### MINISTRY OF EDUCATION "1 DECEMBRIE 1918" UNIVERSITY OF ALBA IULIA DOCTORAL SCHOOL OF HISTORY

## **ABSTRACT OF THE DOCTORAL THESIS**

# ABOUT THE ROMANO-BYZANTINE POPULATION OF CALLATIS. A BIOARCHAEOLOGICAL STUDY

Scientific advisor: C.S. I Dr. ANDREI DORIAN SOFICARU

> Doctoral candidate: DIANA SONU

ALBA IULIA 2024

### TABLE OF CONTENTS

CHAPTER I	7
AT THE CROSSROADS OF LIFE AND DEATH. INTRODUCTORY DAT	A ON THE
ROMANO-BYZANTINE NECROPOLIS OF CALLATIS	7
Methodology and Objectives	11
History of the City	13
History of the Research	15
CHAPTER II	21
FUNERARY PRACTICES OBSERVED IN THE ROMANO-BYZANTINE NE	CROPOLIS
OF CALLATIS	21
Analysis of Findings	21
General Plan of the Necropolis	25
Funeral rite and ritual	27
Types of Arrangements	
External Arrangements	34
Internal Arrangements	34
Typology of Romano-Byzantine Graves	35
Depth of Graves	
The Relationship Between the Number of Individuals and Grave Arrangements	
Types of Arrangements in Relation to Representation State	42
Orientation of Individuals	45
Position of Deceased in Graves	47
Funerary Inventory	49
Funerary Inventory in Relation to Grave Arrangements	53
Dating of Graves	55
Relationship Between Dating and Typology of Graves	64
Relationship Between Orientation of Individuals and Dating of Graves	65
CHAPTER III	67
ANTHROPOLOGICAL ANALYSIS OF THE REMAINS FROM THE CALLATIAN	
NECROPOLIS (1960-1976)	67

Materials and Methods	67
Results	70
Sex Distribution	74
Age at Death and Mortality	
Dentition and Oral Pathologies	85
Cavities	85
Dental Calculus	
Dental Resorption	90
Antemortem Tooth Loss	
Molar Wear	94
Indicators of Systemic Stress	
Dental Enamel Hypoplasia	
Cribra Orbitalia and Porotic Hyperostosis	
Osteoperiostitis	
Osteoarthritis	
Indicators of Biomechanical Stress	111
Muscle Insertions	
Enthesial Changes	
Schmorl's Nodes	113
Lesions	
Stature	
Non-Metric Traits	
Artificial Cranial Deformation	
CHAPTER IV	126
COMPARATIVE DATA ON THE BIOARCHAEOLOGY OF T	HE CALLATIAN
NECROPOLIS	
Introduction	
Grave Typology in Relation to Sex and Age of Individuals	127
Funerary Inventory in Relation to Sex and Age of Individuals	134
Comparative Analysis	142
Site Descriptions	

Osteological Material	
Indicators of Systemic Stress	
Oral Pathologies	
Non-Specific Infections	
Joint Degeneration	
CHAPTER V	177
BEYOND THE GRAVES. FINAL REFLECTIONS ON THE	<b>ROMANO-BYZANTINE</b>
NECROPOLIS OF CALLATIS	
BIBLIOGRAPHY	
LIST OF APPENDICES AND PLATES	
APPENDIX I	
APPENDIX II	
APPENDIX III	
APPENDIX IV	
PLATES	

#### ABSTRACT

**Keywords:** necropolis, Romano-Byzantine, Late Antiquity, *Callatis, Scythia Minor*, Roman Empire, funerary practices, paleopathology, bioarchaeology, paleodemography.

\*\*

Cemeteries, with their wealth and significance of information, provide a unique window into past societies. While archaeology investigates various aspects of ancient human societies through material culture analysis, bioarchaeology focuses on studying human skeletal remains, the individuals who created that material culture. Analysis of osteological material reveals insights into demographic structures, health status, and lifestyle of ancient populations, as well as personal and cultural experiences of individuals. Furthermore, the study of funerary practices uncovers information about religious beliefs, social hierarchies, and cultural practices of past eras<sup>1</sup>.

