

The ceremonial mound of Longshan Culture at Yuhui Village in Bengbu City, Anhui

Anhui Archaeological Team, Institute of Archaeology, Chinese Academy of Social Sciences and Bengbu Municipal Museum

Abstract

The Yuhui Site excavated in 2007 through 2011 is an important site of the late Longshan Age with special cultural characteristics, complex cultural connotation and unique vessel assemblage in the Huai River Valley. In this site, the foundation of a large-scale ceremonial mound was revealed, showing that this site was not a pure residential area but played an unprecedented spiritual and religious role in the past. The rich artifacts unearthed from this site provided important physical materials for the researches on the cultural communication and converge in the Central Plains, the lower reaches of the Yellow River, the northern Jiangsu Province and the circum-Lake Tai areas during the Longshan Age. Subject to the tests and researches with methods of natural sciences, Yuhui Site also have the potential of throwing light on the legends and proto-history related to the Mount Tu and Yu the Great, and the understanding of the Huai Civilization.

Keywords: Ceremonial mounds—Longshan Age; Late Neolithic Age; Yuhui Site (Bengbu City, Anhui)

General description

The Yuhui Site is a significant site of the Longshan Culture in the Huai River Valley. The trial coring test of 2006 and the ensuing five seasons of excavation spanning from 2007 to 2011 yielded a rich assemblage of features and artifacts attributable to ritual and ceremonial activities of the past. Facilities such as a large-scale ceremonial mound, a large-scale sacrificial ditch, sacrificial pits of various types, circular earthen features built of loess and white earth, a large-scale workshop structure, and the unique artifact assemblage provide important materials for the understanding of a unique Longshan site. Because the complex cultural composition of the site requires years of curating and laboratory works before publication of a formal report, this paper intends to give a timely account of the unprecedented ritual and ceremonial remains of the site.

The Yuhui Site is located to the south of Yuhui (aka. Qianying) Village, about 1km to the west of the Tian River and 4km to the south of Mount Tu, about 18km to the west of Bengbu City seat, Anhui Province. Average

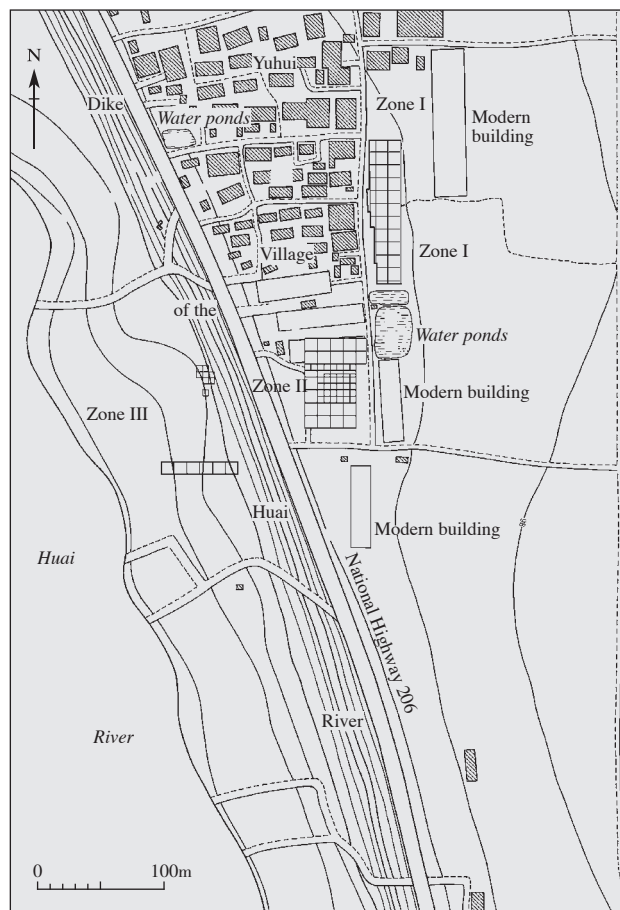


Figure 1 The topography of the Yuhui Site and the arrangement of the excavation grids.

elevation of the site is 32m above sea level. The preserved portion of the site is an elongated feature distributed on the east bank of Huai River. It measures 2500m from north to south, 200m from east to west, occupying a total area of about 50ha. The northern portion of the site is superimposed by the Qianying Village; its eastern portion is superimposed by the river dike and a paved road and cut by a roadside ditch. It is estimated that a 100m wide strip of the site had been heavily disturbed by these modern facilities (Figure 1).

Features

1. Cultural Deposition

The archaeological excavation at Yuhui partitioned the site into three zones. Zone I was located in the

northeastern part of the site, where the ceremonial mound sat. Zone II was located to the east of the river dike and to the south of Qianying Village and Zone III to the west of the paved road and the river dike.

