

The Aduun Chuluu Site and Cemetery of early Bronze Age in Wenquan (Arixang) County, Xinjiang

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Abstract

In 2012 and 2013, four large-scale architectural remains and 16 stone slab cists were excavated in Aduun Chuluu Site and Cemetery, from which potteries, stone implements, small bronze objects and gold-filled bronze earring and stone human statues were unearthed. The dates of the remains and burials were concentrated between the 19th to the 17th centuries BCE, which was the early Bronze Age in this region. This discovery is helpful for revealing the features of the sites of the early Bronze Age in the western Tianshan Mountains and provides important clues for the explorations on the cultural connotations of the early Bronze Age in Xinjiang and the cultural intercommunication in the Eurasian Steppe area at that time.

Keywords: Aduun Chuluu Site (Wenquan County, Xinjiang); Bronze Age; stone slab cists

Brief introduction of the site

Aduun Chuluu Site and Cemetery are located at Turgen Village, Chaghan Tüנגgi Township, Wenquan (Arixang) County, Bortala Mongol Autonomous Prefecture, Xinjiang. The locations are about 43km to the west of the Wenquan County seat and in the low-mountain zone on the south side of the Dzungarian Alatau. The residential site is located 1.8km to the north of the cemetery, and Bortala River is flowing from west to east about 3km to the south of the cemetery. “Aduun Chuluu” is a Mogolian name, which means “rocks like a horse herd.”

Aduun Chuluu Cemetery was found in 1988 and proclaimed as historic and cultural monument under the protection of the autonomous region in 1999, since when Xinjiang Institute of Cultural Relics and Archaeology conducted surveys to this area. In 2010, the Aduun Chuluu Project Group of the Institute of Archaeology, Chinese Academy of Social Sciences finished the field survey and part of the mapping work to this site. In June through September 2012 and 2013, the project group conducted large-scale excavation to the residential remains and the cemetery, which uncovered areas for over 2000sq m in total. In the excavated areas, four architectural remains

(including three jointly built large-sized architectural remains), which are numbered F1-F3 and F7, and 16 stone slab cists, have been recovered. From these remains, potteries, stone implements and stone human figurines, small bronze objects, gold-filled bronze earring and bronze bead and some other valuable artifacts are unearthed.

Aduun Chuluu Site is located in the low-mountain zone to the south of Chaghan Usu Pass through the Dzungarian Alatau. The survey shows that the scope of the entire site covers about 7sq km concentrated around a mound in front of Dzungarian Alatau, the terrain of which is high, flat and wide. The top of the mound is 2525m above the sea level; around the site are the continuously distributed granite rocks stretching to the north bank of Bortala River. Around the mound, stone-structured architectural remains are scattered, 11 groups of which have been found in the surveys. Each group consists of double stone enclosures built of large stone blocks. The stone enclosures are mostly in square plan with 8-22m long on each side and 0.2-0.5m high above the ground.

Under the southward slope on the west of the mound, a large-scale stone enclosure complex (Aduun Chuluu I) was built along the terrain from the bottom to the top of the slope (from south to north); five stone architectures (numbered as Aduun Chuluu IF1 through IF5) were built into four stepped terraces. Another architectural remain, F7, is located about 5m to the southwest of F1. All of these architectural remains are built as double stone enclosures with large stone blocks, which have only one layer above the ground, and most of them are not trimmed.

Architectural remains

1. Of the three architectural remains excavated in 2012 (Figures 1 and 2), F1 is in a rectangular plan facing southeast, the orientation of which is 152°. Its structure is a double stone enclosure built of large stone blocks with a doorway stretching out of the south wall. The outer enclosure is 22m long and 18m wide, and the inner enclosure is 18m long and 14.6m wide. The stone enclosures are composed of big stone blocks, the tops of which are 0.3-1m above the ground, and some of them bear traces of trimming, the longest one is about 3m. The distance between the inner and outer stone enclosures is 0.98-1.33m. The internal layout of F1 showed a symmetric arrangement along a central axis and can be divided into four mutually isolated spaces, which might have different functions. The doorway is set in the middle of the south wall, the stretching out part of which is 2.78m long and 3.15m wide and flanked by walls built of large

