2004 Excavation in Liudingshan Cemetery in Dunhua County, Jilin

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Earthen Pit Tombs  Stone Cist Tombs

In the summer and autumn of 2004, the Jilin Provincial Institute of Archaeology carried out a reexamination of the Liudingshan cemetery and excavated 16 tombs.

I. The Distribution and Types of Tombs

The Liudingshan tombs are situated on the southern slope of Liudingshan Hill 5km south of Dunhua City proper in Jilin Province, with a mountain on the north, a plain on the south, and the Mudanjiang River flowing from west to east between the hill and the city proper.

The tombs were discovered long ago and were partly excavated in 1948 to 1959. Through surveys in the 1950s more than 90 graves were found to belong to the western (Zone I) and eastern (Zone II) parts. In 1997, physical prospecting by the Yanbian Prefectural Office for the Preservation of Ancient Monuments detected 166 tombs in total in the two zones, which was amended to be 130 in Zone II and above 100 in Zone I through checking one by one.

In shape the tombs fall into two types: earthen pit tombs and stone structured ones. They are not distributed and arranged in any clear order. On the tombs are mounds varying in height and revealing stone linings in some cases owing to soil erosion for a long time. The Zone II measures 130m in length (E–W) and 80m in width (N–S). Most of its tombs are concentrated in a dust-pan-shaped valley, and the rest are scattered on hill slopes. The Zone I is in a north-south stretching long narrow valley, where large-sized graves are distributed downward from the middle part while medium and small ones are relatively concentrated in the upper zone. By comparison, the Zone II shows greater denseness, lack of large-sized stone cist tombs, and earthen-pits ones accounting for a bit more than a half of the total, while the Zone I is lacking in the latter type of burial. A rough division for the Zone II presents that earthen pit tombs are largely in the east and the southwestern corner; larger stone cist ones in the center, a little to the west; and small stone cist ones are scattered among them in disorder (Figure 1).

Figure 1. Distribution of Tombs in Zone II
II. Description of Tombs as Examples

In 2004, excavation uncovered 16 tombs, of which seven were re-excavated. The work paid great attention to research on earthen pit tombs. Below is a selective description of various types of tombs.

1. Tomb IM1. It is located on a gentle slope in the middle of Zone I. Beforehand the plot was extensively leveled by digging down higher places and filling up lower ones. The tomb is built in the north of a 12.4 by 9.5m loess foundation lined with stones and furnished with double stone enclosures, the space between which is compactly filled with stones and loess. The four walls measure 1.5–2m in thickness. The outer walls form the contour of the tomb, their bottom courses of stones are a little higher than the top of the stone edges of the foundation, and the inner walls are just the cist walls, which are lower than the foundation edges by 0.25–0.35m. It suggests that the cist was built from a shallow pit, but the whole tomb was still higher than the leveled ground.

The cist has a roughly square plan and measures 2.9–3m in length (N–S) and 2.8–2.9m in width (E–W). Judged by the remaining height of the inner walls, it must have not been lower than 1.4m in height for the interior, but the eastern, western and northern walls left over only one or two courses of stones that are less than 50cm in height. The tomb bottom is laid with 1–2cm thick sandy soil and made flat and solid by compactly pressing, and odd lime patches remain in some spots. Lime lumps were also seen in chinks between stones in wall corners, thus the interior was all whitewashed. The southern wall of the cist is damaged more seriously, only the tomb gate in this position leaving a stone in either corner. From the gate a corridor measuring 1.7m in length and 1.6m in width extends outward at an orientation of 205°. Its side walls are made of stones, the eastern wall of which had one or two stone courses 0.2–0.4m in remaining height preserved, while the western one can be discerned by the corners remaining at the two ends. The southern end left over some dozen gate-sealing stones, of which the largest central one measures 1.1m in length, 0.7m in width and 0.3m in thickness

and looks like an irregular slab. Two large-sized flat and smooth stone slabs were found inside and outside the cist respectively. They are rather regular in shape and may be remains of the stone covering of the tomb top. The inside piece is 2m long, about 1m wide and 0.3m thick and looks like a flat pentagonal slab, while the other piece has a quadrilateral plan and is obliquely placed against the eastern wall of the corridor (Figures 2 and 3).

