



### **Advanced bioarchaeological techniques and analysis in the Late Antiquity Necropolis of Lucena** (Lucena, Córdoba – Spain)

#### **1. General Information**

The **Sanisera Archaeology Institute for International Field Schools** offers an annual international archaeology program. Since then it has organized courses for students who come from all over the world to study abroad and who are interested in **forensic archaeology, anthropology and osteology**.

The fieldwork focuses on the in-depth analysis of human skeletal remains excavated from a **necropolis** discovered in the town of Lucena (Córdoba, Spain) dated between the **4th - 8th centuries AD**. The goal is to use **advanced osteological techniques** to understand the lifestyle of the people who lived on this site.

The Lucena necropolis, known to archaeologists as "*Cortijo Coracho*", is one of the largest cemeteries in Spain from the Late Antiquity period and was partially excavated during 2003. From the archaeological excavation work, **273 tombs could be documented, and 397 individuals could be counted**, of which 151 have been analyzed so far.

According to the first hypotheses, this cemetery was surrounding an early Christian church that must have been founded with the construction of a martyrium or memory to bury the corpse of a saint or martyr in the area.

The burials correspond to a community of settlers and peasants during the times of the Visigoth and Byzantine domination of this territory of Spain.

The skeletal remains in this collection are unbeatable for the student because they are in an excellent state of preservation and also belong to articulated, practically complete individuals.

Bioanthropology internships will serve to complete the ongoing osteological research study.

Participants will learn the techniques of analyzing and recording information from human skeletal remains in an archaeological context. In this lab-based course, both lecture and experiential learning will be used to enable students to gain confidence in the identification and analysis of various skeletal conditions.

We will cover skills in basic demographics such as the techniques to determine age and sex of a skeleton, but will also progress to more advanced methodologies in osteological analysis. Students will learn skills such as: correctly measuring and recording skeletal elements according to set international standards, distinguishing between pathological and non-pathological bone and assessing patterns in pathological lesions, identifying marks on the skeleton that indicate how muscles were used during the person's life (including determining left or right handedness), and assessing nutritional status from bones and teeth. Additionally, participants will learn how to bring these different sources of information together to re-create the biological life history of the individuals buried at this site.

The bone collection of the "Cortijo Coracho" necropolis is deposited in the **Archaeological Museum of Lucena** (Córdoba, Spain). In this museum, the students will carry out the practices of this bioarchaeology course.

The classes will be taught by Dr. Ricardo Ortega, who was lucky enough to collaborate in the excavation project for the tombs of the necropolis, and will be promoted by the Institute for Professional Training in Forensic Sciences from Spain.

## **2. What you will learn**

### *2.1. In the Laboratory*

- Complete osteological analysis of an individual funerary unit
- Assessment of disarticulated remains and computation of minimum number of individuals
- Application of standard techniques of bone measurement, age estimation, sex estimation, classification of dental pathology and tooth wear
- Identification of fragmentary bones
- Utilization of anatomical terminology to describe and discuss skeletal elements
- Recording osteological information on complex forms
- Recognition of non-metric traits and pathological bone

### *2.2. Theory*

- Development and application of osteological methods
- Assessment of cremated remains
- Chemical analyses of human bone – isotopes and DNA
- Identifying trauma in archaeological bone
- Challenges in paleodemography and paleoepidemiology
- Estimating ancestry of human skeletal remains

### 3. Directed at

This Sanisera Field School course does not include excavation, but **centers exclusively on the study and teaching of osteology using the remains excavated from the Lucena necropolis** dated between the **4th - 8th centuries AD**.

Participants will learn to draw conclusions and reconstruct aspects of the population's demographics such as pathologies, illnesses, etc. Because this course is specifically centered on biological anthropological concepts, this course is limited to 8 participants in order to best assimilate and apply anthropological concepts.

Previous knowledge or experience in archaeology or computer systems is not required.

### 4. Field School life & language

The fieldwork runs 5 hours a day with time dedicated to the study of human osteology by the analysis of the skeletal remains.

For every seven course days there are two days off.

The course is taught in English.

### 5. Certificates

At the end of the Field Program, students will receive a certificate of participation stating the hours and activities of the course.

Participants that perform exceedingly well in the course may receive a letter of recommendation from our organization upon request.

### 6. Sessions & Cost

Sessions	Dates	Cost
Session #1	2022   July 14 – July 29	\$ 2300

### 7. Course fee

- Course tuition.
- Accident insurance at the Lucena Archaeological Museum
- Certificate of participation.
- Accommodation in the Student Residency (Lucena, Córdoba, Spain).

- Free daily access to the Archaeological Museum of Lucena, Córdoba. Place where the laboratory practices will be done.
- Scrupulous daily cleaning of the entire residence by professionals with hygienic products against Covid.
- Following the protection measures, the staff will ensure that the use of the mask covering the nose and mouth is mandatory throughout the day, whether during field work, laboratory activities or visits. In the common spaces of the residence it will also be mandatory. If any participant does not follow these rules, they will be expelled from the course.
- Each participant upon arrival at the facilities of Sanisera Archeology Institute, will sign a responsible statement in accordance with the preventive measures of COVID and that in case of discomfort or symptoms that both he and the staff consider may be harmful to the rest of the participants, they must go to a medical assistance center to diagnose your condition.
- [In case of needing to process Schengen Visa](#) the mandatory letter of invitation will be written so you can travel

**Airfare not included from the student home to/from Spain.**

**Meals are not included, although we will recommend some cafés and restaurants that do not exceed the average of 20 € /day in meals.**

**Entry tickets to museums and historical buildings are not included either.**

## **8. Spaces available**

The course is limited to 8 participants per session. Reservations are only effective when payment of the registration fee is received. If for any reason the course is cancelled, payment is returned according to the field school refund policy.

## **9. Information and Reservations**

For more information, contact:

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