation for the individuals in the analysed sample was carried out using various methods, tailored to the respective age groups.

Therefore, for subadults (infant (I) = 0–3.0 years; child (C) = 3.0–12.0 years; adolescent (Ad) = 12.0–20.0 years), excluding adolescents, age estimation was based on the sequence of tooth formation, eruption, and development⁹, as well as regression equations of the diaphyseal length of the long bones of the limbs¹⁰. In the case of subadults under the age of 15.0 years, age-at-death estimation primarily relied on the dental development. This method was prioritised due to the low sexual dimorphism and variability within and between populations observed in dentition within this age range.

For adolescents (over 15.0 years), age-at-death estimation relied on the fusion of primary and secondary ossification centres (cranial and postcranial)¹¹. While the fusion of ossification centres was considered the primary method for adolescents, we also utilised, for adolescents aged 12.0–15.0 years, the method involving the sequence of tooth formation, eruption, and development, as mentioned earlier.

Given that the Buftea sample includes individuals at the transition between the two age groups, we employed two methods with relevance to both: the timing of epiphyseal union concerning the medial aspect of the clavicle¹² and the fusion time of the iliac crest ossification centre¹³.

Regarding the age-at-death of adult individuals (young adult (YA) = 20.0–35.0 years; middle adult (MA) = 35.0–50.0 years; old adult (OA) = over 50.0 years), estimation involved employing multiple methods in

order to achieve an age-at-death as close as possible to the chronological age. These methods included observing and interpreting characteristics such as: the timing of epiphyseal union concerning the medial aspect of the clavicle¹⁴, the fusion time of the iliac crest ossification centre¹⁵, the degree of fusion of the first two sacral vertebrae¹⁶, the degenerative changes in the pubic symphyseal facets¹⁷, the morphological changes in the auricular surfaces of the iliac bones¹⁸, the degree of obliteration of cranial vault sutures in the exocranial aspect¹⁹, the morphological changes in sternal rib ends²⁰, and the morphological changes in the geometry of the articular facet and surface texture of the costal tubercle of the first pair of ribs²¹.

Among these methods, the first three (the timing of epiphyseal union concerning the medial aspect of the clavicle, the fusion time of the iliac crest ossification centre, and the degree of fusion of the S₁–S₂ sacral vertebrae) served as indicators that the analysed individual was in the incipient stage of the young adult age category. Therefore, when observable, age-at-death was determined solely using these three methods, as they are considered more accurate since they are based on timings of epiphyseal unions, which relate to certain ages without succumbing to the subjectivity of the observer. Moreover, to provide a specific age rather than a range, age-at-death was estimated by averaging the values obtained from each method.

Skeletal stature was determined using regression equations derived from the maximum dimensions of the long bones of the limbs for children²², as well as for adults²³. The resulting skeletal stature values for adults were calculated separately and categorised²⁴, considering the individuals' anthropological sex.

Furthermore, the assessment of skeletal weight in adult individuals was conducted utilising regression equations derived from the transversal diameter of the femoral head²⁵.

Our study also included the identification of pathological conditions and traumatic manifestations (osteological and dental)²⁶, as well as the observation of certain taphonomic aspects²⁷.

⁶ Connell 2008, p. 9.

⁷ Buikstra, Ubelaker 1994, p. 16–21; Ferembach *et alii* 1980, p. 517–527.

⁸ Brůžek *et alii* 2017.

⁹ Ubelaker 1978, p. 47, fig. 62.

¹⁰ Facchini, Veschi 2004, p. 93, tab. 2.

¹¹ Nikita, Karligkioti 2019, p. 31–34, tab. 13, fig. 35–45.

¹² Langley-Shirley, Jantz 2010, p. 573–574, 578.

¹³ Nikita, Karligkioti 2019, p. 33, fig. 43.

¹⁴ *Ibidem*, p. 33, fig. 43.

¹⁵ *Ibidem*, p. 33, fig. 43.

¹⁶ Ríos *et alii* 2008, p. 111.e3–111.e4.

¹⁷ Brooks, Suchey 1990.

¹⁸ Buckberry, Chamberlain 2002.

¹⁹ Meindl, Lovejoy 1985.

²⁰ İşcan *et alii* 1984; 1985.

²¹ DiGangi *et alii* 2009.

²² Visser 1998, p. 415.

²³ Ruff *et alii* 2012, p. 606, tab. 3.

²⁴ Martin 1928, p. 246.

²⁵ Auerbach, Ruff 2004, p. 336, tab. 3.

²⁶ Mann, Hunt 2005; Ortner 2003.

²⁷ Nikita, Karligkioti 2019, p. 70–73; Fernández-Jalvo, Andrews 2016.

ANTHROPOLOGICAL CATALOGUE OF THE ANALYSED SAMPLE

The findings from the anthropological analysis have been condensed and presented in the following catalogue:

Cpl. 117 (MNI = 2)

117A – skeletal inventory: approximately complete; preservation: grade 1 (good); taphonomy: greenish staining (one proximal hand phalanx); anthropological sex: indeterminable; age-at-death: 12.0 years (12.0 years – dentition; 10.4–12.3 years – long bones' diaphyses); age category: Ad; skeletal stature: 138.4 cm [136.6–140.2 cm]; stature category: – ; skeletal weight: – ; pathological conditions: 1. oral pathologies (a. dental calculus: LI¹ – lingual; LM¹ – buccal; RI¹ – lingual; LI₁ – labial, lingual; LM₁ – lingual; RI₁–RI₂ – labial, mesial; RM₁ – lingual; b. dental enamel hypoplasia: LI¹; LC[#]; RI¹; RC[#]; LI₁; LC_#; RI₁–RC_#); 2. metabolic disorders (a. *cribra orbitalia*: active lesions – orbital roofs; b. *cribra cranii*: parietals; occipital).

117B – skeletal inventory: approximately complete; preservation: grade 1 (good); taphonomy: greenish staining (two proximal hand phalanges); anthropological sex: indeterminable; age-at-death: 10.0–12.0 years (10.0–12.0 years – dentition; 10.4–11.6 years – long bones' diaphyses); age category: C; skeletal stature: 137.8 cm [135.3–140.3 cm]; stature category: – ; skeletal weight: – ; pathological conditions: 1. oral pathologies (dental calculus: LI¹–LI² – labial; LP²–LM¹ – buccal; RC[#] – buccal; LI₁–LP₁ – labial/buccal; RI₁–RI₂ – labial, lingual); 2. metabolic disorders (a. *cribra orbitalia*: healing lesions – left orbital roof; b. *cribra cranii*: parietal); 3. infectious diseases (periostitis: active reactions – parietals; temporal squamae; mastoid processes; greater wings of the sphenoid; femoral and tibial diaphyses, possible reactions; alveolar processes of LC[#]–LM²; alveolar processes of RM²–RM³).

Cpl. 120 (MNI = 2)

120A – skeletal inventory: approximately complete; preservation: grade 3 (moderate); taphonomy: greenish staining (two proximal hand phalanges); anthropological sex: probably female (coxae); age-at-death: 12.0–15.0 years (12.0–15.0 years – union of ossification centres; 12.0–15.0 years – dentition); age category: Ad; skeletal stature: – ; stature category: – ; skeletal weight: – ; pathological conditions: 1. oral pathologies (a. dental calculus: LI¹–LI² – labial, lingual; LP¹ – buccal; RP¹ – buccal; RM¹ – buccal, lingual; LI₁–LC_# – labial, lingual; LP₂–LM₁ – lingual; RI₁–RP₁ – labial/buccal, lingual; RP₂ – mesial; LM₁–LM₂ – buccal; b. caries: LM₁ – one occlusal; c. dental enamel hypoplasia: LI¹–LI²; RI¹; RC[#]; RI₁, RC_#); 2. metabolic disorders (*cribra cranii*: parietals); 3. infectious diseases (periostitis: active reactions – femoral and tibial diaphyses); 4. circulatory diseases (arachnoid granulation: multiple, frontal).

120B – skeletal inventory: approximately complete; preservation: grade 3 (moderate); taphonomy: – ; anthropological sex: indeterminable; age-at-death:

2.0–3.0 years (2.0–3.0 years – dentition); age category: I; skeletal stature: – ; stature category: – ; skeletal weight: – ; pathological conditions: 1. metabolic disorders (*cribra orbitalia*: active lesions – left orbital roof); 2. infectious diseases (periostitis: active reactions – maxillary hard palate; right temporal squama; right mastoid process; one greater wing of the sphenoid; left mandibular ramus; alveolar process of LM₂).

Cpl. 322 (MNI = 1)

322 – skeletal inventory: approximately complete; preservation: grade 4 (poor); taphonomy: greenish staining (two proximal hand phalanges); anthropological sex: female (coxae; skull; DSP V2 = 1.000); age-at-death: 20.5 years (19.9 years – clavicle; 21.1 years – S₁–S₂ vertebrae; 19.4 years – pubic symphyseal facets; 17.4 years – sternal rib ends); age category: YA; skeletal stature: 153.4 cm [152.3–154.5 cm]; stature category: medium; skeletal weight: 61.6 kg [61.2–62.1 kg]; pathological conditions: 1. oral pathologies (a. dental calculus: LM¹ – buccal, lingual; RM¹ – buccal, lingual; RI₁–RC_# – lingual; RM₁–RM₂ – lingual; b. caries: LM₁ – one occlusal; c. dental enamel hypoplasia: RI₁–RC_#).