The outer walls are all in quite good condition, the eastern, western and northern ones are 1.5–1.7m apart

![Figure 2. Plan, Elevation and Section of Tomb 04DLIM1](image)

![Figure 3. Tomb 04DLIM1 (S-N)](image)
from the corresponding edges of the foundation, while the southern one is farther away. On the southern side of the tomb gate is a 4.5 by 10m platform. The stones for the outer walls are irregular and show great disparity in size, the largest measuring as long as 0.8 to 1.05m. The eastern and western walls are made neater and left over four to seven stone courses totaling 0.9 to 1.3m in height. The stones for the four corners are regularly shaped and well fitted with adjacent blocks.

Outside the tomb there was a tree-overgrown mound before the excavation. It was thought to be a barrow in the 1979 report. But a selective excavation on the remains revealed loess and sandy loess on its northern side, with the lower part containing a layer of black silt inclining down from north to south. The eastern, western and southern earthen coverings are motley with tile fragments and lime lumps mixed in, and all of them were accumulated for a few times. Moreover, the potsherds and tile fragments in the lower part are more than those in the upper part, and some flat tiles at the southeastern corner are superimposed on the stone linings of the foundation. All these phenomena suggest that originally there must have been no mound outside Tomb IM1 and the outer walls must have been revealed on the ground. What was previously called mound must have been largely formed of deposited silt for the northern side of the tomb, and, for the other three sides, it must have resulted from the accumulation of naturally formed silt along with the collapse of the original structure on the tomb and the robbery of the grave in its early years.

In the tomb no grave goods and traces of coffins remained owing to previous two robbery and two excavations. The artifacts found in the present excavation are all unearthed from the earthen covering around the tomb, including a silver finger ring, an iron arrowhead, an iron nail, tile-ends, cylindrical and flat tiles, and broken tomb bricks. Tile-end 04DLIM1:1 is decorated a nipple surrounded by cross-shaped floral designs (Figure 4); 04DLIM1:3 is with size-varied nipples encircling a central one and measures 16.5cm in diameter (Figure 5). The cylindrical tiles are all incomplete. The tomb bricks are plain-surfaced or bear animal mask design in relief. In addition, a pottery vessel has been restored to be urn-shaped and seems a censer (IM1:8, Figure 6).

2. Tomb IM5. It lies at the southern end of Zone I and is roughly the same as IM1 in building method except for the absence of earthen pit in the tomb cist and the greater height of the bottom than that of the surrounding
ground (Figures 7 and 8). It shows four distinctive features:

Firstly, outside the western stone edge of the foundation is a 0.4–0.6m wide shallow drain ditch formed of the stone lining and a course of stones roughly parallel to the lining.

Secondly, on the southern side of the foundation are two loess platforms connected with the foundation and equal to it in width. The first platform (i.e. closer to the tomb) has stone lining formed of a course of stones, of which only the southwestern corner remains in a good condition. The second platform can be discerned by the intact western and southern stone linings, the middle of the southern edge showing two or three courses of stones. The whole vestige is inclined downward in accordance with the terrain of the hill slope.

Thirdly, the tomb cist is rectangular in plan, measuring 2.8m in length (N–S), 1.7m in width (E–W) and 195° in orientation. It is partitioned off from the corridor with erected narrow stone slabs.

Fourthly, on the southern side of the outer wall, excavation revealed long narrow earthen-and-stone structures at the two corners. They are not tightly fitted with stones of the wall and may have been built later to reinforce the latter.

In the periphery of the tomb, the excavators also discovered a large amount of fragmentary tiles, which may be the remains of original buildings on the tomb. But the fragments of flat and cylindrical tiles and potsherds unearthed from the drain and the bottom of the earthen covering suggest that the superstructure might have collapsed earlier than the robbery of the tomb and that the outer walls were also revealed in the open air without mound.

