

The archaeological investigation and coring exploration of the Weiling Mausoleum of Emperor Yuan of the Western Han Dynasty

Shaanxi Provincial Institute of Archaeology and Xianyang Municipal Institute of Cultural Relics and Archaeology

Abstract

Weiling Mausoleum located to the southwest of Xinzhuang Village of Zhouling Town, Weicheng District, Xianyang City, Shaanxi Province is the mausoleum yard of Liu Shi, the Emperor Yuan of the Western Han Dynasty. From November 2008 to June 2009, Shaanxi Provincial Institute of Archaeology and Xianyang Municipal Institute of Cultural Relics and Archaeology jointly conducted comprehensive investigation and exploration to the Weiling Mausoleum precinct, which covered an area of about 5sq km. The investigation and exploration confirmed the types of the burials of Emperor Yuan, Empress Wang and *Zhaoyi* (“lady of bright deportment”) Fu, discovered the scope of the precinct and the road network in it as well as the large amounts of architectural remains and storage pits, and basically grasped its shape, planning and structure, all of which are academically important for the researches on the types of the imperial mausoleums of the Western Han Dynasty and

the relevant systems and regulations.

Keywords: Mausoleums–Western Han Dynasty–archaeology; Weiling Mausoleum (Weicheng District, Xianyang City, Shaanxi)

Introduction

Weiling is the mausoleum yard of Liu Shi, Emperor Yuan (76-33 BCE) of the Western Han Dynasty. The mausoleum is located to the southwest of Xinzhuang Village, Zhouling Town, Weicheng District, Xianyang City, Shaanxi Province. Moreover, Weiling is located between two other Western Han imperial mausoleum precincts, Emperor Ping’s Kangjing to the west and Emperor Ai’s Yiling to the east (Figure 1).

From November 2008 to June 2009, Shaanxi Provincial Institute of Archaeology and Xianyang Municipal Institute of Cultural Relics and Archaeology conducted cooperative archaeological investigation and coring test to the Weiling Mausoleum. The investigation and coring test covered an area of approximately 5sq km. It revealed the forms of the tombs of Emperor Yuan, Empress Wang and *Zhaoyi* 昭仪 (“Lady of bright deportment”) Fu, as well as uncovered a network of roads and a number of architectural remains and outer storage pits.

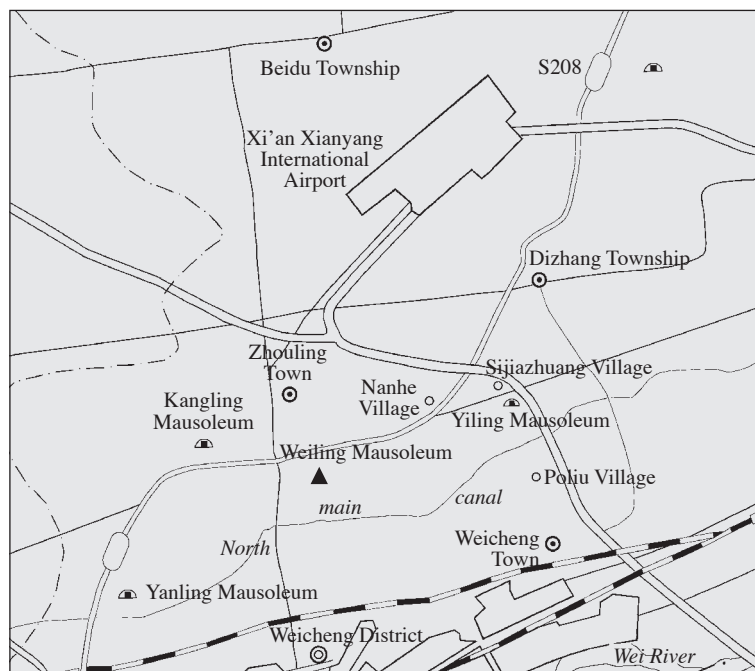


Figure 1 The location of the Weiling Mausoleum.

