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Regional Interactions Reflected in Jade: From the Shijiahe to the Sanxingdui

The Sanxingdui site, located on the banks of the Yazi River in Guanghan, Sichuan, is famous for discovering huge pits filled with bronze, jade, and ivory artifacts. Archaeologists found the early public cemetery at the Sanxingdui site, also known as the Rengsheng Cemetery, at the end of the 20th century. Several jade objects were found in the tombs. As the earliest dated jade found so far in the Chengdu Plain, it showed a very mature and stable style as soon as it appeared. The emergence of these jade objects may have been influenced by foreign cultures. Many scholars believe that it connects with the Erlitou culture of the Central Plains and the Liangzhu culture of the lower Yangtze River, revealing the source of the jade tradition in the Sanxingdui culture. The middle reaches of the Yangtze River, which is closer to the Chengdu Plain, should be considered as one of the sources in this discussion. New archaeological discoveries in the Yangtze River's middle reaches support this view.

Keywords: Sanxingdui site, Rengsheng cemetery, jade, Shijiahe culture, inter-regional relations.

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Отражение связей регионов в нефрите: от Шицзяхэ до Саньсиндуй

Памятник Саньсиндуй, расположенный на берегу р. Яцзы в Гуанхане, пров. Сычуань, известен находками огромных ям, заполненных бронзовыми, нефритовыми изделиями и изделиями из слоновой кости. В конце XX в. археологи обнаружили первый коллективный могильник на стоянке Саньсиндуй, также известный как могильник Жэниэн. В захоронениях были найдены несколько нефритовых изделий. Как самые ранние нефритовые предметы, найденные на данный момент на равнине Чэнду, эти предметы с момента своего появления уже представлены сформировавшимся и стабильным стилем. На появление этих предметов могли повлиять другие культуры. Многие исследователи, определяя источник нефритовой тради-

ции культуры Саньсиндуй, убеждены, что они связаны с культурой Эрлитоу на территории Среднекитайской равнины и с культурой Лянчжу на территории нижнего течения р. Янцзы. В качестве одного из источников в данном рассуждении следует рассматривать территорию среднего течения р. Янцзы, расположенную ближе к равнине Чэнду. Новые археологические открытия в среднем течении р. Янцзы подтверждают эту точку зрения.

Ключевые слова: культура Саньсиндуй, могильник Жэнишэн, нефрит, культура Шицзяхэ, межрегиональные связи.

In 1986, the discovery of two giant pits filled with ceremonial artifacts made the site of Sanxingdui in Guanghan, Sichuan, famous and attracted widespread attention from scholars at home and abroad. In 2019, archaeologists rediscovered six enormous holes, making Sanxingdui a household name and the subject of significant interest from specialists and the public. From 1997 to 1998, the Sichuan Provincial cultural relics and archaeology research institute excavated 29 densely distributed, well-arranged mound burials in Rensheng village, 50 meters west of the Sanxingdui site's western wall. This is the only known public cemetery on the site. According to the briefing, among the 29 excavated tombs, two were destroyed, six were without any relics or finery objects, and eight tombs had funerary objects unearthed, including ivory, pottery, jade, etc. It is noteworthy that the burial form and burial style of the Rensheng Village Cemetery are somewhat peculiar, with the burial ground and burial walls having been repeatedly rammed to form a hard, glossy surface; no intact human bones were seen in the burials, and the arrangement of the human bones was disorganized. Based on a large amount of humus on the ground, the excavators speculated that the human bones had been repeatedly smashed during the burial process, possibly as a more specific funerary ritual. A total of 61 jade artifacts were recovered from the burial, including jade Bi 璧, Yabi Shaped ornament 牙璧形器, bubble-shaped jade ornament 玉泡形器, rod-shaped jade ornament 玉锥形器, chisel, spear, and axe [Chen, Lei, 2004]. Previous academics have hypothesized that the unusual shapes of these jade objects show a substantial cultural contact between the Chengdu Plain, the Liangzhu culture of the lower Yangtze River, and the Erlitou civilization of the Central Plains [Wang, 2013].

