

CONSERVATION OF ANCIENT ROMAN GLASS AT DEBELT, BULGARIA

Course ID: HIS 489

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Academic Credits: 4 Semester Credit Units (Equivalent to 6 Quarter Units)

School of Record: Culver Stockton College

DIRECTORS:

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INTRODUCTION

This program is focused on the conservation of Roman glass. The program will begin by understanding the rich history of ancient glass, its origin and the technology needed for its production. The program will then proceed to instruct students in modern techniques of glass conservation, restoration, documentation and study. Both the theoretical and laboratory elements of this program will be taught at the research center associated with the Roman site of Deultum (see more about the site below).

This field school includes three modules. The first is practical work in conservation of glass, initially of replicas and then work on Roman artifacts from the collection of the National Archaeological

Reserve at Deultum. The second module covers the theoretical and methodological elements of glass conservation and consists of lectures presenting the archaeological context of glass artifacts and the best methods used for their preservation. conserved vessels and to conservation process of glass vessels. The third module introduces students to the regional context of Roman presence and includes site visits to the ancient coastal towns of Nessebar (UNESCO World Heritage Site), and a sightseeing tour of Sozopol (including study visits to its archaeological museums). An optional two day excursion to Istanbul (Turkey) is possible and interested students should contact Balkan Heritage Foundation directly for details (email bhfs.admissions@gmail.com)

Develton (Thracian: Debelton, "two-swamp area") was founded as an emporium of Apollonia Pontica in the 7th century BCE. From the 6th century to the 4th century BC, the settlement served as an important place of trade between Thracians and Greeks. Develton was annexed to the Roman Empire in 46 CE and became part of the province of Thrace and its name changed to Deultum. At the Battle of Deultum in the summer of 377 CE (during the Gothic War of 376–382), an Eastern Roman army was defeated by a Gothic raiding party outside Deultum, and the city was sacked. Deultum was later rebuilt on a smaller scale, and, in the second half of the 5th century CE, new walls were constructed, and all unprotected buildings were demolished to ensure hostile forces did not use them as cover. These walls were destroyed by Slavs and Avars at the end of the 6th century CE.

IMPORTANT DISCLAIMER

The Center for Field Sciences was established to support field training in a range of sciences at sites within the U.S. & across the world. Traveling and conducting field work involves risk. Students interested in participating in any CFS program must weigh the potential risk against the value of education provided by the program of their choosing.

Risk is inherent in everything we do and the CFS takes risks seriously. A committee of leading scholars review each field school location prior to approval. Once a program is accepted, the CFS continually monitor conditions at the program's site and so we can provide an experience that is as safe as possible.

The CFS does not provide trip or travel cancellation insurance. Students are encouraged to explore such insurance policies on their own. Post Covid 19, most basic policies do not cover trip cancelation due to pandemics. If you wish to purchase an insurance policy that covers such contingencies, explore Cancel for Any Reason (CFAR) plans. Insuremytrip.com, Squaremouth.com or Travelguard.com are possible websites where students may explore different insurance policies.

Students should be aware that conditions in the field are different than those experienced at home, dorms or college towns. Students will be exposed to the elements, live in rustic accommodation, and expect to engage in daily physical activity.

We do our best to follow schedule and activities as outlined in this syllabus. Yet local permitting agencies, political, environmental, personal, and/or weather conditions may force changes. This syllabus, therefore, is only a general commitment. Students should allow flexibility and adaptability as research work is frequently subject to modification.

All students must consult medical professionals to ensure they are fit to participate in a CFS field program. CFS is not qualified to provide medical advice. For all other concerns, please consult with CFS staff members or program director(s) – as appropriate.

COURSE OBJECTIVES

By the end of the program the participants will:

- Be introduced to the basic methods for conservation and documentation of ancient glass.
- Be able to develop basic skills in ancient glass conservation and documentation.
- Have first-hand experience with ancient Mediterranean/European History and Archaeology.
- Meet professionals, who work in the areas of Classical Archaeology and Glass Conservation and Documentation.
- Contribute to the preservation of research of archaeological collection of the National Archaeological Reserve Deultum.

