



INTRODUCTION TO CONSERVATION OF METAL, PAPER & TEXTILES AT THE ISLAND OF ZAKYNTHOS, GREECE

Course ID: HIS 489

May 25 -June 15, 2025

Academic Credits: 6 Semester Credit Units (Equivalent to 9 Quarter Units)

School of Record: Culver Stockton College

This program provides breakfast only, during weekdays. Students are responsible for all other meals. There are plenty inexpensive and mid-range local restaurants at Zakynthos that offer a typical three-course Greek meal.

DIRECTORS:

Assoc. Prof. Christos Karydis, Conservator & Assistant Professor at Ionian University, Greece (c.karydis@ionio.gr)

Dr Nikolas Sarris - Conservator of paper & archive materials, National Library of Greece

Dr Adamantia Panagopoulou - Conservator of Antiquities; Post-Doc Researcher in archaeological materials at Barcelona University in Spain with 'NCSR' Demokritos in Greece; Leiden University in the Netherlands.

Dr. Angela Pencheva, Co-Founder of Balkan Heritage Foundation, Adjunct Professor at CPCE, New Bulgarian University (Bulgaria) & ICCM Board Member (balkanheritage@gmail.com)



INTRODUCTION

This is a beginner program, introducing students to the interventive and preventive Conservation of textiles, paper & metal objects. This field school is hosted by the [Department of the Environment of the Ionian University](#), Zakynthos campus (Greece). The program provides a unique opportunity for students to gain comprehensive knowledge and hands-on experience on the conservation and preservation of organic and inorganic cultural objects. Participants will be guided through the history and technology of ecclesiastical, historical, ethnographic textiles, papers and metal objects and stages of their study, conservation, and documentation. This program will take place at the labs of the Division Conservation of Antiquities & Works of Art at the Ionian University.

During the program, students will work with authentic and replicas of textiles, archival materials, and metal objects. The project includes three modules: practical work in the documentation and restoration of textiles, paper, and metal; lectures, training, study visits and excursions to the General Archives of Zakynthos (paper) and to the Ecclesiastical Museum of St. Dionysios (textiles & metal).

The workshop enables participants to gain comprehensive knowledge and hands-on experience in paper, metal and textile conservation, documentation, and scientific analysis. Students will explore the principles of material conservation, methods, theories, and will learn how to use optical microscopy, X-Ray Fluorescence (XRF) and X-Ray Diffraction (XRD) instruments for conservation work.

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 cancellation due to pandemics. If you wish to purchase an insurance policy that covers such contingencies, explore Cancel for Any Reason (CFAR) plans. [Insuremytrip.com](https://www.insuremytrip.com), [Squaremouth.com](https://www.squaremouth.com) or [Travelguard.com](https://www.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 workshop the participants will:

- Be able to develop basic practical skills (depending on participant's initial level of qualification) in textiles, paper and metal conservation treatments.
- Become acquainted with the basic methods of all the required documentation for the conservation of textiles, paper and metal using graphic software, as well as photo documentation.

- Learn about the forms, types, traditions, and technology of manufacture of textiles, paper and metal.
- Get acquainted with different case studies for preventive conservation of organic and inorganic materials.
- Meet professionals working in the areas of conservation in Greece.

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 a broad range of artifact types
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 7:00pm 8:00pm - Welcome dinner.
Week 1 (Mon-Fri)	Presentation of the Division Conservation of Antiquities & Works of Art, Balkan Heritage Field School, the project, and the participants. Ice-breakers and orientation. LECTURES, WORKSHOPS and Zakynthos Downtown Tour. <ul style="list-style-type: none"> ● Lectures and workshops in the area of paper conservation.

	<ul style="list-style-type: none"> • Lectures and workshops in chemistry for conservators and paper conservation. • Visit to the historic Public Library and the General Archives of Zakynthos.
Weekend 1 (Sat-Sun)	Optional visits to the National Marine Park of Zakynthos and the most popular beaches of the island. (Transportation to these venues is not included)
Week 2 (Mon-Fri)	Lectures and workshops in textile conservation. Visit of the Ecclesiastical Museum of Holy Monastery of St. Dionysos.
Weekend 2 (Sat-Sun)	Off weekend for self-exploration of the island
Week 3 (Mon-Fri)	Lectures and workshops in metal conservation. Visit of the Ecclesiastical Museum of Holy Monastery of St. Dionysos.
Weekend 3 (Sat-Sun)	Off weekend for self-exploration of the island
Departure Day	Departure. Check-out by 12.30 pm

** Course structure 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
7:00am	Wakeup
7:30am	Breakfast and lunch preparation
8:00am	Departure to the lab
9:00am-1:00pm	Lectures & lab work
1:00-2:30pm	Lunch break and free time
2:30-5:30pm	Lectures & lab work
7:00pm	Dinner (students on their own)

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 this 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 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.

