

The Palace Site of Shang City at Beidajie, Zhengzhou

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In order to cooperate with the “Xia–Shang–Zhou Chronology Project,” the Henan Provincial Institute of Antiquity and Archaeology carried out a large scale of salvage archaeological excavation from September 1998 to May 1999 at Beidajie 北大街 in Zhengzhou 郑州 City, which brought to light a couple of early Shang palace foundations and rich artifacts. The excavation makes important breakthrough in the determination of demarcation line between the Xia and Shang dynasties and the establishment of chronology paradigm of the palace area in the Shang city at Zhengzhou.

I. Excavated Area and Cultural Deposits

The excavated area situated in the north side of east part of Donglilu 东里路 in Zhengzhou, northeast of the Shang city, 200 m east of the east wall of the Shang city. The Shang building foundation of the Huanghe Central Hospital 黄河中心医院 and the pool of the Upper Layer of Erligang 二里岗 Shang period are to its north. The stone laid water supply pipe and palace wall of the Shang period are to its east. The large scaled palace foundation and rammed earth well of the Shang period at No. 38 of Donglilu are to its south. The palace site and skull ditch of the Shang period at the yard of Zhengzhou Work Station of the Provincial Institute are 30 m to the west (Fig. 1).

The excavated area covers 2600 sq m. The cultural deposits can be divided into 4 layers. Layer 1 is cultivated land, including modern filling earth and life garbage. Layer 2 contains remains of the Song Dynasty. Layer 3 contains flat tiles, semi-cylindrical tiles, and pottery shards of the Warring States period. Layer 4 contains Shang deposits including mainly vestiges and virtually no artifact. The stratigraphical relationship is very complicated, besides ash-pits, the rammed earth building foundation is the majority. 20 rammed founda-

tions are determined, most of them are palace foundations; part of them were heavily damaged and illegible. All the foundations were underground trough.

II. Major Vestiges

20 rammed building foundations were found. F1 and F2 remained in good condition; all others were damaged or overlapped by other vestiges.

F1 situated in T232–T234 and is of rectangular shape in east-west orientation. Its top was disturbed by ash-pits of the Warring States period and Shang (H49), its west was intruded by rammed earth No. VI, and its southeast by rammed earth No. XV. The dimension of F1 is 19.4 × 6.3 m and 109 degrees on the compass. The rammed trough is 2 m deep. The cross-section of the trough shows that four walls are curved like step and the bottom is almost flat. The dark gray rammed earth is fine and solid. The rammed layer and rammer marks are

