

The Dabona Cemetery in Xiangyun County, Yunnan

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Abstract

In 2014, Yunnan Provincial Institute of Cultural Relics and Archaeology and other institutions conducted large-scale excavation to the Dabona Cemetery located in Dabona Village and to its east of the Liuchang Town, Xiangyun County. The west zone of the Dabona Cemetery had widely distributed early cultural remains, including house foundations, postholes, ash pits, ash ditches, etc. The east zone consisted of two sections distributed in the north-south direction, in the north section of which 25 burials were recovered; among these burials, six were large-sized ones with lengths more than 6m, and the other were medium- and small-sized burials. The grave goods unearthed from these burials reflected that the dates of the remains and burials were roughly in the Warring-States Period to the Qin and Han Dynasties. The area where these remains and burials were located was the main inhabited area of the people of Kunming ethnic group; this excavation provided important materials for the researches on the features and the social situations of the bronze cultures in the Erhai Lake region.

General introduction of the site

Xiangyun County located in the southeast of Dali Bai Autonomous Prefecture, Yunnan Province is on the watershed of the water systems of the Jinsha River and Yuanjiang River (Red River), and its terrain is higher than that of the surrounding counties. Most of the county is in the warm and moist subtropical plateau monsoon climate zone. The Xiangyun County covers an area of 2425sq km, 82% of which is the hilly areas, and the four intermontane plains, which

are Yunnanyi Ba (the term in southwestern China to call intermontane plains), Xiangcheng Ba, Hedian Ba and Midian Ba, take about 13% of the whole county. The Yunnanyi Ba where the Dabona Cemetery is located is the largest intermontane plain in Xiangyun County and has an area of 133sq km; since the ancient times, it has been an important traffic hub, and the present-day Yunnan Province is named after it (Figure 1).

Dabona Cemetery is located in the Dabona Village and to its east of Liuchang Town in the Yunnanyi Ba, and to the south of the Longshan and Xiangshan Hills (Figure 2). The coordinates of its center is 25° 50' N, 100° 76' E, and its altitude is 1953m asl. Dabona is an area with dense population, about 10000 residents of Han, Bai and Yi people are living here.

The original name of Xiangyun County was Yunnan County. In 109 BCE, Emperor Wu of the Western Han Dynasty set the Yizhou Commandery, and Yunnan County was one of the 24 counties under the Yizhou Commandery, the seat of which was just at the Yunnanyi Ba. In the Eastern Han Dynasty, Yunnan County was under the jurisdiction of Yongchang Commandery. In the third year of Jianxing Era (225 CE) of the Shu Kingdom of the Three-Kingdoms Period, the Yunnan Commandery was established, which administered seven counties including Yunnan, Longdong, Yelong, etc. and set its seat at Yunnanyi Ba. At the beginning of the Western Jin Dynasty, Yunnan Commandery was under the jurisdiction of Ningzhou Region. In 583 CE, the Sui Dynasty dissolved the Yunnan Commandery and established the

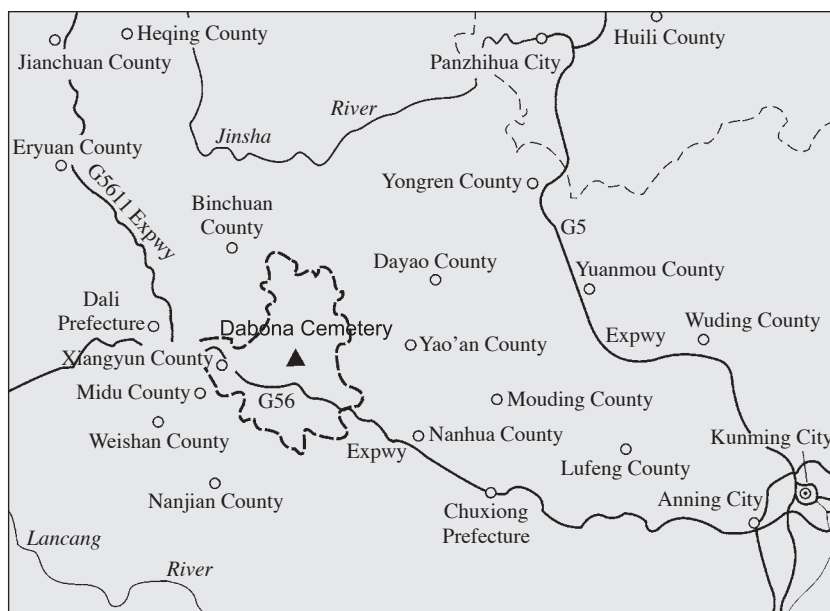


Figure 1 The location of Dabona Cemetery in Yunnan Province.



Figure 2 The topography of Dabona Cemetery and nearby area.

Nanning Area Command and the Yunnan County was under its jurisdiction. In 1918, because the county had a duplicate name of the province, the name of the county was changed into Xiangyun.

The name Dabona was the homophone of its ancient name “Dabolong”, which referred to the residence of the chiefs, headmen and lords, or the capital or something alike. In the Ming Dynasty, Zhuge Yuansheng 诸葛元声 noted in his *Dian shi* 滇史 (History of Yunnan) that the “Baizi State”, which was founded before the Nanzhao Kingdom and lasted for over 400 years and 30 generations, was just in the domain of Yunnan (Xiangyun) County. Gu Zuyu 顾祖禹, a historian and geographer of the Qing Dynasty, also noted in vol. 117 of his *Du shi fangyu jiyao* 读史方輿纪要 (Essentials of geography for reading history) that “the Yunnanyi (lit. Yunnan Post Station) ... has an ancient city site nearby, which has been regarded by someone as the seat of the old Yunnan Commandery.”

