



**Main techniques for digs and archaeological research: GIS applied in Archaeology, AutoCAD to create maps and training in drawing and digital illustration of archaeological artifacts (San Javier, Murcia – Spain).**

### **1. General Information**

***The Sanisera Archaeology Institute for International Field Schools*** offers an annual archaeology dig on San Javier, Murcia, on the southern coast of Spain. This course is **for students** who come from all over the world to study abroad and who are **interested in archaeology, anthropology, mapping tools** applied to archaeology, as well as for participants who want to learn **about archaeological recording system with a GIS (Geographic Information System)**.

In addition, it includes advanced and main techniques used in an archaeological laboratory, such as **technical drawing and digital illustration** of archaeological artifacts. The skills that students will learn can be externalized to complete studies, publications, or reports from the pieces found on any archaeological site.

This program is divided in two parts:

#### **Part 1. GIS applied in archaeology & AutoCAD Software**

In the first week of the course you will learn to use two software: ArcGIS and AutoCAD. These two programs are used to manipulate all the graphic documentation of any archaeological investigation or excavation and achieve highest quality results.

Using AutoCAD you can create maps, sections, planimetry, without limitations. ArcGIS is highly recommended for surveying, spatial calculations of any archaeological entity that you want to analyze and integrate into a scientific project.

*Time dedicated to this part of the program: 50%.*

#### **Part 2. Tools and drawing techniques and digital illustration of archaeological artifacts**

In the second part the students will practice the techniques that are used in an archaeological laboratory so that they can register the main objects found on an

archaeological site with the highest quality. The development of those **techniques will help us to obtain drawings and digital archives** that will be extremely useful for the elaboration of publications, reports or further studies.

*Time dedicated to this part of the program: 50%.*

## 2. What you will learn

- Handle and learn **ArcGIS and AutoCAD software**.
- Design of an **archaeological map** in AutoCAD.
- Design, preparation and management of archaeological information in a **GIS platform** using the map created in CAD, and manipulation of the database of an archaeological project.
- Integration of satellite images or raster from **Google Engine**.
- Geolocation of places or points of interest from **Google Maps** or **Google Earth** that will be exported to the ArcGIS platform.
- Development of a terrain elevation model (DEM Model) with **Global Mapper** software.
- Dig **pottery treatment in the laboratory process**: how it is classified, inventoried and cataloged.
- **Learn how to draw pottery** according with the standards (piece orientation, diameter edge estimation, representation of the decoration and several views generation).
- Correct handle of the graphic representation and **learning of different scales** 1:1, 2:1...
- Learn how to use software such as **Photoshop** and **Inkscape** to make an archaeological digital illustration.

## 3. Directed at

**This course is designed for students that have participated in an archaeological excavation and would like to learn about archaeological tools used to document research information collected with rigor and quality, thanks to the handling of the field data processing translated to AutoCAD or/and ArcGIS software to create stratigraphic maps of the excavation.**

**If you are interested in archaeology as well as how to process this information using technical drawing, and digital illustration** then this is the course you are looking for. This course accommodates participants with or without previous experience.

Learn how to excavate is the most important thing for a student who wants to become a professional archaeologist, however during the last years we have noticed that both the archaeological investigation projects and the archaeological management projects are becoming more demanding and stricter with the information gathering that take place in an excavation.

Due to current needs of the archaeology world the archaeologist must acquire more experience and knowledge in the laboratory. It's basic to catalogue all the

material from the excavation efficiently and effectively by **elaborating drawings, and digital documentation** that allow us to develop a rigorous research, for that reason the use of an appropriate image software has become essential for the elaboration of any report, study or publication.

This program is advanced and specialized, focusing on extracting the maximum performance from software and technology available to archaeologist.

This course takes place on a Mediterranean coast of Spain.

**Previous knowledge or experience in archaeology is not required.**

#### **4. Field School life & language**

The fieldwork runs five hours per day. The day will be divided between learning mapping techniques, lab work, exercises, lectures and videos. For every five course days there are two days off. The course is taught in English and Spanish.

#### **5. Certificates**

At the end of the 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 up on request.

#### **6. Sessions & Cost**

Sessions	Dates	Cost
Session #1	2024   June 05 – June 19	\$ 2400

#### **7. Course fee includes**

- Course tuition.
- Software: AutoCAD, ArcGIS, Global Mapper, Photoshop, Inkscape.
- Drawing material.
- Accommodation in the student residency.
- Walking distance to the historic center, port and beach.
- Accident insurance at the school.
- Certificate of participation.
- [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 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.**

**\* If you sign up for two sessions in a row (32 days) that take place in Menorca, the days between sessions (3 or 4 days) you will have the accommodation for free.**

## **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:

Email: [info@archaeology.institute](mailto:info@archaeology.institute)

Web page: [www.archaeology.institute](http://www.archaeology.institute)