Cpl. 349 (MNI = 1)

349 – skeletal inventory: partially represented; preservation: grade 3 (moderate); taphonomy: – ; anthropological sex: male (skull); age-at-death: 51.5+ years (51.5+ years – cranial vault sutures); age category: OA; skeletal stature: 170.8 cm; stature category: tall; skeletal weight: – ; pathological conditions: 1. oral pathologies (a. dental calculus: LM¹ – buccal, distal; LI₁–LP₁ – labial/buccal; RI₂–RC_# – labial, lingual; RP₁–RP₂ – buccal; b. caries: LM¹ – one occlusal & distal; c. antemortem tooth loss: LM₁–LM₃; RM₁–RM₃); 2. joint diseases (degenerative joint disease: porous surface with irregular contour – three proximal hand phalanges; osteophytes: three lumbar vertebrae); 3. traumatic injuries (fracture: healed fracture – patella); 4. circulatory diseases (arachnoid granulation: one, frontal).

Cpl. 359 (MNI = 1)

359 – skeletal inventory: approximately complete; preservation: grade 2 (good); taphonomy: pseudoplagiocephaly; anthropological sex: male (coxae; skull; DSP V2 = 0.970); age-at-death: 27.1 years (27.1 years – S₁–S₂ vertebrae; 28.7 years – pubic symphyseal facets; 48.8 years – cranial vault sutures; 25.9 years – sternal rib ends; 25.3 years – first ribs); age category: YA; skeletal stature: 168.3 cm [166.1–170.4 cm]; stature category: tall-medium; skeletal weight: 61.5 kg [60.0–63.1 kg]; pathological conditions: 1. oral pathologies (dental calculus: LC[#] – labial; LM¹–LM² – lingual; RP²–RM³ – lingual; RP₁–RM₃ – labial/buccal); 2. joint diseases (intervertebral hernia: Schmorl's nodes – seven thoracic vertebrae; one lumbar vertebra); 3. traumatic injuries (fracture: healed fracture – radius).

Cpl. 556 (MNI = 2)

556A – skeletal inventory: approximately complete; preservation: grade 3 (moderate); taphonomy: greenish staining (one rib); anthropological sex: indeterminable; age-at-death: 10.0 years (10.0 years – dentition; 11.2–11.6 years – long bones' diaphyses); age category: C; skeletal stature: –; stature category: –; skeletal weight: –; pathological conditions: 1. oral pathologies (a. dental calculus: LI^1 – distal; RI^1 – distal; RI^2 – labial; RM^1 – buccal, lingual, mesial, distal; LM_2 – buccal, lingual; LI_1 – LI_2 – labial; LM_1 – lingual; RI_1 – RI_2 – labial; RM_1 – lingual; b. dental enamel hypoplasia: LI^1 – LI^2 , RI^1 – $RC^\#$, $LC^\#$, $RC^\#$); 2. metabolic disorders (*cribra orbitalia*: active lesions – orbital roofs); 3. infectious diseases (a. periostitis: active reactions – left parietal, infectious morphology or postmortem degradation?; left scapular spine; alveolar processes of LM^1 – LM^3 , RM^2 – RM^3 ; b. *caries sicca* lesions: left parietal, infectious morphology or postmortem degradation?).

556B – skeletal inventory: approximately complete; preservation: grade 4 (poor); taphonomy: greenish staining (two proximal hand phalanges); anthropological sex: female (coxae; skull); age-at-death: 20.0 years (17.0–23.0 years – iliac crest); age category: YA; skeletal stature: 156.1 cm; stature category: tall-medium; skeletal weight: 52.4 kg; pathological conditions: 1. oral pathologies (a. dental calculus: LM^1 – buccal; LI_1 – distal; LI_2 – mesial; LM_1 – lingual; RI_1 – distal; RI_2 – mesial; RM_1 – lingual; b. caries: LM_1 – one distal; LM_2 – one mesial; c. dental enamel hypoplasia: LI_1 – $LC^\#$, RI_1 – $RC^\#$; d. congenital absences: LM_3 , RM_3); 2. metabolic disorders (*cribra orbitalia*: healed lesions – orbital roofs); 3. joint diseases (degenerative joint disease: porous surface with irregular contour – right heel joint).

Cpl. 561 (MNI = 1)

561 – skeletal inventory: partially represented; preservation: grade 4 (poor); taphonomy: greenish staining (three proximal hand phalanges); anthropological sex: indeterminable; age-at-death: 12.0–15.0 years (12.0–15.0 years – dentition; 10.7 years – long bones' diaphyses); age category: Ad; skeletal stature: 131.9 cm; stature category: –; skeletal weight: –; pathological conditions: 1. oral pathologies (dental calculus: LM^1 – buccal); 2. metabolic disorders (*cribra cranii*: left parietal); 3. infectious diseases (periostitis: active reactions – femoral diaphyses, right tibial diaphysis, Fig. 3).

Cpl. 619 (MNI = 1)

619 – skeletal inventory: poorly represented; preservation: grade 3 (moderate); taphonomy: a. greenish staining (mandible); b. blackish staining (skull; teeth); c. periosteum exfoliation; anthropological sex: female (skull); age-at-death: indeterminable (< 35.0 years – S_1 – S_2 vertebrae; cranial vault sutures); age category: YA; skeletal stature: –; stature category: –; skeletal weight: –; pathological conditions: oral pathologies (a. dental calculus: LM^1 – LM^2 – whole surface of the crown; RI^2 – RP^1 – labial/buccal; RM^1 – RM^2 – lingual; LI_1 – whole surface of the

crown; LP_1 – lingual; LM_1 – lingual; RI_2 – $RC^\#$ – labial; b. dental enamel hypoplasia: $LC^\#$, LI_2 – $LC^\#$).

Cpl. 690 (MNI = 2)

690A – skeletal inventory: approximately complete; preservation: grade 3 (moderate); taphonomy: greenish staining (radii; one proximal hand phalanx); anthropological sex: probably male (coxae; skull; DSP V2 = 0.910); age-at-death: 22.0 years (18.4 years – clavicle; 25.6 years – S_1 – S_2 vertebrae; 23.4 years – pubic symphyseal facets; 17.3 years – auricular surfaces; 17.3 years – sternal rib ends); age category: YA; skeletal stature: 160.3 cm [154.2–166.4 cm]; stature category: small-medium; skeletal weight: 58.7 kg [58.6–58.8 kg]; pathological conditions: 1. oral pathologies (a. dental calculus: LI^2 – LM^2 – labial/buccal; RI^1 – $RC^\#$ – labial; LI_1 – LI_2 – labial, lingual, mesial; RI_1 – RI_2 – labial, lingual, mesial; b. caries: LM_1 – radicular remain; c. dental enamel hypoplasia: LI^2 – $LC^\#$, RI^2 – $RC^\#$, LI_2 – $LC^\#$, RI_2 – $RC^\#$; d. congenital absences: RM_3); 2. joint diseases (a. degenerative joint disease: porous surface with irregular contour – one lumbar vertebra; osteophytes – one lumbar vertebra; b. intervertebral hernia: Schmorl's nodes – one lumbar vertebra; c. compression fracture: one lumbar vertebra).

690B – skeletal inventory: approximately complete; preservation: grade 3 (moderate); taphonomy: greenish staining (three ribs; one proximal hand phalanx); anthropological sex: probably male (coxae; skull); age-at-death: 12.0–17.0 years (12.0–17.0 years – union of ossification centres; 12.0–15.0 years – dentition); age category: Ad; skeletal stature: –; stature category: –; skeletal



Figure 3. Active periosteal reactions [Cpl. 561: right tibia, lateral].

weight: – ; pathological conditions: 1. oral pathologies (a. caries: LM₁ – one occlusal & lingual; LM₂ – one mesial, one buccal; b. dental enamel hypoplasia: LM³; RM³; LM₂–LM₃; RM₁; RM₃); 2. infectious diseases (a. periostitis: active reactions – tibial diaphyses; b. *caries sicca* lesions: frontal).

Cpl. 1128 (MNI = 1)

1128 – skeletal inventory: approximately complete; preservation: grade 2 (good); taphonomy: greenish staining

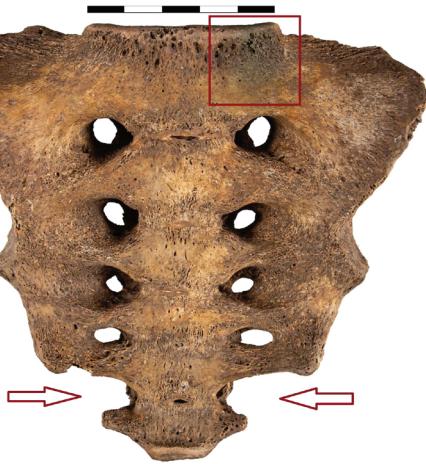


Figure 4. Incomplete fusion of first coccygeal vertebra (arrows) to sacrum; green staining on the S₁ vertebra (square) [Cpl. 1128: sacrum, anteroinferior].



Figure 5. Antemortem teeth loss [Cpl. 1154: mandible, superior].



Figure 6. Porosity and marginal osteophytes (arrows) on the surface of the vertebral body [Cpl. 1154: cervical vertebrae].

(one intermediate hand phalanx; one sacral vertebra, Fig. 4); anthropological sex: female (coxae; DSP V2 = 1.000); age-at-death: 56.0 years (59.9 years – auricular surfaces; 50.7 years – sternal rib ends; 57.3 years – first ribs); age category: OA; skeletal stature: 149.3 cm [146.0–152.7 cm]; stature category: small-medium; skeletal weight: 60.5 kg [59.7–61.2 kg]; pathological conditions: 1. congenital diseases (caudal shifts of the sacral-caudal border: sacralisation of the first coccygeal vertebra, Fig. 4); 2. infectious diseases (periostitis: healed reactions – right femoral diaphysis).

Cpl. 1154 (MNI = 1)

1154 – skeletal inventory: partially represented; preservation: grade 5 (poor); taphonomy: a. greenish staining (first left rib; one proximal hand phalanx); b. periosteum exfoliation; anthropological sex: male (skull); age-at-death: 34.7 years (34.7 years – cranial vault sutures); age category: YA; skeletal stature: – ; stature category: – ; skeletal weight: – ; pathological conditions: 1. oral pathologies (a. dental calculus: LC[#] – distal; LM² – whole surface of the crown; RP²–RM³ – whole surface of the crown; LI₂–LC_# – whole surface of the crown; LP₁ – buccal; b. antemortem tooth loss: LI₁; LP₂–LM₃; RI₁–RM₃, Fig. 5); 2. joint diseases (degenerative joint disease: porous surface with irregular contour – left clavicle; five cervical vertebrae, Fig. 6; osteophytes: three cervical vertebrae; two thoracic vertebrae).