Chronology

In brief, published by the Sichuan Provincial cultural relics and archaeology research institute, the excavators analyzed the stratigraphic relationships and pottery. They concluded that the upper chronological limit of the burials was not earlier than the later stages of Phase I of the Sanxingdui culture. The lower chronological limit was not later than the beginning of phase II of the Sanxingdui culture, which corresponds to phases II–IV of the Erlitou culture. [Chen, Lei, 2004]. Later, another researcher compared the data of the burials in Yueliangwan at the Sanxingdui site and pointed out that the graves in Rensheng Village were divided into two phases. The early phase belonged to the first phase of the Sanxingdui culture, corresponding to the Late Neolithic period. The lower limit was roughly equivalent to the Central Plains Xia culture, while the late phase was roughly equivalent to the Central Plains Shang dynasty [Song, 2005];

In recent years, other scholars have suggested that the Rengsheng Village cemetery dated from the Late Neolithic to the Xia dynasty [Xiao, Wu, 2010]. No carbon14 dating data has been published in the burial excavation reports, and only the relative dating of the Sanxingdui culture is available for reference. This is where the debate about the dating of the Renshengcun cemetery comes from. So far, no official report has been issued on the Sanxingdui site, and many aspects remain unknown. According to the 1980 excavation brief, the dating of charcoal in the stratigraphy of the first phase of the site is 4075 ± 100 years ago. However, the tree ring revised this date to 4500 ± 150 years ago [Sichuan..., 1987]. The excavator later added that the first phase of the site dates roughly to the Late Neolithic (4740–4070 years ago) [Chen, 1991]. Other scholars have pointed out that the dating data for the Sanxingdui site is generally early and that the uncorrected dating data is closer to that inferred from other materials [Sun, 1993]. Later, the excavator of the Sanxingdui site also said that “the dating data error is large, making the age earlier” and that “a reasonable age range should be between 4600~4000 years ago [Lei, 2018]. Given this, it would be good to date the late phase of Sanxingdui to around 4000 years ago. While Erlitou-style pottery emerges in the earliest of the second phase of the Sanxingdui culture, it is obvious that the second phase of the site corresponds to the late Erlitou to Erligang culture period, no earlier than 1600 BCE [Xu, 2021]. From the above, we can confirm that Rensheng village cemetery is 4000–3600 years old.

Discussion of the excavated jade objects

Some scholars have written that among the jade objects excavated from the Sanxingdui Rensheng Village Cemetery, rod-shaped jade ornaments have a deep relationship with the Liangzhu culture of the lower Yangtze River, while Jade vortex-shaped ornaments (i.e., Yabi-shaped ornaments) bear the characteristics of the Erlitou culture [Wang, 2013]. This has formed a consensus among archaeologists in Sichuan Province, and Jade vortex-shaped ornament, which has become one of the most substantial pieces of evidence of the interaction between Erlitou and Chengdu Plain is that ‘by the middle and late Erlitou period at the latest, some elements of Xia culture had already penetrated Shu culture’ [Chen, 2018].

Only one of the eight Yabi-shaped ornaments discovered in the Rensheng Village graveyard was composed of nephrite. Meanwhile, the remaining seven were made from minerals such as serpentine jade, dolomite, pewter, and ivory (the two made from ivory were too decayed to be extracted). The excavators wrote in their brief that “Jade vortex-shaped ornament is similar to the hat-shaped white pottery from the phase II of the Erlitou culture” [Chen, Lei, 2004], a conclusion that was gradually accepted by the Sichuan academic community and much cited by other scholars. The date of the Renshengcun cemetery overlaps with the Erlitou site for a considerable period. However, Erlitou culture pottery and representative Erlitou culture objects such as Yazhang牙璋 and the bronze decoration shaped brand beset with turquoises did not appear on the Chengdu plain until after phase II of the Sanxingdui culture [Xu, 2021]. Sanxingdui burials M14 and M21, where Yabi- Shaped ornaments were excavated,

date to the late period of Phase I. Aside from the “similar” form of the Yabi-shaped ornaments and the white pottery, there is no more evidence that the Erlitou civilization reached the Chengdu Plain in this period.