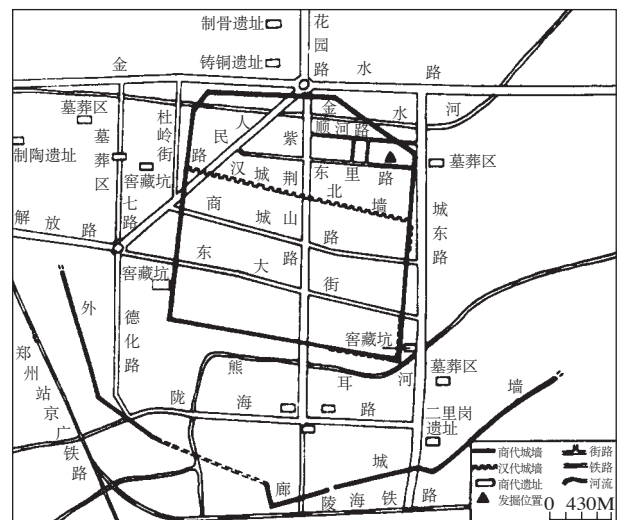


Fig. 1 Illustration of the present excavated area

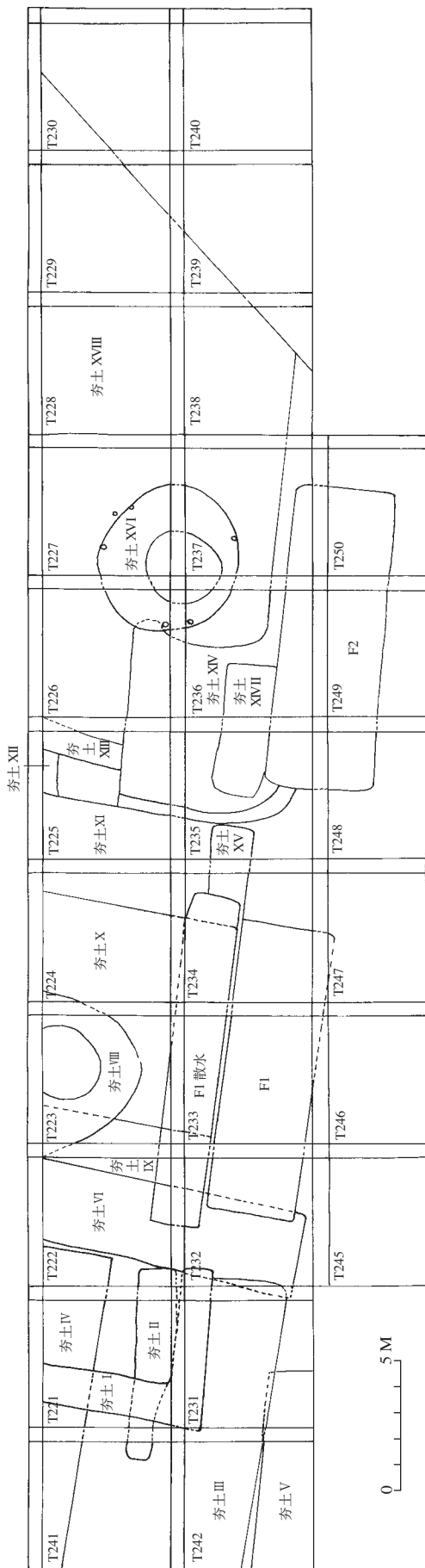


Fig. 2 Plan of the palace site of Shang period

clear. The layers are 10–15 cm thick and the rammer marks of 4–6 cm in diameter. To the north of F1, lied a layer of fine sand in rectangular shape. This sand is fine and white, mixed with fine powder of lime. This layer is 20–30 cm thick and might be apron or activity surface of F1. The two ends of this surface is longer than F1, measures 23 m long from east to west and 3.5 m wide from north to south. To its south edge, 4 round column bases were evenly distributed. Each column base is of 20 cm in diameter and built by rammed earth. A dark gray post vestige appeared in the center of each column base. There is a 2–3 m space between columns, which might be related to F1. A couple of ash-pits of the Warring States and Shang periods intruded into this surface, including H8, H33, H60, H78, H79, and H82 (Fig. 2).

F2 situated within T235–T237 and T248–250. Its northern part intruded into the rammed earth foundation No. XVI and its top was broken by ash-pits of the Warring States and Shang periods. F2, 10 m east of F1, is of rectangular shape in east-west direction. Its north side lies in the same line of F1's. The dimension of F2 is 20.06 m long from east to west and 7 m wide from north to south. The walls of the trough are curved and the bottom is flat. The trough is 1.5 m thick. The color and structure of its rammed earth are identical with that of F1; consequently these two foundations were two independent buildings in a big architectural complex.

Rammed earth foundation No. I

It situated in T221, T231 and T232, shaped like L and its north end extended out of the excavated area. Its east and south parts were broken by ash-pits and burials of the Warring States period and onward. Its central part intruded into rammed earth foundation No. II, north part into rammed earth foundation No. IV, south part into rammed earth No. III, and east part into rammed earth foundation No. VI. Some postholes lied in the west and south parts. The south part is 11 m long east-west; the remained west part is 10.5 m long north-south. The foundation is 1.8–2.6 m wide.

Rammed earth foundation No. II

It situated in T241, T221 and T222, shaped like an irregular rectangle. Its central part was broken by rammed earth foundation No. I and its east part intruded into rammed earth foundation No. VI. Foundation No. II measures 14 m long east-west and 1.6–3 m wide north-south.

Rammed earth foundation No. III

It situated in T242, T231 and T232 and extended

westward out of the excavated area. Its north half was broken by rammed earth No. I and its top by ash-pits of the Warring States and Shang periods. Its east part intruded into rammed earth No. VI and its south edge into rammed earth foundation No. V. Foundation No. III is of rectangular shape and 21 m long east-west.

Rammed earth foundation No. IV

It situated in T242, T221 and T222 and extended westward and northward out of the excavated area. Its central part was broken by rammed earth foundation No. I; its top by ash-pits of the Warring States period; its south edge by an ash-pit of the Shang period (H109). The present length of foundation No. IV is 22.5 m east-west and the width 1–4 m north-south.

Rammed earth foundation No. V

It situated in T242 and T231 and extended westward and southward out of the excavated area. Its north-east part was broken by rammed earth foundation No. III; its west half by ash-pits of the Warring States period; its southeast part by an ash-pit of the Shang period (H96). The present length of foundation No. V is 14.5 m east-west and the width 3.5–5 m north-south.

