

INVESTIGATING THE ARCHAEOLOGY OF DEATH IN POMPEII, ITALY: PORTA SARNO NECROPOLIS RESEARCH PROJECT

Course ID: HIS 489

July 6-Aug 2, 2025

Academic Credits: 8 Semester Credit Units (Equivalent to 12 Quarter Units)

School of Record: Culver Stockton College

DIRECTOR:

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PROGRAM DESCRIPTION

During the 1990's, the Italian Government wanted to expand the rail system and initiated archaeological study along the planned rail tracks. By 1998, excavators discovered that a very large Roman cemetery lay just under the planned rail expansion. The entire project was discarded, and the area was left half exposed, deteriorating by the elements. The abandoned excavation established a few facts: (1) That a large cemetery was present just opposite the Porta Sarno, the oldest city gate at Pompeii. (2) That dozens of monumental tombs were present, likely belonging to illustrious citizen of ancient Pompeii; (3) That tombstones indicate burial both before **and** after the earthquake of 62 CE; (4) That the cemetery, just opposite the main road leading to Pompeii – the Via dell´Abbondanza – has likely been used for a very long time and may contain evidence of both pre Roman and Roman burials, and (5) That the abandoned excavations demonstrated excellent preservation of material record both of structures and of human remains.

The initial excavators published no report. The site's rapid deterioration and important significance for the understanding of ancient Pompeii motivated us to begin extensive excavation at the area in 2017. The Porta Sarno Necropolis project is now in its seventh season.

The study of Porta Sarno Necropolis project offers an exceptional opportunity to investigate Roman society and its unique views of life and the afterlife. The study of the necropolis monuments, tombs, roads, walls, material culture and biological remains provide for contextual and careful understanding of how the funerary space was managed by the ancient inhabitants of Pompeii. Given the extensive excavations elsewhere at Pompeii, we can study how the necropolis evolved in relation to urbanism, legislation, religion, and the history of the city.

The excavations at the Pompeii necropolis are a multidisciplinary project with the participation of a diverse group of experts. Both the human biological evidence and associated artifacts and features are studied to understand context, stratigraphy and cultural evolution. The program uses traditional excavation technique – trowels and shovels, sifting and sorting – as well as advanced analytical instruments, such as Total Stations, Portable energy dispersive X-ray fluorescence spectrometer (pXRF), and others.

Human burial at the Porta Sarno Necropolis includes both inhumations and cremated deposits. For 2023, we plan to excavate at Area A and D, within a large structure dated to the Roman period and likely to contain diverse types of funerary deposits. Given the density of material record found elsewhere at the site, we anticipate a rich archaeological record that will include both human remains and artifacts.

The Porta Sarno Necropolis is part of the ancient city of Pompeii but located outside the site’s contemporary security fences. That fortunate location allows us much flexibility with working hours and the ability to work without the constant distraction of tourists and visitors. Notwithstanding the above, we are still working in an ancient cemetery and respect to the dead is paramount to all our activities.

The relationships to and study of human remains in Europe differs widely from those practiced in North America. This is the result of different archaeological histories, traditions, and cultural norms. Archaeology in North America is almost exclusively part of anthropology and under the Social Sciences, emerging from the historical & intellectual tradition for the study of the “other”. In Europe, archaeology is a standalone discipline, usually within the Humanities, studying the past of the “collective ancestors”. These differences will be discussed broadly during the program, exploring the origin and current manifestation of cultural preferences and its relationships to death in each region. While we plan to have lively discussions, our goal is to present students with the different traditions and their reasoning, not to suggest one is better than the other.

This program and its strong emphasis on the careful analytical study of cremated remains is relevant to students who wish to study Roman history, bioarchaeology and physical anthropology. The program will also serve well students who are interested in forensic studies of human remains and students interested in pursuing medical careers.

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

The objective of the course is to enable students to better understand how archaeology and anthropology is practiced in the field and lab. To achieve this objective, this course has three primary goals:

1. To provide students with practical working knowledge of archaeological and anthropological field methods, including, excavation, laboratory analysis, artefact cataloguing, topography, archaeological drawing and conservation. Finds processing: Cleaning, sorting, labeling, documenting, and storing archaeological finds
2. To introduce students to the intellectual challenges presented by archaeological research, including research design, the interpretation of data, and the continued readjustment of hypotheses and field strategies regarding information recovered in the field.
3. To introduce students to Roman archaeology, Roman religion and funerary practices.
4. To introduce students to the history of Pompeii and its importance for our understanding of the classical world.