Since the 19th century, when archaeology emerged as a historical science with its own methods, the study of funerary environments has evolved in tandem with it, remaining a constant component of research endeavors. Ancient civilizations, such as the Egyptian, Greek, and later Roman, have always impressed with the monumental nature of their funerary constructions<sup>2</sup>. The fascination with ancient funerary complexes was fueled by rich funerary inventories or the fact that they represented a taboo category. With Napoleon Bonaparte's campaign in Egypt, the "gates" of antiquities and Egyptian treasures were opened. Mummies began to be commercialized and used for various purposes, from private "mummy unwrapping" parties and their use in medicinal mixtures to being transformed into fertilizer or fuel for locomotives<sup>3</sup>. Similarly, in the Roman world, studying funerary behavior through the analysis of burial sites, funerary inventories, funerary art, and epitaphs revealed aspects of daily life, social hierarchies, family ties, and the religions of the population, reflecting the diversity of peoples across the Roman Empire.

<sup>&</sup>lt;sup>1</sup> Sarah Tarlow, *Ritual, Belief and the Dead in Early Modern Britain and Ireland*, Cambridge, Cambridge University Press, 2010, p. 4.

<sup>&</sup>lt;sup>2</sup> Graham John Oliver, "An introduction to the Ephigraphy of Death: Funerary Inscriptions as Evidence", in *The Epigraphy of Death: Studies in the History and Society of Greece and Rome*, Graham John Oliver (ed.), Liverpool, Liverpool University Press, 2000, p. 1.

<sup>&</sup>lt;sup>3</sup> Tessa Baber, "Ancient Corpses as Curiosities: Mummymania in the Age of Early Travel", Journal of Ancient Egyptian Interconnections, vol. 8, 2016, pp. 76-92.

Regarding the cultural and social aspects of this "rite of passage,<sup>4</sup>" the phenomenon encompasses various reactions such as fear, anger, self-glorification, pleading, mourning, or commemoration, different mechanisms used to cope with death<sup>5</sup>.

The **central theme** of this work is the study of the large Romano-Byzantine necropolis of the ancient city of *Callatis*, now Mangalia (Constanța County), specifically focusing on the major archaeological campaigns led by Constantin Preda between 1960 and 1976. The first discoveries of funerary complexes dating to the Romano-Byzantine period were made in 1931<sup>6</sup>, and research at the necropolis continues to this day. The scale of the investigations, the large number of graves, and the spectacular funerary inventories have positioned the Callatian necropolis among the most important Romano-Byzantine necropolis in Romania and along the west Pontic coast.

The chosen *chronological interval* is Late Antiquity, also known as the Romano-Byzantine period. Although most funerary contexts fall within the 4th to 6th centuries, the scope has been extended to include graves dating to the end of the 3rd century AD. This temporal extension was influenced by several considerations, including the intent to track the evolution of the necropolis in relation to the settlement.

The period of Late Antiquity, spanning approximately from the end of the 3rd century to the 7th century AD, witnessed significant transformations across political, social, economic, and cultural spheres. As the Western Roman Empire faced internal disturbances and external invasions, its authority waned, leading to the gradual dissolution of centralized power structures<sup>7</sup>. This fragmentation facilitated the emergence of new political entities, such as the Germanic kingdoms in the west and the Sassanian Empire in the east, inaugurating a constant series of attacks on both frontiers<sup>8</sup>. Christianity, which had been growing in influence since the 1st century, became the

<sup>&</sup>lt;sup>4</sup> Arnold Van Gennep, Les rites de passage, traducere în limba română de Lucia Berdan și Nora Vasilescu, Iași, Polirom, 1996, passim.

<sup>&</sup>lt;sup>5</sup> Tarlow, *op. cit.*, p. 5.

<sup>&</sup>lt;sup>6</sup> Theofil Sauciuc-Săveanu, "CALLATIS VI-e rapport préliminaire. Fouilles et recherches des années 1929-1931", *Dacia*, V-VI (1935-1936), 1938, pp. 284-287.

<sup>&</sup>lt;sup>7</sup> Peter Heather, *The fall of the Roman Empire: a new history of Rome and the barbarians*, Oxford, Oxford University Press, 2005, pp. 445-448.

<sup>&</sup>lt;sup>8</sup> Brian Campbell, "The Army", în *The Cambridge Ancient History: The Crisis of Empire, A.D. 193-337*, Alan Bowman, Peter Garnsey, Averil Cameron (eds.), Ediția a II-a, vol. XII, Cambridge, Cambridge University Press, 2008, pp. 114-115, 221-222; Heather, *op. cit.*, pp. 450-452.

official religion, profoundly shaping society throughout the empire<sup>9</sup>. Economic changes, including the decline of urban centers, radically altered the socio-economic landscape<sup>10</sup>.

