

## REVIEW ARTICLE

# ARCHAEOLOGICAL INVESTIGATION OF THE ZUOJIANG HUASHAN ROCK ART STUDY

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## ABSTRACT

People's understanding of the Zuojiang Huashan Rock Art has grown as new archaeological materials are continually discovered. In the region of archaeological culture where the Zuojiang River Basin is located, the relationship between archaeological remains and rock art is very close. The distinctiveness and continuity of archaeological culture provide crucial academic evidence for explaining the historical context, image content, chronology, painters, and cultural connotation produced by the Zuojiang Huashan Rock Art, as well as play a vital role in enhancing the authenticity and distinctiveness of the rock art.

## KEYWORDS

Rock art, Archaeological Remains, Image Content, Social Complexity, Cultural Connotation

## 1. INTRODUCTION

In the southwest of the Guangxi Zhuang Autonomous Region sits the beautiful Zuojiang River. On both sides of the river, there are mountains surrounding it and its tributary, the Ming River. Numerous mountains along the river form cliffs on the side near the river that are hundreds of meters high and challenging to climb. The ancient rock art known as "Huashan Rock Art" is painted with ochre-red pigment on these cliff faces<sup>1</sup>. People who lived in the Zuojiang River Basin between around the fifth century BC and the second century AD painted the enormous red rock art. It represents the spiritual world and social development of the ancestors who inhabited the Zuojiang River Basin and is the richest and most important cultural relic found in the region so far, as well as a perfect expression of the ritual traditions of the region of southwestern China and the Indo-China Peninsula from the Late Bronze Age to the Early Iron Age (Li, 2014). The rock art is a remarkable representation of the rock art heritage in karst landforms in southwest China and the Indo-China peninsulas, and it is surrounded by mountains, a winding river at the foot of the mountain, and an open terrace. Together, these components make up the Zuojiang Huashan Rock Art cultural landscape, which has outstanding universal value (Luo et al., 2018). With its distinctive geomorphological environment, extraordinarily majestic and gorgeous images, distinctive rock art image symbols, distinctive rock art language expression, distinctive humanistic history, and distinctive cultural background, it is exceptional among rock art in China and even the whole globe (Yang et al., 2016). (Figure 1)



Figure 1: Part of Huashan Rock Art in Mianjiang

Over the past ten years, the author has headed several national, provincial, ministerial, and municipal research projects in order to support the Zuojiang Huashan Rock Art cultural landscape's designation as a World Cultural Heritage Site and promote rock art research into a more advanced stage. In addition, the author also conducted meticulous archaeological investigations in the Zuojiang River Basin and discovered numerous ancient sites, of which some were chosen for trial excavation. Along with meticulously organizing and researching the pertinent

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specimens, the author likewise thoroughly investigated and explored the relationship between the archaeological relics in the Zuojiang River Basin and the Zuojiang Huashan Rock Art. These findings have provided strong academic backing for further proving the veracity and singularity of Zuojiang Huashan Rock Art. To be able to get comments from everyone, this study aims to quickly clarify the relationship between pertinent archaeological remains and the Zuojiang Huashan Rock Art, particularly the significant role played by archaeological remains in the rock art research.

## 2. THE ZUOJIANG RIVER BASIN'S EXTENSIVE HISTORY AND ITS ONGOING ARCHAEOLOGICAL CULTURES ATTEST THAT HUASHAN ROCK ART ARE THE PRODUCT OF LOCAL SOCIAL COMPLEXITY

In the Zuojiang River Basin, more than 100 Neolithic sites have currently been discovered, mostly shell mound sites, cave burials, and big stone shovels. According to the materials already excavated, the shell mound site in the Zuojiang River Basin roughly possesses the following key characteristics: the cultural stratas contain a significant amount of aquatic and terrestrial spiral shells, a small quantity of aquatic and terrestrial animal remains, and the production tools primarily coexist with ground and chipped stone tools. Most of the chipped stone tools are gravel *stone flake tools*, which are simple to make and rough to process, and there are large *stone flakes* in some sites. Ground stone tools are primarily made from gravel stone, and they often have simple processing, unrefined grinding, and a large portion of blanks. They have a tradition of initially beating (chiseling) several sides of gravel before moving on to the next stage of processing. There are also a large quantity of mussel tools. Some sites have exquisite double-shouldered mussel shovels, and the serrated bladed mussel tools are particularly distinctive. A few bone tools were discovered. Most sites in the river's middle and upper regions have discovered relatively little pottery, and some even have no signs of pottery chips. The characteristics of every site are modestly different. There are just a few different types of cave burials, which mostly occurred at the end of the Neolithic era. Their general characteristics may be seen in the presence of popular double-shouldered stone tools and beautifully ground stone tools. Most pottery consists of round-bottomed jars and cauldrons made of fine sand. Thin rope patterns are frequently used to embellish them, and some rope patterns are even engraved with multi-line curves. The big stone shovel type is an unusual type, the majority of which are characterized by a sacrificial nature and whose cultural relics are simple, with special polished stone shovels as the main features. These special stone shovels are large in shape with a flat, angular body, and the manufacturing is immaculate. According to cultural characteristics, the Neolithic remains in the Zuojiang River Basin can be divided into six cultural types, namely, the Pojiaohuan type (dated to about 8000–7000 years ago), the Ganzao-Jiangxian type (about 7000–5000 years ago), the first period of cave A in Baojian Mountain (6000–4000 years ago), the Hecun type (about 5000–4000 years ago), the Nalin type (about 4000–3000 years ago), and the Geshouyan type (dated to about 4000–3500 years ago).

