ANCIENT EGYPT RESEARCH ASSOCIATES, INC. (AERA)
and the
AMERICAN UNIVERSITY IN CAIRO (AUC)

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ARCHAEOLOGICAL FIELD TRAINING,

at the **GIZA PLATEAU, EGYPT**

Saturday January 31 to Thursday March 26, 2015

led and taught by

ANCIENT EGYPT RESEARCH ASSOCIATES (AERA)

available through

The Egyptology Program of the AMERICAN UNIVERSITY IN CAIRO (AUC)

Syllabus revised January, 2014

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Course Objectives and Description

The Giza Archaeological Field Training is an Intensive eight-week, field-study program, designed for upper level undergraduates and graduate students from Egypt and abroad. The field training takes place at the Old Kingdom settlement site (Heit el-Ghurab,) being excavated by AERA (Ancient Egypt Research Associates, Inc.) in Giza, Egypt (http://www.aeraweb.org/projects/lost-city/). AERA-Egypt is a foreign registered NGO[1].

Working side by side with AERA archaeologists, students learn systematic, standard-practice excavation and recording techniques, taught by Egyptian and foreign specialists in a multi-disciplinary research team. The program includes instruction in:

- Archaeological excavation and field recording
- Archaeological illustration and photography
- Survey and mapping of diverse archaeological structures from mud brick to stone monuments
- Artifact recording and analysis
- Archaeobotany and Archaeozoology; introduction to floral and faunal retrieval, sampling and analysis
- Lithics' analysis (that is stone tools and remains of processing stone tools).
- Mud sealings' analysis
- Ceramics' analysis
- Bio-anthropology; excavation and processing of human remains
- Database and spread sheet applications to manage and analyse information
- GIS (Geographic Information Systems) applications in archaeology

[1] AERA Egypt is a registered NGO, under number 85 of April 11th 2011.

The Heit el-Ghurab settlement at Giza, showing the Galleries (workmens' barraks), the Eastern Town (village for permanent workforce) and the Western Town (large villas for officials and scribes) for further information see www.aeraweb.org.

The AERA Giza field training promotes "situated learning" of archaeological principles and techniques, through maximizing hands-on practice on site, in the laboratory and office. Skills are introduced progressively and practised extensively throughout the eight-week program. "Reflective practice"[2] is encouraged throughout. That is, students are expected to reflect on their actions so as to engage in a process of continuous learning, which is a defining characteristic of professional practice. The length and intensity of the course aim at moving the student rapidly through the learning stages, from novice to advanced beginner[3]. The program provides eight academic credits awarded by the American University in Cairo (AUC).

Course Outcomes

After completing the field-school, students should be able to:

1. Identify, excavate and record archaeological features
2. Produce accurate written, drawn and photographic excavation records
3. Sample adequately during excavation, various types of material culture (artifacts, ceramic, faunal, botanical, stone tools)
4. Survey and map archaeological areas and structures
5. Excavate human burials; process, record, and pack the remains
6. Understand retrieval strategies and recording methods for ceramics, botanical and faunal remains, lithics, and artefacts
7. Draw and photograph archaeological material on site and in the laboratory
8. Understand the principles of archaeological conservation and first-aid for finds
9. Archive and curate excavation and survey records; construct a Harris Matrix (see below) and write a Data Structure Report (DSR, see below)

Weekly and Daily Schedules

The Giza 2015 field training runs for eight weeks from Saturday January 31 to Thursday March 26, 2015. The working week is Saturday to Thursday, daily from 6.45 am to 6 pm. Thursday afternoons and Fridays are rest days.

