



**COMMINGLED REMAINS
OSSUARY EXCAVATION AND LABORATORY ANALYSIS**

LOST CHURCHES PROJECT

July 4 – July 31, 2021

Valeni (Odorheiu Secuiesc), Transylvania, Romania

OSSUARY PROJECT DIRECTOR:

Armando Anzellini, MA, RPA
Graduate Teaching Associate
University of Tennessee (USA)
aanelli@vols.utk.edu

PROJECT DIRECTOR:

Dr. Katie Zejdlik, PhD
Assistant Professor
Western Carolina University
kzejdlik@email.wcu.edu

SCIENTIFIC DIRECTOR:

Dr. Andre Gonciar, PhD
Director, Archaeologist
BioArch Canada (CA)
archaeology@archaeotek.org

ARCHAEOLOGY DIRECTOR:

Dr. Zsolt Nyaradi, PhD
Expert Archaeologist
Haaz Reszo Muzeum (RO)

Project Web Site:

<https://www.archaeotek-archaeology.org/ossuary-excavation>

Project Application Form:

<https://www.archaeotek-archaeology.org/application-bioarchaeology>

Academic Credits: 3-6 graduate/undergraduate credits available through University of South Florida - Not Mandatory (additional USF credit tuition applies) – Application Deadline: April 30, 2021.

USF Program Brochure – Credit Application Page:

<https://educationabroad.global.usf.edu/index.cfm?FuseAction=Programs.ViewProgramAngular&id=23628>

Requirements: intermediary human osteology experience; knowledge of human anatomy and morphology

Ossuary Excavation and Commingled Remains Analysis

www.archaeotek-archaeology.org
archaeology@archaeotek.org



I. Historical and Archaeological Background:

As Europe redefines itself in the wake of the Ottoman invasion, the Carpathian frontier still holds fast against the Southern invaders. As Transylvanian suzerainty has passed from the Hungarian Kingdom, to the Ottomans, to the Habsburgs from the 15-17th century, the local populations lived under constant social, political, economic and religious stress. Since the Neolithic, Transylvania has been at the crossroads of European identity. During the late Middle Ages, this region goes not only through major political changes, but also through a spirituality crisis, under the pressure of Islam from the East and Protestantism from the West.

During the 17th century, a series of stone, fortified churches in the region around Odorheiu Secuiesc cease to be used. According to our archeological evidence, most of these churches existed as far back as the 12th century. In the aftermath of the crisis that shook the foundation of European identity, these churches disappear from collective memory. At the same time, the use of these temples changes in a fundamental way during the last decades of their use.

Our continuing excavation of the exceptionally well preserved remains of the lost church of Valeni / Patakfalva has already yielded in excess of 700 burials. The unexpected discovery, during our 2014 season of a pre-Christian / migration period burial complex, comprising several individuals and a horse, adds another level of perception to the evolution of the landscape. Another surprise was the discovery in 2017, of a stone build, very well preserved ossuary, for which more than a third of the sacristy was sacrificed. Its detailed excavation of analysis forms the basis of our Osteology Excavation and Commingled Remains Osteology Laboratory Research Workshop.

II. Project Objectives

This unique program is a specialized project within our on-going Medieval Cemetery Funerary Excavation. Students will learn and reinforce basic excavation techniques within an international bioarchaeological project. As part of a broader investigation of the abandonment of medieval churches in the region, this project provides an opportunity for students to gain experience in bioarchaeology while gaining a more comprehensive understanding of biological, archaeological, and cultural contexts.

Participants enrolled in this field school will have the unique opportunity to excavate an ossuary associated with the medieval cemetery at Valeni / Patakfalva. This particular project is geared towards students with some osteological and fieldwork experience. Students will receive additional experience in excavation techniques as well as osteological analysis of commingled human remains.

Evenings and rainy days will provide opportunities for lectures, project analysis, and discussion. All excavation and analysis are conducted with the support of and in collaboration with BioArch (ArchaeoTek) Canada personnel, the Museul Haáz Rezső in Odorheiu Secuiesc, Romania, and the villagers of Valeni / Patakfalva.