Review of the past archaeological work

As early as in the 1950s, Dabona Cemetery has been discovered and some occasional archaeological excavations have been conducted here. Hereby we would like to briefly introduce the three important rescue excavations of them as the following.

In 1961, the local villagers found two ancient burials 20m from each other on the southeast slope of Longshan Hill to the north of Dabona Village when they were quarrying stones there. The west one of these two burials had been completely destroyed, from which several dozens of artifacts including bronze ox, horse, bell, etc. were unearthed. The east one had only a corner of the wooden chamber exposed. In March 1964, bronze coffin and other artifacts were found from this burial

and the Archaeological Team of Yunnan Province conducted survey and excavation to this burial. It was an earthen shaft pit burial with the opening larger than the bottom; the opening was 7.5m long, 2.35–2.55m wide, the bottom was 7m long, 2.05–2.4m wide and the depth was 4m. The wooden coffin chamber was built by stacking up the slightly hewn huge logs, the entire chamber and the wooden piles were all coated with a layer of light gray clay plaster about 3–5cm thick. In the coffin chamber, a bronze coffin made into the shape of a stilt house was found; the coffin was 2m long, 0.62m wide, the eaves were 0.45m high and the middle ridge was 0.62m high, and the pillars supporting the house were 0.11m high. On the coffin, images of birds and beasts such as eagles, swallows, tigers, leopards,

boars, deer, water birds and so on, as well as double-line triangular patterns were cast, and the whole bronze coffin weighed 257kg. From this burial, over 100 grave goods were unearthed, most of which were bronzes, including weapons, farming tools, musical instruments, domestic animal figurines, utensils for daily use, weaving tools and an early-style bronze drum. The radiocarbon dating data showed that the date of this burial was 2350±75 BP, which was around the early Warring-States Period (Archaeological Team 1964).

In June 1977, Dali Prefectural CPAM and Xiangyun County Cultural Center recovered a wooden chamber burial on the slope terrace of the Xiangshan Hill 2km to the east of Dabona Village. 1.5km to the west of this burial was the location of the “wooden chamber bronze coffin burial” excavated in 1964. The structure of this burial was similar to that one, but the size was a little smaller: the length of the grave was at least 6m. The wooden coffin in this burial was 3.93m long, 0.88m wide and 1.08m high, the original orientation was 250°. This burial yielded over 40 pieces of grave goods including bronze hoe, sword, *dou*-stemmed bowl, cup, bracelet, *fu*-cauldron and some tin wares (Dali Bai 1986).

On February 19 through March 4, 2008, Dali Prefectural CPAM and Xiangyun County CPAM conducted rescue excavation to a wooden chamber burial in Dabona Village. This burial was about 20m to the northwest of the one recovered in 1977. The opening of this burial was 6.4m long and 2.6m wide. Because it had been looted before the excavation, only five pieces of artifacts were unearthed from this burial, including a bronze staff head and some pottery wares (Dali Bai 2012).

The three rescue excavations to Dabona Cemetery mentioned above recovered four burials (one of which had been looted before scientific excavation) and

unearthed large amounts of valuable artifacts, including several dozens of bronzes such as the coffin, bronze drum, chime bells, etc. The “wooden chamber bronze coffin burial” belonged to the large-sized one among the burials of the Warring-States Period to the Western Han Dynasty discovered in Yunnan area, which implies that the Dabona Cemetery would be a high-ranking cemetery in the Erhai Lake area and the seat of the Yunnan County set by Emperor Wu of the Western Han Dynasty would be in the nearby area. Therefore, the in-depth explorations of the cultural connotation and chronology of the Dabona Cemetery and its position and influences in the development of the regional culture are especially important.

To establish the sequence of the archaeological cultures from the Neolithic to the Bronze Ages in the Erhai Lake area, since 2013, Yunnan Provincial Institute of Cultural Relics and Archaeology started the excavation and research of the Dabona Cemetery. The academic goals of this project are: 1. Comprehensively fetch the information related to the ancient remains through the interdisciplinary cooperative studies; 2. Try best to make clear the date and cultural features of the cemetery, further the research on the cultural connotation and the elucidation of the academic values of the cemetery and moreover explore the position of the bronze culture represented by Dabona Cemetery in the development procedure of the ancient bronze civilization in Yunnan; 3. Construct and perfect the sequence of the archaeological cultures of the Bronze Age in the Erhai Lake area; meanwhile, through detection and excavation, make clear the distribution and extension of the Dabona Cemetery to provide accurate data for the designing of the preservation plan and the following displaying and utilization of the site.

The detecting results

In November 2013 through April 2014, we organized professional archaeological coring team and conducted comprehensive coring exploration to the areas in the east and west zones of the Dabona Cemetery covering about 5ha in total and obtained important results. The range of the west zone and the distribution of the remains in it were generally made clear. The “wooden chamber bronze coffin burial” mentioned above was just found in the west zone and this zone included both residential remains and burials of the same period. The extant residential remains are mostly superimposed by the modern Dabona Village, and the ash pits found by the coring exploration are about 2m below the present ground; burials are found to the east of the village and wooden coffins were detected. The remains and burials cover areas of about 1.5ha in total. The east zone included the areas in which burials were excavated in 1977 and 2008; the coring exploration also made clear the range and distribution of the burials, which covered areas about 7000sq m in total. In addition, another burial area about 300m and covering about 7000sq m to the south of the east zone of the cemetery was found, fine gray clay and wooden burial receptacles were recovered and the burials found in this area had roughly the same structure with that of the two zones discovered earlier. The coring test results showed that both the two cemeteries in the east zone have large-sized burials longer than 7m.