Rammed earth foundation No. VI

It situated in T222 and T223 and extended northward out of the excavated area, shaped like a north-south oriented rectangle. Its southeast part was superimposed upon and broken by F1 and its activity surface; its southwest by rammed earth foundation Nos. I–III; its top by ash-pits of the Warring States and Shang periods (H105); the top intruded into rammed earth foundation No. VII and its bedding and ash-pits (H232, H233). The present length of foundation No. VI is 18 m north-south and the width 5.5–6 m east-west.

Rammed earth No. VII

It situated in the test trench of T232. Its top was superimposed upon and broken by F1 and rammed earth foundation No. VI. The rammed earth is of grayish brown and hard with clear rammed layers in 8–10 cm thick in general. The present length of foundation No. V is 6.4 m east-west and the thickness is 2.2 m.

Rammed earth foundation No. VIII

It situated in T223, shaped like a circle, and extended northward out of the excavated area. Its top was broken by ash-pits of the Warring States and Shang periods; its east half intruded into rammed earth foundation No. IX and its southwest into rammed earth foundation No. X. The foundation earth is whitish gray and hard. It is 10 m in diameter.

Rammed earth foundation No. IX

It situated in T222 and T223. Its surrounding was severely broken by other remains, for example, its northeast by rammed earth foundation No. VIII and its south by the activity surface of F1, and its west by rammed earth foundation No. VI. Therefore, its shape is unidentified.

Rammed earth foundation No. X

It situated in T223, T224, T233 and T234, shaped like north-south oriented rectangle, and extended northward out of the excavated area. Its northwest part was broken by rammed earth foundation No. VIII, and its south part was superimposed upon and broken by the activity surface of F1. Its east part intruded into rammed earth foundation No. XI and its top was broken by ash-pits of the Shang period; its west intruded into rammed earth foundation No. IX. The present length of foundation No. X is 12–13.5 m north-south and the width is 15 m east-west.

Rammed earth foundation No. XI

It situated in T224, T225, T234 and T235, extended northward out of the excavated area. Its west part was broken by rammed earth foundation No. X, its south by the activity surface of F1, its top by ash-pits of the Warring States period, and its east part by the ash-pit (H310) of the Shang period. The present length of foundation No. XI is 11.5 m north-south and the width 6.5 m east-west.

Rammed earth foundation No. XII

It situated in T235, extended northward out of the excavated area. Its west part was broken by rammed earth foundation No. XI, its east by ash-pit (H51) of the Warring States period and rammed earth foundation No. XIII, its south and top by the ash-pits (H310 and H192) of the Shang period respectively. The present length of foundation No. XII is 3 m north-south and the width 1.1 m east-west.

Rammed earth foundation No. XIII

It situated in T225, shaped like north-south oriented rectangle. Its north part was broken by ash-pit (H51) of the Warring States period, its south part by rammed earth foundation No. XIV. Its west intruded into ash-pit (H310) of the Shang period and its east into rammed earth foundation No. III. The present length of foundation No. XIII is 5 m north-south and the width 2 m east-west.

Rammed earth foundation No. XIV

It situated in T225, T226, T235, T236 and T237, irregular shaped. Its south part was broken by F1 and rammed earth foundation No. XVII, its northeast part by

rammed earth foundation XVI, its top by ash-pits of the Warring States and Shang periods. Its north intruded into ash-pit H310 and rammed earth foundation No. III. The present length of foundation No. XIV is 12–16 m east-west and the width 10–12 m north-south.

Rammed earth foundation No. XV

It situated in T234 and T235, shaped like east-west oriented rectangle. Its west part was broken by the activity surface of F1, its top by ash-pits (H20 and H78) of the Shang period, and its north part by rammed earth foundation No. XI. The present length of foundation No. XV is 5 m east-west and the width 3 m north-south.

Rammed earth foundation No. XVI

It situated in T226, T227, T236 and T237, round shaped. Its top was broken by ash-pits of the Warring States and Shang periods. It intruded into rammed earth foundation Nos. XIV and XVIII. Around this round foundation, 6 post bases filled with lime stones were placed. Each post base is 20 cm in diameter. The diameter of this foundation is 10 m. The wall of trough curved and the rammed layers are evident in 8–10 m thick.

Rammed earth foundation No. XVII

It situated in T235 and T236, shaped like rectangle in east-west orientation. Its south edge is broken by F2, its top by ash-pits of the Warring States and Shang periods. The whole foundation superimposed upon and intruded into rammed earth foundation XIV. The present length of foundation No. XIV is 9 m east-west and the width 6.5 m north-south.

Rammed earth foundation No. XVIII

Situated in T227, T228, T229, T230, T237 and T238, this large rammed earth foundation is temporarily named No. XVIII. It was broken by ash-pits of the Warring States and Shang periods. A later time sand ditch broke T230 and T240. To present, the extent and shape of this foundation were un-determined.

