



BALKAN  HERITAGE



## CONSERVATION & DOCUMENTATION OF ROMAN MOSAICS

Course ID: ARCH 365AP

June 6-June 26, 2020

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

*School of Record: Connecticut College*



### DIRECTORS:

**Dr Krassimira Frangova** – Associate Professor at The Royal Danish Academy of Fine Arts, Schools of Architecture, Design and Conservation, School of Conservation, Monumental Arts Department; Copenhagen, Denmark

**Dr. Angela Pencheva** – **Workshop director**; Visiting professor at the Department of Archaeology and Center for Vocational and Continuing Education, New Bulgarian University, Sofia; Balkan Heritage Program Director; ([angelapbh@gmail.com](mailto:angelapbh@gmail.com));

### INSTRUCTORS:

**Mr. Mishko Tutkovski** – Senior Conservator, National Institution Stobi, R. of North Macedonia

**Mr. Tome Filov** – Senior Conservator, affiliated at National Institution Stobi, R. of North Macedonia

### INTRODUCTION

The course on Conservation and Documentation of Roman Mosaics takes place at the Archaeological site of Stobi, Republic of North Macedonia. The participants are offered a first-hand experience of the everyday challenges of a mosaics conservator, while following the practical experience and the accompanying documentation process. The course is designed for students in Monumental Arts

Conservation, Archaeological Conservation, Archaeology, Anthropology, History, Art History, and other related scientific fields.

The course consists of four study modules. The first module focuses on theory. It consists of lectures on the current conservation practice (including preliminary studies, conservation treatment and documentation, etc.), and lectures on the archaeological and historical context of the mosaics on site. The second module is dedicated to hands-on experience – the participants are actively involved in all stages of a conservation project on pre-selected mosaic floors. The third module consists of study excursions to significant historical sites in the region. The last module is set for homework.

The main goal of the program is to provide theoretical and hands-on training experience on mosaics conservation. It also aims at raising awareness of the processes a mosaic floor endures after excavation and the consequences of conservation treatment and maintenance (or the lack of these). The course's emphasis is on Roman and Late Roman mosaics, found in abundance at the Roman city of Stobi, R. of North Macedonia. Participants will either work at the site, on mosaic floors *in situ*, or with mosaic fragments kept in the archaeological storage facilities of NI Stobi. It is suitable for beginners in conservation as well as for experienced students willing to refresh or upgrade and develop their skills and knowledge in the field. Upon successful completion of the course, students would be capable of taking part in projects for conservation of ancient mosaics under the supervision of professional conservators.

The course takes place at the National Institution Stobi's conservation field workshop located at Stobi Archaeological Park, Republic of Macedonia. The lectures, presentations and workshops are delivered and led by instructors, professionally trained in Conservation, Archaeological Graphic Documentation, Field Work, Roman and Late Roman Archaeology, who are affiliated to scientific institutions and organizations.

#### ACADEMIC CREDIT UNITS & TRANSCRIPTS

**Credit Units:** Attending students will be awarded 4 semester credit units (equivalent to 6 quarter credit units) through our academic partner, Connecticut College. Connecticut College is a private, highly ranked liberal arts institution with a deep commitment to undergraduate education. Students will receive a letter grade for attending this field school (see grading assessment and matrix). This field school provides a minimum of 120 direct instructional hours. Students are encouraged to discuss the transferability of credit units with faculty and registrars at their home institution prior to attending this field school.

**Transcripts:** An official copy of transcripts will be mailed to the permanent address listed by students on their online application. One more transcript may be sent to the student home institution at no cost. Additional transcripts may be ordered at any time through the National Student Clearinghouse: <http://bit.ly/2hvurkl>.

#### COURSE OBJECTIVES

The objective of this program is to introduce students to core mosaic conservation activities (for mosaics *in situ* and/or mosaic fragments in storage). These will include, but might not be limited to, the following:

1. Introduction to the main causes of deterioration, with focus on these activated by excavation, long-term storage *in situ* with or without proper maintenance.
2. Introduction to the ethical and the aesthetic principles in conservation: reversibility, compatibility, and re-treatability; authenticity, and the principle of minimal intervention.
3. Introduction to the state of the art conservation methodology, principles and techniques, and the respective contemporary materials.

4. Introduction to condition assessment, sampling and basic analyses, used as a basis for informed conservation treatment plan.
5. Practical training that would include, but might not be limited to, activities such as: cleaning and consolidation of the mosaics, application of protective facing, removal of the facing, chemical and mechanical cleaning of the mosaic surface. Please note that there might be other activities, depending on the specific case study.
6. Introduction to basic mosaic documentation activities: description of damage and mosaic condition, measuring, drawing, photographing, digitizing.
7. Introduction to conservation and documentation timing and quality requirements.
8. Introduction to the context of the treated mosaics – history and archaeology of Stobi and the Roman province of Macedonia.
9. Introduction to contemporary conservation standards of work, including health and safety requirements in a conservation workshop or at the site.