Prior to the excavation, the earthen mound in Zone I was about 1m above the surrounding ground. Nevertheless, the mound could be as high as 3m and occupied a more extensive area in local memories. Oral history also suggests that a temple in honor of the legendary hero Yu the Great and its related structures used to stand on the mound. The temple was demolished in the 1960s. Ensuing erosion and land-leveling activities further reduced the dimensions of the mound. The remaining mound was an elongated earthen feature ran from north to south with a raised center that became increasingly leveled towards the peripherals. The coring tests had revealed the distribution of various features. The excavation of Zone I included 22 excavation squares 10m × 10m each (T1001–T1011 and T1101–T1111) in the central area; seven excavation squares (T1201–T1207) in the western quadrant, in which some (T1201, 1202, 1203 and 1207) were smaller 10m × 5m ones constrained by the sacrificial ditch, modern paved road surface and modern houses; and two much smaller 10m × 3m ones in the southern quadrant that were constrained by topography (Figure 2).

The primary goal of the excavation in Zone I was to reveal the ceremonial mound; therefore, excavation would stop upon reaching the surface of the ceremonial mound. To reveal the stratigraphy of the mound, we opened a test trench in the east side of the mound of 7m long from east to west and 2m wide from north to south. To illustrate the stratigraphy, we use the north wall of the test trench as an example. It had four strata. Stratum 1 was the surface deposit. Stratum 2 was the disturbed deposit. Both Strata 3 and 4 were occupied by Longshan cultural deposits. The white earth layer covering the mound surface was exposed atop Stratum 4. Underneath Stratum 4 was the undisturbed primary soil.

The main features of Zone I consisted of a large-scale white earth-covered ceremonial mound and a related sacrificial ditch.

2. The ceremonial mound.

The elongated low-rising ceremonial mound was defined by a white earth-covered area with jagged edges. It was a feature of considerable size that occupied 30 excavation squares comprised of T1001–T1012, T1101–T1112, and T1201–T1206. In general, its northern half was wider than its southern half. It measured 108m from north to south, 23.5m wide in the north, and 13m wide in the south. The entire feature was about 2000sq m in total area (Figures 3 and 4). The surface of the mound was slightly uneven. It was disturbed by the tombs of the Han, Ming and Qing Dynasties and a number of later pits.

The construction of the mound started with the excavation of a foundation that cut into the occupation of Stratum 4 and the primary soil. Three layers of gray, yellow and white earth were then piled on top of each

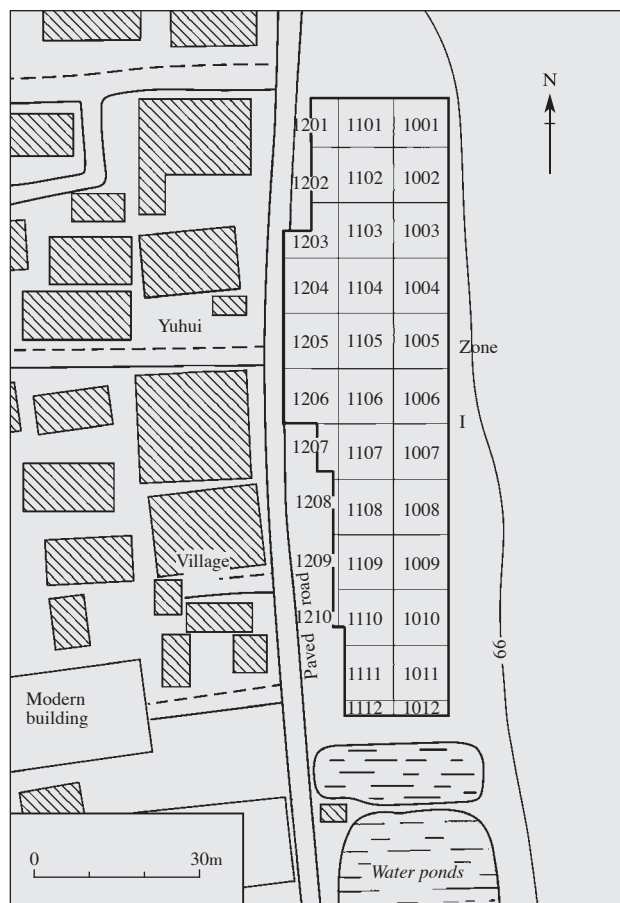


Figure 2 The plan of the excavation grid in Zone I.

other in that particular order (Figures 5–7).

The 0.8m thick grayish base comprising compact and relatively pure deposition with occasional potsherds mixed. No trace of ramming was evidenced. The base was built in small sections that the sections interlocked and overlapped each other.