III. Experience

By the end of this course, students will be able to:

- Properly excavate commingled human remains
- Perform osteological analysis of commingled human remains
- Generate maps of ossuary context
- Safely remove human remains and prepare them for curation
- Process human remains for analysis
- Complete MNI and MNE using different methods
- Design a project, execute it, and present it at the workshop's capstone colloquium

IV. Project Setting

Patakfalva (RO: Valeni): The ossuary excavation will take place on the active site of the Lost Church of Patakfalva, first built around the 10-11th c. AD. Previous excavation of the cemetery has yielded the well-preserved skeletal remains of over 500 individuals, ranging from pre-natal to advanced elderly.

V. Nature of Instructional Activities:

Each week will consist of three days of excavation on Mondays, Tuesdays, and Wednesdays. Thursdays and Fridays will consist of intensive coursework and laboratory analysis. Typically, course material will be presented in lectures, seminars, and hands-on laboratory experiences during the morning. Afternoons will be dedicated to data collection, lab processing, and analysis.

Required Text:

The Human Bone Manual. 2005. Tim L. White and Pieter A. Folkens.

Suggested Text:

Juvenile Osteology: A Laboratory and Field Manual. 2008. Maureen Schaefer, Sue Black, and Louise Scheuer. Academic Press.

Commingled Human Remains: Methods in Recovery, Analysis, and Identification. 2014. Bradley J. Adams and John E. Byrd (eds). Academic Press.

Required Equipment:

Trowel: 4 inch pointed trowel

Recommended: [MARSHALLTOWN The Premier Line 46 114S 4-Inch Heavy Duty London Style Pointing Trowel with Wooden Handle](http://www.marshalltown.com/products/4-inch-heavy-duty-london-style-pointing-trowel-with-wooden-handle)

Ossuary Excavation and Commingled Remains Analysis

www.archaeotek-archaeology.org

archaeology@archaeotek.org



Required Readings:

Required readings will be available electronically via Google Drive. In addition, an electronic library of references will be available for those wishing to expand their personal library. Below is a list of the provided required readings in alphabetical order. They will be assigned throughout the course:

- Anzellini, Armando and J. Marla Toyne. 2019. Estimating sex using isolated appendicular skeletal elements from Chachapoyas, Peru. *International Journal of Osteoarchaeology* 29(6):961-973. DOI: 10.1002/oa.2810.
- Byrd, J. and Bradley J. Adams. 2009. Analysis of commingled human remains. In *Handbook of forensic anthropology and archaeology*, edited by S. Blau and Douglas H. Ubelaker. Left Coast Press, Walnut Creek. pp. 174-186.
- Byrd, John E. and Bradley J. Adams. 2003. Osteometric sorting of commingled human remains. *Journal of Forensic Sciences* 48(4):717-724.
- Duncan, William N. 2005. Understanding veneration and violation in the archaeological record. In *Interacting with the dead: Perspectives on mortuary archaeology for the new millennium*, edited by GFM Rakita, Jane E. Buikstra, LA Beck and SR Williams. University Press of Florida, Gainesville. pp. 205-227.
- Epstein, Lori and J. Marla Toyne. 2015. When space is limited: A spatial exploration of pre-hispanic Chachapoya mortuary and ritual microlandscape. In *Theoretical approaches to analysis and interpretation of commingled human remains*, edited by Anna Osterholtz. Springer, New York. pp. 97-124.
- Finlayson, J. E., E. J. Bartelink, A. Perrone and K. Dalton. 2017. Multimethod resolution of a small-scale case of commingling. *Journal of Forensic Sciences* 62(2):493-497. DOI: 10.1111/1556-4029.13265.
- Knüsel, Christopher J. and Alan K. Outram. 2013. Fragmentation: The zonation method applied to fragmented human remains from archaeological and forensic contexts. *Environmental Archaeology* 9(1):85-98. DOI: 10.1179/env.2004.9.1.85.