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 paper, textiles, and metals 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.

MEALS & ACCOMMODATIONS

Students will stay at the family-run [Yria Hotel](#), located near the historical center of Zakynthos. The rooms are comfortable, with 2-4 beds, bathrooms with shower and WC, TV, 24-hour room service, lockers, hair dryers, LAN plugin connection, A/C and a fridge. Laundry service and free Wi-Fi are available at the hotel. Participants are not expected to bring any additional equipment, linen, or towels. Single rooms are available on request.

The program covers the cost of breakfast only, during weekdays. Other meals during the week and all meals during the weekend are not included in tuition cost. There are plenty inexpensive and mid-range local restaurants that offer a typical three-course Greek meal for 10-20 Euros (equivalent to \$11-22).

Participants should bring clothes and toiletries suitable for warm and sunny weather (26 -36°C), but should also prepare for rainy, windy, and chilly days. Zakynthos offers a lot of opportunities for sports and entertainment. Possible leisure activities during the siesta and days off are swimming, sunbathing, surfing, scuba diving, fishing, and sailing.



Figure 1: The entrance to the Yria Hotel



Figure 2: Entrance to the Department of the Environment at the Ionian University

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 meeting point is at the lobby of [Hotel Yria](#), the project hotel near historical center of the town of Zakynthos (Zante), at 7:00pm the first day of the program. The Greek Island of Zakynthos (or Zante) is in the Ionian Sea. The island is a popular summer destination for many European tourists. The island is located less than 10 min away from the coast of the Peloponnese. The island has one airport – Zakynthos International Airport (ZTH).

The Greek Island of Zakynthos or Zante in the Ionian Sea is a very popular summer destination in Europe. The island is located less than 10 min away from the coast of the Peloponnese. The island has one airport: [Zakynthos International Airport](#) which connects it with numerous Greek (Athens, Thessaloniki, Crete, etc) and international airports and two harbors. The main harbor is in the town of Zakynthos - from there start all ferries to the neighboring islands and to the port of Kyllini in mainland Greece. Normally tourists arrive by car or by bus to Zakynthos through Kyllini. For more information, please check the timetable of [Levante Ferries](#).

PROGRAM ETIQUETTE

Greece, a land steeped in myth and history, is a captivating blend of ancient heritage and modern allure. From the birthplace of democracy in Athens to the legendary temples of Olympia and Delphi, Greece is a living museum showcasing the achievements of past civilizations. Its vibrant culture, with its rich traditions, delicious cuisine, and warm hospitality, captivates visitors from around the globe. Whether exploring its archaeological wonders, soaking in the Mediterranean sun, or indulging in its vibrant nightlife, Greece offers an unforgettable experience. Greek people take pride in their heritage and achievements, and we kindly ask for your respect towards their customs, traditions, and culture.

EQUIPMENT LIST

- A pair of comfortable shoes for walking/hiking
- Small backpack (for your water bottle, snacks, camera, etc.)
- Lab coat
- 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 Greece.
- A converter to EU type electricity wall-plug if needed.
- A good attitude for work, fun, study, and discoveries.

VISA REQUIREMENTS

There are no special visa requirements for U.S. citizen travelling to Europe, as long as 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.

PRACTICAL INFORMATION

International dialing code: The Greek international phone code is +30.

Money/Banks/Credit Cards: Greece's currency is the Euro, and there are several banks at

Zakynthos. 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 Zakynthos.

Local Language: The native language is Greek. Given that Zakynthos is a major tourist destination, many locals speak English at least at some level.

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

ACADEMIC CREDITS & TRANSCRIPT

Attending students will be awarded 6 semester credit units (equivalent to 9 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 160 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

PDF files of all mandatory readings will be provided to enrolled students via a shared Dropbox folder.

Paper Conservation

AIC -The American Institute for Conservation of Historic and Artistic Works. 1994. Paper Conservation Catalogue - Book and Paper Group. 9th edition

Bausi, A., Witakowski, W., Sokolinski, E., Borbone, P. G., Briquel-Chatonnet, F., Buzi, P., Gippert, J., Macé, C., Maniaci, M., Melissakis, Z., Parodi, L. E., & Studies, C. O. M. 2015. Comparative Oriental Manuscript Studies: An Introduction., Chapter 5 (Sarris, N et al): pp.539-581

Clarkson, C. 1978. The conservation of early books in codex form: A personal approach: Part I. The Paper Conservator, 3(1), 33–50.

