

Excavations of the Tinglin Site, Shanghai in 1988 and 1990

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The Tinglin 亭林 Site is located at the Tinglin Township, Jinshan 金山 District, Shanghai 上海 Municipality. It was discovered in 1966 when a local water supply facility was constructed. In 1988 and 1990, we excavated 968 sq m at this site and found two Song Dynasty tombs, one Tang Dynasty tomb and 23 burials of the Liangzhu 良渚 Culture (Fig. 1). This paper reports the discovery of the burials of the Liangzhu Culture.

I. Stratigraphy

There are three layers. Layer 1 is top soil. Layer 2 is yellowish soil. It contains remains of early geometric decorated pottery. Layer 3 is grayish yellow clay. It

contains the remains of the Liangzhu Culture and the burials were found under this layer. Under Layer 3 is the culturally sterile yellowish brown clay.

II. Burials

There are 23 burials. Most of them are oriented toward southeast, about 170 degrees. The burial pits are rectangular with level bottoms, and the depth is usually less than 20 cm with the deepest one 30 cm (M22). The amounts of burial goods vary from 1 to 80, and most burials have about 10 funerary objects. These objects include bone artifacts, jades, stone tools, and pottery. Some of them were rarely found in burials of the Liangzhu Culture, such as stone ploughs, stone sickles, stone plowing tools and dog skeletons. Five burials have wooden coffins made of two logs. The human skeletons in most burials were misplaced in a wrong location.

1. M1. The orientation is 168 degrees. The bones are well preserved but mostly misplaced in wrong positions. The dead was a middle age male. This is a second burial. There are 21 stone and pottery artifacts in the burial, and most of them were put under the legs. Only two pottery objects were nearby the skull. There are four stone tools, including one plough, one axe, one sickle, and one adze. There are 17 pottery objects, including one *ding*-tripod, one *dou*-pedestal stand, four *guan*-jars and 11 *hu*-kettles with two tuber handles. A dog skeleton was found on the southern end of the burial pit (Fig. 2).

2. M2. The orientation is 170 degrees. The skeleton is well preserved, facing up with arms and legs stretched. Adult male. Only one ceramic *ding*-tripod was found in the burial (Fig. 3).

3. M4. The orientation is 174 degrees. Child. There are 12 burial goods, including seven stone tools and five pottery objects.

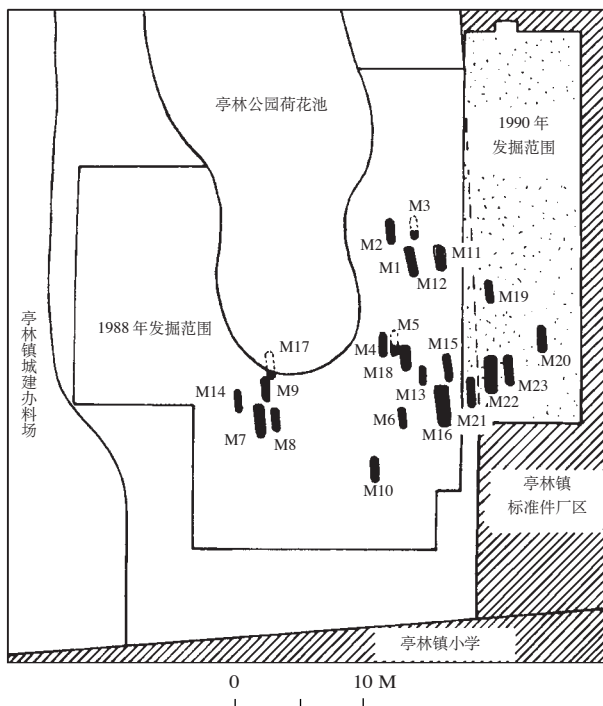


Fig. 1 Map of excavated area in 1988 and 1990

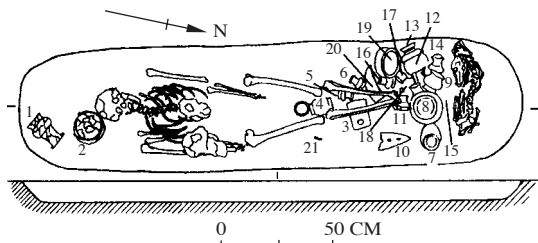


Fig. 2 Plan of burial M1

1, 5, 6, 11, 14-18. pottery *hu*-kettles with two tuber handles 2, 4, 7-9, 19. pottery *guan*-jars 3. stone axe 10. stone plough 12. pottery *ding*-tripod 13. pottery *dou*-pedestal stand 20. stone sickle 21. stone adze

