

## ANNUAL REPORT: YANGGUANZHAI PROJECT (CHINA) 2013 FIELD SCHOOL

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Students and staff preparing area for photography

### GENERAL

A five-week IFR Field School at Yangganzhai, China, took place between June 22<sup>nd</sup> and July 27<sup>th</sup> 2013. The first week was devoted to classroom lectures at Xibei University and museums visits in Xi'an. The ten lectures given by professors from Xibei University and the Shaanxi Provincial Institute of Archaeology, Prof. von Falkenhausen, Dr. Hein, and Dr. Ye focused on three major subjects: history and practice of Chinese archaeology; the Neolithic archaeology of the Wei River Valley, and the results of previous excavations at the site of Yangganzhai, as well as theory and method of archaeology. In order to make sure that the students were somewhat familiar with the local archaeological material before going to the site, we also included a lecture on Yangshao Culture ceramics, including a hands-on section with pottery sherds from the site and an introduction to techniques of pottery recording, along with laboratories visiting at Xibei University. Its physical anthropology lab has the largest collection of human skeletons (over 1,000 individuals) excavated in western China, and it drew tremendous interest among the students. Other labs in the university, including the ceramic and conservation labs also opened their doors to the IFR students. The respective lab directors explained their research to the students and answered questions.

Taking advantage of the renowned museums in and around Xi'an, group and individual museum visits made up the most field trip activities. We took students to the Shannxi History Museum, the Banpo Museum, the World Heritage site of Emperor Qinshihuangdi's Mausoleum, the Yangling Mausoleum of Han Emperor Jing, the Zhouyuan Museum, and the City God Temple of Fufeng. In addition, we also arranged a visit to the Research Base of the Shaanxi Provincial Institute of Archaeology, where students viewed the newly discovered and restored artifacts found at Yangguzhai. We also visited the exhibition hall where the institute's most valuable finds from the Paleolithic to historic times are stored. The students were furthermore invited to attend this year's International Symposium on the 60-Year Anniversary of the Discovery of Banpo, where Prof. von Falkenhausen gave the keynote speech on "The Significance of the Discovery of the Banpo Neolithic Village." Our students met with the chief archaeologist of the excavations at Banpo, Mr. Shi Xingbang, and toured the museum and the special exhibition commemorating the event.

On July 1, the IFR students started field work at Yangguzhai. This year's team consisted of 13 students from different universities in the United States and China, including Boston University, Emory University, University of Virginia, New Mexico University, Carleton College, Indiana University of Pennsylvania, CSUN, UCB, UCLA, and Xibei University. Our team also included the field supervisor Yang Liping, the field technician Gao Pan from the Shaanxi Provincial Institute of Archaeology, and six experienced workers who have worked at the site since the start of fieldwork here in 2004.

Our daily routine was to excavate from 7:15 am to 12:15 pm and 3:15 pm to 7:30 pm. The long lunch break served to avoid the hottest hours of the day. Tasks such as pottery washing, sorting, and recording, sample sorting, mammal bone recording, and data recording were done during the excavation and on rainy days when excavation was not possible. Students were required to take part in all the activities, including on-site recording, section-drawing, and flotation. Weekends were used for individual and group travels, and on one weekend some students chose to continue excavating instead of taking the time off.

### **EXCAVATION AT THE NORTHEAST CORNER OF THE MOAT SECTION**

This season's excavation continued previous work in the northeast corner of the "moat" section of the Yangguzhai site. The purpose of extending the excavation area to the western side of the so-called moat was to gain a better understanding of the nature and formation of this feature. For this season, we opened four new 5x5 m test units west to the previously excavated area, and continued working on one unit that had remained unfinished at the end of the 2012 season; therefore we had five units to work on. Before starting the actual excavation work, laborers were asked to remove 20 cm of surface soil, i.e., the present-day agricultural layer. From 20 cm below datum onward, we excavated in strata of 10 cm until the first features were exposed. To gain a better understanding of the deposits and its layers, we opened trenches and step-trenches in all units.

### **EXCAVATION RESULTS**

The Neolithic remains were heavily disturbed by later construction in the excavated area, which is consistent with previous discoveries in the section. The earliest disturbance observed in this area after the abandonment of the Neolithic settlement date to the West Han era (206 BCE-CE 24), as we inferred from the presence of the Han roof tiles, and pottery sherds, contained in round, rectangular or sack-shaped pits. A well of probable Han date was found last season (2011) and the presence of a considerable number of roof tiles indicates that the area had been used

on a regular basis from the third century BCE; however, the exact nature of the activities are unclear. Considering that the site is located near a West Han imperial mausoleum, and based on the deliberately placed animal bones and skeletons found inside during the 2012 and 2013 season, the Han activities had been those possible associated to ritual ceremonies.

Further disturbances occurred in later times. The most obvious ones are a modern irrigation ditch built in the 1930's and disturbances caused by planting an orchard in the 1980's. The irrigation ditch is over two meters wide, runs in north-south direction, and appears in all four units. The depths of the ditch are different in four units. Because no reinforcement such as brick or cement at the bottom of the ditch, it is quite difficult to determine the exact dept of the ditch. We were told by local peasants that certain sections of the ditch opening were paved with cement. Last year we had identified a very irregular shaped and deep feature as traces left by a tree fall; based on this experience, this year similar irregular features could easily be explained.

The Neolithic features found this season are mainly refuse pits, and they are likely associated with nearby houses that were previously excavated. Due to the late disturbances mentioned above as well as due to natural causes such as rain water or animal burrows, the openings of the refuse pits are irregular in shape. In some cases the walls of the pits were damaged by water and appeared uneven. Because of time constrains, none of the Neolithic refuse pits were fully excavated this season. Even so, the partially excavated refuse pits showed different compositions that were likely caused by a combination of natural and anthropogenic factors; for example, one pit contained at least nine layers alternating between dark grey and brown yellow sediments; the other pits showed no clear pattern of deposition. The excavated pits yielded animal bones, Miaodigou pottery sherds, shells, charcoals, plant seeds, and building materials of wattle and daubs. The alternation of the deposit may reflect seasonal occupation of the site. This hypothesis will be testes by analyzing the botanical remains retrieved from the pits.

#### **RESEARCH ON PAST ENVIRONMENTAL CONDITIONS**

Students were required to participate in sieving, flotation, pottery cleaning and cataloging. The animal bones were analyzed by zooarchaeologists from the SPIOA, and twenty C14 samples consisting of seeds, animal bones, and one child tooth were sent to the archaeological lab at Peking University, where further testing will be done in the fall.

As a field training program in archaeology, the four weeks of field work focused on methods of field work, especially on how to observe stratigraphic layering (by paying attention to soil color and content) and features in complicated depositional situations. Meticulous record keeping including drawings was also emphasized. Students this year performed very well in the classroom and in the field. The new friendship they found can be expected to benefit their future life and careers.