Hamburg, D. 1992. Library and Archival Collections. Pp.52-63 in Caring For Your Collections (H. Whelchel, ed.). New York, NY: Harry N. Abrams, Inc.

Textile Conservation

Karydis, C. 2010. The Orthodox Christian Sakkos. Ecclesiastical Garments dating to the 15th- 20th c. from the Holy Mountain of Athos. Collection Survey, Scientific Analysis & Preventive Conservation. Oxford: Archaeopress British Archaeological Reports.

Karydis, C., Siatou, A and Karabotsos, A. 2009. The Garment of a Byzantine Emperor from Mount Athos: Observation & Analysis. In: TECHNART 2009, Non-destructive and Microanalytical Techniques in Art and Cultural Heritage, Athens, 27 - 30 April 2009.

Conservation of a mid-19th Century Pretiosa Mitre from New Norcia, Western Australia

Karydis, C, 2019. THE UNPUBLISHED COPTIC TEXTILES OF THE MONASTERY OF ST. JOHN THE THEOLOGIAN: PRELIMINARY RESULTS OF PREVIOUS ALTERATIONS AND SCIENTIFIC ANALYSIS

Catling, D and Grayson, J. 2004. Identification of Vegetable Fibres. London: Archetype.

e-conservation, online magazine, 2013, N25, page 138.

Metal Conservation

Cronyn, J.M. 1990. The elements of archaeological conservation.

Scott, D. 1991. Metallography and microstructure of ancient and historic metals.

http://www.getty.edu/conservation/publications_resources/pdf_publications/metallography_microstructure.html

Stuart Barbara H., 2007. Analytical Techniques in Material Conservation, John Wiley & Sons, Athens.

RECOMMENDED READINGS

Paper Conservation

Holden, M. 1992. A Programmatic Approach, Archives Preservation Update. American Institute for Conservation of Historic and Artistic Works Book and Paper Group Annual, vol. 11:159-162.

Hunter, D. 1978. Papermaking: The History and Technique of an Ancient Craft, 3rd ed. New York, NY: Dover Publications

Jones, M. 1978. Traditional repair of archival documents. In The Paper Conservator (Vol. 3, Issue 1, pp. 9–17).

Szirmai, J. A. 1999. The Archaeology of Medieval Bookbinding. Aldershot: Ashgate.

Wilsted, T. and W. Nolte. 1991. Managing Archival and Manuscript Repositories. Chicago, IL: The Society of American Archivists

Textile Conservation

Cardon, D. 2007. Natural Dyes - Sources, Tradition, Technology, Science. London: Archetype.

Carr, D., Cruthers, N., Smith, C and Myers, T. 2008. Identification of Selected Vegetable Textile Fibres. Reviews in Conservation, Vol. 9, 75- 87.

Greaves, PH and Saville, B.P. 1995. Microscopy of Textile Fibres. Oxford: Bios Scientific Publishers.

Pinniger, D. 2008. Pest Management in Museums, Archives and Historic Houses (Re printed). London: Archetype.

Rogerson, C and Eastop, D. 1999. The Application of Cross- Sections in the Analysis of Historic Textiles, The Conservator, Vol. 23, 49-56.

Staniforth, S (edit). 2013. Historical perspectives on preventive conservation. Los Angeles: Getty Conservation Institute.

Timar- Balazsy and Eastop, D. 1999. Chemical Principles of Textile Conservation. London: Butterworth-Heinemann.

Woodfin, W. 2012. The embodied Icon: Liturgical vestments and sacramental power in Byzantium. Oxford: University Press.

Metal Conservation

Scott, D., Podany, J and Considine, B (edit). 1994. Ancient & Historic Metals conservation & scientific research. Proceedings of a Symposium on Ancient and Historic Metals organized by the J. Paul Getty Museum and the Getty Conservation Institute, November 1991.

Hamilton. D. Methods of Conserving Archaeological Material from Underwater Sites.
<http://nautarch.tamu.edu/CRL/conservationmanual>

Burhke V., Jenkins R., Smith D, 1997, A Practical Guide for the Preparation of Specimens for X-Ray Fluorescence and X-Ray Diffraction Analysis, John Wiley & Sons, New York.

Cowley ed. J.M, 1993. Electron Diffraction Techniques, IUCR, Oxford University Press.

Ferraro J., Nakamoto K., 1994. Introductory Raman Spectroscopy, Academic Press, Boston.