325 ash-pits were found, including 4 of the Luodamiao 洛达庙 period, 150 of the Shang period, 155 of the Warring States period, 16 of the Han, Tang, and Song periods. The Shang ash-pits generally opened beneath layers 2 and 3 and few under layer 4, all of them broke the Shang cultural remains.

All the ash-pits were overlapped by the Shang rammed earth foundation. The filling is of whitish brown and virtually no artifacts were found. The vessel types consist of pottery flared-mouth *zun*-vessel, *pen*-basin, and *guan*-jar.

The ash-pits of the Lower Layer of Erligang period

were filled with dark gray and hard earth and contain rich artifacts. The main vessel types include pottery *pen*-basin, *guan*-jar, *weng*-urn, flare mouthed *zun*-vessel, and *li*-tripod.

The ash-pits of the first stage of the Upper Layer of Erligang period were filled with grayish brown and hard earth and contain rich artifacts. The main vessel types include pottery *li*-tripod, *guan*-jar, *pen*-basin, *gui*-food container, *jue*-tripod, *zun*-vessel, *weng*-urn, *dou*-pedestral stand, and *bei*-cup.

The ash-pits of the second stage of the Upper Layer of Erligang period were filled with grayish brown and loose earth and contain rich artifacts. Besides pottery, the artifacts also comprise bronze fragments and animal bones. The main vessel types include pottery *guan*-jar, *li*-tripod, flare mouthed *zun*-vessel, *pen*-basin, *gui*-food container, and *weng*-urn.

III. Conclusion

This excavation shows that the present Shang palace site is in good condition. The more rammed earth architectural foundations and complicated stratigraphical relationship provide fruitful data for the archaeological periodization of the Shang city at Zhengzhou and exploring its starting and ending dates.

The ash-pits of the second stage of the Lower Layer of Erligang period intruded into the rammed earth foundations prove that the spotted foundations were relatively earlier. The relatively later foundations F1 and F2 were situated in the same line, and their structure and direction were identical; therefore, they should be two independent buildings in one group. In addition, ash-pits H156 and H160 intruded into F2 and the test trench of F1 belonged to the second stage of the Lower Layer of Erligang period. Consequently, the starting and ending dates of these two buildings belonged to the second stage of the Lower Layer of Erligang period.

Rammed earth foundation No. III at the western section intruded into foundation Nos. V and VI, the trough of foundation No. VI directly superimposed upon ash-pits H232 and H233, foundation No. VI intruded into foundation No. VII and its bedding, and the bedding of foundation No. VII superimposed upon ash-pits H230 and H231 that intruded into sterile soil. The top of foundation No. III was intruded into by ash-pits H112, H153 and H154. The unearthed artifacts of ash-pit H112 belonged to the second stage of the Lower Layer of Erligang period. As a result, the starting date of foundation No. III was no late than H112. The upper

limit of foundations Nos. VI and VII intruded into by H112 was no early than the dates of ash-pits H230–H233. In the process of building foundation No. VI and the bedding of foundation No. VII, above four ash-pits were formed. When the trough was built, the four ash-pits were cleared and then refilled and rammed layer by layer. The artifacts unearthed from the four ash-pits demonstrated that they dated to the late Luodamiao 洛达庙 period or the fourth stage of the Erlitou 二里头 period. Some artifacts from foundation No. VI and the bedding of foundation No. VII belonged to the late Luodamiao period, and some to the early first stage of the Lower Layer of Erligang period. Therefore, the dates of foundation No. VI and No. VII were no early than the late Luodamiao or the fourth stage of Erlitou period. The varied artifacts from rammed earth founda-

tions show distinct early Shang cultural elements that were related to the Shang people arrived in Zhengzhou region. Consequently we believe the building of this batch of architectural foundations was regarded as the demarcation line between the Xia and Shang dynasties.

In addition, we discovered a batch of sequential layers and remains from the late Luodamiao through the Lower to Upper Layer of Erligang periods and furnished serial dating specimens for the “Xia–Shang–Zhou Chronology Project.” In archaeological field, the rich artifacts from the second stage of the Lower Layer of Erligang and the first and second stages of the Upper Layer of Erligang periods also provide plentiful of data for establishing chronological paradigm at the palace area of Shang city in Zhengzhou.

Note: The original report is published in *Wenwu* 文物 2002.3: 32–50, with 19 illustrations and one color photo, written by Zeng Xiaomin 曾晓敏, and Song Guoding 宋国定. The present version, an abridgment from the original, is prepared by the original authors, English-translated by Yi Nan 亦囡, and revised by Cao Nan 曹楠.