With careful observation, we discovered that in the early archaeological culture, the Zuojiang River basin and the Youjiang River basin are relatively close; they belong to the same archaeological cultural circle (Yang et al., 2016), especially at the end of the Neolithic period and the pre-Qin period. The trend of the above situation is becoming more and more obvious, so we can look at the archaeological culture of these two regions from the end of the Neolithic period to the Han Dynasty as a whole. The archaeological remains from the pre-Qin to Han dynasties discovered in the Zuojiang River and Youjiang River basins are mainly represented by tombs (cave burials, earthen pit tombs) and sites. The primary characteristics of cave burials are that the burial products include pottery, stone tools, mussel tools, bone tools, and so on, with pottery being the most common, followed by ground stone tools. The stone tools are all ground; there are two kinds of double-shouldered stone tools and long strip stone tools, and the shoulders of the shoulder stone tools are neat. The majority of pottery consists of round bottom, circle foot, and a limited number of flat bottom pieces; there is no three-legged pottery; the wares come in a variety of shapes and are made up primarily of jars, cauldrons, and bowls. It is mainly pottery mixed with fine sand and a small amount of argillaceous or near-argillaceous pottery. The pottery has a variety of colors, primarily reddish brown,



**Figure 2:** Big stone shovel reflecting social complexity from Tongzheng Site in Fusui

gray-brown, gray-black, and black, which are mainly decorated with fine rope patterns and plain surfaces, with a few carved patterns, stamp patterns, etc. A considerable part of the pottery jars is coated with a thin layer of fine mud from the mouth to the upper part of the shoulder, covering the original fine rope pattern. Meanwhile, there are a few bone tools as well as some mussel tools, the most exquisite of which is the double-shouldered mussel tool. The size of the earthen pit tombs is small, the burial products are simple, and there aren't plenty of objects buried. Nonetheless, the relics buried are mostly functional bronze and pottery. The bronze ware is primarily composed of weapons like spears, axes, and others, as well as living utensils like bowls. The quadrille pattern is stamped on the pottery, which is primarily made of hard jars and was fired at a quite high temperature. Moreover, the formation of objects is always weapons made of bronze, production tools, and living utensils. There aren't many sites, but the Tingcheng site, which was presumably a city site with a military characteristic during the Han Dynasty, has obtained clear stratigraphic relationships through two test excavations and found many relics, a lot of building materials, and a relatively small number of stone tools, pottery, weapons, etc.

According to the above archaeological finds, the Zuojiang River Basin had fairly developed archaeological cultures in the early Neolithic period, and as time went on, both the number of sites and the quantity of relics discovered rose in the middle Neolithic period. By the late Neolithic, the trend of social complexity had become more apparent, and a highly developed society symbolized by big stone shovels had emerged. The distribution of big stone shovels is most concentrated in the confluence region of the Zuojiang River and the Youjiang River. These shovels have massive sizes, thin and flat bodies, sharp edges, and neat manufacturing. Many of them have no signs of use and have distinctive characteristics (Figure 2). Stone shovels are usually arranged in a certain way, the most common of which is an upright or oblique arrangement with the blade facing up, and there are just a few relics of other textures coexisting with them. The big stone shovel is normally considered by researchers to be a site of sacrifice. We can infer that there was a high level of social complexity in the Zuojiang River basin during the late Neolithic period from the scale, artifacts and their placement forms, artifact combinations, and manufacturing techniques and processes of the big stone shovel site. At that time, there was already a ritual system and obvious social differentiation, and a relatively tight structure of social organization appeared. The pre-Qin bronze culture in the Zuojiang River and Youjiang River basins has more regional characteristics, and the finding of various Fan for bronze casting demonstrates that the region has mastered the technique of bronze smelting and casting. Locals have developed their own distinctive bronze culture in the area based on integrating other cultures. A high level of bronze culture can be seen in the appearance of numerous fine bronze swords, Yue, spears, scrapers, arrowheads, and other objects. There is a certain difference in the burial products, indicating that society began to divide the rich and the poor. Besides, the discovery of witchcraft tools (such as bronze bells and small stones) suggests that witchcraft thought was the spiritual norm of people at that time, and the presence of an abundance of weapons suggests that war is a frequent occurrence. Furthermore, the Gantuoyan site also saw the appearance of Yazhang-tablets. Yazhang-tablets are frequently used as the primary ritual tool, serving the purpose of