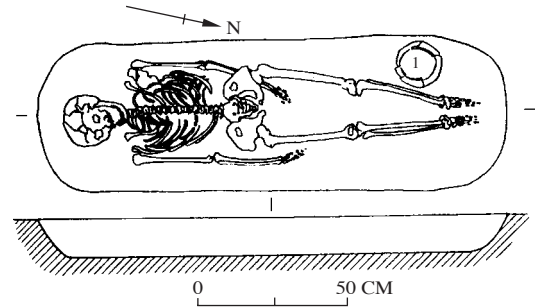


Fig. 3 Plan of burial M2

1. pottery *ding*-tripod

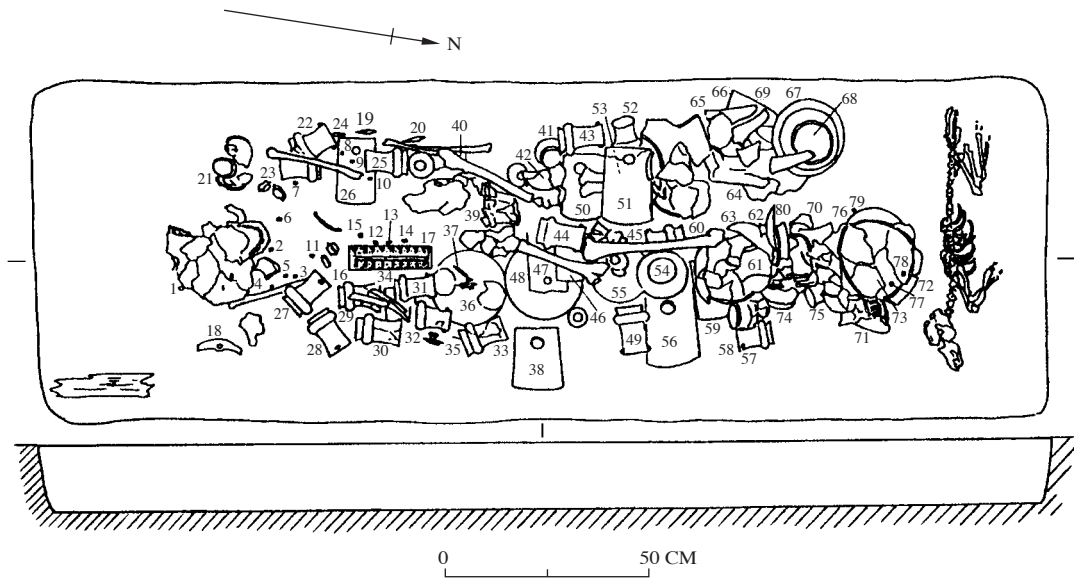


Fig. 4 Plan and elevation of burial M16

1-15, 77-79. jade beads 16. jade tube 17. jade *cong*-tube 18. stone plowing tool 19, 20, 24, 66. stone arrowheads 21-23, 25, 27-33, 39, 41-45, 49, 52, 53, 57, 58, 60, 63, 65, 75, 76. pottery *hu*-kettles with two tuber handles 26, 34, 38, 40, 46, 47, 50, 51, 56. stone axes 35, 37. awl-shaped jade tools 36, 48, 55. jade *bi*-discs 54, 61. pottery *guan*-jars 59. stone *yue*-battle-axe 62. stone sickle 64. pottery *yan*-steamer 67, 74. pottery *pan*-plates 68. stone adze 69. stone plough 70. pottery *ding*-tripod 71. pottery *hu*-kettle with two tuber handles 72. pottery *dou*-pedestal stand 73, 80. pottery lids

4. M16. The orientation is 170 degrees. Most bones are severely misplaced in wrong positions. Old male. This burial has the largest amount of burial goods in this cemetery, and it is the only burial with a jade *cong*-tube. Two layers of wooden coffins are also observed in the southeastern corner of the pit. There are 80 burial goods, including 25 jades, 18 stone tools, and 37 pottery wares. The jades include one *cong*-tube, three *bi*-discs, one *cong*-shaped tube, two drills and eighteen beads. The stone tools include four arrowheads, nine axes, one *yue*-battle-axe, one plough, one sickle, one adze and one plowing tool. The pottery includes one *yan*-steamer, one

ding-tripod, one lid, two *guan*-jars, one *dou*-pedestal bowl, one plate, one basin, twenty-seven *hu*-kettles with two tuber-shaped handles, one *hu*-kettle with loops and one lid. One dog skeleton was found on the southern end of the pit (Figs. 4 and 5).