Stratigraphy

Weiling is located in the center of the mausoleum zone of Xianyang on the north bank of Wei River and the southern edge of the Xianyang Tableland. The stratigraphy of Weiling Mausoleum yard, with the exception of the emperor and empress mausoleums, is quite uniform that from top to bottom are strata of tilled zone, late historic deposition, dark loessial soil, and primary soil layer. The stratigraphy of the emperor and empress mausoleums is unique that there is a layer of filled deposition 1.8–8m thick overlaying the dark loessial stratum. All other features, such as the enclosure wall and ditch, architectural facilities, and subordinate tombs, cut into the dark loessial and primary soil strata and overlaid by the late historic deposition. Some preserved sections of wall outcrop under the tilled zone. The enclosure walls and gate towers of the emperor and empress mausoleums are also overlaid by the late

historic deposition; however, they do not intrude into the filled layer. The exterior storage pits cut into the dark loessial and primary soil strata and overlaid by a trodden layer.

Features and Plan

The Weiling Mausoleum precinct is a mortuary complex consisting of two main parts – the imperial mausoleum yards and the subordinate tombs. The Emperor Yuan’s mausoleum yard, which was the nucleus of the mausoleum precinct, is fittingly located in the center of the mortuary

complex. The subordinate tombs are distributed to the south and in the southeast and the southwest corners of the mausoleum precinct. Earthen mounds are still visible on some of the subordinate tombs (Figure 2).

1. The imperial mausoleum precinct. The imperial mausoleum precinct, clearly defined by the enclosure ditch and wall, occupies an east-west rectangular area. It comprises the mausoleums of Emperor Yuan and Empress Wang and the graveyard of *Zhaoyi Fu*, a number of architectural foundations and a cemetery of subordinate tombs. The mausoleums and the tomb of *Zhaoyi Fu* sit in the south central part of the imperial mausoleum