The coring exploration revealed that in addition to the three cemeteries in Dabona area, residential remains of the same period were also found in the range of the west zone (Figure 3).

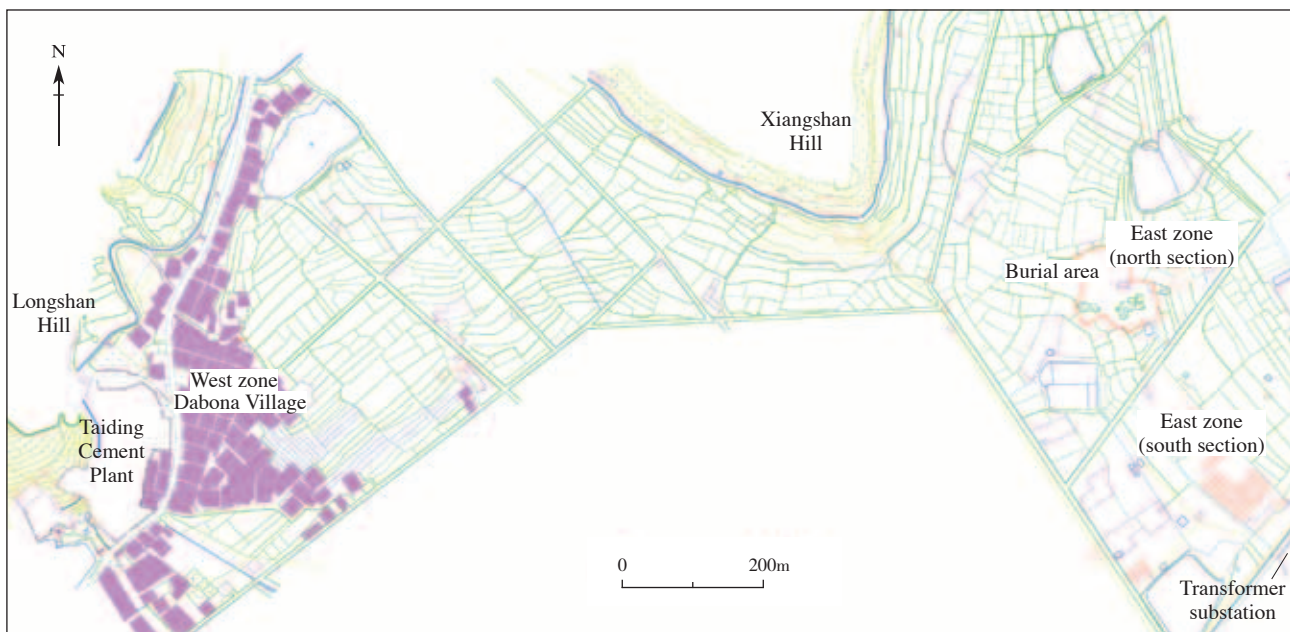


Figure 3 The terrain and zoning of the Dabona Cemetery.

The excavation procedure

Based on the exploration results, from July to December 2014, Yunnan Provincial Institute of Cultural Relics and Archaeology designed a plan and conducted large-scale excavation to the Dabona Cemetery, which uncovered areas of about 1000sq m in total.

This excavation project paid much attention to the association of the traditional archaeology and interdisciplinary research methods to try best to all-directionally and multi-angularly obtain archaeological data and information and apply scientific preservation methods; many digital techniques were applied to lay

firm foundation for the study, preservation, exhibition and utilization of the cemetery in the future. In this excavation, digitized management platforms are widely applied, the excavation grids are arranged and mapped with RTK technology, three-dimensional models are built with the multi-view three-dimensional imaging restoration and three-dimensional laser scanning techniques; aerial photography is widely used in the excavation and new digital mapping methods were attempted. In the procedure of the field excavation, the features such as burials and ash pits were all excavated by step-by-step sectioning method in order to comprehensively fetch the information of their structure, burying process, etc. The digital three-dimensional models built for a single burial could be as

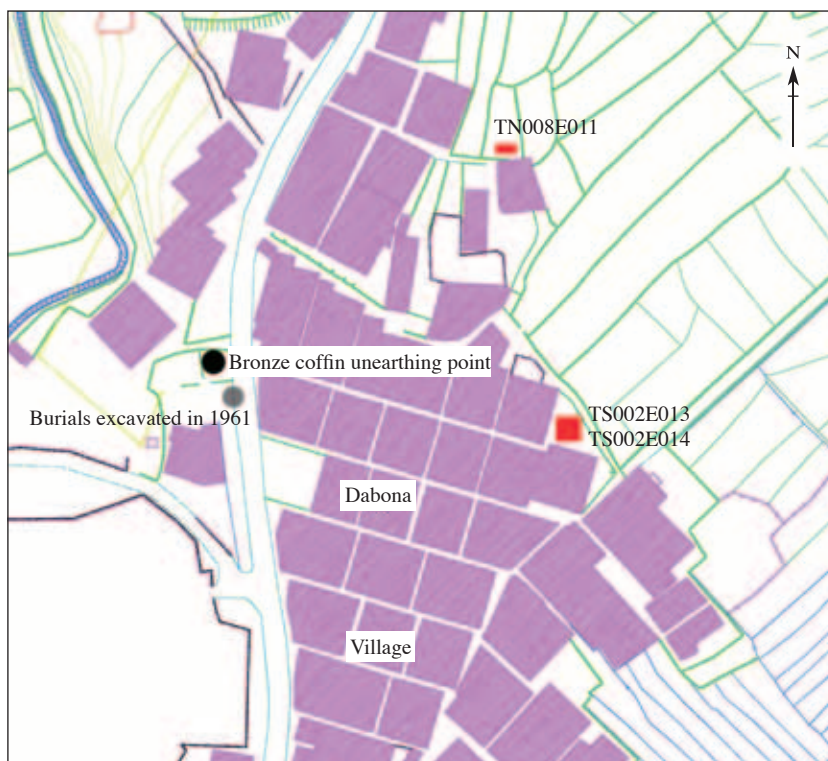


Figure 4 The excavated areas in the west zone.