- Lynch, Jeffrey James, John Byrd and Carrie B. LeGarde. 2018. The power of exclusion using automated osteometric sorting: Pair-matching. *Journal of Forensic Sciences* 63(2):371-380. DOI: 10.1111/1556-4029.13560.
- Mahfouz, M. R., A. Mustafa, E. E. Abdel Fatah, N. P. Herrmann and N. R. Langley. 2017. Computerized reconstruction of fragmentary skeletal remains. *Forensic Science International* 275:212-223. DOI: 10.1016/j.forsciint.2017.03.017.
- Nikita, Efthymia and Marta Mirazón Lahr. 2011. Simple algorithms for the estimation of the initial number of individuals in commingled skeletal remains. *American Journal of Physical Anthropology* 146(4):629-636. DOI: 10.1002/ajpa.21624.
- Osterholtz, Anna J., Kathryn M. Baustian, Debra L. Martin and Daniel T. Potts. 2014. Commingled human skeletal assemblages: Integrative techniques in determination of the MNI/MNE. In *Commingled and disarticulated human remains: Working toward improved theory, method, and data*, edited by Anna J. Osterholtz, Kathryn M. Baustian and Debra L. Martin. Springer, New York. pp. 35-50.
- Ulguim, Priscilla F. 2017. Recording in situ human remains in three dimensions: Applying digital image-based modeling. In *Human remains: Another dimension*, edited by David Erickson and Tim Thompson. Academic Press. pp. 71-92.

Physical fitness requirement:

Students will be working outside, up to 32 hours a week, in temperatures ranging from 65- 95 degrees Fahrenheit. Fieldwork consists of walking uneven terrain, climbing ladders, and extensive use of trowels and picks. Most of the workday will be spent in a kneeling or sitting position carefully excavating human remains. Students will be expected to be involved in all field and classroom activities. In the event that a student declines to participate or does not participate in group activities, they may be returned home at their own additional expense without a refund of expenses previously paid.

VI. Tentative Course Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1							
Morning	Orientation	Fieldwork	Fieldwork	Labwork	Labwork	Szekler region day trip	Saxon fortified churches day trip
Day	Orientation	Fieldwork	Fieldwork	Labwork	Labwork		
Evening	Free	Lecture	Free	Lecture	Free		
Week 2							
Morning	Fieldwork	Fieldwork	Fieldwork	Labwork	Labwork	Praid Salt Mines day trip	Brasov Castles day trip
Day	Fieldwork	Fieldwork	Fieldwork	Labwork	Labwork		
Evening	Free	Lecture	Free	Lecture	Free		
Week 3							
Morning	Fieldwork	Fieldwork	Fieldwork	Labwork	Labwork	Free	
Day	Fieldwork	Fieldwork	Fieldwork	Labwork	Labwork		
Evening	Free	Lecture	Free	Lecture	Free		
Week 4							
Morning	Fieldwork	Fieldwork	Fieldwork	Workshop Summary	Presentations		
Day	Fieldwork	Fieldwork	Fieldwork	Workshop Summary	Presentations		
Evening	Free	Lecture	Free	Lecture	Free		

Notes

1. Schedule is subject to change based on weather and resources. Rain days will be lab days.
2. There may be optional weekend tours provided by our collaborator ArchaeoTek. These will be provided for an additional cost outside of the course fees.
3. Breakfast is served from 7am- 8am and is not mandatory. Dinner is served at 7:30 sharp and is mandatory. If you cannot attend dinner, you must notify your instructor ahead of time.

VII. Weekend Field Trips (mandatory):

Public transportation within Eastern Europe does not allow usually to optimize travel and sightseeing for visitors with limited time available. Furthermore, except for the main tourist attractions, getting to various sites can be very challenging due to the complete lack of public transportation to and



from those sites. Also, sanitation in public transport is very limited and, in the context of the pandemic, highly inadequate. As a result, we have organized four day trips to allow our participants to contextualize their work within the historical and cultural framework of Transylvania, as well as explore some of the most intriguing and amazing places around.

VIII. Syllabus Updates

This syllabus, including the course schedule, is based on the most recent information about the course content and schedule planned for this course. The contents are subject to revision as needed to adapt to new knowledge or unanticipated events. Updates will remain focused on achieving the course objectives and students will receive notification of such changes. Students will be notified of changes and are responsible for attending to such changes or modifications as distributed by the instructor.