The middle level comprising compact and relatively pure yellowish earth. It was, in general, 0.15–0.2m thick. Because of the considerable north-south dimension and the variation of the thickness of this level, the yellowish deposit in the north was thicker than that in the south.

The top level comprising fine and pure white earth. Its thickness was comparable to that of the yellowish middle level. Observations on the walls of several disturbing features suggested that the covering level was 0.3m thick in the north, 0.1m thick in the center, and 0.03–0.05m thick in the south. No material inclusion was evidenced in this level. A small number of potsherds and finger-pressed and demon-faced *ding*-tripod feet were recovered from the surface of the top level.

Several features distributed along the north-south axis of the ceremonial mound. From north to south they were a ridge, several postholes, a depression, a burned surface, a rectangular stage, rows of elongated posthole pits, and finally circular round-bottomed pits. They were integrated

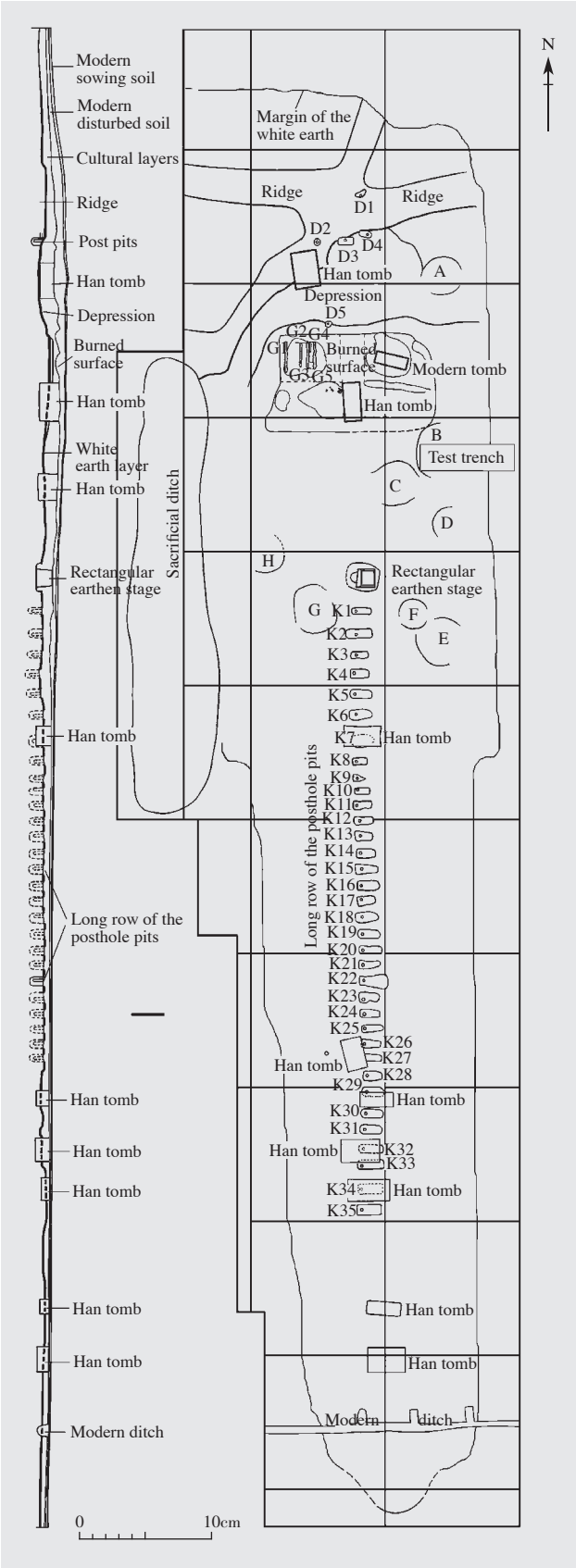


Figure 3 The plan and section of the ceremonial mound. A–H. Circular round-bottomed pits.



Figure 4 The full-view of the ceremonial mound (top is north).

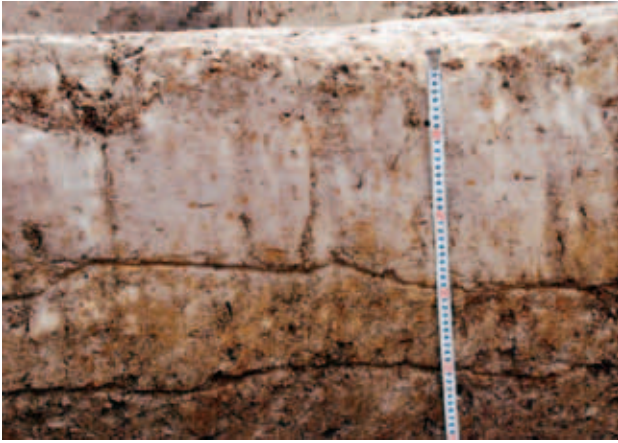


Figure 5 The section of the north side of the ceremonial mound (S–N).