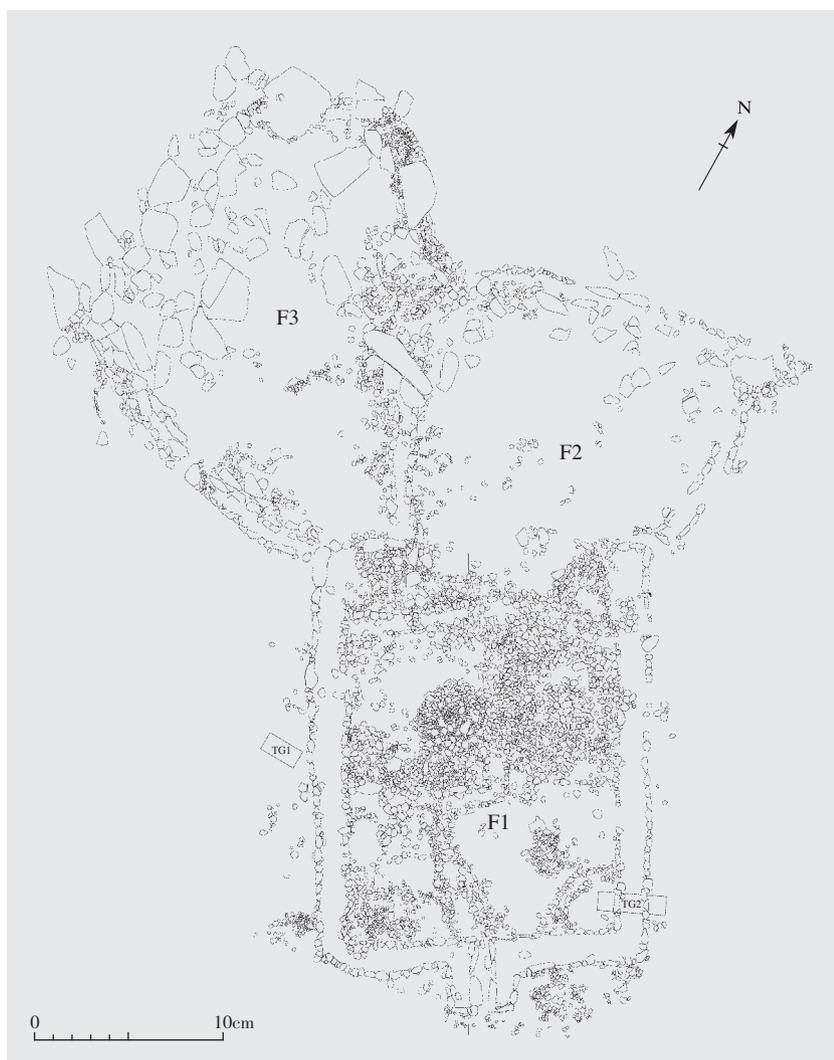


Figure 1 The plans of the house foundations F1 through F3.



Figure 2 The house foundations F1 through F3 (top is north).

stone slabs.

At the southeast and southwest inner corners of F1, there is a circular stone circle respectively (the one in the southeast is a double circle). The one in the southeast corner (which is actually a sector formed by a stone arc and two walls) is about 2.6m in radius, within which fragments of domestic animal bones and potsherds are found. The stone circle in the southwest corner is about 4m in diameter but did not have clear border on the ground; within the circle, pebbles are densely filled, among which is pure ashy soil mixed with very few potsherds.

In the middle of F1, there is a double-layered stone (enclosing) wall separating the internal space into the front (south) and rear (north) parts. This wall is parallel with the south wall of F1; between this wall and the north wall, there are two walls in north-south orientation partitioning the rear part of F1 into the northeast and northwest quarters. The northeast quarter is in an irregular rectangular plan, the size of which is 4.4 by 6m, and the north wall is in the shape of an arc. The stone blocks in this quarter are roughly arranged in north-south rows and in some places the stone blocks are stacked for two or three layers. The northwest quarter is in a rectangular plan, the size of which is 7.3 by 8m. The main part of the stone pile in this quarter is in circular plan and is usually formed by only one layer of stone blocks; in the southeast, the stone blocks are more densely gathered and the central part of the stone pile is slightly higher. In other parts of the quarter, stone blocks are also randomly scattered.