IM5 yielded more grave goods: a number of horses’ mandibles and teeth were uncovered from the southeastern earthen covering, and implements of the bronze bracelet, iron nail, iron stud, gilt bronze belt buckle, bronze ornament, potteries, three-color glazed potteries and some other types were brought to light from the periphery of the tomb (Figures 9 and 10). Various tiles occurred among the finds; their decorations fall into two types: large-sized cross-shaped floral design and nipples. Tile-end 04DLIM5:10 bear eight nipples (the larger being alternated with the smaller) within double circles. Tile-end 04DLIM5:15 left over about 1/8 of the whole; its decoration is rather different from the
cross-shaped floral design. Bricks with animal mask design were found four, all incomplete (Figures 11 and 12). The unearthed flat tiles are partly decorated with stripes and lozenges that are absent among the finds from the periphery of Tomb IM1.

3. Tomb IIM28. It is formed of two rectangular stone cists in different shapes and sizes and arranged side by side along an east-west line. Both of them are built of unprocessed basalt blocks. The western cist is larger, measuring 2m in length, 0.85m in width and about 0.5m in depth for the interior and 185° in orientation for the eastern wall. It is filled with dark gray soil and the bottom is laid with yellow sand. An iron arrowhead was unearthed from its center. The eastern cist is a little smaller; its western wall is tightly attached to the eastern wall of the western cist; and only two courses of stones were found to be the enclosure. The inside is 1.3m long, 0.5m wide and about 0.2m deep. No overlay is made on the bottom, and the filling is dark gray soil mixed with charcoal and burnt clay lumps.
Both cists yielded no human remains and coffins, and no stone covers discovered on the tops. They share the same mound, which is roughly dome-shaped and measures 0.1–0.4m in height with the east made higher than the west. A section of structure built of basalt fragments was found in the southeastern periphery of the mound. It has a curved plan and is built of 4–5 stone courses reaching 0.8m in width (Figures 13 and 14).

The iron arrowhead from the western cist (IIM28:1) is shaped like a flat lozenge, has no spine but a short square tang and has been slightly broken in the point. It measures 6cm in length (Figure 15:3).

4. Tomb IIM74. It is a mounded earthen pit grave built on a gentle slope. The mound is about 0.5m high, and the pit is shallow and has a rectangular plan, measuring 2.52m in length (N–S), 1.4m in width (E–W), 0.1–0.25m in depth, and 195° in orientation. In the pit, traces of a wooden chamber were found around the sides, and ash of wooden boards in discontinuous stripes occurred in the middle and at the ends. The chamber is made of logs about 10cm in diameter as judged by uncharred log sections (about 1.5m long) remaining below the eastern wall. It is filled with reddish-brown soil mixed with charcoal ash, fragmentary burnt clay and tiny human bones, largely remains of limbs, which are relatively concentrated to the south of the middle. Skull fragments were seen on the northern side and the southeast and seem not to belong to the same individual (Figure 16).

Among the grave goods are a silver earring and a pottery jar. The latter is a piece of wheel-made grayish-brown clay ware. It was yielded from the northwestern corner of the tomb and has a shallow rim, a small mouth, a bit swollen belly and a flat bottom.

5. Tomb IIM111. It is an earthen pit grave and lies near the edge of the hill-slope at the northeastern corner of Zone II. The mound is suboval in plan and measures about 3.5m in major axis and about 0.5m in height. Beneath the mound are two pits arranged side by side from west to east with an interval of 20cm, both made rectangular and shallow at an orientation of about 193°. The western pit is 2.4m long, 1.1m wide and 0.25m deep, and is filled with brown soil containing a small amount of charcoal ash and burnt clay fragments. On the northern side of the bottom is a plot of burnt clay, but no human bones were found. Outside the pit, a broken mandible was yielded from the western side. The eastern pit measures 2.25m in length, 1m in width and about 0.3m in height. It is with dark brown soil, and charcoal ash and burnt clay were discovered near the bottom. Fragments of burnt human bones were found largely to the west of the middle, in the ash and

![Figure 13. Plan and Section of Tomb 04DLIIM28](image)

![Figure 14. Tomb 04DLIIM28 (S–N)](image)
burnt clay layer. They can be roughly divided into three spots. The northern spot is more extensive and contains skull and limb fragments; the middle spot is narrower and contains chiefly broken ribs and limbs; and in the southern spot, pelvis remains were discovered in association with broken limbs. No traces of coffins and grave goods were recorded in both pits (Figure 17).