Cpl. 1179 (MNI = 1)

1179 – skeletal inventory: approximately complete; preservation: grade 4 (poor); taphonomy: a. greenish staining (one proximal hand phalanx); b. blackish staining (skull; upper and lower limb bones); c. lytic lesions (posterior part of the long bones due to the action of snails); anthropological sex: indeterminable; age-at-death: 12.0–15.0 years (12.0–15.0 years – dentition; 11.3–13.5 years – long bones' diaphyses); age category: Ad; skeletal stature: 145.9 cm [143.7–148.1 cm]; stature category: – ; skeletal weight: – ; pathological conditions: 1. oral pathologies (a. dental calculus: LI₁–LI₂ – labial; RI₁–RI₂ –

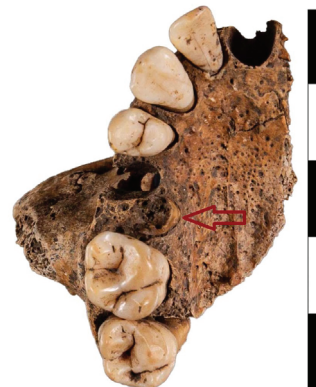


Figure 7. Supernumerary teeth in the premolar region [Cpl. 1154: right maxilla, inferior].



Figure 8. Dark-brown deposits of periosteal new bone formation [Cpl. 1179: right rib fragment, visceral].



Figure 9. Hypervascularisation (arrows) and resorptive lesions (squares) on thoracic vertebral bodies [Cpl. 1179: vertebral column, posterior].

labial; b. caries: RP³ – radicular remain; c. dental enamel hypoplasia: LI²–LM²; RI¹–RP¹; RM¹–RM²; LI₁–LM₂; RI₁–RP₁; RM₁–RM₂; d. hyperdontia: one additional right maxillary premolar, Fig. 7); 2. infectious diseases (a. periostitis: active reactions – maxillae; mandible; manubrium; one right rib fragment, Fig. 8; two left metacarpals; right femoral diaphysis; right tibial diaphysis; left calcaneus; b. hypervascularization and resorptive lesions: ten thoracic vertebrae; one lumbar vertebra, Fig. 9); 3. traumatic injuries (fracture: healed fracture – LC[#], Fig. 10).

Cpl. 1186 (MNI = 1)

1186 – skeletal inventory: poorly represented; preservation: grade 5 (poor); taphonomy: a. blackish staining (entire skeleton); b. periosteum exfoliation; anthropological sex: indeterminable; age-at-death: indeterminable (< 35.0 years – cranial vault sutures); age category: YA; skeletal stature: – ; stature category: – ; skeletal weight: – ; pathological conditions: 1. oral pathologies (possible mulberry molar: LM¹) 2. circulatory diseases (arachnoid granulation: multiple, frontal, Fig. 11).

Cpl. 1244 (MNI = 2)

1244A – skeletal inventory: partially represented; preservation: grade 3 (moderate); taphonomy: greenish staining (one proximal hand phalanx); anthropological sex: probably male (skull; coxae); age-at-death: 16.0–20.0 years (16.0–20.0 years – union of ossification centres);



Figure 10. Healed dental root fracture [Cpl. 1179: LC[#]].

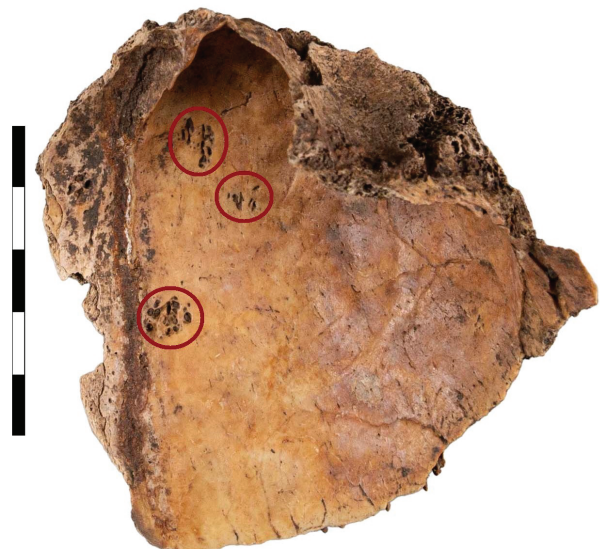


Figure 11. Perforation of the inner lamina of the vault made by Pacchionian granulations [Cpl. 1186: frontal, endocranial].

age category: Ad; skeletal stature: – ; stature category: – ; skeletal weight: – ; pathological conditions: 1. oral pathologies (a. dental calculus: LC[#] – distal; LP¹–LM¹ – buccal; LI₂ – labial; b. dental enamel hypoplasia: LI²–LM¹; RC[#]); 2. metabolic disorders (*cribra orbitalia*: healed lesions – left orbital roof); 3. infectious diseases (a. periostitis: active reactions – right tibial diaphysis; b. osteomyelitis: active reactions – right tibial diaphysis).

1244B – skeletal inventory: approximately complete; preservation: grade 3 (moderate); taphonomy: greenish staining (right radius; ulnae; two left carpal bones; one right carpal bone; five left metacarpal bones; one right metacarpal bone; four proximal hand phalanges; four lumbar vertebral bodies; ilia); anthropological sex: male (coxae; skull; DSP V2 = 0.960); age-at-death: 24.6 years (24.6 years – clavicle; 21.9 years – sternal rib ends; 15.1 years – first ribs); age category: YA; skeletal stature: 169.8 cm [167.7–171.9 cm]; stature category: tall-medium; skeletal weight: 75.0 kg [74.7–75.3 kg]; pathological conditions: 1. oral pathologies (a. dental calculus: LI¹ – mesial; LC[#]–LM¹ – labial/buccal, lingual; RC[#]–RP¹ – labial/buccal; LI₁–LM₂ – labial/buccal, lingual; RI₁–RP₂ – labial/buccal, lingual; b. dental enamel hypoplasia: LI¹; RI¹–RI²; c. antemortem tooth loss: RM₁; d. congenital absences: LM₃; RM₃); 2. metabolic disorders (*cribra orbitalia*: healing lesions – orbital roofs); 3. joint diseases (intervertebral hernia: Schmorl's nodes – three thoracic vertebrae); 4. infectious diseases (a. periostitis: active reactions – femoral diaphyses; tibial diaphyses; fibular diaphyses; b. osteomyelitis: femurs; left tibia).

Cpl. 1250 (MNI = 1)

1250 – skeletal inventory: approximately complete; preservation: grade 3 (moderate); taphonomy: a. blackish staining (entire skeleton); b. reddish staining (manubrium; one rib fragment, Fig. 12); c. periosteum exfoliation; anthropological sex: indeterminable; age-at-death: 6.0–8.0 years (6.0–8.0 years – dentition; 6.9–7.6 years – long bones' diaphyses); age category: C; skeletal stature: 110.7 cm [109.9–111.4 cm]; stature category: – ; skeletal weight: – ; pathological conditions: infectious diseases (a. periostitis: active reactions – tibial diaphyses; left fibular diaphysis; b. hypervascularization: two thoracic vertebrae; c. resorptive lesions: two thoracic vertebrae).

Cpl. 1316 (MNI = 1)

1316 – skeletal inventory: approximately complete; preservation: grade 3 (moderate); taphonomy: blackish staining (entire skeleton, Fig. 13); c. periosteum exfoliation; anthropological sex: male (coxae; skull; DSP V2 = 0.966); age-at-death: 26.0 years (23.4 years – pubic symphyseal facets; 29.3 years – auricular surfaces; 25.3 years – sternal rib ends; 25.9 years – first ribs); age category: YA; skeletal stature: 161.8 cm [159.8–163.8 cm]; stature category: small-medium; skeletal weight: 68.2 kg [68.1–68.4 kg]; pathological conditions: 1. oral pathologies (a. dental calculus: LI²–LC[#] – lingual; LM¹ – buccal; RI²–RC[#] – lingual;

RC[#]–RP² – labial/buccal; RM²–RM³ – whole surface of the crown; LI₁ – whole surface of the crown; LC_#–LM₁ – lingual; RI₁–RI₂ – labial; RC_# – lingual; RP₁–RM₃ – whole surface of the crown; b. caries: RP¹ – one distal; RP² – one mesial; RM¹ – radicular remain, Fig. 14; RM² – one mesial, one distal; LM₃ – one occlusal; c. antemortem tooth loss: LM₂); 2. joint diseases (a. degenerative joint disease: osteophytes: two lumbar vertebrae, Fig. 15; b. intervertebral hernia: Schmorl's nodes – one lumbar vertebra, Fig. 15);

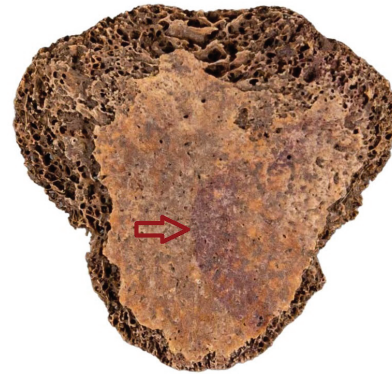


Figure 12. Superficial red staining pattern on the bone surface [Cpl. 1250: manubrium, anterior].



Figure 13. Extensive black staining pattern on the bone surface [Cpl. 1316: left humerus, posterior].



Figure 14. Radicular remain of the RM₁ [Cpl. 1316: maxillae, inferior].