At the beginning of this period, the province of Moesia Inferior was reorganized, and the territory of present-day Dobrogea became the province of *Scythia*, which was part of the diocese of Thrace<sup>11</sup>. The Lower Danube Limes and the newly created province became some of the most exposed territories to barbarian attacks, prompting the creation of two new legions for their defense<sup>12</sup>. The administrative reorganization and social structure of the empire served as a model for later ecclesiastical structures<sup>13</sup>. The end of antiquity or the Romano-Byzantine period corresponds to the end of the 6th century AD, marked by the invasions of the Avars and Slavs<sup>14</sup>, and the beginning of the 7th century, during which the city of *Callatis* also began to decline<sup>15</sup>.

The aim of this work is to provide a new and original perspective on the Callatian necropolis, as Romanian scholarly literature does not always address funerary practices in tandem with anthropological analyses. Most publications focus primarily on the archaeological context and funerary rituals. Furthermore, studies specifically on the Romano-Byzantine necropolis of *Callatis* are scarce, with most consisting of excavation reports that are limited to descriptive data collection and articles with minimal remarks and conclusions, some of which are not very clear regarding the necropolis. This effort is necessary as it includes the documentation of all available information on funerary discoveries to date, thus presenting a more comprehensive overview.

The primary sources for this research were three main works, supplemented by a series of articles and archaeological reports used to collect all relevant data on the Callatian necropolis (detailed in the History of Research section). First, Constantin Preda's 1980 monograph, which

<sup>&</sup>lt;sup>9</sup> David Gwynn, *Christianity in the Later Roman Empire: A Sourcebook*, Bloomsbury, 2015, pp. 39-50; Mario Ferrero, "The triumph of Christianity in the Roman Empire: An economic interpretation", *European Journal of Political Economy*, 24, 2008, pp. 73-80; Heather, *op. cit.*, pp. 119-128.

<sup>&</sup>lt;sup>10</sup> Bryan Ward-Perkins, *The fall of Rome and the end of civilization*, Oxford, Oxford University Press, 2006: 104-121; Alexandru Madgearu, "The end of town-life in *Scythia Minor*", *Oxford Journal of Archaeology*, 20 (2), 2001, pp. 207-214.

<sup>&</sup>lt;sup>11</sup> John Wilkes, "Provinces and frontiers", în *The Cambridge Ancient History: The Crisis of Empire, A.D. 193-337*, Alan Bowman, Peter Garnsey, Averil Cameron (eds.), Ediția a II-a, vol. XII, Cambridge, Cambridge University Press, 2008, pp. 708-709; Radu Vulpe, Ion Barnea, *Din istoria Dobrogei*, vol. II, București, 1968, p. 370.

<sup>&</sup>lt;sup>12</sup> Vulpe, Barnea, *op. cit.*, p. 371.

<sup>&</sup>lt;sup>13</sup> Georgi Atanassov, "Christianity along the Lower Danube Limes in the Roman Provinces of *Dacia Ripensis*, *Moesia Secunda* and *Scythia Minor* (4th – 6th C. AD)", în *The Lower Danube Roman Limes* (1st – 6th C. AD), Lyudmil Vagalinski, Nicolay Sharankov, Sergey Torbatov (eds.), Sofia, 2012, p. 350; Heather, op. cit., p. 126.

<sup>&</sup>lt;sup>14</sup> Alexander Kazhdan, "Scythia Minor", în *The Oxford Dictionary of Byzantium*, Alexander Kazhdan (ed.), vol. III, Oxford, Oxford University Press, 1991, p. 1857; Madgearu, *op. cit.*, p. 208.

<sup>&</sup>lt;sup>15</sup> Madgearu, op. cit., p. 209.

consolidates all funerary discoveries from 1960-1976 in the Callatian Romano-Byzantine necropolis<sup>16</sup>, provided context for the osteological material analyzed in this thesis. Second, an article published by Andrei Soficaru in 2009, presenting the results of anthropological analysis of 169 skeletons discovered during the 2000 excavation campaign<sup>17</sup>, completed the overview of the Callatian population. The final primary source was the continuation of the 2009 study, materialized in a doctoral thesis published in 2011<sup>18</sup>, focusing on the population of the province of Scythia during the Romano-Byzantine period. This source was used for comparisons at the micro, provincial level.