On the two outer corners of the north wall of F1, there is a rectangular stone structure, respectively, making the north side of F1 in an \square -shape, the outline of which is the outer stone enclosure of F1. In the northwestern stone structure, rows of stone blocks are preserved. Between the two layers of the north stone enclosures of F1, there are three stone partitions in intervals of 2.8-3.3m wide.

In F1, some cellars are discovered.

2. F2 located to the east of the north of F1 and joining it is also a

double stone enclosure structure. It is in an irregular oval plan with the major diameter 18.2m long from east to west and minor diameter 14m long from north to south. In F2, no partitions are found, but only two large stone blocks are put in a north-south row at the center of the south part. The stone blocks are about 1m long and 0.75m wide, and about 0.6m high above the ground.

3. The F3 located to the west of the north of F1 is in a semicircular plan 17.8m in diameter with the length from north to south a little longer. Its east (enclosing) wall is just the west (enclosing) wall of F2; on its west wall, there is a clear opening, which should be a doorway. The construction of the enclosing wall of F3 utilized many natural bedrocks and rock pieces originally scattered on the ground, and the artificial parts are build of pebbles into a double-layered enclosure. In the northwest of F3, some huge rocks are kept, which seem to have been cut or had flakes detached, the tops of which are generally at the same height with the ground. Nearby the east (enclosing) wall, stone implements and few potsherds are unearthed.

Burials

The cemetery is located in the south of the site about 1800m from the mound of the residential area; the terrain of the cemetery is low, flat and broad, with hillocks or mounds on the east and west sides. The cemetery is about 500m long from north to south and could be divided into the north, middle and south zones; up to now, over 60 burials have been detected (Figure 3).

The stone slab cists have square or rectangular stone enclosures on the ground, within which one to three vertical shaft graves were dug and lined with stone slabs as cist, and lidded with stone slabs. The largest stone enclosure is almost 10m by 10m in size; the fill within which is usually 0.4-0.6m thick and slightly higher than the ground outside the enclosure. In addition to the stone slab cists, some rock cairn burials are also found in the cemetery.

In 2012 and 2013, 16 stone slab cists in the three zones have been excavated (Figure 4). Now we choose some cases to present to our colleagues.

1. SM4 located in the north zone and neighboring SM5 to the south. It has square stone enclosure on the ground, which is constructed with 7-9 stone slabs on each side, and the widths of the stone slabs are between

0.8-1.1m, the heights of them above the ground are between 0.5-0.8m. The entire stone enclosure is about 7m long on each side. In the middle of the north side, there is an opening. In the stone enclosure, two graves (SM4-1 and SM4-2) are arranged in a north-south direction, the orientations of both of which are east-west. Both graves have stone slab-lined cists. Nearby the openings of the graves, small pebbles are put on the ground as marks of grave; the small pebbles are 8-15cm in size (Figure 5).

SM4-1 is located in the north of the stone enclosure; it is an oval vertical shaft grave with 3.67m in major diameter, 2.2m in minor diameter and 2m in depth. The cist built of four trimmed stone planks is about 1.5m from the opening; it has no bottom board and the top is covered with four large stone blocks. The gaps between the cist and the grave are filled with pebbles, gravels and earth. The cist is finely constructed, the walls are all complete single stone slabs trimmed flat. The cremated skeleton of the tomb occupant is scattered in the bottom, and in the west end of the cist, a damaged small pottery jar is found.