Figure 6 The section of the middle part of the ceremonial mound (S–N).

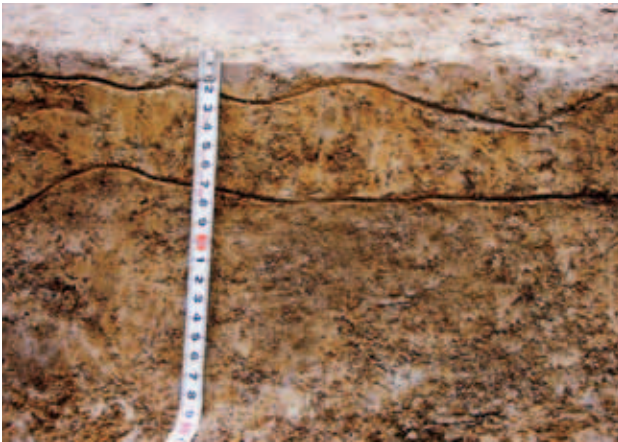


Figure 7 The section of the south side of the ceremonial mound (S–N).

components of the ceremonial mound.

(1) The ridge was located in the northern tip of the ceremonial mound. It was distributed in the units of T1002, T1101, T1102, T1202, and T1203. The ridge comprised of two sections, an east-west section and a northeast-southwest section that intercepted to form an X-shaped strip of earth rising above the white earth layer of the ceremonial mound (Figure 8). The western part of the ridge was overlaid by the modern paved road surface and houses, and therefore, was not fully revealed. The top of the ridge was flat, giving the impression of a raised path. The remaining east-west section measured 22.4m long, 2.6m wide in the east, and 2.4m wide in the west. The northeast-southwest section measured 23.7m long, 2.1m wide in the north, and 1.6m wide in the south. The ridge was connected to the depression. The yellowish earth and the white earth used to build the ridge integrated into the mound topography. It was clearly an intentionally made feature.

(2) There were five post pits (D1–D5) distributed in the northern part of the ceremonial mound in T1102 and T1103. They were arranged in a z-shaped plan and were

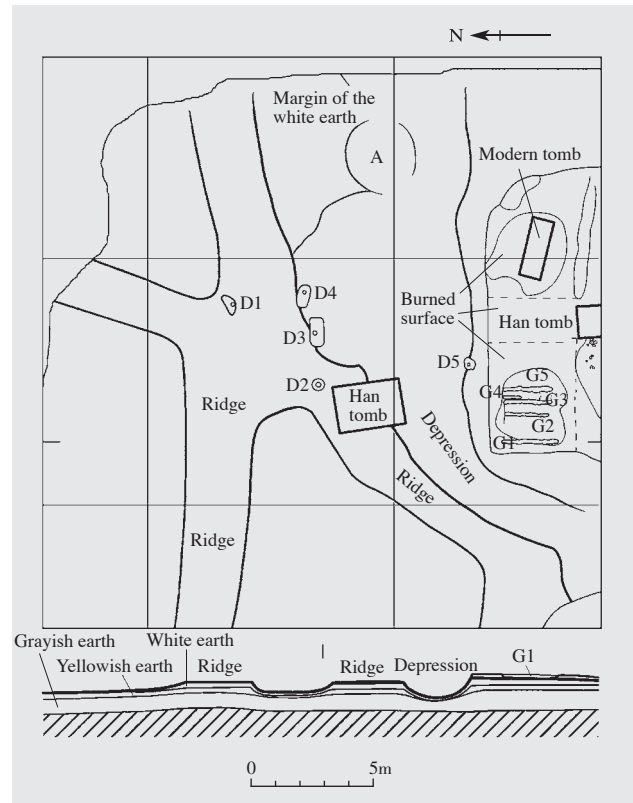


Figure 8 The plan and section of the ridge, postholes and depression.

A. Circular round-bottomed pits.

earthen pits in varying shapes of rectangular, semicircular, circular and irregular. Posts were planted in the centers of the pits (Figure 8). D1, located in T1102, was a semicircular post pit. The pit measured 0.45–0.9m across. The posthole in its center measured 0.15m in diameter and 0.8m deep. The rectangular post pit D3 was located in T1102. Its measured 0.57–1.18m on the lengths of each side; The posthole in it measured 0.16m in diameter and 0.75m deep.