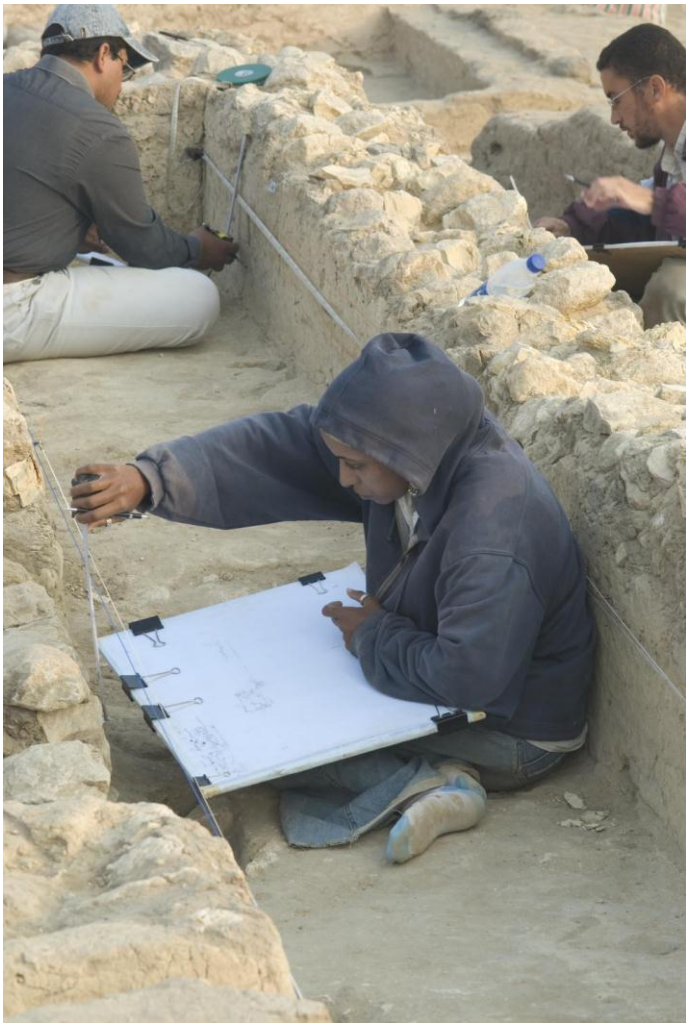
[2] Schön, D. (1983) *The Reflective Practitioner, How Professionals Think In Action*, Basic Books.

[3] An advanced beginner has absorbed the basic rules and techniques, shows some situational perception and discretionary judgement. For stages of competency from novice to expert see Dreyfus, H. and Dreyfus S. (1986) *Mind over Machine: the power of human intuition and expertise in the era of the computer* Oxford; Basil Blackwell.

Daily site schedule Saturday through Thursday

(Weeks 1 to 6, for detailed Lab schedule in week 5 see below. Thursday after lunch is free time)

6:00 - 6:30am	Breakfast at the Mark Lehner Archaeological Center
6:45 am	Team meeting
7:00 am	Depart for the site or lab
7:15	Site or lab work
10:00 - 10:30am	Second breakfast at the site
10:30 - 1:15pm	Site or lab work
1:30pm	Return to the Archaeological Center
1:45 - 2:45pm	Lunch
3:00 - 5:00pm	Paperwork, archives, GIS
5:00 - 6:00pm	Lecture
7:00pm	Dinner at the Archaeological Center



Field-school students recording the AA building at Heit el-Ghurab. Photo by Mark Lehner.

Laboratory schedule

(week 5 – starting Saturday 28th February, 2015)

6 - 6:30 am	Breakfast at the Mark Lehner Archaeological Center
6:45 am	Team meeting
7:00 am	Depart for the lab
7:15	Lab work
10:00 - 10:30am	Second breakfast
10:30 - 1:30pm	Lab work
1:30 - 2:00 pm	Lunch at the Lab
2:00 - 4:15pm	Lab work
4:30 pm	Leave Lab for the Archaeological Center
5:00 - 6:00pm	Lecture
7:00pm	Dinner at the Archaeological Center

Course Outline and Calendar

From Week 1: Excavation and Recording

We begin with an orientation to the site and excavation areas, and with the basic core excavation skills. The on-site teaching of core excavation skills focuses upon the process of CLEANING>PLANNING>RECORDING>EXCAVATION. The process can be considered "on-going" because excavation skills can only develop through continual practice.

Research Design/ Landscape Setting

Students will become familiar with previous work at Giza through site walks, presentations and reading. They will assess previous archaeological work and identify areas needing further work.

Basic Survey Skills

Students will be introduced to basic survey principles and the process of setting out squares and grids using tapes. They will be taught to set up and use the auto-level, to take elevations and perform traverses. They will learn the importance of locating their site/area and establishing a bench mark, in order to measure levels across the site. Similarly, students should understand and be able to use basic coordinate systems.