Figure 15. Osteophytes (arrows) and Schmorl's nodes (ellipse) on the lumbar spine [Cpl. 1316: lumbar vertebra, inferior].



Figure 16. Occlusal carious lesion on RM₁ [Cpl. 1317: right mandible, superior].



Figure 17. Cut marks produced by a sharp object [Cpl. 1317: left femoral head].

3. infectious diseases (a. periostitis: active reactions – left tibial diaphysis); 4. traumatic injuries (*myositis ossificans traumatica*: one proximal hand phalanx).

Cpl. 1317 (MNI = 1)

1317 – skeletal inventory: approximately complete; preservation: grade 4 (poor); taphonomy: a. greenish staining (mandible; first left rib); b. blackish staining (entire skeleton); c. periosteum exfoliation; anthropological sex: female (coxae; skull); age-at-death: 20.5 years (18.0 years – clavicle; 23.6 years – S₁–S₂ vertebrae; 20.0 years – iliac crest); age category: YA; skeletal stature: 144.4 cm; stature category: small; skeletal weight: –; pathological conditions: 1. oral pathologies (caries: LP¹ – radicular remain; LM₂ – one buccal; RM₁ – one occlusal, Fig. 16; RM₂ – one buccal); 2. traumatic injuries (two cut marks on the left femoral head, Fig. 17; one “old blow” on the left femoral diaphysis; one “old blow” on the left tibial tuberosity).

RESULTS OF THE ANTHROPOLOGICAL ANALYSIS

1. MNI, skeletal representativeness, state of preservation and taphonomy

The 16 inhumations from Buftea – La Cârna/Mănești selected for this study contain the osteological remains of 22 individuals (MNI = 22).

Of these 16 burials, five are double (31.3%) and 11 are individual (68.7%). However, among the 11 individual burials, there is also a reburial (Cpl. 1317).

According to the osteological inventory of the individuals, over a third of them are approximately complete (16: 72.7%), while partially represented skeletons (4: 18.2%) and poorly represented skeletons (2: 9.1%) are found in smaller proportions.

The preservation state of the skeletal material ranges from moderate to poor, with 11 individuals (50.0%) assessed as having a moderate state, while seven individuals (31.8%) were categorised as having a poor

condition. Furthermore, four individuals (18.2%) were rated as being in good condition.

We have also identified several taphonomic characteristics scattered and concentrated across the skeletal remains (cranial and postcranial). Among these observed features, we documented different types of staining (greenish – 16, blackish – 6, reddish – 1), although organic and inorganic marks were also noticeable on the osteological material (e.g. plant root activity, animal activity). Other taphonomical modifications observed on the analysed sample were represented by periosteal exfoliation, mainly cracking, flaking and corrosion. Lastly, we also managed to discern one case of pseudoplagiocephaly in a male young adult individual.

2. Distribution of the individuals by sex and age groups

The results of our analysis on the anthropological sex revealed that over a third of individuals were indeterminable (8 = 36.4%), fact which is largely due to the presence of subadults, comprising seven out of the eight indeterminable cases. Among adults, six were identified as male individuals (27.3%) and five as female individuals (22.7%) (*sex ratio* = 1.2). However, in three instances, the anthropological sex of adolescents could be determined, resulting in two likely male individuals (9.1%) and one likely female individual (4.5%).

The ratio between adults and subadults identified after estimating the age-at-death is 12:10 (1.2). The highest frequency of deaths was recorded in the young adult group

(10 = 45.5%). Following is the adolescent group (6 = 22.7%), closely followed by the children's group (3 = 18.2%). Additionally, deaths were also recorded in the category of old adults (2 = 9.1%) and in the infant category (1 = 4.5%) (Fig. 18).

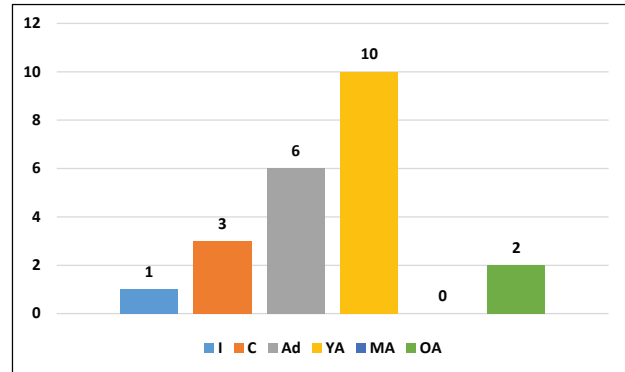


Figure 18. Distribution of individuals by age groups.

3. Estimation of skeletal stature and weight

Other parameters investigated in the present research were the skeletal stature and weight. The first one could be estimated for five subadults and nine adults (five males and four females), while the second was calculated exclusively in the case of adults (four males and three females) (Tab. 1). Thus, according to the findings derived from the estimation of skeletal stature, the average stature for males stands at 161.8 cm, whereas for females it registers at 150.8 cm.

Grave	Anthropological sex	Age category	Skeletal stature	Skeletal weight
Cpl. 117A	Indet.	Ad	138.4 [136.6–140.2]	
Cpl. 117B	Indet.	C	137.8 [135.3–140.3]	
Cpl. 322	F	YA	153.4 [152.3–154.5]	61.6 [61.2–62.1]
Cpl. 349	M	OA	170.8	
Cpl. 359	M	YA	168.3 [166.1–170.4]	61.5 [60.0–63.1]
Cpl. 556B	F	YA	156.1	52.4
Cpl. 561	Indet.	Ad	131.9	
Cpl. 690A	M	YA	160.3 [154.2–166.4]	58.7 [58.6–58.8]
Cpl. 1128	F	OA	149.3 [146.0–152.7]	60.5 [59.7–61.2]
Cpl. 1179	Indet.	Ad	145.9 [143.7–148.1]	
Cpl. 1244B	M	YA	169.8 [167.7–171.9]	75.0 [74.7–75.3]
Cpl. 1250	Indet.	C	110.7 [109.9–111.4]	
Cpl. 1316	M	YA	161.8 [159.8–163.8]	68.2 [68.1–68.4]
Cpl. 1317	F	YA	144.4	

Table 1. Skeletal stature (cm) and weight (kg) for the individuals at Buftea – La Cârna/Mănești according to their anthropological sex and age group.

4. Pathological conditions

The skeletal remains from Buftea – *La Cârna/Mănești* display a broad range of pathological and traumatic changes in both subadults and adults. Below are summarised the main categories of recorded diseases.

4. 1. Oral pathologies

The distribution of dental pathologies among the skeletal remains from the burials at Buftea – *La Cârna/Mănești* is detailed in Tab. 2. A total of 509 teeth were examined, with 280 attributed to subadults and 229 to adult individuals (133 teeth from males, 80 from females, and 16 from individuals of indeterminable sex). In cases involving certain oral pathologies such as hyperdontia and antemortem tooth loss, the total number of dental alveoli had to be calculated instead of the total number of erupted teeth. Accordingly, there were 300 dental alveoli for subadults, 163 for males, 117 for females, and 16 for individuals of indeterminable sex, summing up 296 dental alveoli for adults and 596 for the entire skeletal sample.

Several subadults (4) exhibit a mixed dentition. Consequently, out of the 280 teeth attributed to subadults, 209 are permanent erupted teeth, while 40 are permanent unerupted teeth. The remaining 31 teeth are deciduous.

4. 1. a. Dental calculus – found in 16 individuals (seven subadults and nine adults). These deposits, primarily supragingival, impact 167 teeth: 57 teeth of subadults (one deciduous and 56 permanent) and 110 teeth belonging to adults (84 for males and 26 for females).

4. 1. b. Caries – affect nine individuals (three subadults and six adults). They were identified in 18 permanent teeth (four teeth affected for subadult individuals and 14 teeth affected for adult individuals). However, two teeth present more than one lesion. Consequently, the total number of carious lesions is 20: five for subadults and 15 for adults. The overall caries frequency for the entire skeletal group is 3.5% (18/509). For subadult individuals, it stands at 1.4% (4/280), while for adults, it rises to 6.1% (14/229). Radicular remains were identified in subadults (1/280: 0.4%), as well as adults (3/229: 1.3%).

4. 1. c. Dental enamel hypoplasia – affects six subadults and five adult individuals and was present on 82 teeth (59 in subadults and 23 in adults): 82/509 – 16.1%. The lesions were primarily linear (76 teeth), although there were six instances of pitting morphology observed in a single individual.

4. 1. d. Hyperdontia – observed in the case of a subadult and was indicated by the appearance of an additional permanent maxillary premolar.

4. 1. e. Antemortem tooth loss – identified in 21 instances, exclusively in four adults (observed only in males), while 66 tooth losses (20 in subadults and 46 in adults) occurred postmortem.

4. 1. f. Congenital absences – were exclusively found in adults (five individuals – two males and three females). The total count of congenital absences was 11, the only

teeth recorded as such in this sample being the third molar (10/220: 4.5%) and the second incisor (1/220: 0.4%). The total number of potential congenital absences was evaluated according to Turner II *et alii*²⁸. Hence, the cumulative count of present dental alveoli was computed for the 12 possible bilateral congenital absences per individual (I², P², M³, I₁, P₂, M₃). The results indicated 108 potential congenital absences for subadults, 61 for males, 46 for females, and five for indeterminable individuals.

4. 1. g. Mulberry molars – one tooth with this possible dental condition could be observed in one adult individual.

4. 2. Metabolic disorders

Regarding the category of pathologies represented by metabolic disorders, we were able to identify the following non-specific markers of such pathologies: *cribra orbitalia* and *cribra cranii* in the sample from Buftea.

4. 2. a. *Cribra orbitalia* – observed on five subadults (one infant, three children, one adolescent) and two adults (one male and one female). Among the subadults, four had active lesions (one was in the process of healing), meanwhile one individual had healed lesions. In the case of adults, one of them exhibited healed lesions, while the other had active lesions in the process of healing. The lesions were documented in various forms, including bilateral occurrences and on both the right and left orbital roofs.