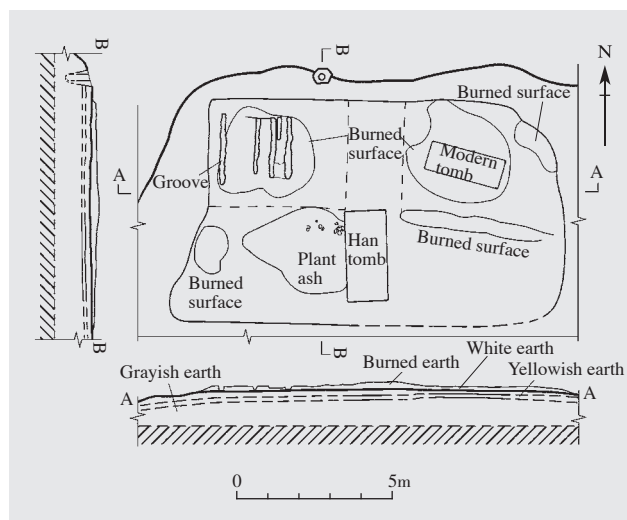


Figure 9 The plan and sections of the burned surface.



Figure 10 The burned surface (top is north).

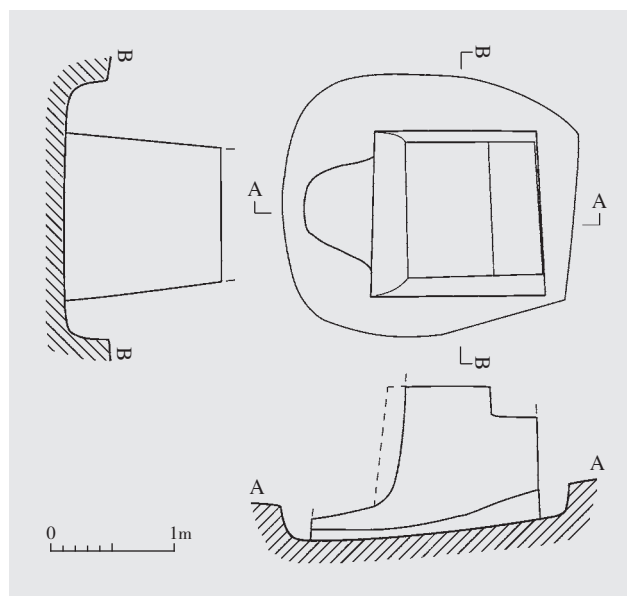


Figure 11 The plan and sections of the rectangular earthen stage.

All the post pits cut into the three layers of ceremonial mound depositions. They were apparently dug after the construction of the mound was completed. The fill of the post pits were relatively pure. No charcoal or other debris was recovered from them.

(3) An irregular-shaped depression was located in the north side of the burned surface in T1002, T1003, T1102, T1103, and T1203. It stretched from the northeast to the southwest. The widest part in the east measured 8.35m. It gradually narrowed to 1.7m in the southwest. The walls and the base of the depression were paved with yellowish and white earth consistent and integrated with the depositions of the ceremonial mound. The depression was very likely an intentionally made feature (Figure 8).

(4) A burned surface was located in the northern half of the ceremonial mound. It distributed in T1003 and T1103. It was roughly a rectangular feature stretching in east-west orientation. Its southeastern part was slightly disturbed. The feature measured 12.6m long and 7.1m wide and occupied an area of 89.46sq m. It was built on the white top stratum of the mound with grayish earth. Repeated burning had hardened the surface. The difference in the degree of burning partitioned the feature into two halves. The eastern half measured 3.3m long and 2.8m wide. It had a smooth and harden surface that had obviously been subjected to high intensity and long duration of burning. The western half measured 2.9-3.12m in diameter. This part of the feature had been subjected to less intensive burning. The burned surface had five shallow grooves in north-south orientation (they were numbered G1 to G5 from west to east). Burning had hardened the walls and the bases of the grooves. They showed obvious markings of wooden logs. Charcoal was recovered from some of the grooves. G1 measured 2.3m long, 0.14m wide and 0.07m deep. G2 measured 1.8m long, 0.15m wide and 0.08m deep. G3 measured 1.93m long, 0.15m wide and 0.14m deep. G4 measured 0.74m long, 0.13m wide and 0.07m deep. Finally, G5 measured 2m long, 0.15-0.22m wide, and 0.08m deep (Figures 9 and 10).