#### **DISCLAIMER – PLEASE READ CAREFULLY**

Our primary concern is with education. Traveling and conducting field research involves risk. Students interested in participating in any IFR program must weigh whether the potential risk is worth the value of education provided. While risk is inherent in everything we do, we take risk seriously. The IFR engages in intensive review of each field school location prior to approval. Once a program is accepted, the IFR reviews each program annually to make sure it complies with all our standards and policies, including student safety.

The IFR does not provide trip or travel cancellation insurance. We encourage students to explore such insurance on their own as it may be purchased at affordable prices. [insuremytrip.com](http://insuremytrip.com) or [Travelgurad.com](http://Travelgurad.com) are possible sites where field school participants may explore travel cancellation insurance quotes and policies. If you do purchase such insurance, make sure the policy covers the cost of both airfare and tuition. See this [Wall Street Journal article about travel insurance](#) that may help you with to help to decide whether to purchase such insurance.

We do our best to follow schedule and activities as outlined in this syllabus. Yet local permitting agencies, political, environmental, personal 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 change.

You should be aware that conditions on the Balkans are different than those you experience in your home, dorms or college town. Note that South European (subtropical) climate dominates in the region, making summers hot (30-40°C). Rainy and chilly days in this season are rare but not unheard of.

If you have any medical concerns, please consult your doctor. For all other concerns, please consult with the project director – as appropriate.

#### **COURSE SCHEDULE**

The course starts with an introductory and orientation panel concerning the project partnering institutions, the project team, the agenda and the study and grading requirements, as well as emergency procedures, rules of conduct and some administrative details.

**MODULE I** – Theoretical module (25 hours). Covers the following topics:

1. Roman and Late Roman mosaics: history, techniques, styles and motives
2. Deterioration of mosaics: agents and mechanisms of deterioration, most common damage effects found on mosaics *in situ* and in storage
3. Conservation documentation: Lectures focusing on the activities done *in situ* and in a studio environment, and covering topics on written, graphic and photographic documentation.

4. Conservation treatment: basic methods and techniques. Materials for conservation and selection criteria.
5. Context of the mosaics treated during the program – history and archaeology of Stobi and the Roman province of Macedonia.

**MODULE II – Practicum (75 hours).** Covers the following topics

1. Workshops dedicated to mosaics materials and production.
2. Workshops dedicated to mosaics conservation.
3. Workshops dedicated to mosaics documentation.

**MODULE III –** Excursions, accompanied by lectures, presentations and study visits to sites of historical/archaeological significance such as the town of Bitola (Archaeological Museum) and the Heraclea Lyncestis excavation site, the town of Ohrid (Ancient Lychnidos, UNESCO World Heritage Site) in Republic of N. Macedonia, Pella and Vergina (UNESCO World Heritage Sites) in Greece.

**MODULE IV–** Homework (approx. 5 hours) will be assigned to all students and will consist of editing and processing students' conservation documentation (journal, conservation forms, drawings, photos, etc.) and preparing presentations and reports.

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All IFR field school begins with safety orientation. This orientation includes proper behavior at the field area, proper clothing, local cultural sensitivities and sensibilities, potential fauna and flora hazards, review IFR harassment and discrimination policies and review of the student Code of Conduct.

<b>Date</b>	<b>Morning</b>	<b>Afternoon</b>
Day 1	Arrival to Skopje/Thessaloniki airport. Transfer to Stobi. Traditional Macedonian welcome dinner	
Day 2	<p><b>Orientation:</b> Presentation of National Institution Stobi, Balkan Heritage Foundation – Institute for Field Research Joint Program, the Field School agenda and goals, the team and participants, some practicalities</p> <p><b>Lecture:</b> History of Stobi and Macedonia in Roman and Late Roman period (2<sup>nd</sup> century BCE – 6<sup>th</sup> century CE)</p>	<p><b>Lecture and workshop:</b> Mosaic techniques and technologies. Production of mortar for mosaics and mosaic tesserae. Making of a small mosaic (project phase).</p> <p><b>Stobi sightseeing tour with an emphasis on the floor mosaics from Stobi</b></p>
Day 3	<p><b>Lecture:</b></p> <p><b>Lecture and workshop:</b> Preliminary report. <i>Description of mosaic technique and technology.</i></p> <p><b>Lecture:</b> Preliminary report. <i>Condition assessment. Technical and photo documentation of the selected mosaics.</i></p>	<p><b>Workshop:</b> Technical and photo documentation of the selected mosaics.</p> <p><b>Lecture:</b> Basic methods of cleaning: purpose, advantages and disadvantages</p> <p><b>Lecture:</b> Samples: what can they tell us?</p>
Day 4	<p><b>Workshop:</b> Conservation of Roman mosaics. <i>Mechanical cleaning: removal of grass and soil. Collection of loose tesserae.</i></p>	<p><b>Workshop:</b> Conservation of Roman mosaics. <i>Mechanical cleaning: removal of grass and soil. Collection of loose tesserae.</i></p>
Day 5	<p><b>Lecture:</b> Protective facing: Need, methods and materials.</p>	<p><b>Workshop:</b> Conservation of Roman mosaics. <i>Securing moving areas. Collection of loose tesserae.</i></p>