**Figure 3:** Huashan rock art in Ningming reflecting social complexity

highlighting the status of the powerful and serving as a symbol of social status. Yazhang-tablets have the characteristics of prestige products, such as being precious, foreign, mysterious, unproductive, having high technology, high labor consumption, complicated decoration, and others. In conclusion, all of the aforementioned evidence demonstrates that the pre-Qin period experienced a new peak for social complexity in the Zuojiang River and Youjiang River basins. Additionally discovered during the Han Dynasty were the remains of the Tingcheng site in Longzhou, the second period of the Wumingshan culture, the Han city in Nanning Sanjiangkou, and the Han tomb in Xilin Putuo. Both the Han city in Nanning Sanjiangkou and the Tingcheng site in Longzhou are tiny in size, and based on the findings, it is believed that they belonged to administrative organizations with a military nature. The structure of these institutions demonstrates that the Zuojiang River and Youjiang River basins were under the control of the central government at that time. It can be seen that from the late Neolithic period, the degree of social complexity in the Zuojiang River and Youjiang River basins has increased steadily, from simple complexity to high complexity, and the relevant archaeological remains are the results of social complexity. As for rock art, the choice of the unique geomorphological environment, the arrangement of images, the method of production, and the expression of content are also possible in a highly complex society. Because of the long-term development of history and culture in the early stages, as the product of social complications from the Warring States to the Eastern Han Dynasty, the Zuojiang Huashan rock art seems to be a natural occurrence. In rock art, the size of the human figures, the sacrificial scenes, and the process of drawing also reflect the high complexity of society at that time (Figure 3).

### 3. FURTHER EVIDENCE FOR THE CHARACTERISTICS OF THE PAINTING COMMUNITY IS PROVIDED BY THE DISTINCTIVENESS AND CONTINUITY OF ARCHAEOLOGICAL REMAINS IN THE ARCHAEOLOGICAL CULTURAL CIRCLE WHERE THE ZUOJIANG RIVER BASIN IS LOCATED.

The early archaeological culture of the Zuojiang River Basin reflects distinct regional characteristics. During the middle Neolithic period, the sites in the Zuojiang River Basin were primarily shell mound sites. In the late Neolithic period, big stone shovels and other shouldered Neolithic tools found in the Zuojiang River basin were exquisitely crafted. Additionally, the Zuojiang River Basin started to have cave burials just at the end of the late Neolithic and pre-Qin periods. Since the Neolithic period, the archaeological culture in the Zuojiang River Basin has had distinct regional characteristics. During the Neolithic period, sites were dominated by shell mound sites and big stone shovel sites, with most stone tools and few pottery. Besides, the pottery is generally sand-mixed, has rope patterns, and mainly consists of round bottoms or ring feet. As for stone tools, they are simply manufactured for the most part in the middle period, and on the contrary, the big stone shovels in the late period have fine techniques. The mussel tools are relatively developed, and the double-shouldered, perforated, and serrated bladed mussel tools are also distinctive. Moreover, tombs are common for one-time burials, and the burial style is a variety of bent-limb burials, some of which have local dismemberment burial features and so on (Yang et al., 2016). The archaeological culture of the pre-Qin period in the Zuojiang River Basin also has strong regional characteristics and large quantities of cave burials. Common pottery wares include jars, cauldrons, and



**Figure 4:** Remains from Pre-Qin period (1. Fish-head-shaped mussel; 2. Jade Ben).

bowls with a round bottom or circle foot, which come in a variety of shapes and intricate types. With a limited percentage of argillaceous or nearly argillaceous pottery, they are primarily sandwiched fine-sand pottery. The pottery is a variety of colors, mostly reddish brown, gray-brown, gray-black, and black. It is mainly plain or decorated with thin rope patterns, with a few engraved patterns, stamp patterns, etc. Ground stone tools are exquisitely made, among which double-shouldered stone tools are common, and bone sword-shaped instruments were first discovered in Guangxi (Figure 4: 1, 2). Even though some remains from the Han Dynasty have been discovered, they are rare in number. We can surmise that the culture of the Zuojiang River and Youjiang River regions of the Han Dynasty was still dominated by local cultures with obvious characteristics since the literature does not record that a significant number of immigrants moved into the Zuojiang River and Youjiang River basins in the Han Dynasty.