5. M22. The orientation is 174 degrees. Most of the bones were severely misplaced in wrong positions. Wooden coffin remains were observed on the north-western corner of the pit. There are 18 burial goods in the pit. These funerary objects include one bone tool, four jades, four stone tools and nine pottery. One dog skeleton was found on the northern end of the pit.



Fig. 5 Burial M16

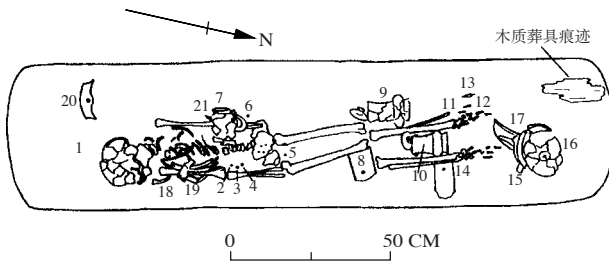


Fig. 6 Plan of burial M23

1–6. jade beads 7. pottery *hu*-kettle with band handles 8, 14. stone axes 9, 10. pottery *hu*-kettles with two tuber handles 11–13. bone arrowheads 15. stone adze 16. pottery *ding*-tripod 17. stone sickle 18, 19. bone bracelets 20. stone plowing tool 21. awl-shaped jade tool

6. M23. The orientation is 168 degrees. The skeleton was well preserved, and the left arm had a *cong*-shaped bone bracelet. Wooden coffin remains were found on the northwestern corner of the pit. There are 21 burial goods, including five bone artifacts, seven jades, five stone tools, and four pottery wares (Fig. 6).

III. Artifacts

There are 395 artifacts found at the burials of the Liangzhu Culture, including bone artifacts, jades, bone tools, and pottery wares.

1. Bone artifacts

Six bone artifacts were found, including four arrowheads and two bracelets.

Arrowheads. They can be divided into two types. Type A has triangular blade with a long stem. One piece. Type B includes three arrowheads, all have elongated drill-shaped blade with circular cross-section.

Bracelets. Each of the two bracelets consists of two L-shaped bone pieces.

2. Jades

57 jade artifacts were found.

Cong-tube (1). The rectangular body was decorated with four groups and nine register human face motifs. It is 24 cm in length (Fig. 7).

Bi-discs (3). Round, flat (Fig. 8).

Cong-shaped tube (1). Rectangular body was decorated with two register human face motifs.

Drill-shaped artifacts (16). They can be divided into two types: type A with round cross-section; type B with square cross-section.

Earring (1). It was made from a broken pendant.

Other jade artifacts include one bracelet, one nob, and 33 beads.

3. Stone tools

61 stone tools were found.

Axes (28). All of them are flat rectangular. They can be divided into three types. Type A, the bevel is relatively straight; type B, convex bevel; type C, flared bevel.

Yue-battle-axes (5). They all have flared bevels. Two types can be divided. Type A, elongated (3); type B, wide short (2).

Shovel (1). It is perforated from both sides, flat rectangular, and has shoulders. Length: 12.6 cm.

Knife (1). It is perforated from one side, flat rectangular, and has red paint near the perforation. Length: 24.2 cm (Fig. 9).

Adzes (6). Rectangular, stepped. They can be divided into two types. Type A, curved back; type B, straight back.

Ploughs (5). Triangular, two or three perforations. They can be divided into two types. Type A, oblique waist (Fig. 10); type B, slightly convex waist.

Sickles (5). Flat, thin and rectangular.



Fig. 7 Jade cong-tube (M16:17)



Fig. 9 Stone knife (M22:8)



Fig. 8 Jade bi-disc (M16:55)



Fig. 10 Type A stone plough (M18:9)



Fig. 11 Type A stone plowing tool (M10:10)

Plowing tools (4). Flat and flared. They can be divided into two types. Type A (3), the two sides are straight (Fig. 11). Type B (1), the two sides are slightly concave.

Arrowheads (4). The cross-section is diamond. They can be divided into two types. Type A, willow leaf-shaped, no wings; type B, with wings.

Handle-shaped pendant (1). Flat mushroom-shaped end.