The hat-shaped white pottery 斗笠形白陶器 was excavated from a nobleman’s burial in the courtyard of building site 3 in the palace area of the Erlitou site, with three pieces placed above the skull of the tomb owner and a perforated turquoise bead in the round hole at the top of the white pottery, which the excavators speculate may have been used together [Xu, 2005].

There are some characteristic differences between the hat-shaped white pottery from the Erlitou site and the Yabi-shaped ornaments from the Rensheng village cemetery. Both were positioned above the deceased’s head in the burial. Regarding the collection of objects, the Erlitou white pottery and the turquoise beads appeared in pairs, while the Yabi-shaped ornaments had no corresponding variety. Morphologically, both the white pottery and the Yabi-shaped ornaments are centered and swirled in the plan and may share similar connotations. However, the two objects’ cross-sections are entirely different (fig. 1). As shown in the picture, white pottery has a tapering cross-section, whilst Yabi-shaped ornaments have a trapezoidal cross-section. The two have different three-dimensional shapes, making it difficult to classify them as the same type of item.

In the middle reaches of the Yangtze River, the Shijiahe site in Tianmen, Hubei Province is the largest, best-preserved, longest-lasting, and highest-ranking prehistoric settlement of the Late Neolithic period. Large prehistoric sites with trenches, ritual sites, and communal cemeteries have been discovered in this region, which is also famous for its numerous beautifully crafted jade and pottery sculptures. At the beginning of this century, the American archaeologist Falkenhausen and the Japanese archaeologist Kiyotaka Nishie noted the strong correlation between the bronze masks and human head sculptures excavated from the Sanxingdui ritual pits and the jade human head sculptures excavated from the Tianmen Shijiahe site in the middle reaches of the Yangtze River. [Falkenhausen, 2003; Nishie, 2003]. Falkenhausen says that the two

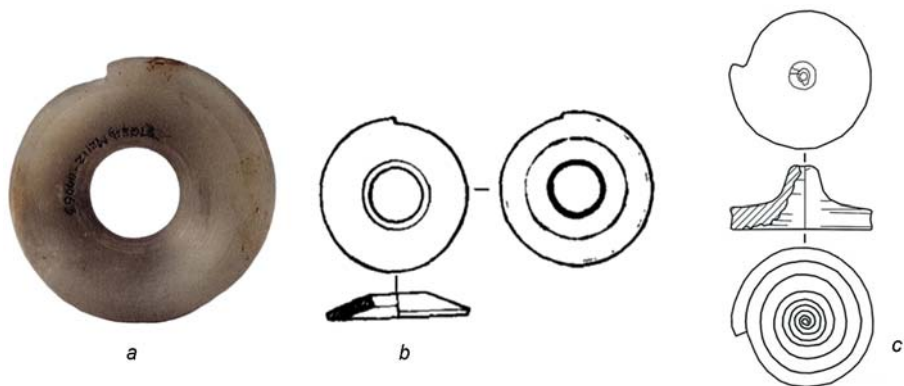


Fig. 1.

a, b – nephrite Yabi shaped ornaments excavated from M21 in Rensheng village; c – Line drawing of hat-shaped white pottery excavated from Erlitou site (after sanxingduichutuwenwuquanjilu; kaogu , 2004:2; erlitou 1999-2006).

are similar in how they show the five senses and are the same in how their heads are decorated and how they are put together as a whole.