At the same time, despite differences in the ages and excavated relics of the shell mound site, big stone shovel site, and cave burial in the Zuojiang River Basin, the development sequence is still clear, and the overall cultural outlook has the characteristics of the same origin, indicating that they have a certain connection with each other. According to the stratigraphic accumulation of the sites and the excavation of relics, the relationship between the cave burial, the big stone shovel site, and the shell mound site is stacked (broken) and coexisting. At the shell mound site in Ganzao, Fusui, there was a clear stratigraphic break between the shell mound site and the remains of the big stone shovel, showing that the big stone shovel was later than the shell mound site. Additionally, there was archaeological evidence indicating that the big stone shovel was a type originating from the double-shouldered stone axe. At the cave A in Baojian Mountain, Longzhou, we discovered the only set of stacked relationships between shell mound site accumulation and cave burial accumulation in Guangxi, which supports the sequential stratigraphic relationship between cave burials and shell mound sites. The stratigraphy allows us to infer the relationship between the three different types of remains—the shell mound site, the big stone shovel, and the cave burial—from early to late in time. The above three kinds of sites all have a reasonably sequential development relationship based on the absolute age of the site, and according to the cultural connotations, they also have continuity with each other. The outlook of three cultures partly has commonalities; for example, “pottery is all sand-mixed, and the colors are primarily reddish brown, gray-brown, gray-black, etc. The surface decoration is mainly rope patterns, which are mostly pressed from the mouth to the bottom repeatedly by the rolling method, with some crossed, and a small number of engraved patterns. As for the shape, jars and cauldrons with round bottoms are most numerous. The high-necked pottery jars (cauldrons), which are more common in cave burials, have appeared in the 3rd period of the Dingsishan site and the Jiangkou site in Hengxian. The carved patterns also existed at later shell mound sites, such as Xijin. In the case of kind and decoration, the pottery from the cave burials is especially similar to the pottery in the fourth period of the Dingjishan site, and they have a very close relationship.” (Li, 2011)

Researchers have thoroughly discussed the ethnic group of the Zuojiang Huashan Rock Art from the perspectives of archaeology, ethnology, and bibliography. Nowadays, there is a general consensus among academic studies that the Zuojiang Huashan Rock Art represents the remains of the ancient Luoyue people. This view is based on the distribution of

ancient ethnic groups in the Zuojiang region, the relationship between the content of the rock art and the cultural traits of the Luoyue people, etc.

According to geographical spatial distribution, the early archaeological remains in the Zuojiang River Basin are situated in the center of the Luoyue's activity area; thus, there must be an intrinsic and obvious connection between them and the Luoyue people. At the same time, the regional characteristics of the early archaeological remains in the Zuojiang River Basin are distinct, and the three kinds of important remains—the shell mound site, the big stone shovel, and the cave burial—are roughly connected in time, so there is also a relationship between the early and late cultural appearances. Based on these, it can be judged that the Luo Yue and its ancestors were the creators of the early archaeological culture in the Zuojiang River Basin. Until the Warring States to Qin and Han dynasties, some new changes took place in the cultural form of the Zuojiang River Basin, and the Luo Yue people permanently inscribed their spiritual belief on the cliff near the Zuojiang River by hand-painting, emerging the unique Huashan Rock Art. This spiritual belief expressed in the rock art is related to the spiritual belief expressed in the remains of the early big stone shovel. In the Zuojiang River Basin and its surroundings, the shell mound site, big stone shovel site, cave burial, and Huashan rock art collectively make up a unique, comprehensive, and continuous Luoyue cultural system.

#### 4. ARCHAEOLOGICAL REMAINS ADD TANGIBLE EVIDENCE OF THE AUTHENTICITY OF ROCK ART IMAGES AND SERVE AS A REFERENCE POINT FOR DATING ROCK ART

There are about 5,200 distinct images in all on the Zuojiang Huashan Rock Art, and they can be generally divided into four categories: humans, objects, animals, and circles. Many of these images and contents may be found in the same or similar artifacts in the archaeological remains. In other words, the majority of the contents of archaeological remains are the objects that are shown in the rock art. Here, the only examples provided for observation are images of bronze drums and bronze drums that have been excavated.