4. Pottery

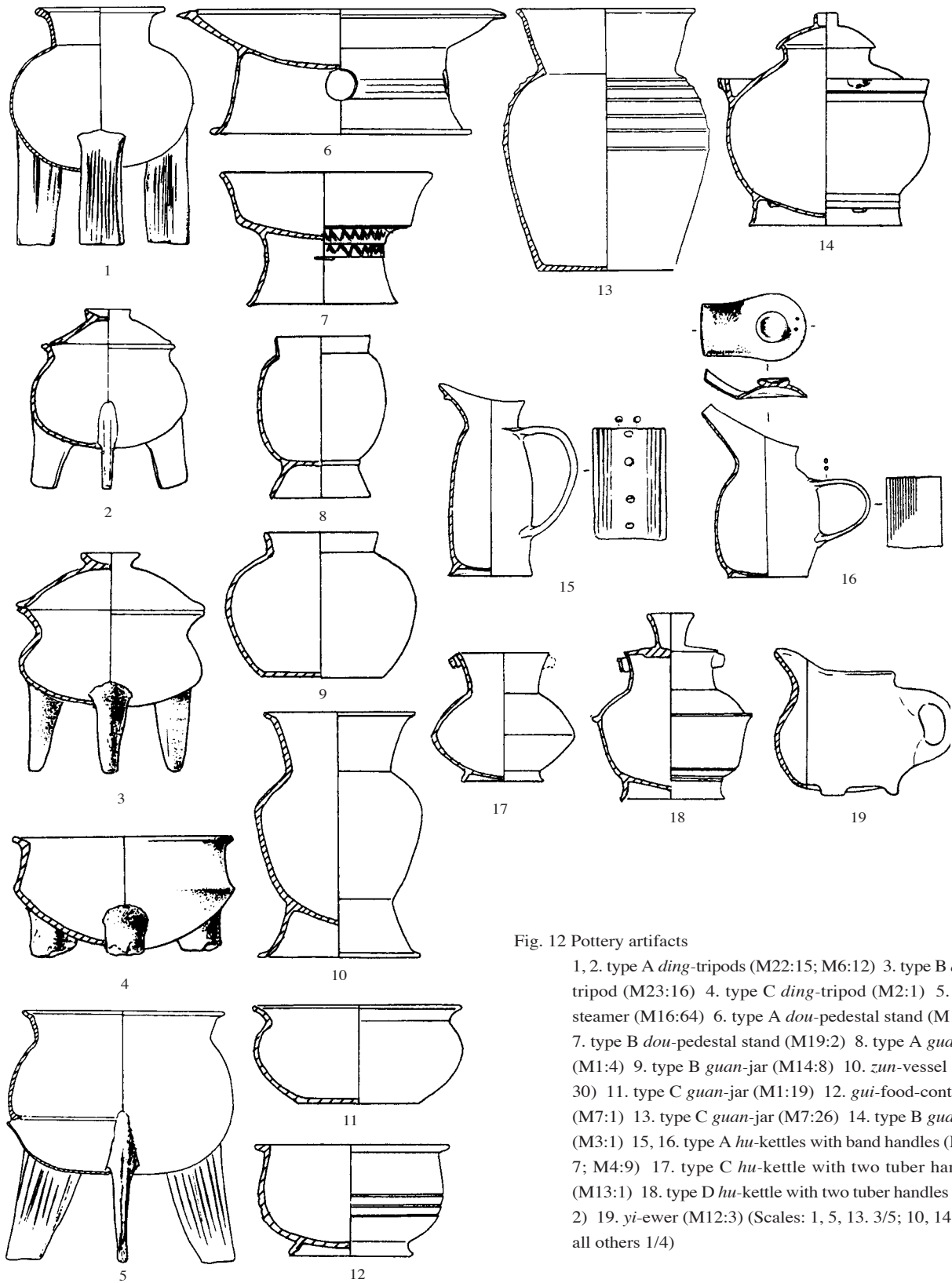


Fig. 12 Pottery artifacts

1, 2. type A *ding*-tripods (M22:15; M6:12) 3. type B *ding*-tripod (M23:16) 4. type C *ding*-tripod (M2:1) 5. *yan*-steamer (M16:64) 6. type A *dou*-pedestal stand (M15:2) 7. type B *dou*-pedestal stand (M19:2) 8. type A *guan*-jar (M1:4) 9. type B *guan*-jar (M14:8) 10. *zun*-vessel (M7:30) 11. type C *guan*-jar (M1:19) 12. *gui*-food-container (M7:1) 13. type C *guan*-jar (M7:26) 14. type B *guan*-jar (M3:1) 15, 16. type A *hu*-kettles with band handles (M22:7; M4:9) 17. type C *hu*-kettle with two tuber handles (M13:1) 18. type D *hu*-kettle with two tuber handles (M5:2) 19. *yi*-ewer (M12:3) (Scales: 1, 5, 13. 3/5; 10, 14. 4/5; all others 1/4)

271 pottery objects were found, and most of them are reddish sand-tempered or made of grayish fine clay. *Ding*-tripods (27). They can be divided into three

types. Type A, spheroid belly (Fig. 12:1 and 2). Type B, flat drum-shaped belly (Fig. 12:3). Type C, flat bent belly, restrained mouth (Fig. 12:4).



