

ANNUAL REPORT: Yangguanzhai 2019 FIELD SCHOOL

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The team of the 2019 season

The first week of the field school consisted of classes at Northwest University. The lecture topics included the geography and prehistory of the Guanzhong Basin and Wei River Valley, basic introductions to archaeology, geoarchaeology, and archaeological survey, the beginnings of archaeology in China, music archaeology and settlement archaeology in China, and the research that has been conducted at the Yangguanzhai site. This week's curriculum also included a workshop on human osteology as well as tours of the research labs at Northwest University, the Northwest University Museum, the Banpo Museum, the Provincial History Museum, and the Terracotta Warriors.

The following four weeks consisted of fieldwork at the site. During this time, we also organized tours to additional sites of interest. These included the central research base of the Shaanxi Province Archaeological Academy that is used for the storage, conservation, and study of most artifacts excavated in Shaanxi Province; the Han Yangling, an imperial Han Dynasty tomb; and the exhibition hall of the Shaanxi Archaeological Academy in Xi'an. We also had the exclusive chance to see an ongoing excavation of sacrificial pits at the Han Wuling imperial tomb. The program was rounded off by guest lectures by Liu Li on alcohol in prehistoric China and Ye Wa on the multi-disciplinary analysis of pit H85 at Yangguanzhai.

We opened a new area of excavation in 2019. It is located at the southeastern edge of the ancient settlement, including a section of the Neolithic moat that surrounded it. When we started fieldwork, the trenches had already been laid out and the local workers had already removed the top soil as well as a modern leveling horizon covering the site in this area. This was done at the behest of the permanent team at Yangguanzhai from the Shaanxi Archaeological Academy so that the field school could start working on the exposed Neolithic layers right away. Our local collaborators further facilitated our work through the construction of a permanent

shelter above this excavation area, which enabled us to work comfortably in any weather conditions.

We excavated in four trenches of 4 by 4 m each this season. They were immediately adjacent to each other, forming one large square interrupted by the trench baulks. As is usual at the Yangguzhai site, since it had been settled almost continuously from the Neolithic to modern times, there were many later intrusions into the Neolithic layers that had to be excavated and documented first. These included traces of modern irrigation channels as well as settlement pits dateable by pottery, tiles, and porcelain to the Han and Song Dynasties. We managed to expose the opening of the Neolithic moat. However, its edge was only detectable clearly in one of the four trenches. Two of the other trenches contained such an amount of features from later time periods as well as Neolithic occupation post-dating the abandonment of the moat that, by the end of the season, we had not fully laid bare the opening of the moat yet. The fourth trench was located right in the center of the moat, which in this area may have had a width of at least 7 m, so that no edge was visible there either. All Neolithic houses excavated at Yangguzhai so far have a round outline, so the discovery of a potential straight foundation trench is remarkable as well as the fact that the structure was built on top of the layers of refuse and sediment that had completely filled in the moat by then. We managed to excavate and discern the stratigraphy of the top five moat layers in one trench.

As was to be expected, the moat fill layers contained a wealth of artifacts. The presence of several large pottery wasters indicates a potential kiln site nearby. We only took a few flotation samples from the moat fill this season and refrained from sampling for micromorphology, because we only worked in the uppermost strata of the fill, which was heavily disturbed by bioturbation and later human activity. However, in order to facilitate comprehensive sampling in the future, we left a portion of the upper strata intact in each trench.

Apart from our usual documentation by field notebook, drawing, and photography, the students also employed methods of photogrammetry by their own initiative. This way we recorded a 3D model of all four trenches at the end of each day of excavation, allowing us to trace our progress in the square made up by our four trenches from a bird's eye view and facilitating further analysis through depth maps and virtual profiles. In addition to the usual training in archaeological excavation and documentation as well as find processing and flotation, the students of the 2019 season also conducted an exercise in systematic surface survey at a section of the site that is located at the northwestern edge of the ancient settlement. Furthermore, they participated in the sampling of sediment cores via Luoyang spade for ph testing at the Neolithic cemetery.

We plan to continue the investigation of the southeastern area of the settlement for at least the next four years. In addition to the continued excavation of the trenches that we started in the 2019 season, at least a dozen more trenches can be opened in the area under the shelter and the density of features around the moat promises plenty of material to work on. After our research in this area is done, it will be incorporated into the site museum that will be constructed at Yangguzhai in the next few years. The documentation produced by the students of this field school will play a significant role in the exhibition of the site. Furthermore, all documentation provided by the field school will be included in the site reports that the Shaanxi Province Archaeological Academy is compiling.

Three of our Chinese students this season stayed at the site for two more weeks after the end of the project to continue work with the permanent team of the Shaanxi Province Archaeological Academy at the cemetery.