Referring to the common bronze drum images in the Zuojiang Huashan Rock Art, there are various types of drum head decoration. Some drum heads do not have any ornamental patterns, but only a solid or hollow circle represents the drum head. Some are decorated with sun bodies, although they lack radiance and aureole. Some have the sun's body and radiance with 4–8 beams of rays, but there is no aureole. Some have the sun's body and aureole, but no radiance. Some have all the sun's body, radiance within eight beams of rays, and aureole, the last of which is a single-string layer. Some have the sun's body, radiance, and double-layer single-string aureole, which are larger in shape. Because the rock art depictions of bronze drums are all orthographic views of the drum heads, the majority of the bronze drums in rock art lack drum ears. Despite the difficulty of showing the drum ears on the drum body, some drums may also have drum ears. Most of the early bronze drums unearthed in the Zuojiang River, the Youjiang River and the Hongshui River Basins of Guangxi and also the southern Guangxi are of four types: Wanjiaba, Shizhaishan, Lengshuichong, and Lingshan. Most of these early bronze drums are relatively simple with sun patterns on drum heads, and the numbers of rays are unequal. Also, they are mainly decorated with flying-heron patterns, feathered-human patterns, and circle patterns, and some may have boat patterns, zigzag patterns, angle and line patterns, linked cloud-thunder patterns, etc. Particularly, the Wanjiaba type and Shizhaishan type bronze drums have a plainer, simpler appearance, and the design on the drum head is simpler as well. The Wanjiaba type of bronze drum is considered to be the original type of bronze drum; it is painted with sun patterns, some of which have light bodies only without radiance, others with radiance but undefined ray numbers, and it is generally plain with no aureole outside the sun patterns. Shizhaishan-type bronze drums are thought to be the inheritance and development of Wanjiaba-type, and they regularly have a sun pattern in the center of the drum head. The sun pattern's body and rays often blend together, with the rays having a triangular shape and diagonal lines filling in between them. Outside the sun pattern, there are different numbers and widths of aureoles, with the bigger aureole typically embellished with images of flying herons and the narrower aureole mainly filled with



**Figure 5:** Bronze drum Images in rock art and Bronze drum head in archaeology (1&2. Bronze drum Images copied in rock art (provided by Guangxi Zhuang Autonomous Region Cultural Relics Bureau); 3. The drum head of Xilin No.282 drum (Source: Qin, P. eds., 2017. *Bronze Drums In Guangxi*. Cultural Relics Press, Beijing); 4. The sun pattern of Nanhapo drum B (Source: Wu, C.J., Luo, K.X., Cai, H., 2018. *Decorative art of Ancient bronze drums*. Cultural Relics Press, Beijing)).

decorative bands made up of zigzag patterns, circular patterns, dots, etc. If we compare the images of bronze drums on the Zuojiang Huashan Rock Art with actual bronze drums in archaeological discoveries, we will find that the shape of bronze drums in rock art is the same or similar to the traits of Wanjiaba-type and Shizhaishan-type bronze drums seen in archaeology, and it can be assumed that most images of bronze drums in rock art are the early bronze drums represented by the Wujiaba-type and Shizhaishan-type bronze drums (Figure 5).

Images of bronze swords, bronze bells, ring-pommel Daos, boats and ferries, people, masks, dogs, birds, and other motifs can also match archaeological remains, which establish the basis for the authenticity of the rock art motifs. At the same time, the age of these archaeological relics can be determined, providing a foundation for the age estimation of the rock art.

#### 5. INDIRECT CONNECTIONS BETWEEN DIFFERENT TYPES OF ANCIENT SITES AND THE HUASHAN ROCK ART IN THE ZUOJIANG RIVER BASIN

There are various types of early sites in the Zuojiang River Basin, among which the tableland shell mound site, cave burial, and city site all have some similarities with the Huashan rock art.

Regarding geographical distribution, site selection, and the ideologies represented, there is a connection between the Zuojiang Huashan Rock Art and the surrounding tableland shell mound site. First off, in terms of the site selection principle, the Zuojiang shell mound site has a similarity to the Huashan rock art. The shell mound site in the Zuojiang River Basin and the rock art sites share common site selection factors and are both close to the river, particularly at its bend. The Zuojiang Huashan Rock Art is typically chosen on the riverside cliff at the river bend. The painting wall is generally gray-yellow in color and is relatively flat so that the longitudinal inner oblique can block rainwater (Zhang, 2016). Prehistoric humans also chose areas near mountains and water for their primary activity centers. In particular, tableland shell mound sites are frequently found near river bends or confluences where the water flow is typically slow and a variety of fish, shellfish, mussels, and other aquatic biological resources are abundant, making these areas perfect for prehistoric human habitation. The proximity of the two locations demonstrates that choosing a site near a river is something that both take into account. Second, in terms of geographical distribution, the shell mound sites in the Zuojiang River Basin are primarily concentrated in tablelands and caves close to the rock art sites, and statistical surveys show that more than 90% of the tableland sites have rock art distribution around them (Zhang, 2016). These indicate that there was early human settlement or activity close to the vicinity of the rock art<sup>2</sup>, and the two are in the same geographical area. Third, the rock art creator and the owner of the shell mound site are also related in the usage of water. The stratigraphic accumulation of shell mound sites in the Zuojiang River Basin was dominated by numerous freshwater spiral and mussel shells as well as the remains of aquatic and terrestrial animals, revealing that gathering, fishing, and hunting were the primary modes of livelihood at that time. We sent the fauna and flora samples from the cave A site in Baojian Mountain, the Wumingshan site, the Gencun site, the Dawan site, and the Pojiaohuan site to the appropriate institutions for identification and analysis. We found that no domesticated animals were discovered at these sites, suggesting that fishing and hunting were the main sources of meat for Neolithic humans in the Zuojiang River Basin. The presence

