



## **Bioarchaeology of child burials from the underground funeral crypt of the San Telmo Church (Jerez de la Frontera, Cádiz, 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 San Telmo Church was built in Jerez de la Frontera (Cádiz) between the 16th and 17th centuries. This temple preserves a **funerary crypt** in its basement with **21 burials arranged in niches**.

The objective of this course will be to carry out an analysis focused on the bioarchaeology and pathology of the **exceptional bone collection** belonging to the **San Telmo crypt**, destined for a well-characterized burial that corresponds to **young children dated between the 17th and 18th centuries**.

In southern Spain, between the 16th and 19th centuries, burial was common in niches located in underground crypts that were found inside churches that had been founded by families of certain prestige or by groups. This is the case of the crypt of the church of San Telmo, which was built by a group of fishermen.

The crypts were very particular spaces, located in the underground area of Christian churches. To access them, one descended by stairs that were usually sealed by large slabs that blocked their entrance. In some of the crypts, it was not very common, the walls were decorated with pictorial scenes related to the dance of death. They were very humid places given the circumstances of their location in an underground area, prone to filtration of the phreatic layers, lacking natural light, without openings, nor ventilation to circulate the air.

The dimensions of the burial room in the crypts were very small and limited. For this reason, superimposed cavities in brick and mortar were built in the form of niches attached to the walls of the crypt vertically, arranged in rows to accommodate the largest possible number of deceased. The size of the niche was conditioned by the body dimensions of a single deceased.

During the reign of Carlos III, in 1781, a new order was imposed with the intention of preventing burials from continuing to be carried out inside churches and starting to be practiced in cemeteries located on the outskirts of cities. It was

wanted to avoid possible infections to the parishioners when they practiced religious worship inside the churches by breathing the impure air mixed with the effluvia of the dead.

In 2015, **Gonzalo Castro Moreno** carried out an archaeological excavation in the crypt of San Telmo, **recovering the bone collection from the niches** to carry out an anthropological and paleopathological study of the buried individuals. It was concluded that the burials correspond to **46 infant individuals between 0 and 12 years of age**, broken down as **6 infants** (0-3 years) and **40 children** (3-12 years).

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.

Currently, the collection of children's bones from the funerary crypt are deposited in the **San Telmo Church** and it will be the place where students will carry out the practices of this bioarcheology course.

The classes will be taught by **Dr. Gonzalo Castro**, director of the archaeological intervention of the funerary crypt, and which is part of his most recent research program.

## **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

The study of burial practice using an **architectural space such as the crypt**, under a church, with burial forms in the form of niches, allows the archaeologist, and the student of this course, to know **ancient customs and mortuary practices of the temples Catholics from southern Spain between the 16th and 18th centuries**.

It is a **very unique collection** since it is made up of a set of **bones** very determined by the stage of childhood maturity, and in which pathologies can be recognized that can explain what types of diseases caused their death in the early stages of the cycle of the life. **46 infant** individuals between 0 and 12 years of age have been counted: 6 infants (0-3 years) and 40 children (3-12 years).

Due to the characteristics of the San Telmo Church bone collection, they are exceptional, being homogeneous and belonging only to the earliest age of an individual. Thus, in this way, the student will be able to identify, recognize and interpret any detail about the morphological characteristics of the fragments and also the pathological reading that they could give us.

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   May 22 – June 05	\$ 2450
Session #2	2022   June 19 – July 03	\$ 2450

## 7. Course fee

- Course tuition.
- Accident insurance at the San Telmo Church (Jerez, Cádiz)
- Certificate of participation.
- Accommodation in the Student Residency (Jerez, Cádiz, Spain).
- Free daily access to the San Telmo Church. 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 Archaeology 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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