The present work has been organized in five chapters, followed by Bibliography, Appendices and Plates. In the first Chapter, "At the Crossroads of Life and Death. Introductory data on the Roman-Byzantine necropolis of Callatis", consisted of an introductory part, a subchapter on methodology and objectives, and two additional subchapters dedicated to the history of the city and the history of archaeological research on the Romano-Byzantine necropolis. Chapter II, "Funerary Practices in the Romano-Byzantine Necropolis of *Callatis*," focuses on compiling all Romano-Byzantine funerary discoveries from Callatis and analyzing funerary practices. The third chapter, "Anthropological Analysis of the Remains from the Callatian Necropolis (1960-1976)," aims to recover the osteological material excavated during the 1960-1976 campaigns, create a demographic profile of the individuals, and provide insights into their health, diet, and lifestyle. An examination of funerary practices in relation to the demographic structure of the population, as well as comparisons with necropolis in the province of Scythia or the Empire, formed the basis of Chapter IV, "Comparative data on the bioarchaeology of the Callatian necropolis". The last chapter, "Beyond the Graves: Final Reflections on the Romano-Byzantine Necropolis of Callatis" summarizes the main findings from the bioarcheological analysis conducted at the Callatian necropolis, reaffirming the central hypothesis that studying funerary practices and osteological material is essential for understanding ancient populations.

The methodology employed in this research involved several key stages. The initial phase focused on synthesizing all Romano-Byzantine grave discoveries from *Callatis* into a *MO Access*<sup>19</sup>

<sup>&</sup>lt;sup>16</sup> Constantin Preda, Callatis. Necropola romano – bizantină, București, 1980.

<sup>&</sup>lt;sup>17</sup> Andrei Soficaru, "Un studiu de bioarheologie asupra necropolei romano-bizantine de la *Callatis*", *Pontica*, XLII, 2009, pp. 562-584.

<sup>&</sup>lt;sup>18</sup> Idem,, Populația provinciei Scythia în perioada romano-bizantină, Iași, 2011.

<sup>&</sup>lt;sup>19</sup> The database model was provided by Dr. Andrei Soficaru.

database. This database included the following fields: grave number, discovery point, village/commune/town, county, country, province, type of research (systematic/rescue), year of discovery, sector/section, length, width, depth, external arrangements, internal arrangements, condition (disturbed/intact), number of individuals, orientation of skeleton(s), position of skeleton(s), funerary inventory, dating, photo/drawing, observations, and bibliography. To generate results, the data entered into the database were analyzed statistically to identify predominant types of graves, categorize funerary discoveries according to chronological criteria, discovery contexts, presence/absence of funerary inventory, and funerary arrangements. Additional observations focused on the number, position, and orientation of individuals.

On the basis of the above-mentioned database, I have tried to answer a set of questions on which the conclusions are based: what are the practices concerning funerary customs at the crossroads of epochs? Can it be inferred that religious concerns relate to the functional aspects and construction methods of graves? Is there a discernible shift in the dating of graves that reflects the imposition of rules regarding funerary rituals aligned with Christian dogma? What is the chronological limit of pagan reminiscences during the Christian era? Can it be concluded that there is a direct relationship between the demographic configuration of the ancient city and the preferences for grave typology?

Another objective of the research was to categorize all graves into a typology based on previous publications that encompass the entire Romano-Byzantine period. Additionally, the research aimed to track the evolution of terminology used in documenting funerary discoveries from *Callatis*, with the goal of standardizing terms. This standardization was essential for creating a coherent and accurate database.

To gain a better understanding of the evolution of funerary space and practices, and to identify patterns or correlations within the necropolis, a series of maps were created using QGIS (Quantum Geographic Information System)—a free and open-source software (version 3.28 LTR-Firenze). For georeferencing, the official cartographic projection of Romania, specifically the STEREO 70-Dealul Piscului 31700 coordinate system, was utilized. This projection was crucial for proper alignment, integration of georeferenced plans, and avoidance of distortions.

There were minor deviations in some cases due to plans being created and published without adhering to a consistent scale. In other instances, excavation plans lacked sufficient spatial

localization data necessary for georeferencing. For these cases, I georeferenced the plans using available information on the orientation and dimensions of the sections.