(5) A square earthen stage was located in unit T1105, the center of the ceremonial mound. It had a near square plan. The upper part of the eastern portion had been slightly damaged. The height of this part was, therefore, not known. The remaining base measured 1.85m from east to west, and 1.4m from north to south. The top measured 1.1m on all sides, and 1.25m high. This small stage was constructed after the completion of the ceremonial mound by digging a foundation pit and then piling or ramming earth into this stage. The plan clearly showed the foundation pit of the stage cut into the white top stratum of the ceremonial mound (Figures 11 and 12). The oval-shaped pit measured 2.45m in the long axis and 2.1m in the short axis, and 0.3m in depth. The stage was built with yellowish-brown earth that contained no inclusion. Although no trace indicating how it was built, it was likely built with the plank-construction method or the rammed earth method.

(6) A long row of 35 posthole pits (K1-K35) were

located in the south of the ceremonial mound, in the five excavation squares of T1105–T1109. Most of the posthole pits were shallow pit each of which contained a posthole. The posthole pits were organized from north to south in a row, with spacing of about 1m (Figures 13 and 14). The distance between the northernmost and the southernmost posthole pits was 45.3m. Their lengths from east to west are different but widths are similar. The western ends of the pits were roughly on a straight line. In contrast, their eastern ends were irregular. The pits were dug upon the completion of the ceremonial mound. Postholes started to reveal when the excavation reached 0.2m deep from the pit openings of the western ends of the pits. Although minor variation on the depth of postholes existed, they were, in general, consistent (Figure 15). Most of the elongated post pits were well-preserved. Their shapes included 21 rectangles (60%), five irregular rectangles (14%), six irregulars (17%), two trapezoids (6%) and one unidentifiable (3%). K34 was almost completely



Figure 12 The rectangular earthen stage (W–E).

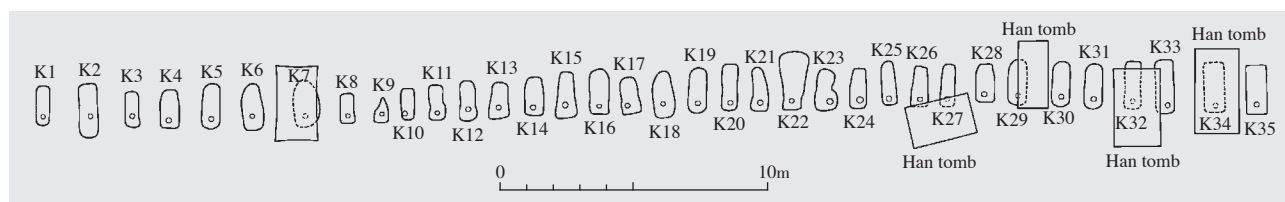


Figure 13 The plan of the long row of the posthole pits.



Figure 14 The long row of the posthole pits (NW–SE).

destroyed by a Han tomb; nevertheless, it looked like a rectangular pit.

(7) Eight circular round-bottomed pits (A–H) distributed in T1002–T1005, T1104 and T1105). They had similar shape although their sizes varied slightly (Figure 16). These pits were not very distinctive on the plan. The thicknesses and compositions of the yellow and white earthen levels of the pits were consistent and integrated with that of the yellow and white earthen levels of the surrounding mound surface. They were very likely intentionally made features. The openings of the pits were relatively uniform. They measured 2–4m in diameter on the mouths and 0.5–0.6m deep.

These circular round-bottomed pits were distributed in the north central part of the ceremonial mound, and densely around the rectangular earthen stage. They were likely to have special functions in the past.

3. The sacrificial ditch.

The sacrificial ditch was located to the west of the ceremonial mound. It was distributed in units T1203–T1206. It is apparent that the sacrificial ditch was a feature closely related to the ceremonial mound. The opening of the sacrificial ditch was located on the same level of the ceremonial mound. It was about 1m away from the white earth covering of the mound. Like the ceremonial mound, the sacrificial ditch ran in a north-south orientation. It measured 35.7m long, 5.4–7.3m wide and 0.8m deep. The upper layer of the ditch was a layer of disturbed deposit. The deposit of the ditch measured 0.4–0.6m thick. The depositions at both ends of the ditch were thinner; whereas the deposition in the center was the thickest. Artifacts were mainly recovered from the central part.

The ditch deposition did not show obvious stratigraphy. We arbitrarily partitioned the depositions into four 20-cm strata during the excavation. Stratum 1 comprised dark gray

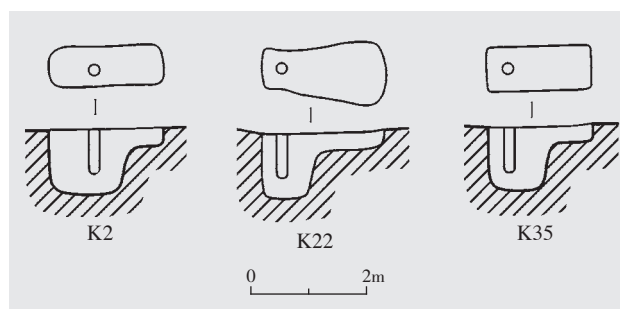


Figure 15 The plans and sections of the posthole pits and postholes in them.