4. 2. b. *Cribra cranii* – found exclusively in subadult individuals (one child, three adolescents). All four cases involved the parietal bones, with only one instance of lesions also affecting the occipital bone.

4. 3. Congenital diseases

Caudal shifts of the sacral-caudal border – found in one old adult individual and was represented by the sacralisation of the first coccygeal vertebra.

4. 4. Joint diseases

Joint diseases were exclusively observed in adults. In the Buftea sample, they encompass degenerative joint diseases, intervertebral hernia, and compression fractures.

4. 4. a. Degenerative joint diseases – were identified in five adults. In these cases, degenerative joint diseases expressed themselves in the form of osteophytes in four individuals (on three cervical, two thoracic and six lumbar vertebrae) and porous surfaces in three individuals (on the clavicle, hand phalanges, five cervical and one lumbar vertebrae, calcaneus).

4. 4. b. Intervertebral hernia – was identified in four adult individuals and expressed itself in the form of Schmorl's nodes on the vertebral bodies of ten thoracic and three lumbar vertebrae.

4. 4. c. Compression fractures – identified in one young adult individual who exhibited one affected lumbar vertebra.

²⁸ Turner II *et alii* 1991, p. 21.

Oral pathologies	Subadults		Males		Females		Indeterminable	
	n/N-S	%	n/N-S	%	n/N-S	%	n/N-S	%
Dental calculus	57/280	20.4	84/133	63.2	26/80	32.5	0/16	0.0
Caries	4/280	1.4	7/133	5.3	7/80	8.7	0/16	0.0
Dental enamel hypoplasia	59/280	21.1	11/133	8.3	12/80	15.0	0/16	0.0
Hyperdontia	1/300	0.3	0/163	0.0	0/117	0.0	0/16	0.0
Antemortem tooth loss	0/300	0.0	21/163	12.9	0/117	0.0	0/16	0.0
Congenital absences	0/108	0.0	4/61	6.6	5/46	10.9	0/5	0.0

Table 2. The distribution of dental pathologies, where:
n = number of teeth with dental pathologies
N = number of examined teeth
S = number of observed dental alveoli.

4. 5. Infectious diseases

Concerning this category of pathological conditions, we were able to identify numerous skeletal changes, specific or non-specific markers associated with certain infectious diseases.

4. 5. a. Periostitis – periosteal lesions were identified in 11 individuals: eight subadults and three adults (Tab. 3). All cases represent active reactions, apart from one old adult individual who exhibited healed lesions. The significantly affected skeletal segment is represented by the lower limbs, but periosteal lesions in the cranial sector were also recorded. In the skull, the most affected bone is the maxilla (4 cases), followed by the parietal (2), the temporal (2), the

sphenoid (2), the mandible (2), and the frontal (1). In the postcranial sector, periostitis most commonly affects the tibia (9 cases), followed by the femur (6) and fibula (2). There is also one case each affecting the manubrium, the ribs, the metacarpals, the scapula, and the calcaneus.

4. 5. b. *Caries sicca* lesions – two possible distinctive skull lesions could be observed on two subadult individuals' frontal or parietals. The reason for labelling them as being “possible lesions” is the uncertain morphology which could be attributed to either postmortem degradations or infectious diseases.

4. 5. c. Hypervascularization and resorptive lesions – two cases of hypervascularization and resorptive lesions on

Bone/ Complex	117B	120A	120B	556A	561	690B	1128	1179	1244A	1244B	1250	1316	Total
Frontal						X							1
Temporal	X		X										2
Parietal	X			X									2
Maxilla	X		X	X				X					4
Sphenoid	X		X										2
Mandible			X					X					2
Manubrium								X					1
Rib								X					1
Metacarpal								X					1
Scapula				X									1
Femur	X	X			X		X	X		X			6
Tibia	X	X			X	X		X	X	X	X	X	9
Fibula										X	X		2
Calcaneus								X					1
Total	6	2	4	3	2	2	1	8	1	3	2	1	35

Table 3. The distribution and location of periosteal lesions in the skeletal sample from Buftea.

the vertebrae were recorded. These pathological markers could be observed on 12 thoracic vertebrae and one lumbar vertebra, all of them belonging to two subadult individuals.

4. 5. d. Osteomyelitis – two recorded cases in an adolescent and a male young adult. The individuals' bones increased in size and diameter and there were at least three drainage foramina on the adult's left femur, one on the right femur, and three on the left tibia.

4. 6. Traumatic injuries

Among the 22 analysed individuals from Buftea, five traumatic injuries were observed, one in the case of a subadult and four in the case of adults:

– Cpl. 349 (male, 51.5+ years, OA): healed fracture on the patella;

– Cpl. 359 (male, 27.1 years, YA): healed fracture on the distal end of the left radial diaphysis, a parry fracture, or a Colles' fracture;

– Cpl. 1179 (12.0–15.0 years, Ad): healed traumatism on LC#;

– Cpl. 1316 (male, 26.0 years, YA): *myositis ossificans traumatica* on the distal end of one proximal hand phalanx;

– Cpl. 1317 (female, 20.5 years, YA): two cut marks on the left femoral head; one "old blow" on the left femoral diaphysis caused by a sharp object; one "old blow" on the left tibial tuberosity caused by a sharp object.

4. 7. Circulatory diseases

Arachnoid granulation – affected five individuals from Buftea: one subadult and two adults. They were located on the frontal and manifested themselves in the form of single (1) or multiple (2) insulae.

DISCUSSIONS AND CONCLUSIONS

The recently uncovered medieval cemetery in Buftea stands out due to its substantial number of funerary structures, establishing it as one of the largest medieval burial grounds in Greater Wallachia. Evidently, given its excavation only commenced in 2020–2021, the scholarly investigation and subsequent dissemination of findings are in their preliminary stages. As previously stated, this paper focuses on burials associated with coin depositions.

Following the determination of the minimum number of individuals within each funerary complex, a total of 22 individuals were identified, distributed across five double burials and 12 individual burials. However, it is noteworthy that actually six of these burials contained two individuals each, as exemplified by the case of Cpl. 1317, representing a reburial within the same funerary structure as Cpl. 1316. Consequently, there are five double graves, all classified as primary burials, alongside 12 individual graves, comprising 11 primary burials and one secondary burial. The reason for separating Cpl. 1316 from Cpl. 1317 lies in the latter being considered a secondary deposit, thus making them distinct from the five double burials

included in the present study, as they do not represent contemporaneous multiple burials.

An in-depth examination is warranted for the phenomenon of double burials, as the factors influencing their occurrence can be intricate and not always readily discernible. Various explanations may encompass social and familial ties, wherein double burials might denote such relationships between the interred individuals, suggesting familial bonds, marital unions, or close companionship extending beyond death. Another plausible scenario involves simultaneous demise, where both individuals in a double burial may have passed away concurrently or in close succession, prompting their joint interment. Additionally, cultural, traditional, or religious customs may play a role. However, given the Christian context of Buftea, the most probable rationales for double burials likely align with the former two possibilities.

The skeletal assemblage predominantly exhibits a high level of representation, with nearly three-quarters of the specimens being approximately complete. Partial and poor representation were observed in only four and two cases, respectively, comprising two subadults and four adults.

Regarding the condition of preservation, it spans from moderate to poor, encompassing nearly 80% of the skeletal sample. This variability may stem from factors such as soil pH and the presence of organic and inorganic agents, aligning with the observed markings as well as the exfoliation, cracking, flaking and corrosion of the periosteum on the osteological remains. Consequently, a decision was made not to document them from a taphonomic standpoint. Instead, emphasis was placed on documenting the present types of staining. These discolorations arise from various sources, including chemical alterations within the soil (black), residues from bronze and copper within the funerary inventory of interred individuals (green), or the influence of oxygenated and biologically active soils (red)²⁹. Lastly, concerning the pseudoplagiocephaly, it manifested itself as a flattening of the skull in the area of the right orbit, a fact that could be attributed to either osseous decalcifications or to the sediment's pressure³⁰.

Sex could be ascertained for 14 individuals within the analysed sample. The limited sex determinability can be attributed to the age distribution within the indeterminate individuals, primarily comprised of subadults, where the challenge in determining anthropological sex is inherently more pronounced. Consequently, the outcomes revealed six male individuals and five female individuals, yielding a *sex ratio* of 1.2. Nonetheless, three instances provided determinable anthropological sex among adolescents, resulting in two probable male individuals and one probable female individual.

One of the salient features characterizing the skeletal assemblage from Buftea is the notable prevalence of

²⁹ Fernández-Jalvo, Andrews 2016, p. 155–166.

³⁰ Brothwell 1981, p. 172–173.

mortality among subadults, amounting to 10 individuals, which constitutes 45.5% of the total skeletal sample. This delineates a ratio of 1.2 between adults (12) and subadults (10). However, it is imperative to acknowledge that this sample does not adequately reflect the demographic profile of the Buftea population. Hence, estimations for life expectancy at birth were not computed, precluding the derivation of a mortality profile curve. Notably, the highest incidence of mortality was observed within the young adult age group (10), succeeded by the adolescent group (6), closely trailed by the children's (3). Subsequently, the old adult category encompasses 2 individuals, while an individual from the *infans* age group was identified in a singular case.

While stature and body weight stand as fundamental metrics employed in anthropological investigations to gauge an individual's health status, their discussion from a statistical standpoint remains precarious and inefficient at this juncture of the research. As such, subsequent meticulous examination may unveil potential sexual dimorphism between females and males or deviations from the height growth curve among children.

Regarding biometric aspects, non-metric traits, markers of biomechanical stress, and morphoscopic features, all were meticulously documented. However, due to the limited number of individuals within this skeletal sample, we opted against their inclusion in this study. Instead, we have deferred their presentation for future research endeavours, where a more extensive sample from this cemetery would be scrutinised to establish a robust foundation for a comprehensive and statistically advantageous inquiry.