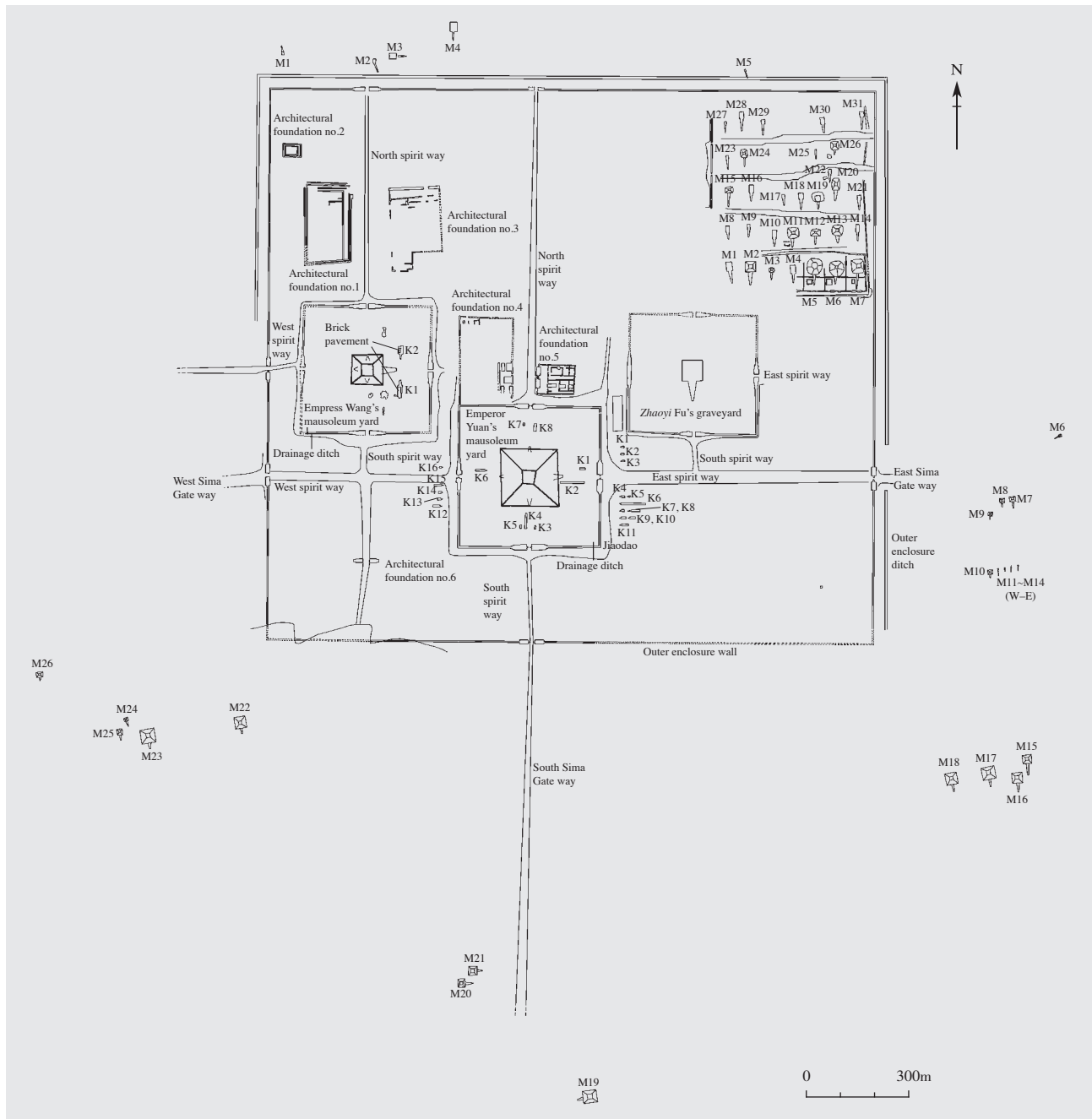


Figure 2 The plan of the Weiling Mausoleum precinct.

precinct. The architectural foundations are distributed to the north of the mausoleums. The subordinate tomb cemetery is located in the northeastern corner of the precinct. The subordinate tombs in the cemetery are tidily arranged in five north-south columns and seven east-west rows. Among them the four easternmost tombs of the southernmost column are unique that each of them has an independent graveyard of its own.

(1) The outer enclosure wall, enclosure ditch and gates. The outer enclosure wall encloses a rectangular area that clearly defined the occupation of the imperial mausoleum precinct. It extends 1775.7m from east to west and 1617.7m from north to south. The wall body measures 3.8–4m thick and buries 0.3–1.8m underneath the present ground surface. Its remaining height is 0.6–1.5m. The wall is built with layers of rammed earth of 0.08m thick. A total of seven gates are opened through the enclosure wall. The east side has one gate and the other three sides have two gates each. The locations of the gates correspond to the gates of the mausoleums of the emperor and empress. The gate foundations measure 70–84m long and 10–13m wide. The gateways are 7–12m wide. About 30m from the outer enclosure wall, the mausoleum precinct is further surrounded by a ring of ditch. The ditch is dug into the dark loessial stratum and overlaid by the late historic accumulation. The ditch is 7–8m wide and 1.5–3.5m deep. It is filled with mottled deposition with a silt lining at the bottom.

(2) The mausoleum yard of Emperor Yuan. The squared mausoleum yard is located in the south central section of the imperial mausoleum precinct. Its boundary is defined by an enclosure wall that measures 417–418m on each side. The wall body is 4.5–6m thick and buries 0.5–1.5m below the present ground surface. Its remaining height measures 1.5–3.5m. The wall is built with compactly rammed earth layers 0.06–0.1m thick. A gate is opened on each side of the enclosure wall. The remains of the gate towers are visible on the ground as small earthen mounds, on and around which large amount of fragments of flat and cylindrical roof tiles are scattered. The gate tower structures measure 95–107m long and 14.4–17m wide. The gateways measure 4.5–6m wide. A brick-lined drainage ditch runs in north-south orientation at the southwest corner of the mausoleum yard. The drainage ditch measures 53.16m long and 0.7–0.8m wide. It goes underneath the south wall of the mausoleum yard of Emperor Yuan.

The burial mound is located in the center of the mausoleum yard. It shapes like a truncated pyramid with a squared base that measures 168m on each side. Its top is also square-shaped that measures 30–40m on each side. The burial mound rises 29m above the present ground level. Its base is about 115–125m from the enclosure wall. The west side of the mound has been damaged by human activities. The exposed cross-section suggests that the mound is built with rammed earth with layers of 0.3–0.5m thick.

The mausoleum is in a cross-shaped plan with four ramp passageways in trapezoidal plan. The ends closer

to the burial chamber are wider in 4.6–11.7m; wherein the outer ends are narrower in 3–7m. The parts of the passageways not covered by the burial mound are coring tested to be 6–13.5m long and 16–23m deep. The passageways are filled with compact mottled deposition of reddish brown soil tempered with calcite nodules. The structure of the tomb chamber is not known because of the depth of the mound exceeds the coring test capacity.