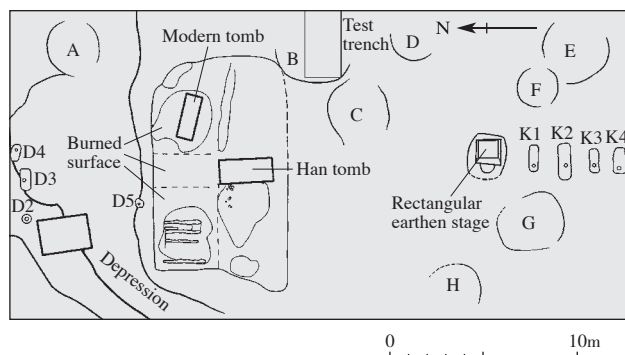


Figure 16 The plan of the circular round-bottomed pits.
A–H. Circular round-bottomed pits.

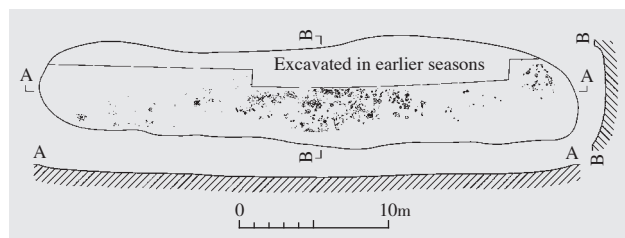


Figure 17 The plan and sections of the Stratum 2 of the sacrificial ditch.



Figure 18 The charred wheat unearthed from the sacrificial ditch.



Figure 19 The charred rice unearthed from the sacrificial ditch.

soil tempered with large amount of ashes and charcoal, and small amount of potsherds. Stratum 2 comprised dark gray soil tempered with great amount of potsherds. Identifiable vessels included *gui*-turen, *ding*-tripod and jar, and some stone querns, stone blocks and charred animal bones (Figure 17). Stratum 3 comprised soil similar to the previous mentioned strata. Potsherds identifiable to shape included vase-shaped vessel, basin, *ding*-tripod and vessel lid. Stratum 4 comprised light gray soil tempered with small amount of ashes, charcoal and potsherds. This stratum distributed in limited area of the ditch.

Entire deposition of the sacrificial ditch had been collected and processed with the floatation method. Floral remains of millet, rice and wheat had been recovered (Figures 18 and 19).

The ditch deposition yielded large amount of potsherds. They were mainly recovered from Strata 2 and 3. The material remains in the ditch did not show obvious chronological difference. For instance, potsherds from the same vessel were recovered from Strata 1 and 4. This is indicative of a short formation period of the ditch deposition. Because of that, we plan to process the total assemblage of potsherds yielded from the sacrificial ditch without stratification.

Unearthed artifacts

The majority of the material remains during the excavation were yielded from the sacrificial ditch. The mound yielded a small fraction of the material remains assemblage such as potsherds and *ding*-tripod legs. In addition to potsherds, the sacrificial ditch also yielded considerable amount of stone querns and small number of small stone artifacts.

1. Pottery. The inventory during excavation sum to 17,879 potsherds, which can be classified into five different types. The largest portion was that of sandy reddish-brown pottery, followed by fine red pottery, gray pottery, grayish-brown pottery, and finally sandy white pottery (some showed a light yellow hue). In general, the pottery texture was loose and the phenomena of deforming and irregular were common. Observations on the rims suggested that the thick-walled sandy pottery comprised mainly of large vessels. The sizes of other pottery vessels were comparable to that of domestic vessels. Some pottery showed cortex flaking. The potsherds were heavily fragmented. Many vessels such as egg-shell vessels, *he*-pitcher, and *gui*-pitcher could not be restored. The vessels were predominately plain without decorative designs, and those with decorative designs, the designs were fuzzy. Decorative motifs consisted of cord mark, bowstring, wave, and basket patterns (Figure 20). In addition, the sacrificial ditch also yielded a fair number of *ding*-tripod legs of various types.

Restored vessels included *pan*-plate, vessel lid, basin, *zeng*-steamer, *ding*-tripod, *gui*-turen, long-necked vase, ring-footed vase, *he*-pitcher, jar, vat, *bo*-bowl, disc-shaped object, and figure (Figures 21–32).