Another prominent characteristic of the skeletal assemblage from Buftea is its notable predominance of pathological conditions. While many dental or bone diseases do not manifest discernible changes in the skeletal structure, every individual within the sample exhibits at least one pathological manifestation. While certain categories of diseases, such as traumatic lesions, oral pathologies, metabolic disorders, infectious morphologies, and circulatory diseases, are observed across both subadults and adults, other pathological conditions are exclusive to the skeletal population from Buftea, notably joint diseases among adults.

Regarding oral pathologies, a total of seven manifestations were identified. Among these, dental calculus, characterised by mineralised bacterial plaque deposits³¹, emerged as the most prevalent, affecting nearly three-quarters of the individuals within the skeletal sample. Specifically, 16 individuals, comprising seven subadults and nine adults, exhibited this condition. Dental caries, a multifactorial disease (dietary habit, oral hygiene, genetic factor, and underlying pathological conditions), predominantly features *Streptococcus mutans* as the main etiological agent among cariogenic pathogens. This

bacteria has the ability to metabolise low-molecular-weight carbohydrates, such as sugars, quite rapidly, producing organic acids, in particular lactic acid. An excess of acid-producing bacteria leads to the demineralisation of tooth enamel, which can result, firstly, in the failure of the overall tooth structure and, lastly, in tooth loss³². These phenomena are discernible among the individuals from Buftea, serving as evidence for the concurrent presence of dental caries (20 carious lesions) and antemortem tooth loss (21 teeth) within the population.

Moreover, dental enamel defects identified as dental enamel hypoplasia have been detected in nearly 15% of the individuals from Buftea. They are deficiencies in the enamel matrix composition (the amount or thickness of the enamel) from physiological disruptions, manifesting as macroscopically visible pits or horizontal grooves, caused by an interruption of the amelogenesis process from metabolic stress, genetic and epigenetic factors, resulting in a pathologically thinner enamel. Such morphologies are usually seen on the labial surfaces of canine and incisor crowns (although they may be observed on all teeth). Considering how this oral anomaly is caused by deficiencies in calcium, phosphate, vitamins A, C, D, and even variations in pH, it is normally recorded by bioarchaeologists as childhood stress into adulthood³³.

When examining dental congenital anomalies, two distinct manifestations are evident: congenital absences and supernumerary teeth, particularly hyperdontia. Regarding congenital absences, the third molar and the second incisor were the only teeth documented as absent. Conversely, hyperdontia manifested as an additional maxillary premolar in the observed case.

Furthermore, our study documented another dental anomaly known as mulberry molars, which are commonly regarded as a pathognomonic indicator of congenital syphilis. These molars are characterised by their shape, featuring multiple cusps resembling the appearance of mulberries, hence the designation. Typically, these teeth arise from disruptions in tooth development resulting from syphilis infection transmitted from the mother to the foetus during pregnancy³⁴. In our study, a possible case of mulberry molar was identified in a single young adult individual, present on one tooth.

It is noteworthy that nearly one-third of the individuals subjected to analysis exhibit metabolic disorders, characterised by the presence of *cribra orbitalia* and *cribra cranii*, also recognised as *hyperostosa porotica*. *Cribra orbitalia* lesions manifest visibly as thickened bone with a porous surface, situated on the roof of the orbits, observed in healed, active, or healing states. Conversely, *cribra cranii* lesions appear on the ectocranial surface of the parietals or the occipital, and were observed in an active form³⁵. In bioarchaeological

³² Nicklisch *et alii* 2022, p. 1.

³³ Biehler-Gomez *et alii* 2023, p. 2–3.

³⁴ Hillson *et alii* 1998; Ogden *et alii* 2007.

³⁵ Walker *et alii* 2009.

³¹ Hillson 2005, p. 288–289.

contexts, such manifestations are typically linked to iron deficiency anaemia, whether of genetic origin or acquired³⁶. Contrary to conventional understanding, other studies suggest that iron deficiency anaemia alone cannot adequately explain the extensive production of red blood cells requisite for bone marrow expansion, as observed in the identified lesions. Rather, recent haematological investigations suggest that conditions such as hemolytic and megaloblastic anaemias (arising from deficiencies in B-vitamin complexes: vitamin B₉ – folic acid and vitamin B₁₂ – cobalamin) are more likely culprits behind *cribra orbitalia* and *hyperostosa porotica*. These conditions entail accelerated red blood cell loss and compensatory overproduction, thereby contributing to the development of bone anomalies³⁷. Indeed, attributing *cribra orbitalia* solely to anaemias would overlook potential complexities in the present research. Chronic infections, including parasitic infections or chronic inflammatory conditions, can also disrupt normal bone metabolism, leading to the formation of porous lesions in the orbital roof³⁸. Moreover, genetic predispositions may influence an individual's susceptibility to developing *cribra orbitalia* in response to various factors, including nutritional deficiencies. Therefore, a multifactorial approach considering a range of potential contributors is necessary to accurately interpret the presence of *cribra orbitalia* in archaeological and anthropological contexts. Additionally, recent results³⁹ show that besides anaemia, low bone mineral density represents the main cause of the appearance of *hyperostosa porotica*.

In addition to the oral congenital anomalies observed, we identified another genetic condition affecting the postcranial region: sacralisation. This anomaly was observed, in this case, by the fusion of the first coccygeal vertebra to the last sacral vertebra. Sacralisation typically arises during embryonic development due to variations in the segmentation of the axial skeleton, often stemming from a failure of proper segmentation between the sacral and coccygeal vertebrae during foetal development. While sacralisation is frequently asymptomatic, in certain instances, it may lead to lower back pain, restricted mobility, or other spinal complications⁴⁰.

Within the Buftea sample, joint diseases are discernible, with three manifestations exclusively observed in adults: degenerative joint diseases, intervertebral hernia, and compression fractures. The pathological manifestations demonstrate mild intensity, with osteophytes and porous surfaces indicative of degenerative joint diseases (considering the lack of eburnation which is a hallmark of osteoarthritis), Schmorl's nodes indicating intervertebral hernia, and collapsed vertebrae indicative of compression fractures. The precise aetiology of these joint manifestations remains elusive. However, various factors,

including age, genetic predisposition, sex, obesity, trauma, and notably, movement and stress, are undoubtedly influential. Among these factors, movement and stress are considered pivotal, as they also correlate with the development of Schmorl's nodes⁴¹.

Infectious diseases are markedly prevalent within the Buftea sample, particularly among subadults. Periosteal lesions were discerned in eight subadults and three adults, all of them being active reactions, except for one old adult individual exhibiting healed lesions. The lower limbs emerged as the significantly affected skeletal segment, albeit periosteal lesions in the cranial region were also documented. From a cranial perspective, the maxilla was the most affected bone (4), followed by the parietal (2), temporal (2), sphenoid (2), mandible (2), and frontal (1). In the postcranial segment, periostitis predominantly affected the tibia (9), followed by the femur (6) and fibula (2). Additionally, singular cases affected the manubrium, ribs, metacarpals, scapula, and calcaneus. Diagnosing specific infections in bioarchaeological investigations proves challenging due to the nonspecific nature of infectious markers. However, one case exhibited strong congruence with scurvy, identified in a 10.0–12.0 year-old child (Cpl. 117B). The individual's pathological profile included manifestations of metabolic diseases (*cribra orbitalia*, *cribra cranii*) and infectious diseases (periostitis: active reactions – parietals, alveolar processes of LC#–LM², alveolar processes of RM²–RM³, temporal squamae, mastoid processes, greater wings of the sphenoid, and possible reactions on the femoral and tibial diaphyses), collectively supporting the diagnosis of scurvy⁴².

Moreover, cranial lesions resembling the widely recognized *caries sicca* were observed in two individuals from the skeletal assemblage of Buftea. However, the current stage of research does not definitively discern whether these findings represent infectious morphology or postmortem degradation. Drawing upon previous investigations conducted on this population⁴³ and considering the presence of a case exhibiting morphology akin to mulberry molars, often associated with congenital syphilis, the possibility of treponematoses impacting the mediaeval Buftea population remains plausible. Furthermore, the observation that affected individuals are subadults warrants attention, as bone involvement is less common in this age group but does exhibit resemblance to the distribution and appearance of acquired syphilis. Predominantly, bone lesions are encountered in the tibia, ulna, and radius, with skull lesions, if present, typically manifesting as multiple, rounded, and erosive foci, devoid of the characteristic features of the *caries sicca* sequence⁴⁴.

Two individuals exhibiting manifestations of hypervascularization and resorptive lesions on their vertebrae were documented. These manifestations were

³⁶ Rivera, Lahr 2017, p. 87.

³⁷ Walker *et alii* 2009.

³⁸ Godde, Hens 2021.

³⁹ Ferrando-Bernal 2023.

⁴⁰ Aufderheide, Rodríguez-Martín 1998, p. 65–66; Barnes 2012, p. 70.

⁴¹ Ortner 2003, p. 550.

⁴² Brickley, Ives 2006.

⁴³ Știrbu, Vasile 2023.