6. Tomb IIM126. It is again an earthen pit and is situated in the north of Zone II, where the terrain is higher with a steeper slope. The mound has been seriously washed away, only the stone lining remains except for some small stones washed far beyond the tomb. The earthen filling contains burnt clay lumps. On the bottom are two separate spots of lengthways traces of charred boards, which must be the remains of the bottom boards of two side-by-side wooden chambers or coffins. The western charred bottom board is
long narrow and measures about 0.05m in thickness, 2.3m in total length (N–S) and about 0.8m in width (E–W), and the eastern charcoal represents a board and measures 0.03m in thickness, 1.8m in length, 0.7m in width and 189° in orientation. At the center of the former, an about 30cm long irregular stone block was found partially pressed by charred wooden bars and may have been a coffin-bearing stone in the cremation. Judged by the altitude difference between this stone block and the stone lining of the mound, the tomb can be inferred to have been about 3m in depth. Fragments of human bones were seen in both chambers, the discernable including remains of skulls, vertebras, limbs and phalanges. They are scattered randomly and some bones bear unclear traces of burning (Figure 18).

Among the unearthed grave goods (Figure 15) are a silver earring, an agate bead, a bronze belt tailpiece, a bronze ornament, four belt ornaments and two belt headpieces. Of them the belt tailpiece and headpieces have been disturbed and fallen outside the eastern stone edge of the tomb. In addition, a coffin nail was seen in the tomb, and pottery jar shards were discovered beneath the surface soil at the southwestern corner beyond the tomb. The latter may have been also among the grave goods, but we are unable to restore the original vessel shape.

III. Conclusions

1. The present excavation provided material data for further typological classification of the stone cist tombs. M205 and M206 excavated in 1964 featuring low walls, unclear corridors and no stone tops should not be classified into the same type as IM2 and IM5 furnished with top covers and tomb gates and built considerably high. IM1 and IM5 are also widely different from the Princess Zhenhui tomb (IM2) and other graves similar to it in the presence or absence of the mound. Such tombs were not seen in other Bohai cemeteries; evidently they belong to a completely new burial type.

2. The Liudingshan earthen pit tombs are not completely earth-buried ones as taken in the traditional sense. An overwhelming majority of them are cremation burials with the en-coffined dead first moved into beforehand made shallow pits and then burned in woodpiles. One of their tiny differences is the presence or absence of stone coverings on the lower part of the mound, which might be taken as an indicator of their dates. IM1 and IM5 represent, respectively, an earlier and a later phases of stone cist tombs. The three-color pottery vessel that was once yielded from the Helong Beida Cemetery was a pottery type coming gradually into prevalence from the mid phase of Bohai Kingdom as a result of the development of relations to the Tang Dynasty, so chronologically the Liudingshan Cemetery should be wholly assigned to the early phase of Bohai Kingdom.

3. The presence of numerous earthen pit tombs and the absence of stone cist ones in Zone II might suggest difference in tomb owners’ ranks between the two burial areas. Among the earthen pit tombs in the two areas, the stone-lined tombs are largely in the periphery, while the ones without stone linings are generally in the center. Judged by the formation order of the tombs and the evo-
Evolutionary pattern of tomb structures, the former type must have been later than the latter. In the Zone I, the rare earthen pit tombs are all furnished with stone linings, so the Zone II may have been formed earlier than the Zone I as a whole.

References

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Postscript: The original report is written by Wang Hongfeng 王洪峰 and Du Yunfa 杜运发 and published in Kaogu 考古 (Archaeology) 2009.6: 3–14 with 15 illustrations and two plates. The present version is prepared by the authors and translated into English by Mo Runxian 莫润先.