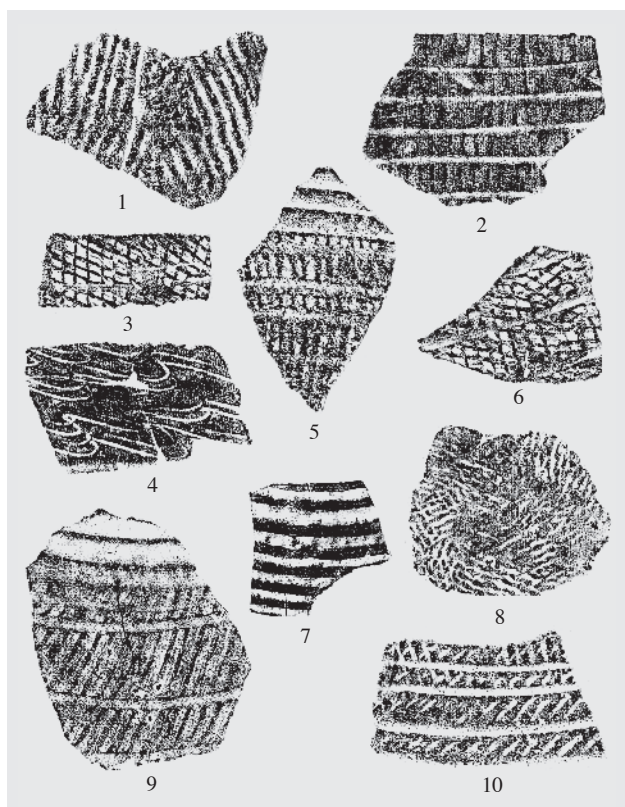


Figure 20 The rubbings of the decorative patterns of the potsherds. 1 and 8. Cord marks; 2, 5, 9 and 10. Cord marks and bowstring patterns; 3 and 6. Net and bowstring patterns; 4. Wave pattern; 7. Bowstring pattern.



Figure 24 Pottery pot (JSG ③ :26).



Figure 21 Pottery *pan*-plate of Type B (JSG ③ :9).



Figure 22 Pottery basin of Type BII (JSG ③ :35).



Figure 23 Pottery *zeng*-steamer (JSG ② :17).



Figure 25 Pottery *ding*-tripod of Type AI (JSG ② :2).



Figure 26 Pottery *ding*-tripod of Type C (JSG ② :16).



Figure 27 Pottery *gui*-tureen with false belly, Type A (JSG ② :1).



Figure 28 Pottery long-necked vase (JSG ② :15).



Figure 29 Pottery ring-footed vase, Type B (JSG ③ :25).



Figure 30 Pottery deep-bellied jar (JSG ② :3).



Figure 31 Pottery bulging-bellied jar (JSG ③ :72).



Figure 32 Pottery lizard figure (JSG ② :20).

2. Lithic assemblage. The lithic assemblage comprised a fair number of stone querns. Other stone artifacts included wedge-shaped artifacts, chisels, arrowheads, and stone materials transported in from Mount Lu in present-day Henan. A total of 10 stone querns were yielded from the excavation, all of which were made of sandstone. Some of the querns were of considerable size, some were fractured or badly eroded. Two wedge-shaped stone artifacts were recovered. Their thick and heavy bodies were well-polished.

Conclusions

The excavation and study of the Yuhui Site are significant in several levels. First, the site occupied an expansive area. It is, to date, the largest single component prehistoric site in the Huai River Valley. Second, the site yielded complex cultural depositions that bore unique local characteristics, and the agglomerated features attributable to the interaction of the larger cultural complexes distributed in the Yellow and Yangtze River Valleys. To be more specific, the Yuhui Site yielded material culture with characteristics diagnostic to the Longshan Culture of northern China and that to the contemporaneous culture of southern China. This suggests that in the third millennium

BCE, Huai River Valley was a dynamic region of cultural interaction between northern and southern China, and thus contributed to the origin of Chinese Civilization. Third, the geographic location of Yuhui is closely related to the legends and classical records of the events of “Yu the Great tamed the rivers” or “Yu the Great called up the chiefs.” Archaeological data indicate that Yu the Great lived in the times of the middle to late Longshan Culture, during the critical era of the formation of Chinese Civilization. The date of the Yuhui Site coincides with that of Yu in the legends and classics. The excavation of Yuhui Site, therefore, is significant to the understanding of the characteristics of Longshan Culture of the Huai River Valley, to the study of the early formation of ancient Chinese Civilization, to the pursuit of solving the puzzle of the legend of Yu the Great, the location of Mount Tu, and the study of the early Xia Dynasty.

Postscript

The original report authored by Renfa Qian 钱仁发 and Jihuai Wang 王吉怀 was published in *Kaogu* 考古 (Archaeology) 2013. 1: 1-31 with 44 illustrations and two tables. This abridged version is prepared by Jihuai Wang and translated into English by Yun Kuen Lee 李润权.