

Lauren Ledin
Anyang, China Field School 2012

Early this summer, I participated in a six-week field school in China. It was a combination of training in field survey and excavation, conducting experimental archaeology, and travel to relevant archaeological sites. The first week we stayed in Beijing. During a visit to the National Museum of China we saw artifacts from the time period which we were focusing on-- the Late Shang period. This proved to be very helpful in giving us a background of information and examples of artifacts dated earlier and later than the Late Shang period. Zhoukoudian, the site of the Peking man, was our next stop in Beijing Province. Later in the week, we attended an archaeological conference and were able to join in meeting and honoring Zheng Zhenxiang, the team leader of Fu Hao's tomb excavation in Anyang. We also managed to fit in a tour of The Forbidden City and a visit to the Great Wall.

Other places we traveled to included Xi'an and the surrounding areas where we saw the Terracotta Army in Lishan, the Xi'an city wall, and also the beautiful mixing of cultures at the Xi'an Mosque. Within Henan Province we ventured to a Sanmenxia museum highlighting the Western Zhou State of Guo, to the Taihang Mountains in search of sandstone sources used as abrasives in jade carving, and to the Neolithic site of Xiao Dong Nan Xue Yi Zhi. Anyang City itself is home to the National Museum of Chinese Writing, the Yin Ruins, and the Royal Cemetery, all of which we visited.

For the majority of my time in China I stayed in the Anyang Field Station in Anyang, Henan Province. Here we conducted our first field survey--a walkthrough of recently plowed fields outside of the station in search of pottery sherds. Even in our short, forty-minute survey we found many pottery sherds dating from modern times back to the Late Shang period.

A lack of funding had halted the extensive excavations at our planned site of Luijiazhuang North in Anyang so instead of working with the Anyang Field Station team on their main excavation plans, we selected a previously surveyed portion of a salvage excavation that had not yet been excavated. Work had already cut a profile into the wall of the construction site, and it was possible to see red, burned earth forming the outline of two Late Shang period updraft kilns' fireboxes. Our task was to excavate and identify artifacts in and around the kilns.

We started excavating about a meter above where the top of the kilns were expected to be, and had time to perfect the handling of our trowels as we slowly scraped our way down to the fired earth. We encountered and excavated hundreds of pottery sherds in the top layers, and also inside the kilns themselves as they had been filled with refuse. We sorted the excavated pottery sherds, paying special attention to identifying vessel types and differentiating between tempered and untempered vessels to determine their use for storage versus cooking. Among the notable finds were a near-complete earthenware vessel, and two unidentified earthenware pieces which appeared to be lids to vessels. The southern kiln was one of the best preserved kilns found to date (with an intact firing chamber wall featuring rammed earth formed by striking the earth at an angle). It was excavated in its entirety so it could be displayed in a museum in the future.

Our biggest find was unexpected...a near-complete, well preserved sacrificial infant burial associated with a rammed-earth house foundation. Two members of the Anyang Field Station team who worked with us for the entirety of our excavation instructed us in the proper excavation of human remains, and one of my classmates interested in physical anthropology later cleaned and reassembled the infant skeleton as her final project.

Experimental archaeology was a large part of our curriculum during the field school. By attempting to recreate pottery and bronze artifacts, we learned about the *chaîne opératoire* involved in the production of the artifacts we were excavating, and those we had studied in museums. We spent three weeks recognizing and separating soils, mixing our own clays, and throwing our own vessels. During the remaining two weeks we created mixtures for models and molds to use for our bronze casting, and built the furnaces to be used to heat the bronze. Using our own bronze charges, and after much trial and error concerning mold making and preheating, we were able to successfully cast around a dozen bronze pieces such as daggers, pendants, and tools for carving molds.

Our largest experimental archaeology project was the construction of our own replica of a Late Shang period updraft kiln at an already-excavated section of Luijiazhuang North. By digging down about two meters we were able to access the layer of loess that would have been contemporary to potters living in the Late Shang period. We created our own rammed earth by pounding the loess with bricks, made vents with luoyang spades, built up the firing chamber with bricks made of our own mixture of hay, loess, and water, and dug out the dual-chambers to create the firing chamber. When we had created enough pieces of pottery, we fired them in the kiln--a process which took a period of twenty-four hours and required the constant monitoring of the heating, firing, and cooling environment needed to give us the grey-ware finish that we were hoping for. Because we ended up using donkey dung in the reduction-cooling phase instead of cow dung, the wares did not turn out as dark as we would have liked, but the firing was successful. Our experimental archaeology projects were documented by film crews from Japan, and China's CCTV. The footage will be combined into a documentary with footage they have collected from other Shang period sites in China, as well as experiments that were carried out by Professor J.Mark Kenoyer at the University of Wisconsin-Madison, and should be released in 2013.

During the field school we were also given lectures on Late Shang artifacts and technology by experts who have excavated or worked at the site of Anyang. By combining these lectures with our syllabus of reading and experimental recreations, we were able to better understand the artifacts we were encountering and the context in which they were produced, used, and disposed of.

For my final project I conducted an experiment relevant to Late Shang period artifacts. I chose to attempt to recreate the inscriptions on the oracle bones in an effort to find out what tools were used to make them. I made pointed tools out of modern bovine antler, modern bovine molar, and bronze from one of our castings. As I expected, the bronze tool worked the best, but the bovine molar was also very efficient in inscribing with minimal force.

I left the field school with a better understanding of how field work, scholarly debate, and experimental archaeology come together within the study of archaeology, and also saw a lot of opportunity for research of my own within the site of Anyang. I returned to the states with a lot of new questions--especially stemming from the infant sacrificial burial we excavated, and concerning the archaeology of childhood--and am eager to look into them as I continue on to graduate school in 2013.

Expenses For the Anyang Field School

Plane ticket -US \$1500

Misc Expenses in China (food, souvenirs, transportation) -US\$400

Program Fee -CAN\$2999