Basic Drawing Skills

Basic principles and techniques of archaeological illustration will focus on applied "on-site" skills. Students will become proficient in offset site planning, as well as how to set up and use a planning

frame and a datum line for recording sections. Similarly they will be introduced to the difference between PLANS, ELEVATIONS, SECTIONS and PROFILES, and how to produce such measured scale drawings. Group leaders will teach many of these skills on site, possibly supplemented with instruction from project draughts-person and surveyor.

From Week 2: Advanced Excavation and Recording (on going)

Basic Recording

This unit focuses on the written record, as opposed to the drawn record. Students will learn the principles of Single Context Recording; to become familiar with the various recording sheets and know what information is required (and why) when recording archaeological contexts.

Advanced Recording

This unit introduces the concept of stratigraphic recording and the Harris Matrices, and provides elaboration, if necessary, on topics of recording methodology.

Basic Excavation of Burials

On-site introduction of burial excavation by the osteo-team.

Field-school students excavating a deep burial at Heit el-Ghurab. Photo by Mark Lehner.

Basic Photographic Skills

Students will become familiar with basic digital cameras. They will learn what is photographed on site and why, as well as what information is required in archaeological photographs.

From Week 3: Advanced Survey, Photograph, Illustration, Introduction to Archive and Data Management

Advanced Survey Skills

Students will be introduced to the principles of 'theodolite surveying' and Total Station Theodolites, encompassing the use of maps and expanded coordinate systems. This section may also illustrate or introduce the other types of site survey, such as geophysics, field-walking and alternative non-intrusive data sources.

Advanced Photographic Skills

Students will gain an understanding of advanced concepts of photography, use of digital cameras, and color management. They will also learn the principles of more specialized photography, that is, of objects, reliefs, and structures. Finally, they will learn the steps necessary to download, input metadata information, and structure the digital photo archive.

Advanced Drawing Skills

This unit will expand upon the skills developed on site and may include the drawing of artefacts, ceramics and reliefs/paintings, as well as standing-structure recording. At this point teaching will almost certainly be handed over to the draughts-person.

Archive and Data Management

Students will learn how to integrate an archive and organize data. They will learn basic report-writing skills and how information can be disseminated.

Week 4: Human Osteology (burial excavation and recording)

Students will spend one week working with the osteology team excavating burials (Late Period to Late Roman) at the Heit el-Ghurab site. They will learn to excavate and record human remains using both a low-tech approach (planning by hand) as well as recording, using Total Station survey points, digital photography and Photoshop/MapInfo/ArcMap software.

In the Laboratory students will learn to identify, record and pack the material. We introduce students briefly to the various analytical methods used in human osteology, including age and sex assessment methods, osteometrics, paleopathology, taphonomy and paleodemography. The weekly report (see assessment below) will consist of a preliminary burial catalogue on excavated human remains. The emphasis is placed on the correct excavation, recording and packing of human remains.

Week 5: Laboratory Tutorials (material culture)

Students will spend a full week at the Giza Laboratory for immersion in the teaching of recording and analysis of material culture. The laboratory week will consist of 12 sessions of 3 hours and 5 sessions of 2 ½ hours for a total of over 48 hours of specialist teaching. Students will be introduced to the basic skills needed for recording and analysis of ceramics, botanical and faunal remains, small finds, lithics (chipped stone) and mud 'sealings'. They will also learn the basics of archaeological illustration and conservation. They will be able to discuss the patterns emerging from the material culture that they retrieved in their excavation areas. The laboratory week will be preceded by a series of lectures introducing the basic principles of each discipline.

Ceramics

In the ceramics session, students will practise sorting ceramic fragments into diagnostic and non-diagnostic pieces, then subdivide into different 'fabric' and vessel types. They will weigh and count the material and complete the recording forms. They will practise ceramics' illustration which requires establishing from a sherd its 'stance', diameter and percentage of vessel preserved. Students who demonstrate a drawing ability will be taught to record more complicated pieces, with decoration, handles, and spouts (3 sessions, plus drawings sessions).

Botanical

Students will learn sampling strategies appropriate for different archaeological deposits. They will practise 'floation' (the technique for recovering charred botanical remains) and spend time sorting samples under the microscope (2 sessions).

Faunal

Students will learn to identify and quantify animal bone recovered from the excavations. They will wash and dry samples, and practise sorting material into mammal, bird and fish categories. They will complete recording forms for the material analyzed (3 sessions).