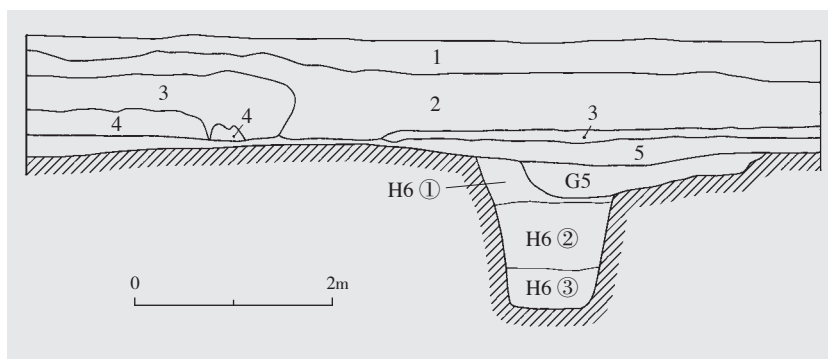


Figure 5 Section of the east wall of the excavation grid TS002E013.

1. Grayish-brown soil; 2. Yellowish-brown soil; 3. Yellowish-brown soil; 4. Reddish-brown soil; 5. Grayish-brown soil.

many as 10. The soils of the cultural layers and burial fill were all sampled according to the stratigraphy and subject to flotation and the fills in the coffins and coffin chambers were also partly sifted and washed. The unearthed human bones were sampled and systematically tested and studied by the anthropologists from Jilin University. The laboratory of Yunnan Provincial Institute of Cultural Relics and Archaeology also timely gather samples, analyze the taphonomic environment of the unearthed artifacts and apply corresponding means to preserve the bronzes onsite and to send the wooden objects to the laboratory to subject to conservative processing, and apply chemical conservative processing to the wooden coffins and coffin chambers onsite. In addition, we also cooperated with Nanjing University to conduct paleoenvironmental study through the analysis of the tree-ring data of the Dabona area.

1. The residential features of the west zone.

This excavation arranged three excavation grids at two localities 100m apart from each other in the west zone and uncovered 150sq m in total, the intention of which was to understand the cultural accumulation of this area (Figure 4).

The stratigraphy of the excavation area can be divided into five layers, and we choose the east wall of the excavation grid TS002E013 as the example to illustrate them (Figure 5).

Layer 1: grayish-brown sandy soil with loose texture. This layer covers the entire excavation grid and is especially thick in the southwestern

part.

Layer 2: yellowish-brown sandy soil with dense texture, about 0.18–0.75m thick. This layer covers the entire excavation grid and is especially thick in the southeastern part.

Layer 3: yellowish-brown sandy soil with dense texture, the thickest part of which is 0.5m. This layer is absent nearby the east wall and southwestern corner of the excavation grid but seen in other places, especially thick in the northeastern part.

Layer 4: Reddish-brown sandy soil with loose texture, the thickest part of which is 0.25m. This layer covers the entire excavation grid and the main body is in the northeastern part.

Layer 5: grayish-brown soil with loose texture, the thickest part of which is 0.4m. This layer covers the entire excavation grid and contains large amounts of sandy reddish-brown and dark gray potsherds. The features superimposed by this layer included the ash pits H2, H4 and H6, house foundation F1, ash ditches G5, G7 and G11, and 19 postholes randomly scattered.

Beneath Layer 5 is the primary soil.

The remains found in the accumulations reflected that the Layers 1 and 2 are the modern deposits, Layer 3 is the deposit of the Ming and Qing Dynasties and Layers 4 and 5 are that of the early period, and most of the features are superimposed by Layer 5.

Cultural deposits of the early period were widely found in the west zone, the features found from which included house foundations, ash pits, ash ditches, postholes, etc (Figure 6). Some postholes are orderly arranged, but no living floors associated with them were found, so they are estimated to be the remains of stilt houses.

House foundation: only one (F1) was discovered. It has a roughly square plan with the length of 4.5m and width of 4.2m. It was partly damaged, and 11 postholes were preserved.

Ash pits: eight in total, can be classified into rectangular ones and circular ones by plan. The sample H6, which was superimposed by Layer 5, was 1.1m below the modern ground surface; it has a rectangular plan, 5.2m

in length, 1.2m in width and 1.7m in depth (Figure 7).

Ash ditches: seven in total, all in slender plan. The opening of the sample G5 was 1.1m below the modern ground, 8.7m long, 1m wide and 0.3–0.4m deep.