Coring test revealed eight outer storage pits, each passageway has a pair of which symmetrically flanking it. They are earthen pits varying 10–71m long and 3–8m wide. The pits open at 8.3–10.8m from the present ground surface. They yielded large amount of baked clay nodules, charcoal and small amount of red lacquer peels. The bottoms of the pits are usually lined with a layer of light gray ashes of decayed wooden planks.

(3) Mausoleum yard of Empress Wang. It is located at the northwestern corner of the mausoleum precinct. It occupies a square area defined by an enclosure wall. The wall extends 377m long on each side and the wall body measures 4.5m thick. The entire enclosure wall has been buried 0.5–0.8m underneath the present ground surface. The rammed earth wall body has a remaining height of 1–2.8m. The rammed earth layers are 0.06–0.12m thick. A gate is opened on each side. The gate structures measure 85–102m long and 14m wide. The gateway measures 7–12m wide. Large amount of flat and cylindrical roof tile remains are scattered on the surface on and around the gate foundations. Remains of stone rain apron are also found. A north-south running sandstone-lined drainage ditch is located in the southwestern corner of the mausoleum yard. The drainage ditch measures 20.3m long and 1.3m wide. It runs underneath the south wall.

The burial mound, shapes like a truncated pyramid, sits in the center of the mausoleum yard. Its base is close to a square that measures 79–85m on the sides and is about 140m away from the enclosure wall. Its top is close to a square that measures 32–34m on the sides. The remaining height of the burial mound is 17.5m. It is coarsely built with rammed earth method that the rammed layers are 0.3–0.5m thick.

The four ramp passageways of the tomb in trapezoidal plan are mostly buried directly underneath the mound. Coring test shows that the part of the east passageway extending beyond the coverage of the mound measures 39.4m long, 8.5–20.8m wide and 19.5m deep. The other three ramp passageways are completely overlaid by the mound; therefore, their dimensions are not known. The ramp passageways are filled with rammed earth of compact mottled deposition. The rammed earth layers are 0.2–0.5m thick.

Two storage pits are found flanking the east passageway. They are 25m apart from each other. Each of the pits comprises a rectangular earthen pit and an access ramp. The ramp of K1 is located to the north of the pit. It measures 15m long and 6–8m wide. The roughly north-south oriented rectangular pit measures 38m and 14m on the sides, and about 10m deep. The ramp of K2 is located

to the south of the pit. It measures 15m long and 2.5–5.5m wide. The pit measures 25m long, 15.4m wide and 10.2m deep. A large area of brick-using distributes to the west of the pits.

(4) The graveyard of *Zhaoyi* Fu. It is located 350m to the northeast of Emperor Yuan's mausoleum yard. Like the other two, it is defined by an enclosure wall that measures 377m from east to west and 353m from north to south. The rammed earth wall body is 4.5m thick. The wall buries 0.5–0.9m underneath the present ground surface. The remaining height measures 0.5–2.8m. The rammed layers measure 0.12–0.6m thick. The enclosure has four gates, one on each side. The gate structures measure 80–99.4m and 12.8–14.5m on the sides. The opening is 8.5–9.5m wide.

The burial mound has been severely damaged. Today it is no more than an earthen terrace 2–3m above the ground level. Its base is located about 150m from the enclosure wall. The mound is built with rammed earth method with rammed layers of 0.3–0.5m thick. It has one ramp passageway on the south side of the grave. The opening of the grave pit is in square plan measuring approximately 60m on each side. The ramp passageway has a trapezoidal plan that measures 60m long, 5–25m wide and 23.7m deep. The passageway is filled with mottled rammed earth comprising reddish brown soil and calcite nodules.

(5) Outer storage pits. A total of 16 storage pits are found to the east and west of Emperor Yuan's mausoleum yard. All the outer storage pits have a rectangular earthen pit and a trapezoidal access ramp. They have uniform orientations that all the pits on the west side have east-facing ramps; on the contrary, all the pits on the east side have west-facing ramps. The dimensions of the earthen pits vary from 10–77m long, 3–6m wide and about 8m deep. They are filled with coarsely rammed mottled earth. Charred wooden plank remains and lacquer peels were recovered from the bottoms of the pits.

(6) The other burials in the imperial mausoleum precinct. There is a cemetery of subordinate tombs organized in rows and columns in the northeastern corner of the imperial mausoleum precinct. They are locally known as the “twenty-eight mansions”. 12 of the tombs had burial mounds remaining, and coring test revealed 20 additional burials. They make up a total of 32 subordinate tombs. All of these tombs are relatively large. The tombs are in T-shaped plan with ramp passageways on the south sides descending into the rectangular graves. The passageways vary by 16–30m in length and 1.5–7m in width. The graves measure 15–20m long, 13–18m wide and about 10m deep from the present ground surface. The bottoms of some graves yielded bricks or stone blocks.

This cemetery is delimited by a rammed earth wall in the west, a rammed earth wall and a ditch in the south, a ditch in the east, and finally the north is delimited by the outer enclosure wall of the imperial mausoleum precinct. It thus forms a relatively isolated cemetery. The plan of the cemetery is a north-south rectangle that measures approximately 590m from north to south and 450m from

east to west. The burials are neatly organized into five north-south rows. An east-west road runs in front of the ramp passageways of the burials of each row. Going west these roads meet the gates through the west wall. Among them, the roads of the fourth and the fifth rows go through the gaps of the east ditch and then intersect the north-south road that runs along the inner side of the enclosure wall of the imperial mausoleum precinct. Coring test indicates that the four easternmost tombs in the southernmost row had higher ranks among these tombs. Each of them has an independent graveyard of its own. The north-south oriented graveyards are similar in size and form. They are bounded by rammed earth walls on the east, south and west sides; while its north is bounded by the east-west road to the south of the second row of the subordinate tombs.

(7) Architectural foundations. The investigation and coring test discovered a total of six ground-level architectural foundations. Two of them stand on the sides of the north *shendao* 神道 (spirit way) of Emperor Yuan's mausoleum yard. Three of them stand on the sides of the north spirit way of Empress Wang's mausoleum yard. Finally one smaller foundation is located symmetrically across the south spirit way of Empress Wang's mausoleum yard.

Architectural foundation no. 1 is a north-south oriented rectangular structure that measures 232m and 127m on the sides. Four rammed earth wall bases stand on the northern half of the foundation. Its southwestern part has been damaged by modern earth quarrying. Features of enclosure wall and ditch are found on the periphery. It is speculated that this is the site of the *qindian* (“resting hall”, the hall for displaying the costumes and utensils used by the dead) of Empress Wang's mausoleum.

Architectural foundation no. 2 is located 70m to the northwest of architectural foundation no. 1. It is a south-facing rectangular courtyard style structure. It measures 38m wide and 28m deep (longitudinal length). The wall measures 2.2m thick. A 2.6 m wide doorway opens at the southeastern corner of the south wall. The entire feature is surrounded by a ditch that is about 3.5m outside the enclosure wall of the structure. The ditch has a 3.5m wide land bridge at the doorway. The ditch is 3–3.2m wide.

Architectural foundation no. 3 occupies an L-shaped area that measures 243.8m from north to south, 153m wide from east to west at the north end, and 46.5m wide at the south end. Three sections of rammed earth wall running in east-west orientation are distributed in the northern periphery of the feature. Two doorways open on the west and south walls of the protruding part of the southwestern corner. They measure 28m and 15m wide, respectively. It is speculated that this is the remains of the *biandian* (sojourn hall) of Empress Wang's mausoleum yard.

Architectural foundation no. 4 measures 261m from north to south and 155m from east to west. Five rammed earth features are found in its southeastern corner. A building foundation that yielded large amount of roof tile remains is found in the northwestern corner. A wall was built around this foundation. Past archaeological

excavation by Xianyang City Museum (1973) revealed part of the wall base, road surface, living floor and tile-ends decorated with cloud pattern and characters “*Changsheng wuji* 长生无极 (Eternal longevity)” and “*Changle weiyang* (Endless happiness)”. It is speculated that the structure was the *qindian* of Emperor Yuan’s mausoleum yard.

Architectural foundation no. 5 is a west-facing courtyard-style structure that measures 108m wide and 85.2m deep. It comprises the enclosure wall, gates, an open-air courtyard, and the main structure. The front (western) half of this architectural complex is a north-south oriented rectangular open-air courtyard that measures 83.4m from north to south and 26m from east to west. The rear (eastern) half of the complex is the west-facing main structure that measures 83m and 77m on the sides. It consists of three units, the central one of which is a passage of 11.3m wide, flanked by houses on the north and south sides. It is speculated this is the remains of the *biandian* of Emperor Yuan’s mausoleum yard (Figure 3).

Architectural foundation no. 6 comprises a pair of 凸-shaped rammed earth terraces. They are flanking the south Sima Gate way of the Empress Wang’s mausoleum yard 635m to the south of the south Sima Gate of the latter. It uses the south Sima Gate way as the central axis and was built symmetrically on the east and the west sides of the way 20m apart from each other. The narrow side of the structure measures 7.3m wide and about 7m long. The wide side of the structure measures 20.5m from east to west and 11.5m from north to south.

(8) The roads. There is a network of roads in the mausoleum yard that mainly include the *shendao* (spirit way), the circumferential road, and the Sima Gate way.

The east spirit way of Emperor Yuan’s mausoleum yard is 770m long, 32–40m wide and 0.1–0.15m thick. It is buried 0.8–1m underneath the present ground surface. The

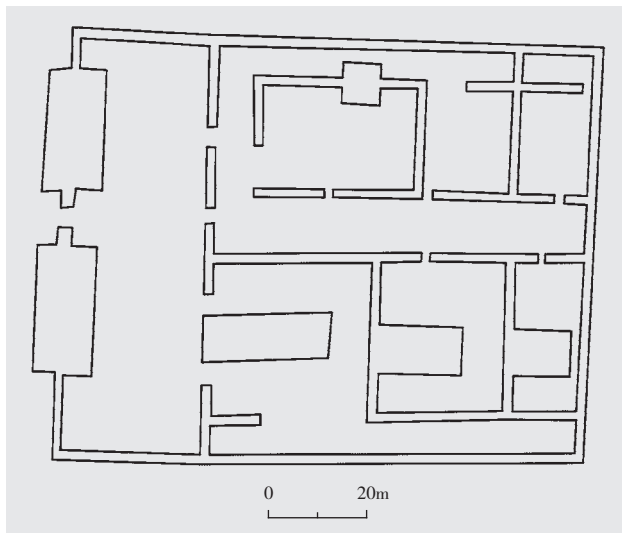


Figure 3 The plan of the architectural foundation no. 5 of the Weiling Mausoleum.

south spirit way is 276m long, 8–12m wide and 0.1–0.12m thick. The road surface is buried 1.2–1.5m underneath the present ground surface. The west spirit way is 276m long, 8–12m wide and 0.08–0.12m thick. The road surface is buried 1.2–1.5m underneath the present ground surface. Finally, the north spirit way is 914m long, 8–25m wide and 0.08–0.15m thick. The width of the north spirit way was increasingly narrower from south to north. Its northern section is buried 1–1.5m underneath the present ground surface and measures 0.08–0.15m thick.

The dimensions of the east spirit way of Empress Wang’s mausoleum yard cannot be completely revealed because it is basically overlaid by a modern village. The limited coring test revealed a section of road surface that is 10m long, about 15m wide and 0.08–0.15m thick. It is buried 1.1m underneath the present ground surface. The south spirit way is 564m long, 11–15m wide, and 0.08–0.12m thick. It is buried 1.1–1.3m underneath the present ground surface. The west spirit way is 78m long, 11m wide and 0.05–0.12m thick. It is buried 0.8–1m underneath the present ground surface. The north spirit way is 620m long, 8–15m wide, 0.05–0.1m thick, and buried 1–1.1m underneath the present ground surface.

The south spirit way of *Zhaoyi Fu*’s graveyard is 98m long, 14–15m wide, 0.05–0.2m thick, and buried 0.8–1.1m underneath the present ground surface. The east spirit way is 302m long, 27m wide, 0.1m thick, and buried 1–1.1m underneath the present ground surface. The dimensions of the north and the west spirit ways are not known because they have been seriously damaged.

Jiaodao 徼道 (patrol paths). There are trodden road surfaces around the enclosure wall of Emperor Yuan’s mausoleum yard. They measure 20–25m wide and widens to 30–35m near the gate towers. It measures 0.08–0.15m thick and is buried 1.2–1.5m underneath the present ground surface. Trodden road surfaces are also found around the enclosure wall of Empress Wang’s mausoleum yard. They measure 10–20m wide and 0.08–0.15m thick. The road surfaces widen and thicken near the gate towers. The road surface is buried 1.5m underneath of the present ground surface. Similarly, trodden road surfaces are found around *Zhaoyi Fu*’s graveyard. It measures 7–10m wide, 0.08–0.18m thick, and buries 1–1.5m deep.

Sima Gate ways. The east Sima Gate way is 52m long, 27m wide, 0.08–0.1m thick, and buried 1m underneath the present ground surface. The west Sima Gate way is 127m long, about 33m wide, 0.08–0.10m thick, and buried 0.8m underneath the present ground surface. The south Sima Gate way is 1597m long, 8–31m wide, 0.08–0.15m thick, and buries 1–1.2m underneath the present ground surface. Coring test did not reveal a north Sima Gate way.

2. The burials outside the mausoleum yards. These burials are distributed mainly in the south, southwest and southeast parts of the mausoleum precinct. There are a few isolated burials scattered in the east and the northwest. Several burials would form small clusters but their distribution does not show any clear pattern. The orientations of their passageways vary randomly that

they point to all directions, although the most common orientation is south.

Gathered artifacts

A total of 44 artifacts were gathered in the archaeological investigation. They include 25 tile-ends, three flat tiles, 10 cylindrical tiles, two floor-paving bricks, and two rectangular bricks.

The tile-ends included 11 ones with characters and 14 ones decorated with cloud pattern. All specimens are incomplete.

All the gathered tile-ends with characters are molded with the auspicious phrase of “*Changsheng wuji* 长生无极 (Eternal longevity)”. The obverses of the gray pottery tile-ends are partitioned into two or three concentric zones by raised lines. The outer zone is further partitioned into four quadrants with short double raised lines. Each of the characters “*chang* 长”, “*sheng* 生”, “*wu* 无”, and “*ji* 极” occupies one of the four quadrants. A large nipple motif is placed in the center of the obverse of the tile-end. The middle concentric circle is populated by a string of small nipple patterns. The character tile-ends can be further partitioned into four different types.

Type A, two pieces. The sample emperor’s mausoleum east gate tower:3, about one quarter of the tile-end survives. The upper part of the character “*sheng*” survives. The tile-end has a flat and leveled back. It measures 20cm in diameter, and the rim measures 1.7cm wide, and 2.2cm thick (Figures 4:1 and 5). Type B, four pieces. The sample architectural foundation no. 3:10, the upper part of the character “*chang*” and the characters “*wu*” and “*ji*” survive. Its measures 18cm in diameter, the rim is 1.8cm wide, and 2.6cm thick (Figures 4:2 and 6). Type C, four pieces. The sample emperor’s mausoleum yard east gate tower:4, the lower part of the character “*chang*” and the upper part of the character “*sheng*” survive. The back of the tile-end shows padding marks. It measures 17cm in diameter, the rim is 1cm wide, and 1.6cm thick (Figures 4:3 and 7). Type D, one piece. Architectural foundation no. 3:7. The lower parts of the characters “*sheng*” and “*wu*” and the character of “*ji*” survive. The center of the tile-end is decorated with small nipple motifs. It measures 18cm in diameter, the rim is 1.1cm wide, and 1.8cm thick (Figures 4:4 and 8).

Cloud pattern decorated tile-ends, 12 pieces, made of gray pottery, all damaged. Based on the number of concentric circles and the decorative patterns, they can be classified into three types.

Type A, two pieces. The obverse is partitioned into two concentric zones by raised lines. Two sets of double lines crossing at the center further divide the obverse into four fan-shaped quadrants, the inner zone of each of which is furnished with L-shaped motifs. The outer zones are furnished with curling cloud motifs. Architectural foundation no. 4:3 is a fragmentary specimen. Part of a cylindrical tile is still attached to it. The exterior of the tile is plain and the interior shows textile prints. The remaining length measures 7.5cm; the diameter measures



Figure 4 The rubbings of the tile-ends gathered at the site of the Weiling Mausoleum.