of numerous aquatic species is evidence that fishing is a significant component of the primary subsistence methods of gathering, hunting, and fishing. This economic strategy heavily depends on freshwater rivers. The rock art is painted on the cliffs facing water, which use the impact of the river to create a shocking atmosphere, bringing out the mystery and seriousness of the sacrifice. At the same time, the sacrifice on the surface of the water also shows how crucial river water was to people's production and lives at that time. It demonstrates that the owners of the shell mound site and the rock art have fully considered the use of nearby water resources in their choice of location. Fourth, the owner of the tableland shell mound site and the painter who created the rock art may share certain intellectual and spiritual ties. The area where the shell mounds are located is adjacent to a river, and people must rely on it for both drinking water and the majority of their food. When the wind and waves were quiet, you could imagine how wonderful it was for people to fish for shrimp in the river. You can also only imagine how important the river was to people at that time. However, due to the Zuojiang River basin's annual precipitation of more than 1400 mm and its curving, narrow channel, which makes flooding and possibly damaging impacts to people's homes a possibility when downpours come, river sand can be found at some shell mound sites. Even on calm days, because of the technical limitations of the time, fishing life was doomed to have the drowning threat. People instinctively feel fear and awe when confronted with the elusive and oftentimes uncontrolled river. They both rely on, revere, and fear the stunning but perilous Zuojiang River as they stand in its path, and the river is inevitably full of mystery in their imaginations. Most of the Zuojiang Huashan Rock Art is located close to the river, many of which are on the cliffs overlooking a deep pool and a river bay, and these rock art are in fact strongly associated with floods. Due to the severe flooding that has plagued the Zuojiang River Basin since ancient times, people combine the worship of ancestors with the worship of mountains and rivers in an effort to influence and communicate with the gods of mountains and rivers through the gods of ancestors in order to lessen floods<sup>3</sup>. Mountains, water, rock walls, tablelands, etc. are all sacrifice areas of Zuojiang Huashan Rock Art, showing how mysterious the river was to people in their spiritual world at that time. Fifth, there is evidence of the relationship between the shell mound site and the rock art in some of the relics discovered there. For instance, the connotation of rock art is intimately associated with a great deal of special burial customs, including squat burial, dismembered burial, and bent limb burial.

The majority of early cave burials in the Zuojiang River Basin date from the late Neolithic period to the Shang and Zhou dynasties, and only a few are likely to last to the late Shang dynasty. In terms of time, the rock art does not completely overlap with cave burials, but there is continuity in the uniqueness of the culture. The phenomenon of tombs in the prehistoric cave site of Zuojiang River indicates that there is some possibility of developing from the tombs in the cave site to the specific cave burial. Three burials that could be regarded as the earliest forms of cave burials were discovered in addition to the other cultural relics discovered in the first period of the Cave A site in Baojian Mountain, which dates back between 7,000 and 4,000 years. By the late Neolithic period and the pre-Qin period, cave burials appeared as specific burial places, and the remains of the second period of the cave A site in Baojianshan Mountain, the Huashan cave site in Mianjiang, the Zhushan site, the Geshouyan site, and the Gengsanyan site were all cave burials. The custom of interring the dead in caves is a remnant of early human cave culture and a result of notions involving ancestor worship and ghost worship. Some people believe that the people along the Zuojiang River were born in caves and buried in caves after death, and the caves and the mountains attached to them constituted the base of the Zhuang ancestors' conception of life and death (Xiao, 2016). The Zhuang people's ancestors traditionally attributed mountain caves with both their origins and the final destiny of their own people (Yang et al., 2016). The relationship between the cave and the Zhuang is more complex than just "cave burial"; it also includes the nationality's genesis stories and even the appellation given to the Zhuang people (Yang et al., 2016). An impressive 56% of rock art is painted right next to the cave, which is a very notable phenomenon. The proximity of a rock art site to a cave is probably a significant determinant of where it is located, which should reflect that the Luoyue people at the time had a special emotional memory for karst caves that was specific to such cliffs (Yang et al., 2016). The author also believes that the phenomenon of cave burial and

some Huashan rock art near the cave reveals a mysterious relationship between nature and the deity world in the minds of the Luo Yue people, and the ideological roots behind it should be related to the concept that some Luo Yue people revere caves and recollect the birthplace of their ancestors (Yang et al., 2016).