⁴⁴ Ortner 2003, p. 293.

observed across 12 thoracic vertebrae and one lumbar vertebra, all belonging to two subadult individuals. Such manifestations are commonly recognised as pathognomonic of tuberculosis, particularly the early stage of tuberculosis spondylitis, also known as Pott's disease. This chronic condition stems from infection with a species of *Mycobacterium tuberculosis* complex bacillus⁴⁵. The first case involves an adolescent aged 12.0–15.0 years old, who also displayed active periosteal reactions on various skeletal elements including the maxillae, the mandible, the manubrium, one right rib fragment, two left metacarpals, the right femoral diaphysis, the right tibial diaphysis, and the left calcaneus. The second case pertains to a child aged 6.0–8.0 years old, also exhibiting active periosteal reactions on the tibial and the left fibular diaphysis. However, neither individual displayed classic pathological signs associated with tuberculosis, such as vertebral fusion, Pott's disease with compression fractures, knee joint ankylosis, hip joint destruction, or endocranial tuberculosis⁴⁶. Additionally, hypervascularisation and resorptive lesions can be attributed to enlarged anterior basivertebral foramina, a normal nonpathological occurrence in children. These enlarged foramina result from the convergence of tortuous blood vessel channels, forming large vascular pools that intrude onto the anterior surface of developing vertebral bodies, tending to diminish in size as individuals reach adulthood⁴⁷. Furthermore, although these manifestations are indicative of tuberculosis, they do not exclusively signify the diagnosis of this specific disease. Instances of resorptive lesions and hypervascularization have also been documented in infections caused by species within the *Brucella* genus.⁴⁸

Lastly, concerning infectious diseases, we have identified two instances of osteomyelitic manifestations within the skeletal sample from Buftea. The causative agent of osteomyelitis is mainly *Staphylococcus aureus*, and in the past, acute osteomyelitis led to high mortality rates, especially in subadults⁴⁹. The diagnosis was established based on the observed enlargement and increased diameter of the individuals' leg bones. Additionally, multiple drainage foramina were noted, with at least three on the left femur of the adult, one on the right femur, and three on the left tibia. Notably, these two affected individuals were interred together in a double burial. Considering that osteomyelitis typically arises from the hematogenous dissemination of infection into the bone, the possibility of both individuals being afflicted with the same pathogenic bacteria warrants consideration⁵⁰. Furthermore, these pathological manifestations appear to have likely constituted the cause of death of the two individuals, if one is to consider the framework of double burials.

Among the 22 individuals examined from Buftea, five traumatic injuries were identified in five individuals. The first instance involved a healed fracture of the patella in an old adult. The second case, observed in a young adult, presented as a healed fracture on the distal end of the left radial diaphysis, indicative of either a parry fracture (resulting from direct impact or force applied to the forearm during a defensive action) or a Colles' fracture (resulting from an accidental fall on the outstretched arm). Additionally, a traumatic injury was noted on the left maxillary canine of an adolescent. In yet another young adult, *myositis ossificans traumatica* was identified, characterised by abnormal bone tissue formation following trauma or injury, in this instance occurring on the distal end of one proximal hand phalanx. Lastly, three perimortem or postmortem traumatic injuries were observed in a female young adult: two parallel cut marks on the left femoral head, one "old blow" on the left femoral diaphysis attributed to a sharp object (L = 25.7 mm, w = 16.1 mm), and one "old blow" on the left tibial tuberosity caused by a sharp object (L = 33.0 mm, w = 15.8 mm). Given the anatomical region of the first described lesion, situated in an area not typically prone to natural or intentional blows (the articulation between the femur and the pelvis), we hypothesised that these injuries were likely sustained perimortem or postmortem. Unfortunately, discerning the precise timing of these traumas proved elusive. Additionally, it is pertinent to highlight that the individual associated with these injuries is the subject of a secondary burial, specifically a reburial.

The final category of diseases identified within the skeletal sample from Buftea comprises circulatory disorders, notably represented by arachnoid granulations, also known as Pacchionian granulations. These specialised projections of the arachnoid mater⁵¹, one of the three meningeal layers enveloping the brain and spinal cord, have garnered substantial attention in efforts to elucidate their structural characteristics, physiological functions, and evolutionary significance. However, despite advancements, several enigmatic aspects surrounding arachnoid granulations persist unresolved. While their occurrence is considered a natural phenomenon and not directly linked to circulatory diseases, the health and optimal functioning of the circulatory system may indirectly influence the functionality of arachnoid granulations, leading to the formation of focal points on the endocranial surface of the skull. Moreover, evidence suggests a potential correlation between the formation of these foci and an individual's health status, particularly concerning infectious diseases, which appears to be the case for many double burials within the Buftea skeletal sample⁵².

The thorough examination conducted on the skeletal sample within this inquiry has yielded substantial insights into the lives of individuals from a historical period. These

⁴⁵ Larentis *et alii* 2023; Mariotti *et alii* 2015; Pálfi *et alii* 2012.

⁴⁶ Masson *et alii* 2015, p. S16.

⁴⁷ Barnes 2012, p. 103–104.

⁴⁸ Mutolo *et alii* 2012.

⁴⁹ Santos, Suby 2015, p. 110.

⁵⁰ Ortner 2003, p. 181–206.

⁵¹ Mann, Hunt 2005, p. 34–38.

⁵² Mann, Hunt 2005, p. 34–38; Branam, Wilson 1976, p. 524.

significant findings shed light on various aspects of human physiology, health, and behaviour within the context of the past. From distinctive morphological features indicative of infectious diseases to evidence of degenerative conditions, these discoveries offer a glimpse into the challenges faced by individuals and their communities during this particular time and place. However, given the relatively small size of the sample, the examination of demographic patterns and non-metric traits necessitates further investigation. This study anticipates future research endeavours, particularly upon analysing a more substantial portion of the cemetery, to achieve a more comprehensive understanding of the population under study.

Paleopathological observation and historical documentation constitute indispensable tools in elucidating the health status of ancient populations. These methods have provided valuable insights into the ramifications of infectious diseases on various societies throughout history. However, they are limited in their ability to directly identify specific ancient pathogens. For instance, paleopathological analyses face challenges in pinpointing particular infectious diseases due to the potential overlap of morphological skeletal changes caused by multiple maladies. Similarly, historical documents, while informative, are susceptible to incompleteness, bias, and misinterpretation, further complicating efforts to accurately discern the presence of specific pathogens in ancient populations.

Regrettably, the absence of ancient DNA analyses poses notable constraints on our capacity to comprehensively grasp the historical ramifications of infectious diseases on human collectives. Furthermore, this limitation extends to our ability to fully apprehend the significance of the double burials outlined in this study, as their lack prevents us from directly elucidating the genetic relationships between the individuals buried together.

In light of this, efforts have been initiated to address this gap. Specifically, in the context of infectious diseases, preliminary investigations have commenced to analyse the dental calculus extracted from the double burials interred within this cemetery as ancient DNA analysis has revolutionised the study of ancient pathogens and offers a complementary approach to traditional paleoepidemiological approaches and literary analysis. The study of aDNA from dental calculus has provided direct evidence in identifying specific pathogenic species. For instance, a study observed that DNA in the dental calculus of an individual from Norway had *Mycobacterium leprae*, the causative agent of leprosy⁵³. In addition to identifying infectious diseases, aDNA in dental calculus has also shown that there are associations between systemic diseases and the oral microbiome⁵⁴. As such, the aDNA in dental calculus represents a powerful tool for overcoming the limitations imposed by paleopathological observation and historical

documentation when attempting to identify specific pathogens in archaeological contexts.

Furthermore, to discern the dietary habits and mobility patterns of this sample, bone collagen, bone apatite, and enamel apatite have been sequenced and are presently undergoing analysis via stable isotopic studies. Moreover, should the dental calculus analyses indicate the presence of *Treponema spp.*, additional consideration is to be given to conducting a stable isotopic study focusing on mercury levels.

In conclusion, the interdisciplinary synergy between classical physical anthropology and biomolecular studies holds immense promise for advancing our understanding of human evolution, health, and disease across diverse temporal and geographical contexts. This collaborative approach enables a more comprehensive and multidimensional exploration of the human past, enriching our knowledge of the complexities of human biology and behaviour over time. It is increasingly apparent that relying solely on classical anthropological studies is insufficient for obtaining a comprehensive understanding of ancient communities, as biomolecular studies offer valuable additional insights that are essential for painting a clearer and more nuanced picture of these societies.

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⁵³ Fotakis et alii 2020.

⁵⁴ Gancz et alii 2023.

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ABREVIERI / ABRÉVIATIONS / ABBREVIATIONS

- AA – Archäologischer Anzeiger. Deutsches Archäologisches Institut, Darmstadt, München, Tübingen–Berlin
AAAS – Annales Archéologiques Arabes Syriennes, Siria
AAC – Acta Archaeologica Carpatica, Kraków
ActaMM – Acta Moldaviae Meridionalis, Vaslui
ActaMN – Acta Musei Napocensis, Cluj
ActaMP – Acta Musei Porolissensis, Zalău
ActaMT – Acta Musei Tutovens, Bârlad
AIIAC – Anuarul Institutului de Istorie și Arheologie, Cluj-Napoca
AIPCP – American Institute of Physics Conference Proceedings, Maryland
AJA – American Journal of Archaeology, Boston
AJN – American Journal of Numismatics, New York
AJPA – American Journal of Physical Anthropology
Alba Regia – Alba Regia. Annales Musei Stephani regis, Székesferhérvár
Anatolia – Anatolia. Revue annuelle de l'Institut d'Archéologie de l'Université d'Ankara
Anatolia Antiqua – Anatolia Antiqua. Revue internationale d'archéologie anatolienne. Institut Français d'Etudes anatoliennes d'Istanbul
AnB – Analele Banatului, Muzeul Banatului, Timișoara
AncNearEastSt – Ancient Near Eastern Studies, Leuven, Belgia
Annls hist.-nat. Mus. natn. hung. – Annales Historico-Naturales Musei Nationalis Hungarici, Budapest
AnSt – Anatolian Studies. British Institute of Ankara
Anthropologie (Brno) – Anthropologie. International Journal of Human Diversity and Evolution, Brno
l'Anthropologie (Paris) – l'Anthropologie, Paris
AnUVT – Annales d'Université «Valahia» Târgoviște, Section d'Archéologie et d'Histoire
Apulum – Acta Musei Apulensis. Muzeul Național al Unirii, Alba Iulia
ARA – The Association for Roman Archaeology, UK
ArchBulg – Archaeologia Bulgarica, Sofia
Argesis – Argesis. Muzeul Județean Argeș, Pitești
ArheologijaSofia – Arheologija. Organ na Archeologičeskija Institut i Muzej, Sofia
Arheovest – Arheovest – Asociația Arheo Vest, Timișoara
ArhMold – Arheologia Moldovei, Iași
ArhVest – Arheološki Vestnik, Ljubljana
AST – Eski Eserler ve Müzeler Genel Müdürlüğü, I. Araştırma Sonuçları Toplantısı, İstanbul 23–26 Mayıs, 1983 [General Directorate of Ancient Monuments and Museums, first Turkish annual meeting for the results of archaeological field surveys, İstanbul, 23–26 May, 1983] (1984–)
BAI – Bibliotheca Archaeologica Iassensis, Iași
Banatica – Banatica, Muzeul Banatului Montan, Reșița
BARBrSer – British Archaeological Reports. British Series, Oxford
BARIntSer – British Archaeological Reports. International Series, Oxford
BASOR – Bulletin of the American Schools of Oriental Research, University of Chicago
BCH – Bulletin de Correspondance Hellénique, Athènes-Paris
BCMI – Buletinul Comisiunii Monumentelor Istorice
BerRGK – Bericht der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts, Frankfurt am Main
BiAMA – Bibliothèque méditerranéenne et africaine. Centre Camille Jullian, Aix-en-Provence
BibIstroPontica-A – Biblioteca Istro-Pontica. Seria Arheologie, Tulcea
BibIMusAp – Bibliotheca Musei Apulensis, Alba-Iulia
BibIThrac – Bibliotheca Thracologica, București
Bioarchaeol Int – Bioarchaeology International, US
BMJT – Buletinul Muzeului Județean Teleorman, Alexandria
BMMN – Buletinul Muzeului Militar Național Regele Ferdinand I, București
BMSAP – Bulletins et Mémoires de la Société d'Anthropologie de Paris
BOR – Biserica Ortodoxă Română
BSA – British School at Athens, Athens
BSPF – Bulletin de la Société Préhistorique Française, Paris