Although the two archaeological cultures are not contemporaneous or even close in time, Falkenhausen still believes that there may have been some transcendent medium at work between them. This view is also accepted by a broader range of Chinese scholars [Wang, 2022a]. Other scholars have analyzed it in the context of the prehistoric city sites of the Chengdu Plain. They suggest that there was no tradition of city building in Sichuan before the Baodun culture, an archaeological culture on the Chengdu Plain that was contemporary with the first phase of the Sanxingdui culture and had very similar connotations. At the same time, the middle reaches of the Yangtze River had a fairly long history of city building. The city-building techniques used at the Baodun culture site were very close to those of the Shijiahe culture. It was likely that the Baodun culture was influenced by those from the middle reaches of the Yangtze [He, 2018]. In addition, phytoarchaeological research suggests that the ancient people of the Chengdu Plain migrated gradually from the northwestern part of the Chengdu Plain, where they initially grew only millet. At about the same time, about 4,500 years ago, rice cultivation techniques from the middle reaches of the Yangtze River were introduced to the Chengdu Plain. As a result, rice cultivation in the Chengdu Plain grew into an advanced form from the beginning, gradually eliminating millet as the principal food crop [Wan, Lei, 2013; Jiang, He, 2018].

In the meantime, a large quantity of pottery similar to Shijiahe culture has been found in the Baodun culture [He, 2018]. Although the archaeological data of the first phase of the Sanxingdui culture has not been fully published, excavators have written that typical pottery of the Shijiahe culture, such as high ring-footed vessel dou高圈足豆, was also found in the late phase of the Sanxingdui culture [Lei, 2018; Chen, 2018]. All indications point to the Shijiahe culture of the Yangtze River's middle reaches reaching the Chengdu Plain during the Late Neolithic. The frequent cultural interactions between the two places caused a change in the cultural landscape of the Chengdu Plain.

On this basis, we are inclined to believe that the cultural origins of the Yabi-shaped ornaments excavated from the Rengsheng Village cemetery came from the middle reaches of the Yangtze River. In 2015, the urn burial cemetery was discovered at the Tanjialing site, on the central terrace of the core area of the Shijiahe site. A total of 246 jade artifacts were excavated from five of the urn cemeteries, causing a sensation in the academic community because of their large number, novel shape, and exquisite craftsmanship. Furthermore, the W4 urn coffin unearthed three pieces of jade in the form of Yabi-shaped ornaments (fig. 2). All three are of nephrite texture and are like those excavated from the Rensheng village cemetery. They are all nearly circular, with a prominent tooth tip on the outer rim. The tooth tip creates the illusion of a rotating vortex, while the hole in the center of the circle indicates the vortex's center, hence the name was once given to the vortex-shaped jade. There are also differences between the Yabi-shaped ornaments excavated in the middle reaches of the Yangtze River and the Rengsheng Village cemetery. First, one or two holes were drilled through the rim of the Yabi-shaped ornaments excavated from Tanjialing Cemetery, which was very

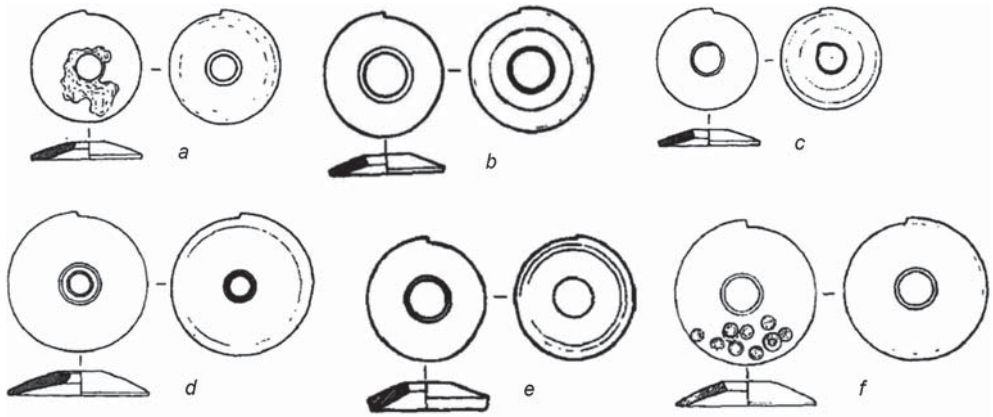


Fig. 2. Yabi-shaped ornaments excavated from Rengsheng Village Cemetery (after kaogu , 2004:2).