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
Artifact Curation	Ability to safely register, document and store a wide range of artifact types in curation facilities following state and federal laws
Artifact Documentation	Ability to measure, record, photograph & classify various artifact types in the lab/post ex setting
Artifact Identification	Ability to identify archaeological artifacts and ecofacts, from both pre contact and historical context
Artifact Processing	Understand how to assign artifacts to accepted cultural/geological spheres, across space (classification) & time (seriation)
Basic Conservation & Preservation	Ability to conduct initial field conservation and preservation of different artifact types, features & architecture
Bioarchaeology	Ability to excavate, document & study human remains
Data Recording	Ability to use printed or digital sheets to document & record field data
Excavations/General Principles	Know how to excavate in cultural or arbitrary layers, document and record all excavation activity
Grid & Trench Layout	Ability to lay excavation grid and generate reliable trench outline for excavations

Map & Plan Making- Manual	Ability to use a theodolite & measuring tape to produce maps and plans of a site
Map Reading	Ability to read a topographical map, can navigate by compass to and from provided locations
Photography	Ability to take clear images of various feature, artifact & soil colors at various light and field depth conditions
Screening	Ability to use general & geological screens to identify, collect and record small scale finds
Soil Identification	Ability to identify, describe and record different types of soil and depositions
Stratigraphy	Ability to identify, measure and describe stratigraphic layering of a site

COURSE SCHEDULE

Arrival day is Sunday. During the first day of work (Monday), we will take a guided tour of Pompeii and introduce the Porta Nola and Porta Sarno necropolises and explain the excavations methods and procedures that we will carry out. We will also visit the stockhouses where the material discovered in our excavations is deposited and introduce the artefacts and materials found.

All of excavations, inventory, and object documentation work will take place at the site of Pompeii.

During the first week, the full team will work at Pompeii. If the following three weeks, the team will be divided, to work on three stations: site excavation (Porta Sarno), cataloguing (Porta Nola) and laboratory (stockhouse). Each student will experience work at all three locations.

A lecture will be given every Wed, before dinner is served. A seminar will be held every Friday afternoon, to discuss the work done during the week, methods, findings, procedures, research, etc.

Students are required to complete daily excavation journal, in which students will record the work carried out every day. These include notes, sketches, maps, observations, and questions the student may have.

Saturdays are dedicated to field trip. During this field school, we will visit the following locations:

1. Naples and the National Archaeological Museum (MAN)
2. Herculaneum
3. Antiquarium Boscorale and Villa Regina
4. Oplontis, Villa Poppea

Sundays are off days

Saturday is the departure day from the program. Students may plan to depart at any hour of that day.

WEEKLY SCHEDULE

Week 1	
Sunday 4:00-6:00pm	Arrival Dinner
Monday 9:00 -2:30pm	Guided tour of Pompeii Porta Nola and Porta Sarno methods and procedures visit the stockhouses
Tuesday 8:00-5:30pm	Work at the site
Wednesday 8:00-5:30pm	Work at the site
Wednesday 7:00pm-8:00pm	Lectures
Thursday 8:00-5:30pm	Work at the site
Friday 8:00-5:30pm	Work at the site

Friday 7:00pm-8:00pm	seminar
Saturday 9:00am-12:00pm	Excursion Naples, Archaeological Museum
Sat 1:00pm-forward	Free afternoon
Sunday	Free day
Weeks 2-4 (Mon-Sat)	
M-F 8:00am-5:30pm	Excavation, Cataloging, lab
Wednesday 7:00pm-8:00pm	Lectures
Friday 7:00pm-8:00pm	Seminar
Saturday 9:00am-12:00pm	Excursions
Sat 1:00pm-forward	Free afternoon
Sunday	Free day

The Director and organizing institutions reserve the right to modify the schedule for scientific needs or for unforeseeable circumstances.

TYPICAL WORKDAY

6:30am	Wakeup
7:00am	Breakfast
7:30am	Departure for the field site
8:00am	Work begins at the site
10:00-10:15am	Morning break
1:30-2:30pm	Lunch at the site or at other research locations (Cataloging, Lab)
2:30pm	Work on at the site or at other research locations (Cataloging, Lab)
5.30pm	End of workday
7:00pm	Wednesday Lecture/ Friday seminar
8:30pm	Dinner

In case of rainy days, lectures and lab work will be performed.