Methodologically, for each georeferenced plan (raster layer), I created a point layer for the georeferencing of graves. After consolidating all graves into a single layer, I developed a database where each grave was assigned a unique ID for identification. The database included fields with the following information: grave number, external arrangements, internal arrangements, number of individuals, funerary inventory, dating, sex of individuals, and age (where available). Data import into the program (attribute table) was done using CSV files. Map rendering was accomplished using *Google Satellite* and *ESRI World Imagery*.

The methodology for the anthropological analysis of human remains was detailed extensively in Chapter II to facilitate the reader's understanding of that chapter.

The comparative analysis method was essential for illustrating the relationship between the Callatian necropolis and other *necropoleis* in *Scythia*, as well as with those across the broader Roman Empire. All comparisons focused on anthropological data.

Regarding the general health status of the population, the primary objective of the analysis was to determine the minimum number of individuals, which was found to be 189 individuals from 106 graves that have been preserved to date out of the 387 graves excavated between 1960 and 1976.

The degree of fragmentation of the osteological material was very high, with many bones being broken at the time of discovery and in the years that followed. While some bones were relatively well-preserved and represented, the majority were affected by taphonomic agents such as soil, infiltrated water, animal disturbances, or plant roots. The most common cause of disturbance to the skeletons was reburial, with many of the graves being double or multiple.

The demographic profile of the population reflected a high percentage of deaths within the 40-44 year age range across the entire population. The ratio of male to female individuals was relatively equal, though differences were notable within the 40-44 year age bracket, where male individuals were twice as numerous as female individuals. In the 55-59 year age range, the majority of individuals were male. Female mortality was highest in the 35-39 year range, with socioeconomic factors likely being the primary causes. These factors included intense domestic activities, stress from multiple childbirths throughout life, and related complications.

The overall health status of the population indicated minor discrepancies between the two sexes concerning oral health, hematological dysfunctions, and daily activities. Among women, the number of indicators specific to anemia was significantly higher.

Regarding oral health, the incidence of cavities among female individuals was similar to that among male individuals. Differences were observed in antemortem tooth loss, where female individuals were affected twice as often as males. Other discrepancies were noted in the incidence of abscesses, which were three times more frequent among male individuals.

From the records of tartar deposits on teeth, it was observed that only a quarter of the preserved erupted permanent teeth had tartar deposits, and dental resorption affected more individuals compared to dental calculus. Molar wear was almost evenly distributed across genders, with most cases concentrated in the 30-39 year age range.

Among the indicators of systemic stress, dental enamel hypoplasia was observed with an incidence of 34.21% relative to the total number of individuals retaining their dentition. Cribra orbitalia lesions showed a relatively even distribution across sexes, although a notable discrepancy was observed in female individuals, who had significantly more cribra orbitalia lesions. These lesions were also more prominent in subadult individuals and those aged 30-39 years.

Osteoperiostitis was predominantly observed on the long bones of the lower limbs, with most cases occurring on the medial surfaces of the tibial diaphysis. Advanced cases, including severe stages of the condition, were primarily found in skeletons of individuals over 40 years old, and were most often correlated with males.

Articular degeneration, particularly osteoarthritis, was most frequently recorded on the bones of the hands and feet. The knees and ankles were the next most affected joints, indicating frequent use of the lower limbs for both sexes. The incidence of elbow joint degeneration was notably higher in females, which could be associated with biomechanical stress due to activities involving more intensive use of the upper limbs.

Biomechanical stress indicators correlated with advanced age as well as sustained physical activities. Enthesial changes were double the rate in all cases with strongly marked muscle insertions and, in one case, the presence of Schmorl's nodes. Among women, activities involving the upper limbs were predominant, while men engaged in activities involving the lower limbs. Trauma incidence was significantly higher among males.

Regarding the trauma identified in the Callatian necropolis, more than half of these injuries were found in male skeletons, with about one-third attributed to female skeletons. Nine cases were fractures in various stages of healing and remodeling, and one was a lithic trauma. For female individuals, these injuries may be associated with domestic violence or advanced age (such as vertebral compression or lithic trauma on another vertebra).

Compared to other populations within the empire, for the Callatian population, the average statures observed, at the lower end for the female cohort and in the median range for the male cohort, were most likely determined by a combination of factors such as genetics, diet, and the sociopolitical changes occurring during this period. Within the province of *Scythia*, the general health of the Callatian population was better compared to the populations at *Histria* and *(L)Ibida*, which was also correlated with a more favorable economic situation, as reflected by the high number of costly funerary constructions.