Fig. 13 Type C pottery *dou*-pedestal stand (M6:1)



Fig. 14 Type B pottery *hu*-kettle with band handles (M7:4)



Fig. 15 Type A pottery *hu*-kettle with double handles (M20:13)



Fig. 16 Type B pottery *hu*-kettle with two tuber handles (M9:6)



Fig. 17 Pottery *he*-tripod (M21:12)

Yan-steamers (2). They have flared mouth, short neck, spheroid belly. There is a circle of ridge in the interior wall, and it has hole on one side (Fig. 12:5).

Dou-pedestal stands (7). They have flared mouth and wide pedestal. Three types can be divided. Type A, bent belly (Fig. 12:6). Type B, oblique belly (Fig. 12:7). Type C, curved belly (Fig. 13).

Guan-jars (30). They can be divided into four types. Type A, vertical mouth, deep projected belly (Fig. 12:8). Type B, short neck, spheroid belly (Fig. 12:9 and 14). Type C, round shoulder, oblique belly and flat bottom (Fig. 12:11 and 13).

Zun-vessel (urn) (1). It has high ring foot (Fig. 12:10).

Basins (9). Flared mouth, shallow projected belly, and short ring foot.

Plates (15). Shallow bent belly, short ring foot.

Gui-container (1). It has a restrained mouth and a deep belly.

Hu-kettles with loops (12). The loop is cord-shaped. Two types can be divided. Type A, deep projected belly (Fig. 12:15 and 16). Type B, flat drum-shaped belly (Fig. 14).

Hu-kettles with two tuber-shaped handles. They have ring foot. Four types can be divided. Type A, high neck, flat drum-shaped belly (Fig. 15). Type B, bent shoulder (Fig. 16). Type C, bent belly (Fig. 12:17). Type D, bent belly and shoulder (Fig. 12:18).

Other kinds of pottery artifacts include one *yi*-ewer (Fig. 12:19), one *he*-tripod (Fig. 17), seven cups, three lids and four spindle whorls.

IV. Conclusion

1. The age of the cemetery

On the basis of the characteristics of pottery ves-

sels such as T-shaped tripod feet, flat drum-shaped kettles with two tuber handles, pedestal stands with shallow bowl and wide pedestals, *gui*-container, *zun*-vessel, and jade *cong*-tube with multiple registers, the Tinglin cemetery was in the late period of the Liangzhu Culture. One ¹⁴C date of the human skeleton from M2 is 1690 ± 150 BC (ZK2272).

2. The social status of the dead

M16 has jade *cong*-tube and *bi*-disk, ritual jade artifacts regarded as symbols of spiritual powers and only seen in large tombs of the Liangzhu Culture. However, the quality of these jades is not comparable with those spectacular ritual and decorative jades in the mound burials at the Fanshan 反山 Site and the Fuquanshan 福泉山 Site. Therefore, the dead in M16 of the Tinglin Site was possibly a local chief. The fact that there are stone tools in the burial indicates that this chief was still involved in daily works.

The occupant of M4 was a child. In addition to five utilitarian pottery vessels such as tripods and kettles, this child also had five big stone tools such as stone axe, *yue*-battle-axe and ploughs. The status of this child needs to be further studied.

3. Interpreting the mortuary practice

Although the pits of the burials at the Tinglin Site is generally shallow, these burials have not been disturbed as indicated by the location of burial goods. A number of burials have misplaced skeletons, suggesting they are secondary burials. It is noteworthy that most of the skeletons in these secondary burials were still put in the order of a human body. However, some bones were misplaced in a wrong location, such as vertebrae were placed in piles nearby skull or feet. The meaning of this kind of mortuary practice is yet to be interpreted.

Note: The original report is published in *Kaogu* 考古 2002.10: 49–63, with 16 figures and 3 pages of plate, and written by Zhang Minghua 张明华 and Li Feng 李峰. The present version, an abridgment from the original, is prepared by the first author himself and English-translated by Jiao Tianlong 焦天龙.