The existence of the Tingcheng site shows that the Zuojiang River basin was under the control of the Han Dynasty, demonstrating how deeply Han culture had permeated the area. The management of such a government and the influence of culture will unavoidably have an impact on indigenous culture's development and change its initial situation for development. This is also proved by the growth of the Zuojiang Huashan Rock Art. Researchers generally agree that all sites of Zuojiang Huashan Rock Art are classified into four periods. The first period, the early and middle stages of the Warring States period, is considered the pioneering period. The second period, roughly from the late Warring States period to the early Western Han Dynasty, is the development heyday. The third period, roughly from the middle and late Western Han Dynasty, is in a continuous heyday. The fourth period, the Eastern Han Dynasty, is considered the period of decline (Zhao, 2016)<sup>4</sup>. The Luoyue culture, which first appeared during the Warring States period, peaked in the early Western Han Dynasty, then progressively waned until it vanished, is typically represented in Huashan rock art. The Western Han Dynasty is when the rock art began to decline, which is consistent with evidence from the Tingcheng site showing the Zuojiang River basin was under the control of the Han government in the early Han Dynasty and that the Han culture had a significant impact there. One move forward and one move backward together demonstrate how indigenous culture has progressively faded away as a result of Han culture's influence.

## 6. QUANTITIES OF RELIGIOUS CULTURAL REMAINS FOUND IN ARCHAEOLOGY PROVIDE VITAL ACADEMIC SUPPORT FOR INTERPRETING THE CULTURAL CONNOTATIONS OF ROCK ART

First of all, the sacrifice tradition depicted in the Huashan rock art is a result of the Luoyue people's religious beliefs having progressed to a certain point, which is consistent with how the Luoyue people's original religious beliefs were expressed in the archaeological remains.

Archaeological discoveries show that the religious tradition in the Zuojiang River Basin has a long history. The sacrifice depicted in the Huashan rock art is very substantial; the scale is quite grand; the scene is spectacular; and the forms of sacrifice are diverse. Obviously, this large-scale sacrifice will not suddenly appear; this nation-group must have a long tradition of sacrifice and religious belief. The discovery of stone Zu, stone Yin, and pottery Zu, as well as unique burial customs like bent limb burial, secondary burial, bent limb squat burial, dismembered burial, red pigment burial, and covered stone burials in the Neolithic period, demonstrate that people at that time already had concepts of ancestor worship, reproductive worship, and soul immortality. The emergence and development of such concepts inevitably provided an ideological basis for the creation of rock art. The remnants of big stone shovels from the late Neolithic period, which are widely distributed in the Zuojiang River and Youjiang River basins, are thought to have served a variety of functions in sacrifice. Although the big stone shovel in the Zuojiang River and Youjiang River basins and the rock art in the Zuojiang River basins are different cultural relics, they are fundamentally connected in time and share some similarities as important carriers of spiritual life in substance and function. This suggests that in the spiritual world of the Zhuang people living in those basins, some fundamental beliefs have only changed in form (Yang et al., 2016). As a result, it may be concluded that the sacrificial customs depicted in the Zuojiang Huashan Rock Art have their own origins and are not like water without a source or wood without roots (Figure 6). Sacrificial remains, such as sacrificial patterns on bronze drums, burial stones or bronze bell tombs, cave burials, broken-object burials, etc., were discovered in sites and tombs of the Luoyue area during the pre-Qin and Han dynasties at the same time as the Zuojiang Huashan Rock Art. This suggests that the local people's



**Figure 6:** Sacrificial pictures in rock art and sacrificial remains in archaeology (1. Sacrifice scene of Huashan Rock Art in Mianjiang; 2. Sacrificial pit of big stone shovel site in Dalongtan).



**Figure 7:** Music and dance sacrifice scenes in rock art and archaeological music and dance sacrifice decorations (1. Music and dance sacrifice of Huashan Rock Art in Ningming (Source: Guangxi Zuojiang Huashan Rock Art Research Center, 2017. Huashan Rock Art, The Marvelous works of The Luoyue People - Exhibition of Zuojiang Huashan Rock Art Cultural Landscape. Guangxi People's Publishing House, Nanning); 2. Dance sacrifice on the Xilin No.280 Bronze Drum (Source: Wu, C.J., Luo, K.X., Cai, H., 2018. Decorative art of Ancient bronze drums. Cultural Relics Press, Beijing)).



**Figure 8:** Shaman images in Zuojiang Huashan Rock Art and the unearthed bronze drum (1. Shaman images in rock art (Source: Guangxi Zuojiang Huashan Rock Art Research Center, 2017); 2. Shaman images and sacrificial dance on the Xilin No.280 Bronze Drum (Source: Wu, C.J., Luo, K.X., Cai, H., 2018)).

original religious beliefs during the pre-Qin and Han dynasties were further developed, and the types of sacrifice were also diverse. Shamans also appeared during this time, which suggests that customs of sacrifice were prevalent, according to rock art and archaeological evidence. The content of sacrifices in archaeological remains such as bronze drums is much the same or similar to that in rock art. The images of feathered-human dance, bronze drum dance, rowing dance, and so on are all true reflections of Luo Yue sacrifice customs.