Small finds, illustration and conservation

The recording of objects will be taught in conjunction with illustration and conservation. Students will learn cleaning and storage methods appropriate for each type of material. They will measure, describe, and photograph different types of object. They will spend four sessions drawing objects and ceramics (object recording 1 session, conservation 2 sessions, plus drawings sessions)

Lithics (chipped stone tools and waste from tool production) and clay sealings

One session on each of these specialties will cover basic recording techniques, and give a broad overview of the Giza typologies (total 2 sessions).

Laboratory – detailed schedule (week 5)

	At the Giza laboratory			At the Centre
	7:15-10:30pm	10:30-1:30pm	2:00-4:30 pm	5:00-6:00 pm
Saturday	Ceramic 1	Faunal 1	Lithics	Lecture
Sunday	Drawing 1	Conservation 1	Archaeo-botany 1	Lecture
Monday	Ceramics 2	Objects	Drawing 2	Lecture
Tuesday	Drawing 3	Faunal 2	Mud sealings	Lecture
Wednesday	Conservation 2	Ceramics 3	Faunal 3	Presentation
Thursday	Drawing 4	Archaeo-botany 2	Free	Free

Schedules may be modified according to site and project needs

Week 6 and 7: Advanced Archive and Data Management, Introduction to GIS

During weeks 6 and 7 students resume excavation in their area and continue to hone excavation and recording skills. They will take on a larger share of data entry and archive work. Students will be introduced to GIS, learn to geo-reference drawings (that is, to add coordinates) and digitize archaeological features. Week 7 will consist mostly of post-excavation recording: final photos, section drawing and post-excavation multi-phase planning.

Week 8 – Archive and Report Integration

Students and supervisors will prepare the final excavation archive and the final archaeological report for their area called a DSR (Data Structure Report). The weekly area reports are assembled into the core DSR, and the area archive (completed cumulatively during the season) is also included in the DSR. The narrative part of the DSR consists of an account of the excavation progress (top down) followed by a descriptive phased reconstruction (bottom up) of what happened (in the past) and which produced the archaeological features. Students will be actively involved in the construction of the overall area matrix (Harris Matrix) which is also included in the DSR.

Manual and instructions

The students are provided with manuals (site, photography, osteology, faunal, etc.) and hand-outs (weekly report and DSR templates; archive, database and GIS instructions, etc.) throughout the field school. Although the manuals and instructions are site-specific they are based on recognized archaeological best-practice (as developed by the Museum of London Archaeology, MOLA) and are applicable/adaptable to most archaeological situations.

Recording in the Menkaure Valley Temple, also part of AERA's archaeological concession. Photo by Mark Lehner.

Assessment

Given that archaeological work is fundamentally team work, students are assessed both in terms of their individual work and their participation in team tasks.

On Saturday afternoons there will be short tests or practical site/lab assessments (such as completing a site traverse, laying out a grid, a faunal quiz, a ceramics lab test). The excavation and Lab team will take bi-weekly site tours during which the results of each area are presented by the excavation team. The Lab team will provide information on material processed, addressing the main research aims for each area. Students will be expected to explain their excavation area during site tours. Students present the work in their areas on Wednesday afternoons to the archaeological team at the Mark Lehner Archaeological Center and submit a written weekly report on Thursdays before leaving for the week-end. Students will be assessed on their participation in weekly area reports, the DSR and compilation of archives, as well as their grasp of the content and format of the Harris Matrix and DSR.

Students will be assessed on

1. Quality of fieldwork (feature identification, excavation and recording); 25%
2. Quality of the archaeological written, drawn and photographic records; 20%
3. Understanding of the archaeological matrix and participation in the preparation of the DSR; 5%
4. Grasp and application of osteo field and lab techniques; 10%
5. Grasp of laboratory techniques and concepts; 25%
6. Initiative, team work, attendance; 15%

Attendance, work and living conditions

Students are required to attend 90% of the course in order to graduate. All absences need to be justified (call or SMS to field school directors) before the start of the work day (6.45 am).

Excavation work can often take place in challenging conditions (heat, dust, wind). Prior to interviews students are provided with information on work and living conditions. Students will be sent a short reading list with their field training placement confirmation. Information on site safety is provided and must be followed by all students.

Ana Tavares, Mohsen Kamel and Mark Lehner

Giza Archaeological Field Training, 2015
Syllabus (revised 2014i17)