- CA – Cercetări Arheologice, București
- CAB – Cercetări arheologice în București
- Caiete ARA - Caietele ARA, Revistă de Arhitectură, Restaurare și Arheologie, Asociația ARA, București
- Carpica – Carpica. Complexul Muzeal „Iulian Antonescu” Bacău
- CCA – Cronica Cercetărilor Arheologice din România, București
- CCDJ – Cultură și Civilizație la Dunărea de Jos, Călărași
- CICSA – Centrul de Istorie Comparată a Societăților Antice, Facultatea de Istorie, Universitatea din București
- CN – Cercetări numismatice, București
- Cumidava – Cumidava. Culegere de studii și cercetări. Muzeul de Istorie Brașov
- Current Anthropology – Current Anthropology. University of California, Merced
- Dacia – Dacia (Nouvelle Série). Revue d'archéologie et d'histoire ancienne. Académie Roumaine. Institut d'archéologie « V. Pârvan », Bucarest
- DHA – Dialogues d'histoire ancienne, Institut des Sciences et Techniques de l'Antiquité
- EJA – European Journal of Archaeology
- ERAUL – Études et Recherches archéologiques de l'Université de Liège
- ÉtThas – Études thasiennes, École Française d'Athènes, Athènes-Paris
- EtTrav – Etudes et travaux. Studia i prace. Travaux du Centre d'archéologie méditerranéenne de l'Académie Polonaise des Sciences
- EurAnt – Eurasia Antiqua. Deutsche Archäologisches Institut, Berlin
- FolArch – Folia Archaeologica. A Magyar Nemzeti Múzeum Évkönyve. Annales Musei Nationalis Hungarici, Budapest
- FSI – Forensic Science International
- Germania – Germania. Anzeiger der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts, Frankfurt
- Glasul Bisericii – Glasul Bisericii, Mitropolia Munteniei și Dobrogei, București
- Hesperia – Hesperia. Journal of the American School of Classical Studies at Athens, Cambridge
- HOMO – HOMO. Journal of Comparative Human Biology, Stuttgart
- Ialomița – Ialomița. Studii de cercetări de arheologie, istorie, etnografie și muzeologie, Slobozia
- IJLS – The International Journal of Levant Studies, Bucharest
- IJO – International Journal of Osteoarchaeology
- Istros – Istros. Muzeul Brăilei, Brăila
- IzvestijaSofia – Izvestija na Archeologiceskii Institut, Sofia
- JAS – Journal of Archaeological Science
- JAS: Reports – Journal of Archaeological Sciences: Reports
- JFA – Journal of Field Archaeology
- JFS – Journal of Forensic Sciences
- JHE – Journal of Human Evolution
- JRGZM – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz, Mainz
- JWorld Prehist – Journal of world Prehistory
- KST – T. C. Kültür Bakanlığı, Eski Eserler ve Müzeler Genel Müdürlüğü, I. Kazı Sonuçları Toplantısı, Ankara, Mayıs 1979 [Republic of Turkey, General Directorate of Ancient Monuments and Museums, first Turkish annual meeting for the results of excavations, Ankara, May 1979] (1979–2020).
- LAAA – Liverpool Annals of Archaeology and Anthropology
- MAN – MAN. Journal of the Royal Anthropological Institut, London
- MarNero – Il Mar Nero. Annali di archeologia e storia
- MCA – Materiale și Cercetări Arheologice, București
- MÇKKS – 12. Müze Çalışmaları ve Kurtarma Kazıları Sempozyumu, 25–27 Nisan 2001, Kuşadası, T.C. Kültür Bakanlığı, Anıtlar ve Müzeler Genel Müdürlüğü [12th Turkish annual symposium for the museum studies and results of rescue excavations, 25–27 April 2001, Kuşadası, Republic of Turkey, General Directorate of Ancient Monuments and Museums], (2002–2016)
- MemAnt – Memoria Antiquitatis, Piatra Neamț
- MIA – Materialy i issledovanija po arheologii SSSR, Moscova-Leningrad (St. Petersburg)
- MISLR – Monumente istorice. Studii și lucrări de restaurare, București
- MKKS – I. Müze Kurtarma Kazıları Semineri, 19–20 Nisan 1990, Ankara, T.C. Kültür Bakanlığı, Anıtlar ve Müzeler Genel Müdürlüğü [First Turkish annual seminar for the results of rescue excavations undertaken by the local museums, 19–20 April 1990, Ankara, Republic of Turkey, General Directorate of Ancient Monuments and Museums], (1990–2000, 2017–)
- Mousaios – Mousaios. Buletinul Științific al Muzeului Județean Buzău

MuzNaț – Muzeul Național, București
 NAC – Numismatica e Antichità Classiche, Lugano-Pregassona
 Obesity – Obesity. A Research Journal, The Obesity Society, USA
 OJA – Oxford Journal of Archaeology
 Olba – Mersin University Publications of the Research Center of Cilician Archaeology, Mersin, Turkey
 Pallas – Pallas. Revue d'Études Antiques, Toulouse
 PamArch – Památky Archeologické, Praha
 PBF – Prähistorische Bronzefunde, Münster
 Peuce – Peuce. Studii și cercetări de istorie și arheologie. Institutul de Cercetări Eco-Muzeale, Tulcea
 Pontica – Pontica. Studii și materiale de istorie, arheologie și muzeografie. Muzeul de Istorie Națională și Arheologie Constanța
 PZ – Prähistorische Zeitschrift, Berlin-Mainz
 QuadCRV – Quaderni della Casa Romena di Venezia, Institutul Cultural Român, Venezia
 Quaternary International – Quaternary International. The Journal of the International Union for Quaternary Research
 RA – Revue Archéologique, Paris
 RAASI – Revista de Arheologie, Antropologie și Studii Interdisciplinare. Institutul de Cercetări Bioarheologice și Etnoculturale, Republica Moldova
 RACF – Revue Archéologique du Centre de la France, Lyon-Tours
 Radiocarbon – An International Journal of Cosmogenic Isotope Research, Cambridge
 RCAN – Revista de Cercetări Arheologice și Numismatice, Muzeul Municipiului București
 RÉL – Revue des Études Latines, Paris
 RI – Revista de Istorie
 RMM.MIA – Revista Muzeelor și Monumentelor, seria Monumente Istorice și de Artă, București
 RPRP – Reports of Prehistoric Research Projects, Sofia
 SAA – Studia Antiqua et Archaeologica, Iași
 SAI – Studii și articole de istorie
 SAMAI – Studia Antiquitatis et Medii Aevi Incohantis
 Sargetia – Sargetia. Acta Musei Devensis, Buletinul Muzeului județean Hunedoara, Deva
 SCA – Studii și Cercetări de Antropologie, București
 Sci Rep – Scientific Reports
 SCIV(A) – Studii și Cercetări de Istorie Veche (și Arheologie), București
 SCN – Studii și Cercetări de Numismatică, București
 SMIM – Studii și Materiale de Istorie Medie, Institutul de Istorie „Nicolae Iorga”, București
 SP – Studii de Preistorie, București
 StCl – Studii Clasice, București
 StComPitești – Studii și Comunicări, Seria Istorie, Muzeul Județean Argeș, Pitești
 StratumPlus – Stratum Plus. Școala Superioară de Antropologie, Chișinău, St Petersburg, București
 StTroica – Studia Troica, Mainz-am-Rhein
 Studia Praehistorica – National Archaeological Institute with Museum of the Bulgarian Academy of Sciences
 SUBB – Studia Universitatis „Babeș-Bolyai”, Historia, Cluj-Napoca
 Syria – Syria. Archéologie, art et histoire. Institut Français du Proche-Orient
 Terra Sebus – Terra Sebus. Acta Musei Sabesiensis, Anuarul Muzeului Municipal „Ioan Raica”, Sebeș
 Th-D – Thraco-Dacica, București
 UPA – Universitätsforschungen zur Prähistorischen Archäologie, Bonn
 WVD OG – Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft