

2007–2008 excavation on Majiayuan Cemetery of the Warring-States Period in Zhangjiachuan, Gansu

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Abstract

The excavation of Majiayuan Cemetery had been carried out since 2006. From the year 2007 to 2008, new surveys and excavations were conducted to find that the cemetery was composed of 59 tombs and sacrificial pits in an area of 20,000sq m. The M6 was in the center of the cemetery, surrounding it, the other tombs distributed in a lunar shape to the north, west, and east of the cemetery. Many delicate objects were discovered. The tomb M6 was a large-scale vertical earthen pit tomb with a tunnel of nine steps in which wooden coffin, funerary chariots, and sacrificial horses were found. Most of the chariots were lacquered and decorated by gold, silver and bronze ornaments and glass beads. These luxury chariots revealed the noble identity of the occupant of the tomb.

Keywords: chariots–Bronze Age; Majiayuan Cemetery (Zhangjiachuan County, Gansu); Warring-States Period–burials.

Introduction

Zhangjiachuan Hui Autonomous County is located in the southeast of Gansu Province and the west side of Longshan Mountains and bordered with Longxian, Shaanxi Province to the east; the Guan-Long Ancient Road passes through the county and links the Gansu Province and the Guanzhong Plains. The terrain of the whole county is sloping from the northeast to the southwest, the altitude of which is between 1468 and 2659m above the sea level. The excavation to the Majiayuan Cemetery was started in 2006; in 2007, a comprehensive survey was conducted to the whole cemetery, following which the excavation was continued in 2007 through 2008, and the content of this report is the results of the survey and excavation in these two years.

Majiayuan Cemetery covering over 2ha has 59 tombs and sacrifice pits found, and one more sacrifice pit is found to its west. Centered by M6, the tombs are arranged in a crescent-shaped plan surrounding it on the east, north and west sides. All of the tombs are in east-west orientation; except for the large sized ones, all of the tombs are side cave tombs with vertical shaft and stepped passageways, the most ones have nine steps and the fewest, three steps. The caves are all on the north wall of the shaft slightly to the west. Except for the ones of the

looted tombs, all of the tomb occupants are in extended supine position heading northeast. By the sizes, the number of the steps of the passageways, the numbers of the accompanied chariots, the qualities and quantities of grave goods, these tombs can be classified into four types, which are large-sized tombs, medium- and sub-medium-sized tombs and small sized tombs.

The large-sized tombs

M6 is in the center of the whole cemetery; it is a vertical shaft pit tomb with a passageway, the orientation of which is 258°. The passageway is a ramp in the middle flanked by steps on both sides, the whole width of which is almost the same as that of the grave and the lamp part is slightly longer than the steps. The plan of the grave pit is in an irregular 甲-shape and the walls are sloping inward from the mouth to the bottom, so the bottom is smaller than the mouth. The walls of the passageway and the grave are all processed smooth and flat. The fill of the tomb is the mixture of loess, calcareous nodules and red clay, which has been rammed into layers 0.3m thick each. At the mouth, the tomb pit is 33.6m long on the north side, 32.6m long on the south side, 10.9m wide on the east end and 9.6m wide on the west end; at the bottom, it is 30.3m long on the north side, 29.5m long on the south side, 4.9m wide on the east end and 9.6m wide on the west end. From the mouth to the bottom of the coffin chamber, the depth of the grave is 14.2 to 14.4m. The part of the ramp stretching out of the southwest of the pit is 5.4m long on the north wall, 6.2m long on the south wall, 3.6m wide on the west end and 3.8m wide on the east end. The passageway has nine steps on both sides of the ramp, but their widths and heights are different: the widths are varying between 2.8 and 4.6m and the heights, 0.42 to 2.08m. On the third step to the north of the ramp, burnt wooden sticks are randomly scattered. From the place on the ramp parallel to the sixth step, accompanied chariots are found; three of them are recovered and on the second of them, accompanied dog victim and Π-shaped wooden frame are found, the usage of which has not been identified. On the lower end and the front of the coffin chamber, the skeletons of four accompanied horses are recovered.

The chariots have only incomplete traces remained; Chariot No. 3 has only the box, the mudguard and the wheel on the north side. The mudguard and box were woven as lattices with rattan, hemp or leather strips. Chariot No. 2 has only the traces of the wheels and the parasol remained; the ox heads buried nearby the wheels have decayed into ashes. Chariot No. 1 has traces of

mudguards and the south wheel: the wheel rim was lacquered black, the inner and outer edges of the hub were lacquered black and the middle portion was lacquered red; the wheel had 32 spokes, the two ends of each of which were lacquered red and the middle portion was lacquered black.

M6 is the only tomb excavated so far which accompanied with whole horses. All of the horses were in squatting position and adorned with ornaments. The coffin chamber was in rectangular shape, but only traces of the wooden planks are preserved, the recovered length of which is 4.12m, the width 2.66m and the height, 2m. Each floor plank of the coffin chamber was 2.65m long, 0.19 to 0.24m wide and 0.14m thick (Figures 1 and 2).

Having been looted, the larger grave goods have all been robbed and only some chariot and horse fittings and ornaments are kept. The main categories are the glass beads, "eye beads", gold human mask ornaments, faience beads, white agate ring, carnelian beads in various shapes, turquoise beads, carnelian hook-shaped pendants, chariot and horse fittings and ornaments made of bronze, gold and silver, a yoke head and a yoke pole finial made of bone, and so on.

Bronzes: Almost all of the bronzes are chariot and horse fittings; five of them are rivet-shaped rein joints, one is horse snaffle. 11 parasol spoke finials can be classified into two types: those of the first type have cylindrical

spoke socket with a pinhole, a beast fang-shaped hook in the middle and an octagonal vase-shaped top, and those of the second type are in octagonal prism shape with a thinner end. The belt buckles also have two types, which are the round ones and the square ones. The others are one mudguard ornament, a curling cloud-shaped button with a thin rectangular tang, and so on.

Gold and Silver Items: They are chariot and horse fittings and ornaments. 10 are silver horse bridle ornaments. Three bubble-shaped ornaments, which are all composed of the central bubble and the wide rim with three concentric ridges, can be classified into two types: the gold bubble with silver rim and the silver bubble with gold rim (Figure 3).

The eight human mask-shaped ornaments are made with gold foils by repoussé technique. The human faces have circular eyes, protruding nose and eyebrows and beards painted with black color (Figure 4). One gold ring. Two gold fan-shaped ornaments are made of gold tubes welded together and decorated with granulations (Figure 5). The two rectangular gold ornaments are also made of gold tubes welded together, the tubes have oval and circular grooves in which carnelian and turquoise are inlaid, and between each pair of neighboring tubes are gold strips bent into S-shape with loops on the two ends (Figure 6). In addition, large amounts of silver plates with openwork patterns used for decorating chariot boxes and

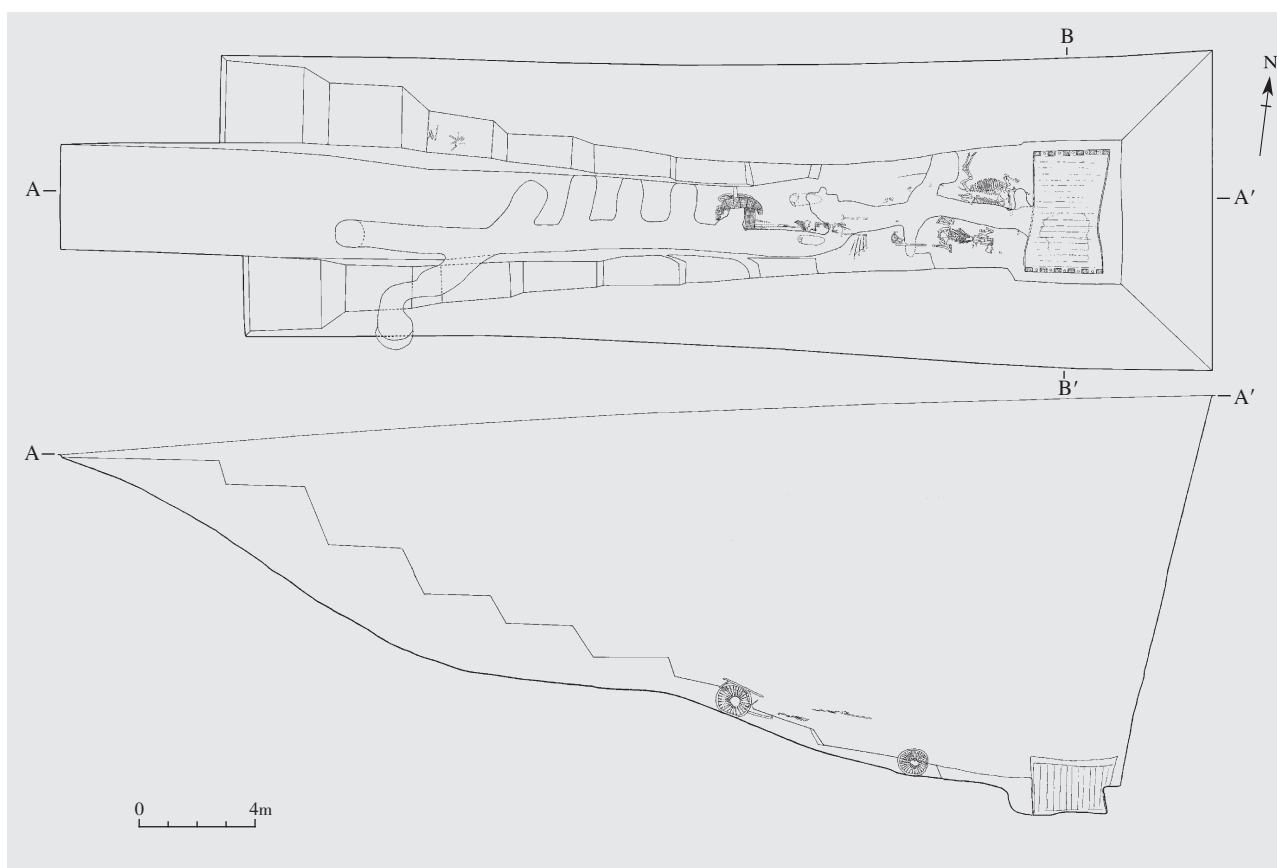


Figure 1 The plan and longitudinal section of M6.



Figure 2 The passageway and coffin chamber of M6 (S-N).

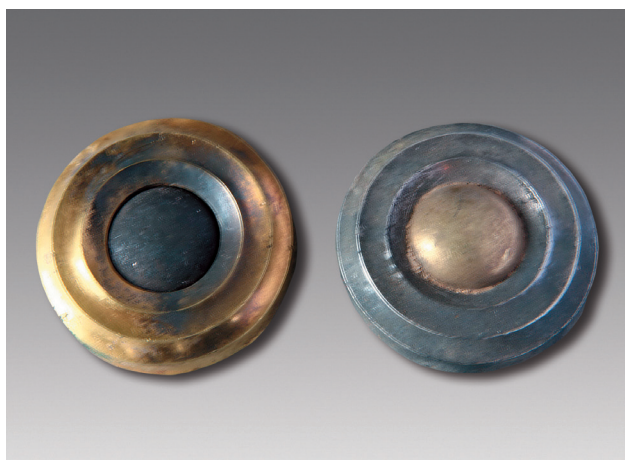


Figure 3 Bubble-shaped gold and silver horse ornaments (M6:8).

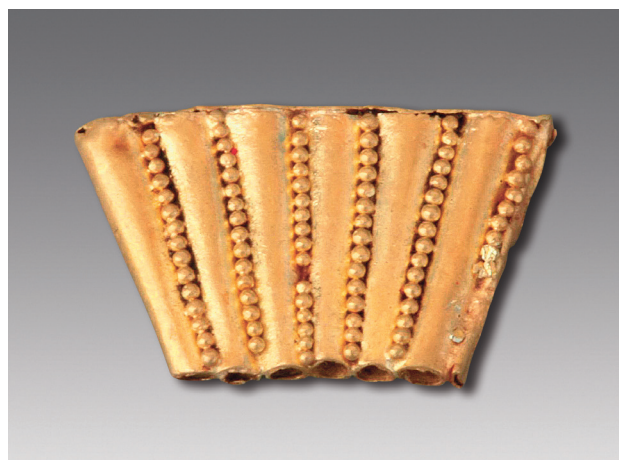


Figure 5 Gold fan-shaped ornament (M6:46).



Figure 4 Gold human mask-shaped ornaments (M6:44).



Figure 6 Rectangular gold ornament (M6:47).



Figure 7 Glass beads of Types A, B and C (M6:201, 200, 199).



Figure 8 Multifaceted carnelian beads (M6:194-6).



Figure 9 Double-hourglass-shaped carnelian beads (M6:194-7).



Figure 10 Pumpkin-shaped carnelian beads (M6:194-8).

wheels are found in the grave.

Iron Implements: They are tools and chariot and horse fittings, including one shovel, one ring and one bubble-shaped object. As for potteries, only one small cup is found in this tomb.

The jewelries are carnelian hook-shaped pendants, white agate ring, and beads in various materials and shapes. The glass beads are mainly “eye beads (Figure 7)”, bluish-green hexagonal drum-shaped beads, blue globular beads, dark-green globular beads and blue flat tubular beads. The carnelian beads are globular beads, flat tubular beads, hexagonal tubular beads, short tubular beads, oval beads, multifaceted beads with two conical ends (Figure 8), double-hourglass-shaped beads (Figure 9) and pumpkin-shaped beads (Figure 10). The turquoise beads are hexagonal tubular beads, flat tubular beads, flat beads, ring-shaped beads and drip-shaped pendants. In addition, large amounts of small beads made of Han blue, Han purple and white lead with a through hole are unearthed from M6; the diameters of these small beads vary from 0.25 to 0.8cm and that of the through holes, 0.2 to 0.4cm.

Medium-sized tombs

Tombs of this type have nine-stepped passageways. In

the shaft, four chariots are buried; in the tomb chamber, one chariot is buried. The chariots fall into four types: the ones decorated with gold and silver ornaments and beads made of Han blue, Han purple, white lead and so on; the ones lacquered and decorated with bronze fittings; the lacquered ones and the undecorated ones.

Sub-medium-sized tombs

M14 and M2 belong to this type, which have seven steps.

M14 has a rectangular vertical grave with sloping walls, the mouth of which is larger than the bottom. The cave chamber is on the east of the north wall and almost perpendicular to the orientation of the grave – the orientation of the grave is 270° and that of the cave, 0°. The grave is 5.8m long and 4.1–4.2m wide. Seven steps varying in widths from 0.12 to 0.62m and heights from 0.15 to 0.16m are on the west end of the grave. At the southwest corner of the grave, a crouching dog is buried in the fill about 4.8m deep from the grave mouth. At the bottom, the grave is 5.1–5.27m long, 3.33–3.61m wide (Figure 11).

Three chariots are buried in the grave, all of which are superimposed each other with the central poles to the east; they are numbered as Chariot Nos. 1 to 3 from the