1. Tile-end with characters, Type A (Emperor’s mausoleum east gate tower:3);
2. Tile-end with characters, Type B (Architectural foundation no. 3:10);
3. Tile-end with characters, Type C (Emperor’s mausoleum east gate tower:4);
4. Tile-end with characters, Type D (Architectural foundation no. 3:7);
5. Tile-end with cloud pattern, Type A (Architectural foundation no. 4:3);
6. Tile-end with cloud pattern, Type B (East Gate Tower:6);
7. Tile-end with cloud pattern, Type C (Architectural foundation no. 3:3).

19cm (Figures 4:5 and 9).

Type B, two pieces. The obverse is partitioned into three concentric zones by raised lines. A large nipple motif occupies the center. A string of nipple motifs occupies the middle zone. The outer zone is further divided into four fan-shaped quadrants by sets of double lines, and each quadrant is populated by a curling cloud motif. Emperor’s mausoleum east gate tower:6 is a damaged sample that has part of the cylindrical tile still attached to



Figure 5 Tile-end with characters, Type A (Emperor's mausoleum east gate tower:3).



Figure 6 Tile-end with characters, Type B (Architectural foundation no. 3:10).



Figure 7 Tile-end with characters, Type C (Emperor's mausoleum east gate tower:4).



Figure 8 Tile-end with characters, Type D (Architectural foundation no. 3:7).



Figure 9 Tile-end with cloud pattern, Type A (Architectural foundation no. 4:3).



Figure 10 Tile-end with cloud pattern, Type B (Emperor's mausoleum east gate tower:6).

it. Its exterior is plain and its interior shows textile prints. The diameter measures 19.6cm and the remaining length measures 10cm (Figures 4:6 and 10).

Type C, eight pieces. The obverse is partitioned into three or four concentric zones by raised lines. The center is decorated with a large nipple motif. The second zone is decorated with a string of nipples motif. The third zone is further partitioned into four fan-shaped quadrants by sets of double lines, and each quadrant is decorated with a curling cloud motif. The outermost zone is decorated with net pattern. Architectural foundation no. 3:3 is a damaged sample. Its center has stamp marks. The specimen measures 16cm in diameter and 1.4cm in thickness (Figures 4:7 and 11).

Conclusions

1. The naming of Weiling. Based on the Wei River entry of *Shuijing zhu* 水经注 (Commentary on the Water classic), Baoren Du (1980) is the first to argue that “to the east of Yanling Mausoleum, a large mound is located to the south of Xinzhuang Village of Zhouling Commune, Xianyang City. This is Weiling, the mausoleum of Liu Shi, the Emperor Yuan.” The two cross-shaped tombs with four passageways and one Φ -shaped tomb with two passageways, the double mausoleum yard plan, the network of roads, and the gathered artifacts all point to the fact that this is an imperial mausoleum of the mid to late Western Han Dynasty. Before the emergence of more reliable data, by far *Shuijing zhu* provides the most convincing evidences. We support the proposition that the mausoleum precinct in question is Weiling.

2. The plans of the imperial mausoleum yards of Yangling and Maoling of the mid Western Han are east-west oriented rectangles. Their length-width ratios are about 20:14. The imperial mausoleum yard of Weiling also oriented from west to east, but its length-width ratio is 18:16, closer to a square. Moreover, the south Sima Gate way of Weiling is significantly longer than all the other Sima Gate ways. The subordinate tombs are mainly distributed to the south of the mausoleum yards. These are not random differences. They might suggest that there were some changes in the institution of imperial mortuary practice during the late Western Han.

3. Weiling shows a group of small graveyards that are relatively independent, regularly planned and tidily ordered. The burials and the associated structures are enclosed by walls and ditches and connected by a road network. These findings have never been seen in the past field archaeology of imperial mausoleums of the Western Han. They are significant to the studies on the royal mortuary practices of the emperors and their consorts and the funeral institution of the Western Han.

4. Coring test of architectural foundation no. 6 shows that it is very likely the site of a gate tower that had no walls on two sides on the structure. This is different from the other gate tower sites of the same period. This could be the precursor form of double gate tower.



Figure 11 Tile-end with cloud pattern, Type C (Architectural foundation no. 3:3).

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Postscript

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