Ultimately, the Roman-Byzantine necropolis at *Callatis* provides numerous historical, cultural, and social narrative threads that are essential for understanding the broader context of provincial life in the Roman Empire. This study contributes to the understanding of the material culture of death, funerary practices, and the shifting religious and social dynamics of the period. The necropolis is not just a burial site, it reflects the identity, beliefs, interpersonal relationships, and intercommunity relations in the Roman context.

#### **SELECTIVE BIBLIOGRAPHY**

Saint Augustin, Letter 22,1,6 https://www.newadvent.org/fathers/1102022.htm.

\* \*\*

Photographic archive of the Institute of Archaeology "Vasile Pârvan" in Bucharest, Constantin Preda Fund, 1960-1976.

\*\*

Alexandru, Nicolaie, Constantin, Robert, Ionescu, Mihai, "Aspecte topografice ale cetății *Callatis* în epoca romano-bizantină", *Pontica*, XXXVII-XXXVIII, 2004-2005, pp. 419-438.

Alexandru, Nicolaie, Constantin, Robert, Ionescu, Mihai, "*Callatis*-stratigrafie, topografie și urbanism", *Pontica*, XLV, 2012, pp. 437-463.

Alexandru, Nicolaie, Constantin, Robert, Ionescu, Mihai, "Despre o zonă privilegiată a necropolei callatiene", *Pontica*, L, 2017, pp. 215-242.

Alexandru, Nicolaie, Alexiu, Alexandru, Colesniuc, Sorin, Constantin, Robert, Ionescu, Mihai, Radu, Laurențiu, Ungureanu, Mădălina, *Callatis. Cercetări arheologice (1993-2018)*, Constanța, 2018.

Alexandru, Nicolaie, Constantin, Robert, Ionescu, Mihai, "Str. Libertății, nr. 4A, Mangalia (*Callatis*), jud. Constanța", *Cronica cercetărilor arheologice din România*, Campania 2021, CIMEC, 2022, pp. 591-598.

Alexandru, Nicolaie, Callatis, oraș grecesc în ținutul geților, Cluj Napoca, 2024.

Atanassov, Georgi, "Christianity along the Lower Danube Limes in the Roman Provinces of *Dacia Ripensis*, *Moesia Secunda* and *Scythia Minor* (4th – 6th C. AD)", in *The Lower Danube Roman Limes* (1st – 6th C. AD), Lyudmil Vagalinski, Nicolay Sharankov, Sergey Torbatov (eds.), Sofia, 2012, pp. 327-380.

Barnea, Ion, Despre două inscripții paleocreștine de la *Callatis* (Mangaliza), *Pontica*, XXVIII-XXIX, 1995-1996, pp. 183-186.

Cheluță-Georgescu, Nicolaie, "Morminte elenistice și romane descoperite în zona de nord și nord-vest a necropolei callatiene", *Pontica*, 7, 1974, pp. 169-189.

Constantin, Robert, Radu, Laurențiu, Ionescu, Mihai, Alexandru, Nicolaie, "Mangalia. Cercetări arheologice de salvare", *Peuce*, V, 2007, pp. 241-296. Constantin, Robert, Ionescu, Mihai, Radu, Laurențiu, "Str. Ion Budai Deleanu, nr. 13, Mangalia (*Callatis*), jud. Constanța", *Cronica cercetărilor arheologice din România*, Campania 2015, CIMEC, 2016, pp. 170-171.

Diaconu, Petre, "Un cimitir creștin din secolul IV descoperit la Mangalia", *Glasul Bisericii*, 23, 7-8, 1964, pp. 712-723.

Georgescu, Valeriu, Ionescu, Mihai, "Mărturii creștine la *Callatis*", *Pontica*, XXVIII-XXIX, 1995-1996, pp. 187-200.

Heather, Peter, *The fall of the Roman Empire: a new history of Rome and the barbarians*, Oxford, Oxford University Press, 2005.

Iconomu, Constantin, "Noi morminte paleocreștine la Mangalia", *Pontice*, 2, 1969, pp. 81-109.

Ionescu, Mihai, Alexandru, Nicolaie, Constantin, Robert, "Noi cercetări în necropola paleocreștină callatiană", *Pontica*, XXXV-XXXVI, 2002-2003a, pp. 225-277.