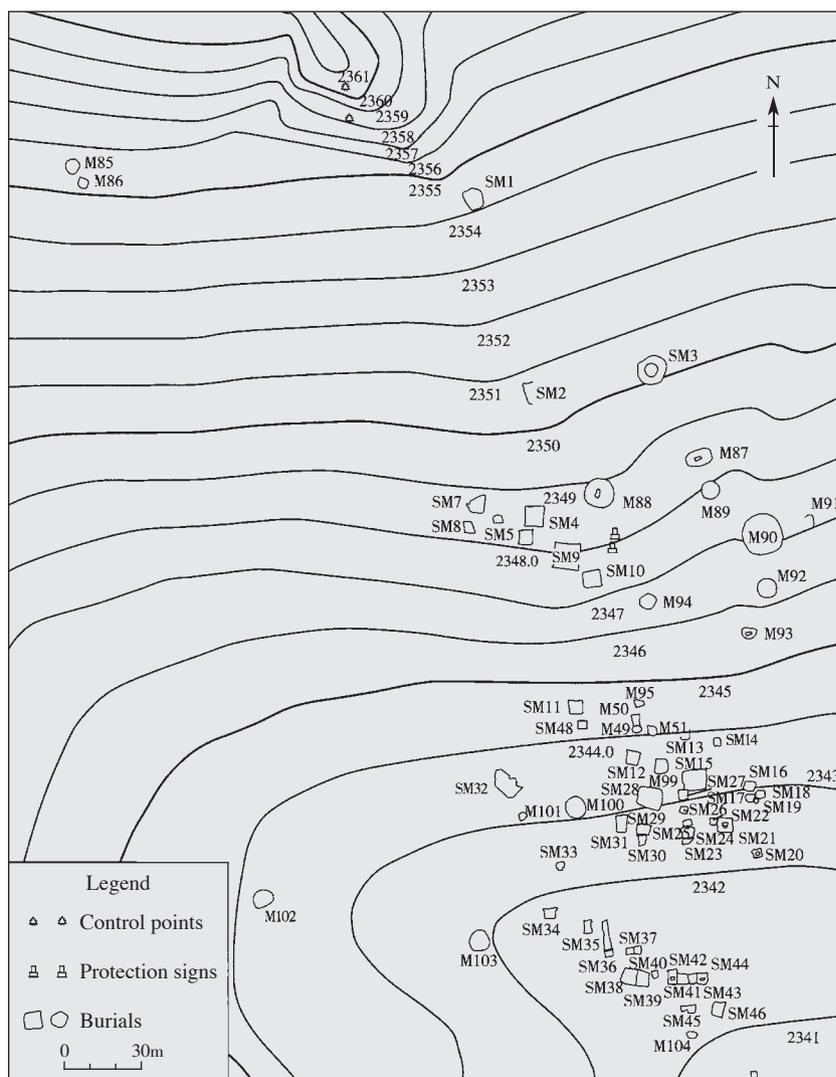


Figure 3 The general plan of the cemetery.



Figure 4 The north zone of the cemetery (top is north).



Figure 5 The tomb SM4 (top is north).



Figure 6 Gold-filled bronze earring unearthed from SM4.



Figure 7 The pottery jar unearthed from SM4 in situ.

The skeleton of the tomb occupant is identified as a juvenile individual, whose sex is unidentifiable.

SM4-2 is located about 0.3m to the south of SM4-1; it is a rectangular vertical grave lined with stone slabs, the length of which is 2.6, width, 2.4 and depth, 2.1m. The cist is roofed with several thin stone slates, which have a layer of fine yellow clay 3cm thick applied on the top. In the cist, wooden burial receptacle was set; because the stone slate roof caved in, the north part of the wooden burial receptacle has been completely damaged. The wooden burial receptacle was composed of tree trunks 13-15cm in diameter, but all of them have decayed. Five of these tree trunks are still keeping their shapes and the mortise-and-tenon joints. The tomb occupant is an adult male about 30 years old, whose skeleton is well preserved, and the burial position is flexed on left side heading west and facing north. The grave goods unearthed from this tomb included gold-filled bronze earring, pottery jar and knucklebones, etc (Figures 6 and 7).

2. SM50 located in the south zone and neighboring SM49 to the south. It has a rectangular stone enclosure and shares its south wall with SM49 as its north wall. The stone enclosure of SM50 is 7.1m long from north to south and 2.8-3m wide from east to west. It is rather low, the top of which is about 0.3m above the ground; the outer surfaces of the stone slabs are slightly trimmed and the erected slabs

are mostly inclining inward. Within the stone enclosure, two graves (SM50-1 and SM50-2) are arranged in a north-south row, both of which are in east-west orientation and lined with many stone slabs to form cists (Figure 8).