ACADEMIC GRADING MATRIX

Students will be graded based on their work as follows.

% of Grade	Activity
30%	Site work: Excavation (use of tools, digging, levelling, measuring and drawing, record, photography, labelling and storage.
30%	Cataloguing: Washing, sorting, labelling, photography, storage
10%	Excavation diary
10%	Friday Seminar
10%	Teamwork, flexibility, adaptability, involvement, initiative.
10%	Interaction with staff and directors, discuss doubts and questions, suggest interpretations.

SKILLS MATRIX LEVELS

The school instructors will evaluate the level each student achieved on the list of skills 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.

ATTENDANCE POLICY

The required minimum attendance for the successful completion of the field school is 90% 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 be considered 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 study on-site how to conduct archaeological research. Field work involves physical work and exposure to the elements and thus requires a measure of understanding that this will not be the typical university learning environment. You will have to work outdoors and will get sweaty and tired. Students are required to come equipped with sufficient excitement and adequate understanding that field work requires real, hard work, in the sun and wind. The work requires patience, discipline, and attention to detail.

PROGRAM ETIQUETTE

Pompeii is an archaeological site of global importance. It is central to Roman and Italian identity and a major tourist destination. The Italian public and Italian authorities are highly sensitive for the preservation of their cultural heritage and getting permits to work in Pompeii requires strict adherence to Italian rules of excavation and respect for the local law and culture. This project is in its seventh year, and we plan to continue and work at the site for years to come. Students at this field school represent the project, both while on and off site. Misbehaviour by any project staff reflect badly on us and may prevent the renewal of research permits.

Students who violate Italian authorities' excavation regulations, disrespect Italian law or culture, or disrespect the dead will be subject for removal from the project. We recognize that not all regulations make sense, especially given Italian bureaucracy's reputation. But we are not trying to change Italian norms and mores. We are at Porta Sarno Necropolis to observe and to learn, to enrich ourselves and the public, to study and appreciate the diversity of human culture – part and present.

ABOUT NAPLES

It is often said that those **who arrive in Naples for the first-time cry twice, when they arrive and when they leave**. It means that the first impression is of a place without organization, where traffic is chaotic, nothing is governed by a fixed schedule. This is untrue. Traffic has unspoken rules and people always obey these rules. Naples is no more dangerous than any another major European city, such as Barcelona, London, or Paris.

Naples and Campania are full of art, culture, and stunning natural beauty. Mount Vesuvius, Sorrento, Capri, and the Amalfi Coast are just a few examples. Naples was founded by the Greeks and was one of the main cities of the Roman Empire and the Renaissance. The city has one of the most extraordinary places on earth, where life stopped and froze in time: Pompeii. Naples offers amazing cuisine, with exceptional pizzas, past and ice cream, to name just a few. It is said that Naples is a pleasure for all the senses.

All this makes you fall in love with Naples and **cry when you leave....**

Please understand that the Neapolitans are different from the rest of the Italians. They are kind and friendly, but they have their own idiosyncrasies and their organization that is sometimes difficult for Americans, other Europeans, and even other Italians, to understand. But this is what makes them wonderful when you really get to know them and understand their philosophy of life.

Pompeii is a unique archaeological treasure, and we therefore must follow certain rules. (1) You must always carry the accreditation as a member of a scientific excavation program that is given to all participants of the program. This accreditation is also used to visit Pompeii in our free time, but without the accreditation we cannot enter the site or its facilities. (2) Smoking is banned in our excavation and throughout the Pompeii site.

Participants are expected to attend all dinners. If students do not attend any dinner, they must notify the staff members one day in advance.