The artifacts unearthed in the west zone were mainly potsherds, most of which were that of handmade sandy reddish-brown and dark gray pottery burnt in low temperature. The bodies of the pottery wares were seldom decorated and the bottoms were usually decorated with leaf vein designs. In addition, over 40 other artifacts including whetstones, stone axes, stone pads, bronze

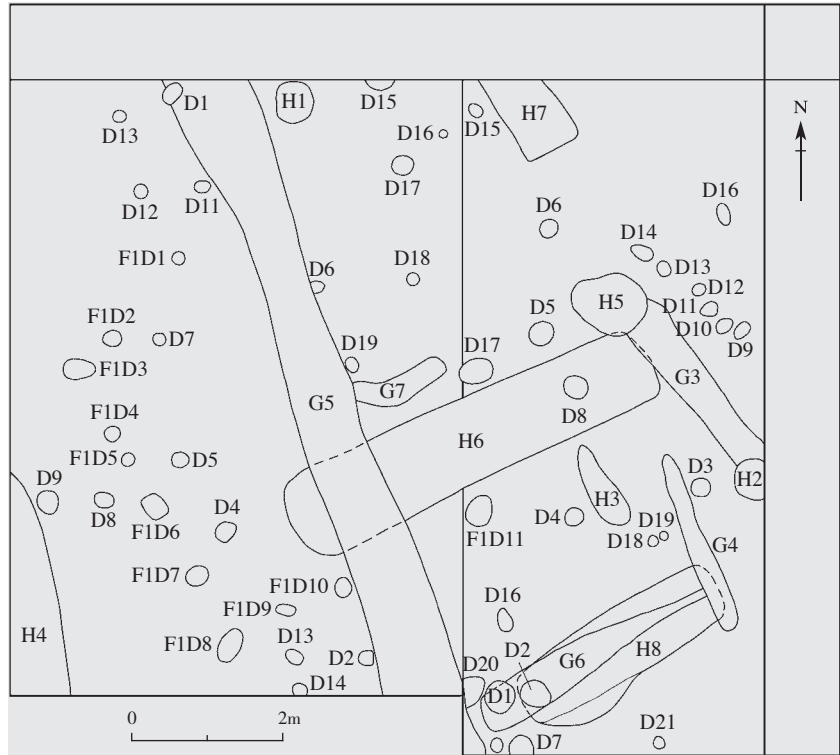


Figure 6 The remains beneath the Layer 5 of excavation grids TS002E013 and TS002E014.

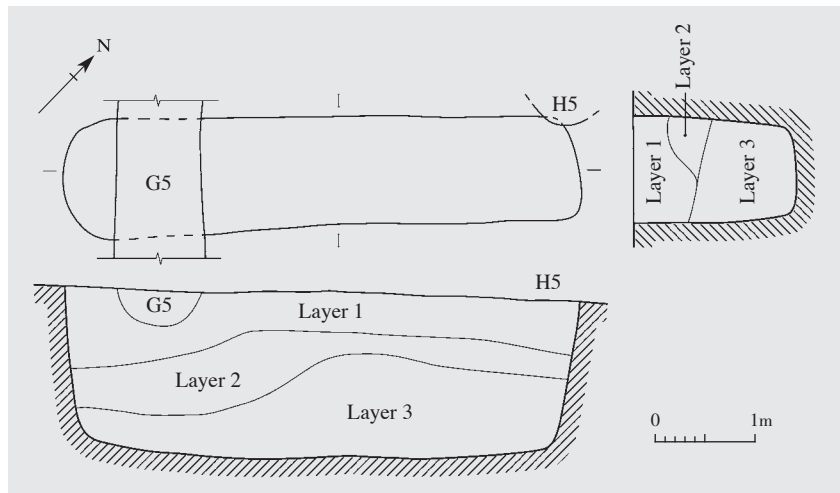


Figure 7 The plan and sections of the ash pit H6.

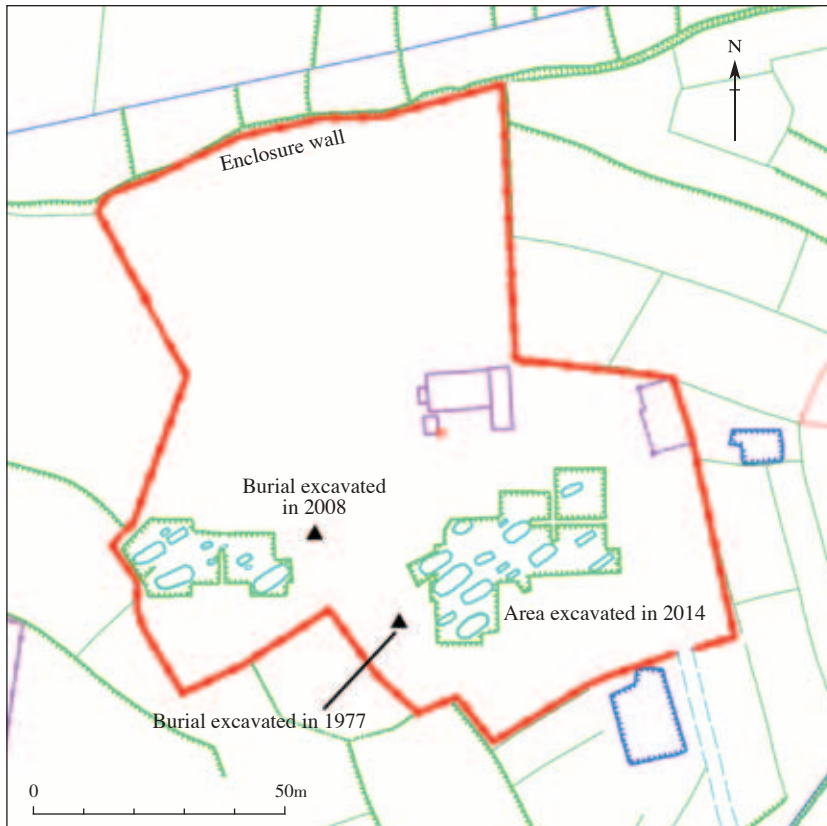


Figure 8 The distribution of the excavated areas in the north section of the east zone.