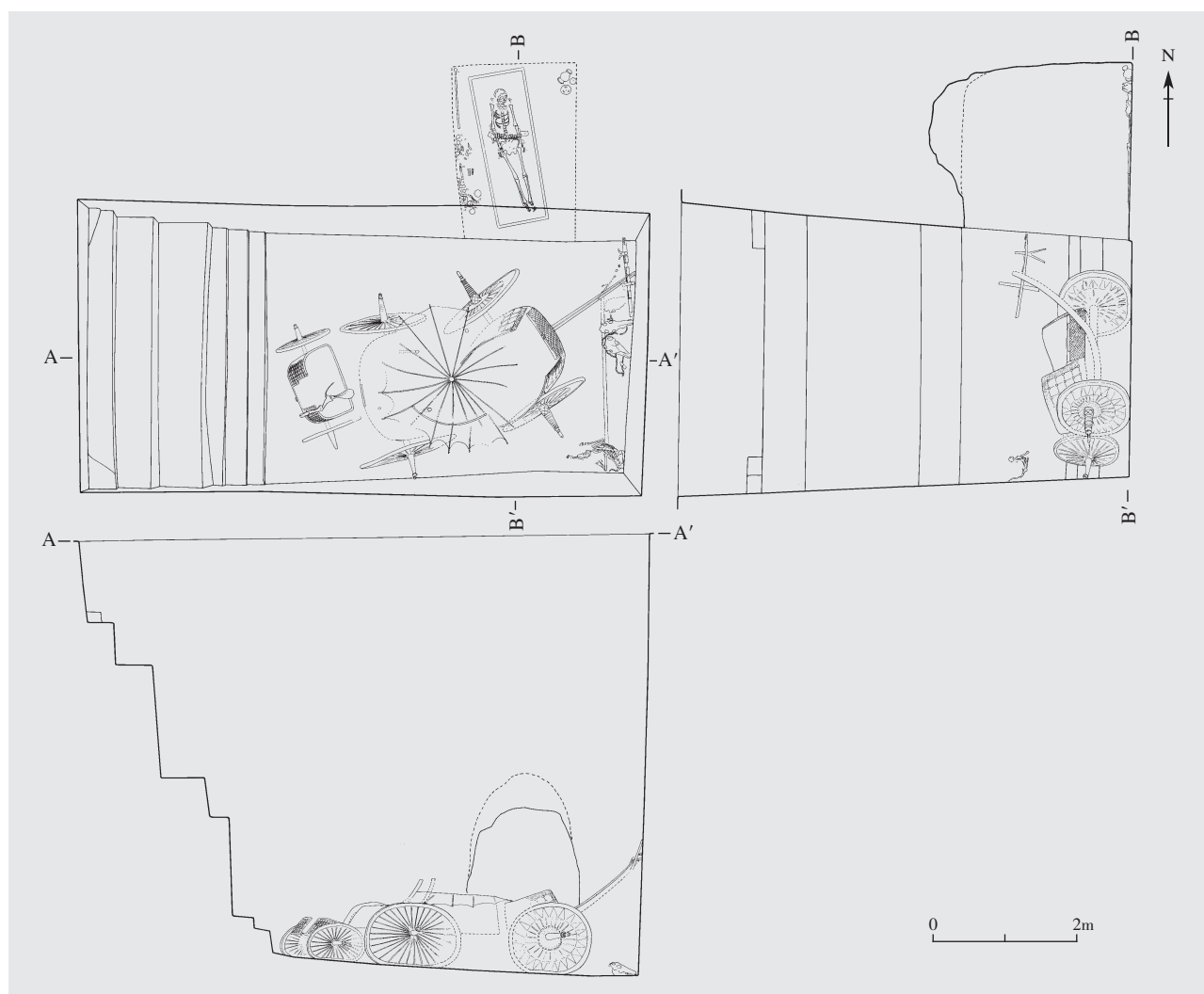


Figure 11 The plan and longitudinal section of M14.

east to the west (Figure 12). In front of Chariot No. 1, skulls of oxen and horses are found; on the horse skulls, string ornaments made of tubular faience beads are recovered. The pole of Chariot No. 1 is turning upward and leaning tightly on the grave wall; it is decorated with silver foil ornaments with S-shaped patterns in openwork on the two sides and gold 卍-shaped ornaments in between. The crossbar of the pole is inlaid with gold and iron ornaments and at the north end of the crossbar a bronze ox is found. The yokes are also inlaid with gold and iron ornaments. The top of the front edge of the chariot box is decorated with two bronze bubbles and bar-shaped iron ornament inlaid with gold designs, and the lower part is decorated with beads made of Han purple, Han blue and white lead aligned into rhombus lattice pattern (Figure 13); the front portions of the left and right sides of the chariot box are also decorated with beads made of Han purple, Han blue and white lead aligned into parallel lines, and their rear portions are decorated with square openwork ornaments made of tin,

on the four corners of which bronze bubbles are attached (Figure 14). The chariot box is about 1.15m wide. The outer sides of the wheels are decorated with triangular openwork tin ornaments, and the zone around the hub is decorated with a ring of rectangular gold plaques with animal designs (Figures 15 and 16). The diameter of a wheel is about 1.15m; the spokes are made of tin. The hubs are also decorated with beads made of the materials mentioned above and 卍-shaped, rhombus and triangular gold ornaments with openwork designs. The axle cap is decorated with high tin, tin coating and gold plating techniques, and fastened by a linchpin with an animal head-shaped cap.