Ionescu, Mihai, Alexandru, Nicolaie, Constantin, Robert, "Mormintele de tip *hypogeu* din necropola callatiană de epocă romano-bizantină", *Pontica*, XXXV-XXXVI, 2002-2003b, pp. 279-291.

Ionescu, Mihai, Constantin, Robert, Alexandru Nicolaie, "Str. G-ral Boerescu, nr. 4, Mangalia (*Callatis*), jud. Constanța", *Cronica cercetărilor arheologice din România*, Campania 2002, CIMEC, 2003, pp.187-188.

Ionescu, Mihai, Radu, Laurențiu, "B-dul 1 Decembrie 1918, Mangalia (*Callatis*), jud. Constanța", *Cronica cercetărilor arheologice din România*, Campania 2005, CIMEC, 2006, pp. 215, 451.

Ionescu, Mihai, Ungureanu, Mădălina, "Str. Muncitorului, nr. 10, Mangalia (*Callatis*), jud. Constanța", *Cronica cercetărilor arheologice din România*, Campania 2005, CIMEC, 2006, pp. 216, 450.

Ionescu, Mihai, Colesniuc, Sorin, Pâslaru, Ion, "Str. Libertății, nr. 12, Mangalia (*Callatis*), jud. Constanța", *Cronica cercetărilor arheologice din România*, Campania 2010, CIMEC, 2011, p. 197.

Ionescu, Mihai, Constantin, Robert, Radu, Laurențiu, "Str. Duiliu Zamfirescu, nr. 2, Mangalia (*Callatis*), jud. Constanța", *Cronica cercetărilor arheologice din România*, Campania 2015, CIMEC, 2016, pp. 169-170. Ionescu, Mihai, Radu, Laurențiu, Constantin, Robert, "Les recherches archéologiques dans la nécropole tardive de la ville de *Callatis*", *Cahiers ARA*, 9, 2018, pp. 37-52.

Ionescu, Mihai, Constantin, Robert, Colesniuc, Sorin, Radu, Laurențiu, "Str. Oituz nr. 81-83, Mangalia (*Callatis*), jud. Constanța", *Cronica cercetărilor arheologice din România*, Campania 2017, CIMEC, 2018, pp. 191-195.

Madgearu, Alexandru, "The end of town-life in Scythia Minor", Oxford Journal of Archaeology, 20 (2), 2001, pp. 207-217.

Madgearu, Alexandru, "The end of the Lower Danubian Limes", Studia Antiqua et Archaeologica, XII, 2006, pp. 151-168.

Ortner, Donald, Putschar, Walter, *Identification of Pathological Conditions in Human Skeletal Remains*, Smithsonian Institution Press, 1981.

Ortner, Donald, *Identification of Pathological Conditions in Human Skeletal Remains*, Oxford, Academic Press, 2003.

Papuc, Gheorghe, Radu, Laurențiu, Colesniuc, Sorin, "Str. Mihai Viteazu, nr. 56 D, Mangalia (*Callatis*)", jud. Constanța, *Cronica cercetărilor arheologice din România*, Campania 2003, CIMEC, 2004, p. 182.

Papuc, Gheorghe, Alexandru, Nicolaie, Constantin, Robert, Ionescu, Mihai, "Str. Portului, nr. 40, Mangalia (*Callatis*), jud. Constanța", *Cronica cercetărilor arheologice din România*, Campania 2003, CIMEC, 2004, p. 182.

Petrescu-Dâmbovița, Mircea, "Raport relativ la cercetarea descoperirilor arheologice dela Mangalia (14-17 Martie 1943)", *Raport asupra activității științifice a Muzeului național de antichități din anii 1942-1943*, București, 1944, pp. 60-65.

Pippidi, Dionisie, *Inscripțiile din Scythia Minor. Callatis și teritoriul*, vol. III, București, 1999.

Popescu, Emilian, Inscripțiile grecești si latine din secolele IV-XIII descoperite în România, București, 1976.

Preda, Constantin, Popescu, Emilian, Diaconu, Petre, "Săpăturile arheologice de la Mangalia (*Callatis*)", *Materiale și cercetări arheologice*, VIII, 1962, pp. 439-455.

Preda, Constantin, Callatis, Ed. Meridiane, 1968.