Figure 9 Excavation area of the north section of the east zone (top is north by northwest).

arrowheads and fragments of casting mold made of red sandstone were also unearthed at the west zone.

2. The cemeteries of the east zone.

According to the coring results, the east zone of the

Dabona Cemetery could again be divided into the north and south sections, which were covering about 7000sq m respectively and about 300m apart from each other. This excavation was conducted in the north section, which uncovered areas of more than 850sq m and recovered 25 burials in total (Figures 8 and 9). Of these 25 burials, six large-sized ones had lengths larger than 6m; 11 medium-sized burials had lengths between 3–6m and eight small burials had lengths smaller than 3m. The stratigraphic locations of these burials were similar, all of which were superimposed by Layer 4 of the accumulation of this zone. The orientations of these burials were roughly uniform, which was around 240° . The largest burial in this section was M20, which was 7.6m long and 3.9m wide at the opening.

(1) The burial structure. All of the burials recovered in this excavation were vertical earthen shaft pit burials. Large-sized burials all had wooden coffin chambers and coffins, which were mostly built of large logs or planks of pine or oak wood. The coffin boards were usually well preserved, which were stacked up into the coffin walls and perhaps have had mortises and tenons to fix together. In some medium-sized burials, only wooden coffins were found, and the wooden coffins had the similar construction forms with that of the large-sized burials. Most of the small-sized burials had no coffins unearthed. The construction of the graves were rather elaborate: the bottoms were usually bedded, the walls were applied with many layers of gray fine clay, the spaces between the coffins and coffin chambers were also filled with gray fine clay; the second-tier ledges were rammed into firm texture. The pottery wares in the grave goods were generally put at the upper part of the west end of the grave and a few of them were put in the coffin; the bronzes were usually put on the two sides of the inner bottom of the coffin

(Figures 10 and 11).

M12 was a large-sized burial with second-tier ledges and wooden coffin chamber, the orientation of which is 240° (Figures 12 and 13). It was 7.55m long and 2.46–



Figure 10 Grave goods of M19 in situ (W–E).



Figure 11 The human skeleton and grave goods of M20 (W–E).

2.74m wide at the opening and 6.25m long and 1.9m wide at the bottom, and 2.2–2.4m deep. The grave walls were coated with many layers of gray fine clay plaster, the ledges were rammed firm. The coffin chamber and coffin of this burial were well preserved; the coffin chamber was 5.7m long, 1.4m wide and 1.4m high; the north side board was 5.4m long and the south side board, 4.2m long; the east and west end boards were both 1.4m long, the wooden piles of the coffin chamber were 0.85m long, 0.26m wide and 3cm thick. The east and west end boards of the wooden coffin were both composed of two boards, the top board of the west end board of which was 0.68m long, 0.17m wide and 5cm thick, and the bottom board was 0.68m long, 0.38m wide and 8cm thick; the top board of the east end board was 0.71m long, 0.35m wide and 6cm thick, and the bottom board was 0.76m long, 0.36m wide and 8cm thick. The two side walls of the coffin were built of stacked squared-off logs, the top one of the south side wall of which was 3.67m long, 0.26m wide and 0.27m thick, the notch on its

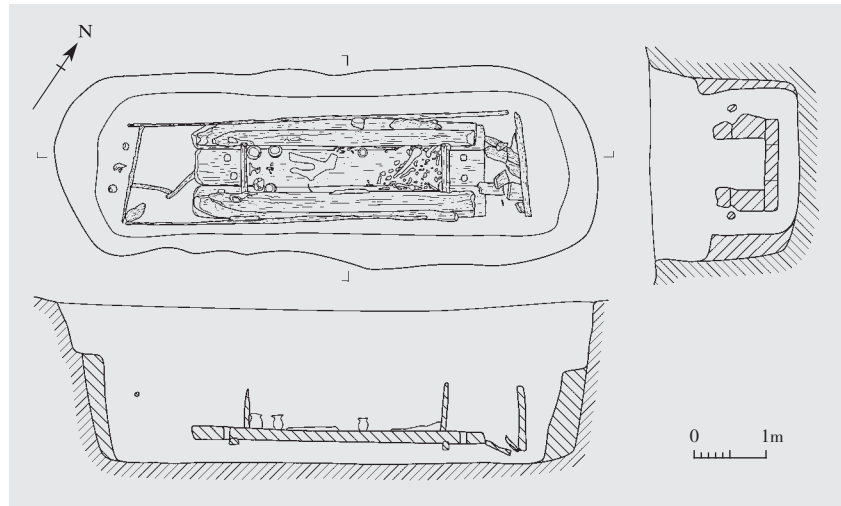


Figure 12 Plan and cross-sections of M12.

east end was 0.1m wide and 3cm deep; on the two ends of the side wall logs, round mortises were chiseled from the face to the head, the diameter of the mortise was about 0.1m. The bottom board of the coffin was composed of three boards, the south one of which was 4.03m long, 0.42m wide and 0.3m thick. The room in the coffin was 2.72m long and 0.66m wide. The side walls and bottom



Figure 13 M12 (NE–SW).

boards of the coffin all exceeded the two end boards; they exceeded the east end board for 0.5m and the west end board, 0.64m. On the sections of the bottom board exceeding the two end boards, rectangular mortises were chiseled through, which were 0.2–0.45m from the east and west ends of the bottom board. Between the north and south side walls of the coffin chamber and coffin, eight wooden bars were settled respectively, which were 0.4–0.68m in length and 8cm in diameter and might be used as spacers. The fill of the grave nearby the coffin chamber was very sticky fine clay, that farther from the coffin chamber was mottled soil and the top layer of the fill was dark gray soil. Many human bones were found in this burial, but they were poorly preserved, which were estimated to be collective secondary burial of many individuals. The preliminary observation revealed that in the head compartment, at least two individuals were interred, and in the coffin, there were also at least two individuals, and their ages were all around 20–25 years old. This burial yielded 59 pieces of grave goods, including 33 bronzes, 22 pottery wares, one fragmentary iron object, two wooden objects and one leather object.