Chariot No. 2 of M14 has a large parasol about 2.2m in diameter; covered by it, the structure of the chariot box is not clear yet, only the wheels not covered by it can be identified as partly lacquered into red color, and the hub was lacquered and color-painted. The wheels' diameter is about 1.45m. Chariot No. 3 is smaller than the former two; the box woven with rattan, hemp or leather strips



Figure 12 The chariots accompanied in the shaft of M14 (top is south).



Figure 13 The front part of the box of Chariot No.1 of M14.



Figure 14 The decorations of the side board of the box of Chariot No. 1 of M14.



Figure 15 The wheel of Chariot No.1 of M14.



Figure 16 The hub and axle cap of Chariot No.1 of M14.

was 0.7m long and 1.03m wide, in which ox leg bones are found. The wheels are lacquered into red color and the hub was lacquered and color-painted.

The cave chamber is 1.58m wide in the front and 1.78m in the rear, 2.55m long and 2.3m high; the coffin set in it has only traces and animal-shaped and geometric ornaments with openwork designs remained, the original structure cannot be recovered. The occupant is in extended

supine position heading northwest and facing upward. Gold earrings are found near the skull, necklace made of beads in various shapes and materials is around the neck; on the waist, two gold belts and six silver buckles are found. Nearby the right hand, five small bronze bells and one bronze mirror are found; nearby the left hand, four small bronze bells, one iron ring and many small silver rings are seen. On and surrounding the skeleton of the tomb

occupant, large amounts of beads made of Han purple and Han blue are scattered. On the chest and nearby the hands of the tomb occupant, strings of beads in various shapes and made of carnelian, turquoise, glass (“eye beads”), gold and silver and gold tubular ornaments are found. At the northeast corner of the cave chamber, a bronze vase and a bronze *li*-cauldron are discovered. On the north end of the west wall, a bronze staff head is found, in the socket of which remains of wooden staff are still preserved. In the middle of the west wall of the cave, iron snaffles, cheek pieces and forehead pieces and other bridle fittings with gold-inlaid designs, bronze yoke ornaments and other chariot and horse fittings and slat-shaped objects decorated with openwork silver foils are found.

The grave goods are:

Gold and silver ones: Two gold belt hooks (Figure 17) and two eardrops (Figure 18). Each eardrop consists of a ring and a pendant, the joint of which is decorated with gold granulations. The upper part of the pendant is composed of two hemispheric carnelian beads and the glass bead between them, and the rims of the carnelian beads are also decorated with gold granulations. The lower part of the pendant is an oval ring, the edge of which is also decorated with gold granulations, and the central hole of which is inlaid with two tadpole-shaped beads made of carnelian and faience as a Taiji diagram.

Two gold animal mask-shaped ornaments are found. A set of gold belt ornaments consists of two animal-shaped end ornaments and 17 double-bird-shaped plaques between them (Figure 19). All of these pieces are made of thin gold sheets with repoussé technique. Bird-shaped gold plaques and monster-biting-goat-shaped gold plaques are also found. The silver ornaments are plain bar-shaped ornaments, fan-shaped ornaments with S-shaped openwork patterns and horse fittings. Six silver belt buckles are also found.

Bronzes: one *li*-cauldron (Figure 20) and a vase (Figure 21), nine bells, two bird head-shaped ornaments, one staff head and one mirror.

Iron implements: several dozens of bubbles with gold-inlaid curling cloud patterns.

The gold beads are in double conical and double frustum shapes, all of which are made by striking technique. The tubular gold ornaments 7cm in length are decorated with gold granulations arranged into two groups of triangles, three in each group, along the rims of the two ends and opposing each other on the tube (Figure 22). The gold drip-shaped pendant (M14:4-10) is 0.9cm in length (Figure 23). The drip-shaped pendant (M14:4-13) is composed of two turquoise beads, a carnelian bead between them and two gold pieces decorated with granulations on the edges separating these beads and the



Figure 17 Gold belt hooks (M14:9 and 15).



Figure 18 Gold eardrops (M14:7).



Figure 19 Gold belt plaques (M14:15).



Figure 20 Bronze *li*-cauldron (M14:2).