	<b>Workshop:</b> Conservation of Roman mosaics. <i>Securing moving areas: application of facing. Collection of loose tesserae.</i>	
Day 6	<b>Lecture:</b> Grouting and stabilization of detached and border areas: methods, techniques and materials. <b>Workshop:</b> Conservation of Roman mosaics. <i>Making grouting mixtures and grouting.</i>	<b>Workshop:</b> Conservation of Roman mosaics. <i>Making grouting mixtures and grouting.</i> <b>Lecture:</b> Roman and Late Roman mosaics from Macedonia.
Day 7	<b>Workshop:</b> Conservation of Roman mosaics. <i>Making grouting mixtures and grouting.</i>	<b>Workshop:</b> Documentation and digitization. Turning conservation journals in for feedback.
Day 8	<b>Excursion:</b> Guided visit to Bitola and the ancient city of Heraclea Lyncestis	
Day 9	<b>Excursion:</b> Guided visit to Ohrid: Ancient Lychnidos (UNESCO World Heritage Site) and Ohrid lake	
Day 10	<b>Workshop:</b> Conservation of Roman mosaics. <i>Making grouting mixtures and grouting.</i>	<b>Lecture and workshop:</b> Documentation and digitization. RTI Documentation
Day 11	<b>Lecture:</b> Removal of the facing and adhesive residue: principles, practice, safety <b>Workshop:</b> Conservation of Roman mosaics. <i>Removal of facing materials and thorough cleaning from the adhesive.</i>	<b>Workshop:</b> Conservation of Roman mosaics. <i>Removal of facing materials and thorough cleaning from the adhesive. Assessment of the condition. Update of the documentation.</i>
Day 12	<b>Lecture:</b> Consolidation: Meaning, need, materials and methods. Safety. <b>Workshop:</b> Conservation of Roman mosaics. <i>Consolidation. Mechanical support: edge repairs and lacunae fills.</i>	<b>Workshop:</b> Making mosaics.
Day 13	<b>Workshop:</b> Conservation of Roman mosaics. <i>Consolidation. Mechanical support: edge repairs and lacunae fills.</i>	<b>Workshop:</b> Documentation and digitization.
Day 14	<b>Workshop:</b> Conservation of Roman mosaics. <i>Cleaning the site and preparatory work for the last week.</i>	<b>Workshop:</b> Documentation and digitization. Turning in conservation journals for feedback.
Day 15	Day off	
Day 16	Guided visit to Pella and Vergina (UNESCO World Heritage Site), Greece	
Day 17	<b>Lecture:</b> Retouches and fills: Ethical and aesthetical issues. Methods and techniques. <b>Workshop:</b> Conservation of Roman mosaics. <i>Retouches and in-fills.</i>	<b>Workshop:</b> Conservation of Roman mosaics. <i>Retouches and in-fills.</i>
Day 18	<b>Workshop:</b> Conservation of Roman mosaics. <i>Retouches and in-fills.</i>	<b>Workshop:</b> Conservation of Roman mosaics. <i>Cleaning of the mosaic surface.</i>
Day 19	<b>Workshop:</b> Conservation of Roman mosaics. <i>Cleaning of the mosaic surface.</i>	<b>Workshop:</b> Conservation of Roman mosaics. <i>Cleaning of the mosaic surface. Finishing touches.</i>
Day 20	<b>Workshop:</b> Completion of conservation and documentation tasks. <i>Clean-up of the site and the work stations.</i>	<b>Workshop:</b> Completion of documentation tasks. Turning in written, graphic and photo documentation. <b>Presentation</b> of the Workshop Results and Evaluations
Day 21	<b>Departure</b>	

The course structure may be subject to change on the director's discretion.