Figure 14 M4 (top is southwest).

The pottery wares were unearthed at the upper and middle part of the west end of the grave, and other grave goods were all found in the coffin. M4 was a medium-sized burial with irregular rectangular plan, second-tier ledges and wooden coffin, the orientation of which is 237° (Figure 14). It was 5.2m long and 1.87–2.38m wide at the opening and 4.37m long and 1.08–1.43m wide at the bottom. The fill of the grave could be divided into five layers: Layer 1 was dark brown sandy soil with dense texture and low water absorptivity; Layer 2 was yellow sandy soil mixed with red sandstone gravels, the texture was loose and the water absorptivity was low; Layer 3 was pale gray fine sandy soil mixed with yellow and red gravels, and along the walls of the grave, there was a ring of yellow earth; Layer 4 was pure gray fine clay filled around the coffin to have a sealing function; Layer 5 was pure light gray fine sand filled around and bedded beneath the coffin. The potsherds found in the fill were burnt in high temperature, which would have belonged to practical vessels.

The coffin of this burial was well preserved, which consisted of the lid and the body cut out of a single wooden log, and the traces of cutting and scraping were

still kept on the two ends of the log. The top one third of the log with a circular segment shape in cross-section was cut off as the lid, which was 3.48m long, 0.61m wide and 0.43m thick; the bottom two thirds of the log was made into the coffin body, which was 3.51m long, 0.8m wide and 0.66m thick. 1.03m from the west end, a groove was dug out for interring the occupant; the groove was 1.37m long, 0.27m wide and 0.17m deep. On the east and west ends of the lid, four pairs of oval notches were symmetrically chiseled. On the north and south sides of the coffin, rectangular wooden planks were lined, which were 5–10cm in thickness, only the west end of the north side was not. At the west end of the coffin, where the pottery wares of the grave goods were found, wooden planks exceeding from the bottom of the coffin were seen, the exposed section of which was 0.15m long and in a right angle trapezoidal plan; the south edge was at right angle with the wooden plank lined on the south side of the coffin. The seam between the lid and body of the coffin was clearly seen; at the seam, semicircular notches 0.15m in diameter were symmetrically cut on the lid and the body. About 0.5m inward from the east and west ends of the coffin, squared-off wooden logs were put underneath the coffin as joists.

From this burial, eight pieces of grave goods were unearthed. The four pottery wares were put at the southwestern part of the grave outside the coffin; two bronzes, both weapons, were found in the coffin; two wooden objects, which were in the shape of polished sticks with scraping traces and one end thicker than the other, were found beside the pottery wares.

M22 was a small-sized burial without burial receptacles found, the orientation of which is 240°. The grave was shallow and the walls are tidily trimmed; it was 2m long, 0.7m wide and 0.3m deep. The fill of the grave was bluish-gray sandy soil with high proportion of sands and not very sticky. Four pottery wares were unearthed, which were put at the west end of the grave bottom, and two of them were too fragmentary to restore.

(2) The grave goods. Rich grave goods were unearthed in this excavation, 290 pieces (sets) in total. They included bronzes (copper objects), pottery wares, iron objects, tin wares, stone implements, wooden objects, bamboo objects, gourds, etc.

The bronzes (copper objects) included weapons, tools, daily utensils, ornaments, etc. The tools were the most, mainly hoes (Figure 15), cutters, “scripture roller (Figure 16)”, reed (a part of loom) and so on. The weapons included swords (Figures 17 and 18), spearheads (Figure 19), axes (Figure 20), *yue*-battle axes (Figures 21 and 22), ferrules, arrowheads, etc. Daily utensils included staff heads (Figures 23–25), bells (Figure 26), bracelets, rings, etc. These artifacts were made of bronze and copper; we conducted non-destructive composition detection and analysis to the surfaces of two samples with portable X-ray fluorescence spectrometer, the results of which showed that the material of the ferrule (M12:20) has 99.1% of copper, 0.7% of tin and 0.2% of other metals

in the composition, so this ferrule is a copper object. The *yue*-battle ax (M4:6) has 94.3% of copper, 3.3% of tin and 2.3% of lead in its material, as well as 0.1% of other metals, so it is a bronze object.

The unearthed tin wares were four pieces forming a set (M13:1), all of which were slightly damaged, and bearing exquisite patterns (Figure 27).

Among the unearthed wooden objects, a bow was better preserved, which was about 1.2m in length. The wooden haft of a bronze ax unearthed from M4 was also well preserved (Figure 28). Other wooden wares included two *dou*-stemmed bowls, one plate, etc.

Pottery wares are the most artifacts unearthed in this excavation, the complete and restorable ones of which are more than 60 pieces. By texture and color, they can be classified into grayish-brown sandy pottery, reddish-brown sandy pottery, grayish-black sandy pottery and dark gray sandy pottery; decors are undeveloped, only a few



Figure 15 Bronze hoe (M12:31).



Figure 16 Bronze scripture roller (M12:17).



Figure 17 Bronze sword (M12:40).



Figure 18 Bronze sword (M4:7).