Both SM50-1 and SM50-2 are in irregular square plan. SM50-1 is 2.3-2.4m long on each side, in which two stone cists are arranged in a north-south row and share the same stone slabs between them, and both are covered with stone slabs. The human bones in both cists are cremated, the bone fragments of which are found on the bottoms of them. The human bones in both cists are identified as that of juvenile or adult individuals, but the sexes of them are unidentifiable. Nearby the west end of each cist, a damaged small pottery jar is found on the bottom.

SM50-2 is 2.2m long on each side, the cist in which is built of stone slabs and covered with stone slabs of various sizes. The skeleton of the tomb occupant is in flexed on side position heading west, but the skull and right lower limb are missing. The skeleton is identified as a female 25-30 years old; to the north of her skeleton, the skull, scapulae and ribs of an infant are found, which means that this is a joint burial of an adult female and a child. At the west end of the cist, a small pottery jar is found on the bottom.

Conclusions

The Aduun Chululu Site and Cemetery are very important remains of the Bronze Age found recently in Xinjiang. Within the low-mountain zone about 700ha in total, large amounts of residential remains and burials are distributed. The residential remains surrounding the mound and the stone slab cist cemetery nearby were contemporaneous remains, both of which are the only remains of the Bronze Age found to date in Xinjiang. At present, we have got six valid dating data through the tests to the (charcoal) samples gathered from the residential remains and burials: the AMS dating result of the log (decayed) fetched from SM9 is 3447 ± 31 BP, that of the burial receptacle of SM4-2 is 3337 ± 32 BP, that of the charcoal of SM50-1 is 3266 ± 34 BP; from F1, three data are obtained, which are 3331 ± 38 BP, 3270 ± 27 BP and 3403 ± 28 BP. These data showed that the dates of the residential remains and burials in Aduun Chululu are concentrated between the 19th to the 17th centuries BCE, which was the early Bronze Age. The date of SM50-1 was a little later, but it was consistent with the onsite observation: the structures of the burials in the northern and southern zones have slight changes, meaning that the burials in the north zone



Figure 8 The tombs SM49 and SM50 (top is east).

were early and the ones distributed to the south are late; and the more to the south, the later they were.

The excavation confirmed the interrelated residential remains and burials of the early Bronze Age in Xinjiang for the first time and obtained important materials for the exploration on the pattern of ancient societies in this area. The high similarity reflected by the construction style and the stone materials in the residential remains and the cemetery (stone slab cists) and the common characteristics of the textures and shapes of the sandy gray pottery wares and bronze awls unearthed from them all affirmed our suggestion about the contemporaneousness of these two kinds of remains, and this is one of the most important academic achievements of our excavation.

This excavation provided a set of brand-new and important materials for revealing the concrete features of the human activity remains of the Bronze Age in western Tianshan Mountains area. Compared with their counterparts of the Bronze Age found in the Ili River Valley, the west (north) of Dzungarian Alatau (Tianshan) Range and the Semirechye of Kazakhstan, the scales of the burials and the potteries, gold-filled bronze earring and stone human figurine unearthed from them had earlier dates and higher ranks, showing the important position of this site in the bronze cultures in the Eurasian Steppes. This excavation also provided important clues and physical materials for the explorations on the cultures in Xinjiang and their communications with other cultures in the Eurasian Steppes during the Bronze Age.

The stone slab cist is a burial type which has not been seen in Xinjiang in the past; the burial positions of them included primary burial (flexed on side), secondary burial and cremation burial. The skeletons of the tomb occupants have clear Caucasoid features, which have close relationship with the primitive European race, showed the migration trajectory of the ancient Europeans

in the western Tianshan Mountains and are helpful for the exploration on the situation of the Europeans in the western Tianshan Mountains during the second millennium BCE.

The completeness and scales of the Aduun Chuluu Site and Cemetery, the architectural remains F1 through F5 (including F7) and the surrounding remains all reflected high-grade civilization in the aspects of planning, construction and architectural features. This site might have been a location as a central settlement for the important ceremonies and activities in the valley of Bortala River (including Eltuokosail River).

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Postscript

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