Figure 22 Gold tubular ornaments (M14:4-11).



Figure 21 Bronze vase (M14:1).

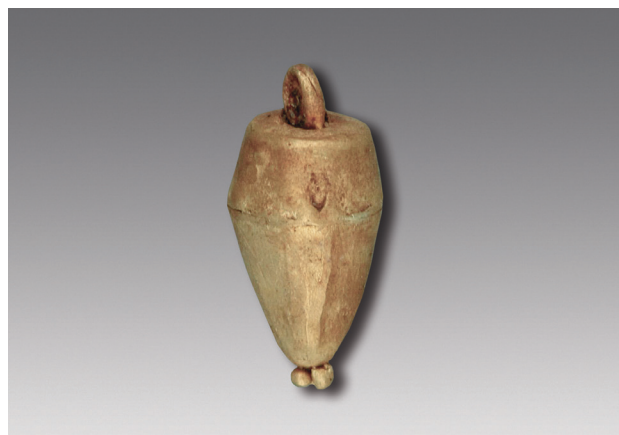


Figure 23 Gold pendant (M14:4-10).



Figure 24 Drip-shaped pendant (M14:4-13).

gold granulation cluster at the bottom (Figure 24), the full length of which is 1.3cm.

Small-sized tombs

1. M15. It is a side cave tomb with rectangular vertical

shaft and five steps in an orientation of 264° . The size in the mouth is 5.5m long and 3.5m wide, and the depth is 4.9 to 5.2m. The five steps on the west side of the pit are varying in widths from 0.04 to 0.58 m, heights from 0.5 to 1.7m and shapes. The lowest step is in triangular shape. An iron spearhead is found in the northwest corner,



Figure 25 The chariot and animal victims accompanied in the shaft of M15 (top is north).



Figure 26 Bronze *ding*-tripod (M15:1).



Figure 27 The face and back of bronze mirror M15:9.

suggesting that a spear was erected here.

A chariot is buried in the shaft, before and behind which are skulls of horses, oxen and goats found (Figure 25). The crossbar of the pole has tubular finials on the two ends; nearby the horse heads and the crossbar, bronze bridle ornaments are found. The chariot box is in a dustbin shape, the front of which is larger than the rear and the rear is open. On the insides of the front part of the box, decorations made of paralleling lines of Han purple and Han blue beads are found, as well as the outsides of its rear part, both of which are flanked by rectangular tin plaques with openwork patterns. Behind the chariot box are there 10 pairs of L-shaped and double-gourd-shaped bronze objects, an L-shaped one and a gourd-shaped one of which form a set linked by slat-shaped tin ornament, totally 10 sets are formed. In the chariot box, a leg of a horse or an ox is found. The wheels are decorated with alternately arranged triangular tin ornaments with openwork patterns. On the left axle cap, flying bells made of faience beads are hung. The full length of the chariot is 2.6m; the chariot box is 1.46m wide on the front and 0.66m wide on the rear, and 1.22m long. The full length of the axle is 1.82m and the wheels are 1.3m in diameter.

The cave chamber is in irregular plan, the width of which is from 0.9 to 1.12m, the length is 1.96m and the height, 0.9m; the ground of the cave is a little lower than the bottom of the shaft. No trace of burial furniture is found; the tomb occupant is in extended supine position heading northeast and facing upward. A silver neck collar at his neck and gold belt ornaments on his waist are found. An iron sword with bronze hilt and a bronze mirror, as well as large amount of beads made of glass and other materials are found beside his left hand and large amount of beads are also found beside his right hand; iron ornaments, tubular faience beads and nine bronze arrowheads are found beside his left leg and large amount of beads made of glass and other materials are found nearby his feet. In the northeast corner of the cave, a bronze *ding*-tripod is found.

The grave goods are:

Bronzes: one *ding*-tripod (Figure 26), one mirror (Figure 27) and 10 arrowheads.

Gold and silver wares: one silver neck collar and a set of gold belt ornaments consisting of one gold plaque with tiger-biting-goat design (Figure 28) and nine goat-head-shaped plaques (Figure 29).

In addition, large amount of tubular faience beads and round beads made of Han blue, Han purple and other materials are found around the tomb occupant, but because of the caving in of the roof of the cave chamber, their original arrangements can no longer be restored.