Figure 19 Bronze spearhead (M12:20).



Figure 20 Bronze ax (M19:13).



Figure 21 Bronze *yue*-battle ax (M12:22).



Figure 22 Bronze *yue*-battle ax (M12:23).



Figure 23 Bronze staff head (M19:11).



Figure 24 Bronze staff head (M19:10).



Figure 25 Bronze staff head (M12:15).



Figure 26 Bronze bell (M14:2).



Figure 27 Tin wares (M13:1).



Figure 28
The bronze ax with wooden haft found at M4 in situ (top is southwest).



Figure 29 Pottery jar (M12:2).



Figure 30 Pottery jar (M12:4).



Figure 31 Pottery jar (M24:1).



Figure 32 Pottery *dou*-stemmed bowl (M19:3).



Figure 33 Pottery *bo*-bowl (M19:1).



Figure 34 Pottery *yi*-pourer (M25:2).

cases of fine and close line patterns and incised designs are seen, and the bottoms of some jars are decorated with leaf vein designs. All of the pottery wares are handmade and burnt in low temperature, most of them have loose textures, very fragmentary and difficult to restore. The main types of the pottery wares are jar (Figures 29–31), cup, plate, *dou*-stemmed bowl (Figure 32), *bo*-bowl (Figure 33), *yi*-pouder (Figure 34), spindle whorl, etc. Jars can be classified again by shape into the double-handled, single-handled and handleless jars; the double-handled and single-handled jars are rarer, and the handleless jars with flaring mouth, bending rim and deep belly are more popular.

Academic significances

In 1964, burials were recovered for the first time in Dabona Cemetery, the bronze coffin unearthed from which is the largest bronze object found to date in Yunnan area and concerning the academic field since the very beginning. The researchers widely agreed that this burial had high rank and its date would be the Warring-States Period. The authors of the excavation report estimated this burial to be the remains of the “Kunming 昆明” ethnic group, and Prof. Tong (1966) thought that it belonged to the “Mimo 靡莫 or some alike ethnic group.” After that, the archaeological fieldwork there was generally withheld, few new discoveries were done in a long time, and the ethnic affiliation of the cultural remains of the Dabona Cemetery and the nature of the cemetery are waiting for further researches.

The large-scale excavation to Dabona Cemetery in 2014 recovered 150sq m of residential area and 25 burials and unearthed over 330 pieces (sets) of artifacts of various materials. The bronzes and pottery wares bore similar styles and features with that of the artifacts found in the previous three excavations to this cemetery. The textures, colors, decors, making techniques and burning temperatures of the pottery wares unearthed at residential area and the burials are roughly the same, and so are their dates. Generally, the dates of the east and west zones of the Dabona Cemetery are the same, and would roughly be the Warring-States Period to the Qin and Han Dynasty.

Through the excavations and studies of the Baiyangcun (Museum of Yunnan 1981), Haimenkou (Yunnan Provincial 2009a and 2009b), Yinsuodao (Yunnan Provincial 2009c) Sites etc., the chronological framework of the archaeological cultures in the Erhai Lake area between 4100–2500 BP has been basically established. However, the cultural deposits after 2500 BP are absent in Yinsuodao, Haimenkou and other important sites, therefore the features of the archaeological cultures in this area between 2500–2000 BP are not clear. The discoveries of the Dabona Cemetery can just fill this gap and help us to clarify the features of the archaeological cultures of the Erhai Lake area in the Warring-States Period to the Western Han Dynasty.

The excavations to the Dabona Cemetery revealed

some important characteristics of local bronze culture. For example, stilt houses existed in this area; wooden coffin and coffin chamber, even bronze coffin were used as receptacles in the burials; artificial second-tier ledges were built in the graves; many individuals were interred in a collective secondary burial; blue iron earth powders were scattered on the human skeletons, burying gourds with the burial occupants, and so on. The bronze types included drums, spearheads with curved blades, staff heads of various forms, *yue*-battle axes, *dou*-stemmed bowls, bells etc. The use of staff heads of various types is one of the most important characteristics of this kind of remains. The representative pottery types are jars, *dou*-stemmed bowls, etc., and the most popular form of the jars is flaring mouth, bending rim, deep belly and flat bottom.

The excavations to the Dabona Cemetery and residential area have significant academic meanings, which can be summarized as the following.

First, Dabona Cemetery is the largest and highest-ranking cemetery of the Warring-States Period to the Western Han Dynasty discovered to date in the western Yunnan area; the burials are generally well preserved without being looted, and the burial receptacles and positions found in this cemetery are very special. The excavation results show that Dabona was an important cultural center in the Erhai Lake area during this period.

Second, through the excavations and studies, the basic features, connotations and distribution range of the remains of the bronze culture represented by Dabona Cemetery are further understood. This type of remains played an important role in the nearby cultures of the Bronze Age and will have strong influences to the studies on the cultures of the Bronze Age in the entire western Yunnan area.

Third, the excavation to the Dabona Cemetery filled the gap of the archaeological cultures in the Erhai Lake area from the Warring-States Period to the Western Han Dynasty, and provided important materials for the establishment of the chronological framework of the archaeological cultures of this area.

Fourth, the digitized archaeology, the application of the new technologies and the cultural relics conservation were conducted synchronously with the strictly regularized archaeological excavation, and large amounts of detailed messages related to the ancient remains are obtained. The systematic sorting and study on these messages will provide more new data for the researches on the relevant fields in archaeology, anthropology, ethnology, etc., and also scientific bases for the designing of the preservation plan of the cemetery and its exhibition and utilization in the future.

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Postscript

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