**Typical workday**

7:00 – 8:30	- Breakfast
8:30 - 13:00 / 13:30	- Lectures and workshops
13:30 - 15:30 / 17:00	- Lunch and siesta
15:30/17:00 – 19:00/19:30	- Lectures and workshops
19:30/20:00 – 21:00	- Dinner

**GRADING MATRIX**

The students will be graded by supervisors on their work at activities based on their diligence, efforts, the quality of the performed tasks, and attendance at the activities. Students' cooperation and communication skills will also be considered.

<b>% of Grade</b>	<b>Activity</b>
15%	Description of the mosaic condition
20%	Documentation of conservation treatment of mosaics
15%	Cleaning and Consolidation of mosaics
15%	Finishing the conservation process
10%	Digitizing of mosaics' graphic documentation
10%	Final exam
15%	Attendance

**ATTENDANCE POLICY**

The required minimum attendance for the successful completion of the field school is 85% 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 reason will not be taken into account if the student catches up on the field school study plan through additional readings, homework or tutorials with program staff members.

**PREREQUISITES**

None. This is hands-on, experiential learning and students will work in the lab and learn how to conduct conservation, restoration and documentation work. These activities involve patience, careful work and concentration, and thus require a measure of acceptance that is not found in the typical university learning environment. Students are required to come equipped with sufficient excitement and the understanding that conservation and restoration endeavor requires hard work, patience, discipline, close concentration and attention to detail.

The Conservation & Restoration Field School will host students and professionals from all over the world. With such an international team, it is vital that all students respect the IFR code of conduct, each other's cultures, and local organizational, social and cultural rules and laws.

**EQUIPMENT LIST**

- Comfortable working clothes for both indoor and outdoor activities. Keep in mind the diverse weather conditions (from rainy and cool to sunny and warm)! Don't forget both your raincoats and sunscreen.
- Wide brim hat.
- A small backpack (for your food, bottle of water, wet wipes, camera, papers etc.)
- Medication - only prescription medicines you may need. All basic non-prescription drugs are available in N. Macedonia.
- A converter to EU type electricity and a wall-plug adapter if needed.
- It is recommended that participants bring PCs having at least 5 GB free disk space and a mouse. Operating system recommended: Windows.
- A good attitude for work, fun, study and discoveries.

## ACCOMMODATION

Participants will stay at renovated air-conditioned cabins at the archaeological base next to the ancient ruins of Stobi. Students will be housed in rooms with 2-3 beds each. Each cabin has four bedrooms, a living room and two bathrooms with showers. A washing machine and Wi-Fi are available for free. The closest village to Stobi is Gradsko (4 km), where there are a couple of food & beverage shops, a pharmacy, an ATM and a medical office. The closest supermarkets, drug-stores, pharmacies, banks with ATM and hospitals are in the towns of Negotino, 12 km away, Kavardarsi, 17 km away, and Veles, 23 km away.

## MEALS

Three meals (fresh, homemade food) per day are covered by the tuition fee. Meals, except for lunch packages during the excursion, usually take place at the field house premises in Stobi. This field school can accommodate vegetarians, vegans and individuals with lactose-intolerance diets. Kosher restrictions are impossible to accommodate in these locations.

## 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 field school. The IFR typically takes a close look at local conditions 6-7 weeks prior to program beginning and make Go/No Go decisions by then. Such time frame still allows the purchase deeply discounted airline tickets while protecting students from potential loss if airline ticket costs if we decide to cancel a program.

**Arrival:** Please arrive on 6 June by 7.00 pm at the National Institution for Management of the Archaeological Site of Stobi, 1420 Gradsko, Republic of R. of N. Macedonia (+ 389 43251 026). A transfer to Stobi from the airports in Skopje (R. of N. Macedonia) or Thessaloniki (Greece) may be arranged by request. Individual or group transfers' price may vary from 36-120 USD depending on both distance and number of passengers. (**The prices may slightly vary due to the USD rate fluctuations.**) The trip takes approximately 1.5 hours depending on traffic. It is recommended to exchange/withdraw some Macedonian Denars, buy a bottle of water and visit the restroom before the trip.

If you missed your connection or your flight was delayed/canceled, call, text or email the project staff (email: [bhfs.admissions@gmail.com](mailto:bhfs.admissions@gmail.com)). Local contact information will be provided to enrolled students.

## VISA REQUIREMENTS

Citizens of EU, EEA, USA, Canada, Japan, Republic of Korea, Australia and New Zealand **do not need a visa** to visit Macedonia for up to 90 days.