LEARNT SKILLS

We are aware that many students may not seek academic careers but will pursue employment in the private sector. To that end, we are following the example set by Twin Cairns with their Skills Log Matrix™ (<https://twincairns.com/skills-log-matrix/>). Students will be trained in the following skills:

Skill	Skill Definition
Photography	Ability to take clear images of various features, artifact & soil colors at various light and field depth conditions
Artifact Conservation	Ability to expertly conserve, preserve & restore glass artifacts
Artifact Documentation	Ability to measure, record, photograph and classify various artifact types in the lab
Artifact Processing	Understand how to assign artifacts to accepted cultural/geological spheres, across space (classification) & time (seriation)
Field Conservation	Ability to conduct initial field conservation and preservation of different artifact types, features & architecture
Data Recording	Ability to use printed or digital sheets to document & record field data
Archival Search	Ability to find & search various databases for records related to prior work/research done on cultural or natural heritage in the project area
Public Interpretation	Ability to understand site history and provide clear and coherent interpretation for the public
Report Writing	Ability to write technical reports in coherent language that follow both federal and state regulations and law
Exhibit Preparation	Ability to build mounds and prepare artifacts for museum exhibits or traveling off premises

SKILLS MATRIX LEVELS

The school instructors will evaluate the level each student achieved on the Twin Cairns Skills Log Matrix™ skills list provided above. Each skill will be graded on one of the following three levels:

Basic: Can perform the skill/task with some supervision.

Competent: Can perform the skill/task without any supervision.

Advanced: Can perform the skill/task and teach others how to do it.

COURSE SCHEDULE

Date	Activity
1 st Day	Arrival and check-in by 7.30 pm. 8.00 pm – Traditional Bulgarian welcome dinner
2 nd Day	Morning: Presentation of the Balkan Heritage Field School and collaborative universities & institutions, the project and the participants. Icebreakers. Site's sightseeing and an orientation walk. Afternoon: Lectures
3 rd Day Onward	Morning: Workshop/Lab

	Afternoon: Workshop/Lab & lectures
Saturday	Visit to Nessebar (UNESCO World Heritage Site) & Sozopol
Sunday	Day off
Departure Day	Departure. Check-out by 11:30 am

* *Course schedule may be subject to change upon directors' discretion.*

TYPICAL WORKDAY

Students will follow this daily schedule during the three weeks of lab work.

Time	Activity
7:30-8:30am	Breakfast
8:30am-1:00pm	Workshops on conservation of Roman Glass
1:00-3:30 pm	Lunch and free time
3:30- 7:30 pm	Lectures and workshops on conservation and documentation of Roman Glass
7:30- 9:00 pm	Dinner

ACADEMIC GRADING MATRIX

Students are required to participate in all components of the field school. Grades are determined as follows:

- ❖ **60% - Lab work:** Students will be assessed on the quality of their lab work (i.e., their ability to effectively use conservation methods and instruments to treat cultural artifacts) Students are expected to be able to link the lectures and readings to their laboratory work.
- ❖ **25% - Lab Records, demonstrated diligence and Active participation:** Students are required to record their work in a notebook that must be submitted to the project at the end of the field school. The notebook must include scaled sketches, procedures and other notes taken while working on assigned objects.
- ❖ **15% - Attendance.**

ATTENDANCE POLICY

The required minimum attendance for the successful completion of the field school is 95% of the course hours. Any significant delay or early departure from an activity will be calculated as an absence from the activity.

An acceptable number of absences for a medical or other personal reasons will not be considered if the student catches up on the field school study plan through additional readings, homework, or tutorials with program staff members.

TRAVEL & MEETING POINT

We suggest you hold purchasing your airline ticket until six (6) weeks prior to departure date. Natural disasters, political changes, weather conditions and a range of other factors may require the cancelation of a program. The CFS typically takes a close look at local conditions 6-7 weeks prior to program beginning and makes a Go/No Go decision by then. Such a time frame still allows for the purchase of deeply discounted airline tickets while protecting students from potential loss of airline ticket costs if CFS is forced to cancel a program.

The official meeting point is at the archaeological base, that is part of the National Archaeological Reserve – Deultum. Students should arrive at the archaeological base by 7:30pm on the first day of the program.

The archaeological base is located 13 miles/22 km from Burgas. The nearest airport is the Burgas International Airport (BOJ). The transfer from the airport to Debelt may be arranged by request and

will be organized by the program directors. Transfers prices are Euro 31 (approximately \$35) from Burgas Airport.

Students who fly to Sofia (Bulgaria's capital) may take a domestic flight, train or bus to the Black Sea coast. If you plan to come through Sofia, let the program director know and we will direct you to a central meeting point at Debelt.



Figure 1: The main terminal at Burgas Airport



Figure 2: The Archaeological Base, part of the National Archaeological Reserve - Deultum

VISA REQUIREMENTS

There are no visa requirements for U.S. citizen travelling to Bulgaria, if they do not stay longer than 3 months. Passport's expiration date should exceed the stay by at least 3 months.

Citizens of other countries are asked to check the embassy website page at their home country for specific visa requirements.

MEALS & ACCOMMODATIONS

Accommodation will be at the archaeological base part of the National Archaeological Reserve - Deultum, which is located 22 km from Burgas. It has comfortable ensuite rooms with two to three beds. Free use of wi-fi, washing machine, and kitchen. Bed linen and towels are provided. Wi-Fi is available on the first floor of the lobby area.

There is a restaurant on site, where participants will have all their meals served.