2. M12. It is a side cave tomb in an orientation of 260° with vertical shaft and three steps. The plan of the tomb mouth is rectangular with four curved corners, the length of which is 3m, the width is 1.1-1.38m and the depth of the shaft is 2m. The steps are not very clear, the widths of which are varying from 0.2 to 0.4m. In the east of the shaft, a horse skull, an ox skull and some bronze chariot



Figure 28 Gold belt plaque with tiger biting goat design (M15:3-1).



Figure 29 Goat-head-shaped gold belt plaque (M15:3-2).

and horse fittings are found.

The cave chamber on the north wall of the shaft is in a rectangular plan, 0.48m wide, 1.76m long and 1.06m high, the ground of which is sloping down from the front to the rear. The tomb occupant is in extended on left side position heading north and facing left. A silver earring near his ear and a necklace composed of bronze bubbles and glass and carnelian beads around his neck are found; an iron ornament and a bone sheath are found near his left arm and a bronze knife is found near his left hand. Beside his legs, an iron *ge*-dagger ax is found and four bronze arrowheads are scattered nearby his feet. Under the north wall of the cave, a gray pottery jar is found.

In total, the grave goods found in this tomb are one pottery jar, four bronze arrowheads, one bronze horse forehead piece, one horse snaffle, one bronze knife with bone sheath, one iron *ge*-dagger ax (Figure 30), one silver earring and one necklace.

3. M29. It is a side cave tomb with vertical shaft and three steps on the southwest corner of the shaft. The walls of the shaft are slightly sloping; the length of the shaft on the mouth is 4.1m, the width is 3.3m and that on the bottom, 3.94m and 3.16m; the depth of the shaft is 4.5m. The three steps on its southwest corner are varying in widths from 0.1 to 0.55m, lengths from 0.75 to 0.83m and heights from 0.19 to 1.51m.

In the shaft, an undecorated chariot is found, before and behind which skulls of oxen and goats are buried. In the northwest corner of the shaft, a dog victim is found. The chariot is a funeral object, the box of which is 1.08m wide, the axle is 2.3m long and the wheels are about 0.67m in diameter.

The cave chamber located on the east of the north wall of the shaft is 1.05m wide at the opening, 2m long and 1.2m high, the ground is sloping from the opening to the rear. The tomb occupant is in extended supine position heading

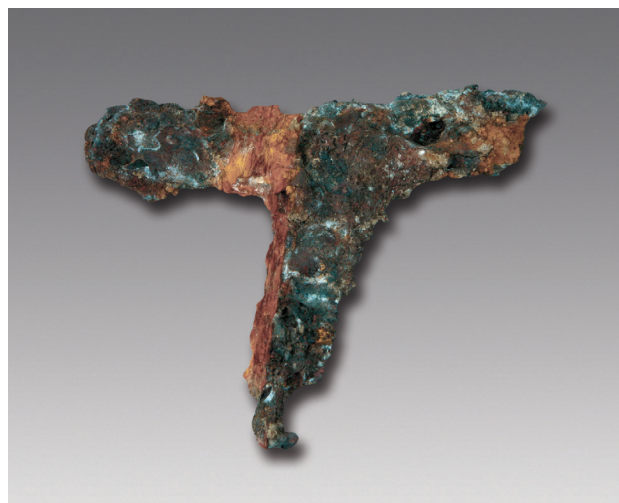


Figure 30 Iron *ge*-dagger ax (M12:10)

north and facing upward. Tubular beads are found on his head and faience nose plugs are found at the place of his nostrils. There were tin belt plaques on his waist but they have been rusted into ashes. On the body of the tomb occupant, small beads made of Han blue, Han purple and white lead are scattered. In the north slightly to the west of the cave chamber, a gray pottery jar is unearthed.

Postscript

The original report published in *Wenwu* 文物 2009. 10: 25–51 with 70 illustrations (56 of which are photos) is written by Wang Hui 王辉, Zhou Guangji 周广济 and Zhao Wucheng 赵吴成. The abridged version is prepared by Wang Hui and translated into English by Ding Xiaolei 丁晓雷.