Preda, Constantin, Cheluță-Georgescu Nicolaie, "Săpăturile de salvare de la Mangalia din 1972-necropola callatiană din zona stadionului", *Pontica*, 8, 1975, pp. 55-75. Preda, Constantin, Callatis. Necropola romano-bizantină, București, 1980.

Radu, Laurențiu, Iorguș, Corina, "*Callatis*. Cercetări de salvare în necropola romanobizantină", *Pontica*, XLV, 2012, pp. 465-475.

Radu, Laurențiu, Ionescu, Mihai, "*Callatis*. Cercetări arheologice în necropola romanobizantină", *Pontica*, XLVII, 2014, pp. 221-232.

Radu, Laurențiu, Ungureanu, Mădălina, Radu-Iorguș, Corina, "Cercetări arheologice în aria funerară callatiană", *Pontica*, XLVIII-XLIX, 2015-2016, pp. 193-207.

Rădulescu, Adrian, Lungu, Virgil, "Le christianisme en Scythie mineure à la lumière des dernières découvertes archéologiques", *Actes du XIe congrès international d'archéologie chrétienne. Lyon, Vienne, Grenoble, Genève, Aoste, 21-28 septembre 1986 Roma*, École Française de Rome, 1989, pp. 2561-2615.

Sauciuc-Săveanu, Theofil, "CALLATIS VI-e rapport préliminaire. Fouilles et recherches des années 1929-1931", *Dacia*, V-VI (1935-1936), 1938, pp. 279-319.

Sauciuc-Săveanu, Theofil, "CALLATIS VIII-e rapport préliminaire. Fouilles et recherches des années 1937-1940", *Dacia*, IX-X, 1945, pp. 243-347.

Soficaru, Andrei, "Propunere pentru o tipologie uniforma a mormintelor romano-bizantine din Dobrogea", *Peuce*, V (XVII), 2007, pp. 297-312.

Soficaru, Andrei, "Un studiu de bioarheologie asupra necropolei romano-bizantine de la *Callatis*", *Pontica*, XLII, 2009, pp. 562-584.

Soficaru, Andrei, Populația provinciei Scythia în perioada romano-bizantină (sf. sec. IIIînc. sec. VII), Iași, 2011.

Soficaru, Andrei, "Anthropological Data about the Funeral Discoveries from Slava Rusă, Tulcea County, Romania", *Peuce*, S.N. XII, 2014, pp. 307 – 340.

Soficaru, Andrei, Sofaer, Joanna, "Regional Patterns in Mortuary Practice in the Lower Danube Region in the 4th-6th Centuries", *Archäologisches Korrespondenzblatt*, Jahrgang 51, Heft 2, 2021, pp. 263-285.

Sonu, Diana, "Practica deformării artificiale a craniului în provincia *Scythia*", *Buletinul Cercurilor Științifice Studențești*, 24, 2018, pp. 67-90.

Sonu, Diana, "Necropola romano-bizantină callatiană. Rit și ritual funerar", in *Studierea și interpretarea practicilor funerare din trecut. O perspectivă bioarheologică*, Mihai Gligor, Andrei Soficaru (eds.), Editura Mega, Cluj-Napoca, 2024 (to be published).

Sprague, Roderick, Burial Terminology: A guide for Researchers, AltamiraPress, 2005.

Ștefaneț, Mihail, *Anatomia omului*, vol. I, Chișinău, Centrul Editorial-Poligrafic Medicina, 2007.

Ungureanu, Mădălina, Radu, Laurențiu, "Cercetări arheologice în necropola romanobizantină de la *Callatis*", *Pontica*, XXXIX, 2006, pp. 259-278.

Vulpe, Radu, Barnea, Ion, Din istoria Dobrogei, vol. II, București, 1968.

Ward-Perkins, Bryan, *The fall of Rome and the end of civilization*, Oxford, Oxford University Press, 2006.

Wells, Calvin, "The Human Burials", in *Romano-British Cemeteries at Cirencester*, Alan McWhirr, Linda Viner, Calvin Wells (eds.), 1982, pp. 135-196.

White, Tim, Black, Michael, Folkens, Pieter, *Human Osteology*, Third Edition, Elsevier Academic Press, 2011.

Zahariade, Mihail, *Scythia Minor. A history of a Later Roman Province (284-681)*, Amsterdam, Adolf M. Hakkert Publisher, 2006.

Zugravu, Nelu, Geneza creștinismului popular al românilor, București, 1997.