Fig. 3. Yabi-shaped ornaments excavated from Tanjialing Site (after shijiaheyizhen).

common in the Houshijiahe culture. The hole on the edge may have been used for tying the rope for hanging.

In contrast, Yabi-shaped ornaments from the Rinsheng Village cemetery have only one hole drilled in the center. Second, although the Yabi-shaped ornaments unearthed from both locations rotate in the same way, the direction of rotation is clockwise and counterclockwise, respectively, due to the varying diameters of the two sides. Thirdly, the difference in the size of the middle hole is pronounced; the data of the toothpick-shaped ware excavated from the Rengsheng village cemetery are not published in detail, only one (97GSDgM21:3) is published, and the hole diameter of the middle hole is 1.5~2.4 cm. From the line diagram (fig. 2), there were some differences between the size of the hole diameter of six pieces of Yabi-shaped ornaments and the ratio of hole diameter to diameter. The pipe drill still leaves some spiral line marks on the surface, which are much larger than the holes in the Tanjialing excavation.

The difference in the size of the central hole of the Yabi-shaped ornaments excavated from the two sites may suggest a change in the function or use of the objects. Still, there are other examples of similar jade with different hole sizes from different periods in the Neolithic period, so we cannot jump to conclusions. We believe that micro-trace studies can provide additional clues to this question.

In addition, the Yabi-shaped ornament numbered M21:5 (fig. 2, f) excavated from Rinsheng Village has nine honeycomb-shaped circular holes with diameters ranging from 0.6 to 1.2 cm drilled into its curved surface. The briefing said that the holes seem to have been burned by fire, which may be related to the act of divination. There is no comparable example of such a treatment in the Shijiahe culture, perhaps signaling a divergence in function and use.

Yabi-shaped ornaments were not a widely accepted type of jade during the Neolithic, only found in the Tanjialing urn burial at the Tianmen Shijiahe site and the Renshengcun cemetery at the Guanghan Sanxingdui site. The Tanjialing urn coffin belongs to the Houshijiahe culture in terms of age, 4200-4000 years ago, slightly earlier than or at the same time as the Rensheng village cemetery. The Rensheng Village Cemetery is the earliest site in the Chengdu Plain where jade artifacts appear. In the prehistory of Chengdu, the jade tradition that prevailed in the Central Plains was absent for a long time. There is reason to believe that it was under the influence of foreign cultures that jade of such a mature style emerged from the Chengdu plain. During the Late Neolithic, there were frequent interactions between the middle reaches of the Yangtze River and the Chengdu Plain. We trace the jade tradition of the Chengdu Plain back to the Houshijiahe culture, which seems to be the most plausible explanation that can be given. It is worth mentioning that only one of the eight Yabi-shaped ornaments excavated from the Rensheng village cemetery is made of nephrite, while the rest are made of materials that look very close to nephrite, such as serpentine and ivory.

Further, jade with the same mineral properties as the Yabi-shaped ornaments from Rensheng Village is also found in the Sanxingdui and Jinsha sites [Wang, 2022b]. We hope that in the future, we will be able to compare how Yabi-shaped ornaments are made so that we can find out if this kind of jade was made locally and learn more about how the early people of the Chengdu Plain knew about and used nephrite.

Conclusion

The previous scholars considered that the Erlitou culture may have influenced the jade excavated from the Renshengcun cemetery, which contradicts the understanding of the chronology of the Renshengcun cemetery. Archaeological studies have shown that the Shijiahe culture frequently interacted with the Chengdu Plain culture from 4500–4000 years ago. Based on this, we think that the Houshijiahe culture, which is near the middle of the Yangtze River, is more likely to have made the jade artifacts found in the Rensheng Village cemetery.

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