EQUIPMENT LIST

1. Passport or ID card. All European citizens should bring their health card, or health insurance card, if applicable
2. Student/University ID and/or European Youth Card
3. Mosquito repellent and after-bite cream
4. Sunscreen and a lip balm
5. If you are taking any medication, remember to bring it with you. You can buy most medications in Italy, though some have different names, may be slightly different, or require a prescription.
6. Stationery for personal use (notebook, pens etc)
7. Bring camera if you wish.
8. Bring your laptop computer because we'll be using the dossier for the course and other information on it.
9. Appropriate adaptor for electronic devices.
10. Subscribe for an international plan for your phone before you arrive to Italy. You can purchase a local SIM card or use apps such WhatsApp or Facetime to communicate with loved ones at home.
11. Hat or some type of garment that will protect your head from the sun.
12. We recommend that you wear light and comfortable clothing. You should bring a jacket and/or windbreaker, as well as very comfortable shoes. In the excavation, you can wear long or short sleeves, and pants or shorts. A minimum of 2 changes of work clothing
13. Work gloves
14. You are required to have safety boots with a reinforced toe. If you don't have a very large or very small shoe size, you'll be able to buy them at a local shop near the field house
15. No need to bring any tools for the excavation. We will provide you with all the tools and instruments you will need for the excavation and the study.
16. Bring nicer/"dressier" clothes when we go out for dinner.
17. Towel, Flip-flops for use in bathroom.
18. Personal First Aid Kit (available in most pharmacies) Below is an example of a kit available at a pharmacy with most of the supplies: http://www.boots.com/en/Boots-St-John-Ambulance-Essential-First-Aid-Kit_1258543/
19. A small backpack (for your food, bottle of water, wet wipes, camera, papers etc.)
20. Please join us in our efforts to reduce the use of disposable plastics pieces during our program. We kindly ask you to bring your personal breakfast set (cater plate), composed of a mug, a dish, a spoon, a fork and a knife to use during breakfast. Thank you very much for your help.
21. A good attitude for work, fun, study, and discoveries.

TRAVEL & MEETING POINT/TIME

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 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.

All students must arrive to the project on Sunday, the first day of the project, by 6:00pm. If you plan to fly to Naples International Airport (NAP), we will meet you at the just outside the arrival

hall of Terminal 1, near the taxi line (see Fig 1). Students who plan to travel by train/bus from Rome (or prior travel in Italy) must communicate with program staff to coordinate their arrival. See next section for instructions how to get to the project housing using public transportation.

You are responsible for your own travel arrangements to and from Pompeii on the dates of your arrival and departure. When booking for flights, please allow sufficient time to reach the airport (the closest to Pompeii is Naples) especially for your departure.

Please provide details of your travel arrangements, especially arrival times. If you missed your connection or your flight is delayed, please call, text or email project director immediately. A local emergency cell phone number will be provided to all enrolled students.



Figure 1: Naples airport plan and meeting point (see red X) in front of Terminal 1 arrivals area

HOW TO GET US:

From Rome airports (Ciampino or Fiumicino): Take bus or train to Termini Rail-station (5 euros approx.). At Termini, take the train to Napoli (Piazza Garibaldi Rail-station (20 euros approx.). At Napoli (Piazza Garibaldi Rail-station) take train Circumvesuviana (approx. 3 Euro), under the Piazza Garibaldi rail-station.

- **Line to Sorrento:** Get off the train at Pompei Scavi-Villa Misteri and send a text message or WhatsApp to project director
- **Line to Poggioreale:** Get off the train at Pompei Scavi-Villa Misteri and send a text message or WhatsApp to project director.

Pay attention to the train stops, don't get out at the wrong stop.

VISA REQUIREMENTS

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

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

MEALS & ACCOMMODATION

Accommodation: All participants will be staying at Pompei Hostel Deluxe. Via Duca d'Aosta, 4, 80045 Pompei NA, Italia, in the center of Pompeii. <https://www.pompeihosteldeluxe.it/>. Rooms are single sex and shared 3 to 4 people. The accommodation has WIFI, Air-conditioning and other facilities.

The project will provide breakfast, lunch and dinner throughout the week, except for the lunch and dinner on trip days (normally Saturday) and free days (normally Sunday). Please let us know of any dietary restrictions (vegetarian/vegan) so that we may inform the restaurant in advance

Lunch: Lunch will be brought to the site, consisting of a variety of good local hot and cold sandwiches, a personal bottle of fresh water and fruit.

Dinner: This will be provided at a local restaurant. Dinner is provided for by the project. Meals include a starter, main course, dessert, wine and water (other drinks are not included, but you can order and pay for yourself). Dinner will be at 8:30 pm.

PRACTICAL INFORMATION

International dialling code: +39

Money/Banks/Credit Cards: The local currency is the EURO. Naples is a major touristic destination and there is a wide availability of banks where you can use a credit card and ATMs.

ATM Availability: there is a wide availability of banks where you can use a credit card and ATMs

Local Language: Italian is the official language of the Country. But English, Spanish and Italian are the languages of the program.