PREREQUISITES

There are no prerequisites for participation in this field school but note that conservation work requires good manual dexterity skills and ability to carry out delicate bench work. Students will receive hands-on training in conservation work and will spend most of the time learning how to conserve ceramics in a lab setting.

Students will be taught how to use a variety of laboratory procedures and equipment – from microscopes to analytical instruments. Conservation work is slow and may be tedious. It requires patience and focus. This is an introductory course so we will cover all the very basic elements of conservation ethnographic work.

PROGRAM ETIQUETTE

Bulgaria, one of Europe's oldest countries, boasts a diverse and extensive history spanning many centuries, influenced by various civilizations. From the ancient Thracians to the Roman Empire and the Byzantine era, Bulgaria's past reflects its resilience and cultural richness. Its strategic location

as a crossroads between East and West has shaped its identity, evident in its architecture, cuisine, and traditions. Today, Bulgaria stands as a vibrant nation blending its storied past with modern aspirations, welcoming visitors to explore its timeless landscapes and captivating history. Bulgarians take pride in their heritage and achievements, and we kindly ask for your respect towards their customs, traditions, and culture.

EQUIPMENT LIST

- Participants will be provided with protective clothing while working at the lab.
- Participants should bring light clothes to wear under lab garments.
- Raincoats for probable rainy and windy days
- Comfortable shoes - visiting some of the sites requires walking on country roads and medieval cobblestone streets
- Wide brim hat
- A small backpack (for your water bottle, snacks, camera, etc.)
- Swimming suits and sunscreen
- Medication - only prescription medicines you may need. It is not necessary to bring non-prescription medicine from your country since you can buy all basic non-prescription drugs in Bulgaria.
- A converter to EU type electricity if needed.
- EQUIPMENT: Participants are encouraged to bring their PC's having at least 6 GB free disk space, a mouse and an USB flash drive. Operating system recommended: Windows Vista or newer.
- A good attitude towards work, fun, study and adventures ;)

PRACTICAL INFORMATION

International dialing code: The Bulgaria international phone code is +359.

Money/Banks/Credit Cards: Bulgaria's currency is the Lev. There are several banks in Debelt. Most shops/supermarkets accept major credit cards (except for American Express, which is not always accepted). However, credit cards are not commonly used for small purchases (for example coffee at a café).

ATM Availability: There are several ATM machines at Debelt.

Local Language: The native language is Bulgarian. Bulgaria sees many international tourists and many Bulgarians, especially young folks, speak at least some English.

Measurement units: degree Celsius (°C), meter (m.), gram (gr.), liter (l)

ACADEMIC CREDITS & TRANSCRIPT

Attending students will be awarded 4 semester credit units (equivalent to 6 quarter credit units). Students will receive a letter grade for attending this field school based on the assessment matrix (above). This program provides a minimum of 80 direct instructional hours. Students are encouraged to discuss the transferability of credit units with faculty and the registrar at their home institutions prior to attending this program.

Students will be able to access their transcript through our School of Record – Culver-Stockton College. C-SC has authorized the National Student Clearinghouse to provide enrollment and degree verification (at <https://tsorder.studentclearinghouse.org/school/select>). Upon completion of a program, students will get an email from C-SC with a student ID that may be used to retrieve transcripts. The first set of transcripts will be provided at no cost, additional transcripts may require

payment. If you have questions about ordering a transcript, contact the C-SC office of the registrar at registrar@culver.edu.

REQUIRED READINGS

Bray, Ch. (2001). Dictionary of Glass, Materials and Techniques. Pennsylvania Press.

Cherneva, D. Richly Decorated Pottery from Apollonia Pontica (4th Century B.C.). Technical Study, Damage Phenomena, and Approach to Conservation. Report in the Interim Meeting of the ICOM-CC and Glass Working Group and Corpus Vitrearum - ICOMOS in Amsterdam (In print)

Cherneva, D. (2014). Archaeological glass from a mound in Pamuklia (Bulgaria), 1st -2nd century AD: Identification, damage phenomena and conservation, Poster, 17th Triennial Conference ICOM-CC. Melbourne, Australia.

Davison, S. (2006). Conservation and Restoration of Glass. Oxford, Pp. 1-242.

RECOMMENDED READINGS

Baglioni, M., Poggi, G., Chelazzi, D., & Baglioni, P. (2021). Advanced Materials in Cultural Heritage Conservation. *Molecules*, 26(13), 3967. <https://doi.org/10.3390/molecules26133967>

Davis, S., Chemello, C. (2020). Glass: Conservation and Preservation. In: Smith, C. (eds) *Encyclopedia of Global Archaeology*. Springer, Cham. https://doi.org/10.1007/978-3-030-30018-0_540

Koob, S. P. (2006). Conservation and Care of Glass Objects. London.