Citizens of all other countries may need a visa. The Balkan Heritage Foundation can send an official invitation letter that should be used at the relevant embassy to secure a visa to the program.

For more information about border crossing visit the Balkan Heritage Field School web site at <http://www.bhfieldschool.org/countries/macedonia> and <http://www.bhfieldschool.org/countries/bulgaria> and <http://www.bhfieldschool.org/information/visa-help> and the links provided there.

## HEALTH AND SAFETY

Safety and health orientation will take place at the beginning of the program. Stobi's neighboring towns Negotino and Kavardarsi (12/17 km away) and Sozopol offer medical care, first aid and pharmacies. Good personal hygiene and relaxation after a day's hard work are good preventatives for the summer flue.

## PRACTICAL INFORMATION

**Macedonian dialing code:** +389

**Time Difference in the R. of N. Macedonia** (Summertime): UTC/GMT +1 hours (April through September)

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

**Money/Banks/Credit Cards:**

The Macedonian currency is the Macedonian DENAR (MKD). Macedonian banks accept all credit cards and travelers' checks. Usually banks are open from 8.00 a.m. to 6 p.m. from Monday to Friday and from 8.00 a.m. to noon on Saturday. You can see Macedonian notes and coins in circulation at: [www.nbrm.mk/?ItemID=C2B15406ABC3BC46B2525F66092FB01D](http://www.nbrm.mk/?ItemID=C2B15406ABC3BC46B2525F66092FB01D)

You cannot pay in Euros or other foreign currency except in casinos and big hotels (where the exchange rate is really unfair)!

The exchange of foreign currencies is practiced not only by banks but also by numerous exchange offices. Most of them don't collect a commission fee and have acceptable exchange rates (+/- 0.5-1,5% of the official rate). However, those located in shopping areas of big cities, resorts, railway stations, airports etc. can overcharge you variable amounts. Ask in advance how much money you will get!

ATMs are available all over the country, and POS-terminals are in most bank offices.

If you plan to use your credit/debit card, please inform your bank on your intention before departure! Otherwise, it is very possible that your bank will block your account/ card for security reasons when you try to use it abroad! Unblocking your card while abroad may cost you a lot of phone calls and money.

### **Electricity**

The electricity power in the both countries is stable at 220 - Volts A.C. (50 Hertz). Don't forget to bring a voltage converter if necessary!



Outlets generally accept 1 type of plug:  Two round pins. If your appliances plug has a different shape, you may need a plug adapter.

### **Emergency in the R. of N. Macedonia**

National emergency number is **112**

Police: **192**

Fire brigade: **193**

Ambulance: **194**

Road assistance: **196**

### **RECOMMENDED READINGS**

#### **Handbook:**

All students will receive a course handbook (in PDF version by e-mail and hard copy upon arrival) with information about the team, and the institutions involved in the project, the site and its historical context, the sites to be visited during the course, the basic methods, practices and techniques to be applied during the lab work, a glossary of terms, etc.

#### **READINGS:**

Alberti, L. et al. Illustrated Glossary: Technician Training for the Maintenance of In Situ Mosaics, Getty Conservation Institute, Los Angeles, 2013, published online at: <https://iccm-mosaics.org/publication/illustrated-glossary-technician-training-for-the-maintenance-of-in-situ-mosaics>

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[http://www.getty.edu/conservation/publications\\_resources/pdf\\_publications/tech\\_training.html](http://www.getty.edu/conservation/publications_resources/pdf_publications/tech_training.html)
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- Ben Abed, A., M. Demas, T. Roby Lessons Learned: Reflecting on the Theory and Practice of Mosaic Conservation, Proceedings of the 9th Conference of the International Committee for the Conservation of Mosaics, 2008, published online at:  
[http://www.getty.edu/conservation/publications\\_resources/pdf\\_publications/lessons\\_learned\\_reflecting.html](http://www.getty.edu/conservation/publications_resources/pdf_publications/lessons_learned_reflecting.html)
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- Mosaics 1: Deterioration and Conservation. 1977, published online at:  
<https://www.iccom.org/publication/mosaics-no-1-deterioration-and-conservation>
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- Snively, C. S. - The Early Christian Basilicas of Stobi. A Study of Form, Function and Location (Diss. Austin Texas, 1979).
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Roby, T., M. Demas - Mosaics In Situ: An Overview of the Literature on Conservation of Mosaics In Situ The Getty Conservation Institute, Los Angeles 2013, published online at:  
[http://www.getty.edu/conservation/publications\\_resources/pdf\\_publications/lit\\_review.html](http://www.getty.edu/conservation/publications_resources/pdf_publications/lit_review.html)