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

ACADEMIC CREDITS & TRANSCRIPTS

Attending students will be awarded 8 semester credit units (equivalent to 12 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.

Alapont, Ll and Zuchtriegel, G. 2022. The newly discovered tomb of Marcus Venerius Secundio at Porta Sarno, Pompeii: neronian zeitgeist and its local reflection. *Journal of Roman Archaeology* - JRO-2022-0107.

Campbell, V.L., 2015. *The Tombs of Pompeii, Organization, Space, and Society*. London: Routledge., New York 2015. 17, 45-57, 84-98, 337.

de Tienda Palop, L., Currás, B.X. 2019. The Dignity of the Dead: Ethical Reflections on the Archaeology of Human Remains. In: Squires, K., Errickson, D., Márquez-Grant, N. (eds) *Ethical Approaches to Human Remains*. Springer, Cham. Pg 19-37. https://doi.org/10.1007/978-3-030-32926-6_2

DeGrazia, D. 2017. The Definition of Death. In *The Stanford Encyclopedia of Philosophy*, ed. E.N. Zalta. Stanford: Stanford University. <https://plato.stanford.edu/archives/spr2017/entries/death-definition/>

Graham, E. J. 2018. "There Buds the Laurel': Nature, Temporality, and the Making of Place in the Cemeteries of Roman Italy". *Theoretical Roman Archaeology Journal*, 1(1): 3, pp. 1–16.

Hughes, J. et al. 2021. *Material religion in Pompeii*. Hughes, Jessica ed. Open University: Open Arts Journal.

Kay, S., Ceccarelli, L., Alapont, L., Albiach, R. 2020. "Excavations at the Necropolis of Porta Nola: New evidence for production and circulation in Pompeii. *Fecisti Cretaria*". Dal frammento al contesto: studi sul vasellame ceramico del territorio vesuviano. A cura di Massimo Osanna e Luana Toniolo «L'Erma» di Bretschneider Roma -Bristol, CT. 340-342.

Squires, K., Errickson, D., Márquez-Grant, N. (2019). Introduction. In: Squires, K., Errickson, D., Márquez-Grant, N. (eds) *Ethical Approaches to Human Remains*. Springer, Cham. Pg 1-15. https://doi.org/10.1007/978-3-030-32926-6_1

RECOMMENDED READINGS

Allison P.M. 2004. *Pompeian households An Analysis of Material Culture*. Monograph 42 The Cotsen Institute of Archaeology University of California, Los Angeles. 192-198.

Beard, M. 2008. *Pompeii: the life of a Roman town*. London: Profile Books Ltd.

Bodel, J., 2018. "Roman Tomb Gardens", in, *Gardens of the Roman Empire*. Jashemski, Gleason, Hartswick and Malek (Eds.). 199-200, 217-218.

Cavazzuti C, Bresadola B, d'Innocenzo C, Interlando S, Sperduti A (2019) Towards a new osteometric method for sexing ancient cremated human remains. Analysis of Late Bronze Age and Iron Age samples from Italy with gendered grave goods. *PLoS ONE* 14(1): e0209423. <https://doi.org/10.1371/journal.pone.0209423>

Cerezo-Román J., Wessman, A. Williams, H. (eds.) 2017. *Cremation and the Archaeology of Death*. Oxford University Press.

Cooley, A. E. and Cooley, M. G. L. 2014. *Pompeii and Herculaneum a Sourcebook*. 2nd ed. Routledge London. Routledge. 143, 278-9.

Hope, V. 2009. *Roman Death: The Dying and the Dead in Ancient Rome*. London. 155.

McKinley 2004, *Guidelines to the Standards for Recording*

Nock, D. 1952 A. Cremation and burial in the Roman Empire, in Z. STEWART (ed.), *Essay on Religion and the Ancient World*, Oxford 1952, pp. 277-307.

Osanna, M. 2018. Games, banquets, handouts, and the population of Pompeii as deduced from a new tomb inscription. *Journal of Roman Archaeology*, 31, 310-322.

Toynbee, J. M. 1996 *Death and Burial in the Roman World*, Baltimore-London.

Walker, P. L., Miller, K. W.P., Richmanm, R.S. 2008. Time, temperature, and oxygen availability: an experimental study of the effects of environmental conditions on the colour and organic content of cremated bone. *The Analysis of Burned Human Remains*. Editors: Schmidt, C., Symes, S., Pages 129-135, x-xi