Second, there is coherence between Huashan rock art and archaeological remains in terms of sacrifice.

The primary forms of sacrifice depicted in Huashan rock art are music and dance, drumming, canine sacrifice, human sacrifice, copulation, and others. Of these, music and dance are the most prevalent. We all understand that dance plays a significant role in primitive religious sacrifice as well as in religious transmission. The majority of the figures in the Zuojiang Huashan Rock Art raise their hands, crouch, and dance either alone or with others. In certain group dances, the front or side dancers are arranged in a variable number in a horizontal row, and in some images, the dance is being led by a sizable front figure. Some use roughly the same body and attire while dancing vertically. Some involve

a large group of front or side dancers performing the same action with short bodies around a tall figure in the middle. The tall figures often wear swords and Daos on their waists, some of which have dogs or bronze drums under their feet. Additionally, they also have special decorations on their heads, which raise their hands at their elbows and put their legs in a squatting position. The most common motif in these dancer images is feathered humans. Some dancers also use percussion instruments, including bronze drums, bells, and sheep-horn bells. Feathered-human dances in rock art are basically the same as those seen in archaeological remains. Among the decorations of bronze drums found in archaeology, there are many scenes of feathered humans singing and dancing collectively for sacrifices. For example, the drum waist of the Xilin No. 280 bronze drum is decorated with 24 bare-handed dancers; the drum waist of the M1:10 drum of Luobowan is decorated with 20 dancers, all divided into groups of 2 or 3 people, dancing with their bare hands to imitate the figure of flying herons. On Huangxia, Yulv, and other drums from Vietnam, there are somewhere between 12 and 24 dancers. The feathered dancing figures on these bronze drums frequently have a similar appearance, with feather hats or ornaments on their heads, tattoos on their exposed upper bodies, and heron tail dancing attire on their lower bodies. They imitate different postures with movements of their fingers and waists, such as birds flying and resting. The feather dance is, in a single word, a musical dance of sacrifice. The feathered dancing figures on the rock art and bronze drums are supposed to be deliberately attired during the sacrificial ritual, and the image of the feathered human dancers is basically the same in both remains. The purpose of communicating with the gods in the form of a feathered human dance is to offer sacrifices and entertainment to the gods.

The remains of sacrifices discovered in Huashan rock art and archaeological discoveries typically involve drumming and bell-ringing in group song and dance. The Zuojiang Huashan rock art has more than 300 bronze drums and several bronze bells, all of which are sacrificial ritual equipment. Additionally, the discovery of bronze bells, drums, and decorations with drumming images on them shows that bronze drums and bells were in fact used for sacrifice in the past. For instance, in Shizhaishan M12:2 bronze drum surface decoration, four men are beating a drum together while singing and dancing, and next to them, a sacrificial rite is held<sup>5</sup>. Drumming and dancing were integral parts of sacrificial rites for the Luo Yue and some other southern nations. The bronze drum is thought to possess extraordinary magical powers and the ability to communicate with gods, so the loud drumbeats may easily draw a crowd. People use drums to call for rain, sacrifice ancestors, curse alliances, and display reverence for the gods by singing and dancing wildly under the beat of the drum. In sacrifice rites, sheep-horn bells, bronze bells, and various bronze Yongzhongs are crucial ritual instruments. From the foregoing, it can be seen that Huashan rock art and archaeological remains both demonstrate music and dancing as common forms of sacrifice (Figure 7).

At the same time, archaeological findings and the Zuojiang Huashan Rock Art show the sacrifices conducted at that time under the leadership of shamans (Figure 8). The large images of the Zuojiang Huashan Rock Art reveal that this group has a supreme ruler who is surrounded by a sizable number of shamans who often have animal masks or heads of beasts. These shamans frequently carry the symbol of "dog sacrifice" in front of them, indicating that this group heavily attaches importance to witchcraft (Zhang, 2016). The discovery of tombs with bronze bells, stones, and masks was commonly thought to belong to shamans, proving their actual existence. Also, shamans typically show up in the sacrificial images decorated on bronze drums. For example, the robed guy in the boat pattern on the Xilin No. 280 drum is a shaman. In front of the stage, two feathered humans are singing and dancing, with bare upper bodies and heron-tailed skirts underneath, while raising feather maces in their hands and wearing feather hats on their heads. Shamans were always high-ranking leaders, revered as messengers who could communicate with the gods and the sky in ancient times. They often dressed peculiarly and behaved secretly, sometimes holding witchcraft alone during witchcraft rituals and sometimes working as conductors in collectively singing and dancing sacrificial rituals.

Additionally, red materials are frequently used in rock art and ancient relics as a means of expression. Red pigments are used in Huashan rock art to create a striking and vibrant color contrast. The ancient

ancestors always associated red with blood, viewed red as a symbol of life, and developed the concept of favoring red; therefore, painting with ochre red on gray-yellow or gray-white rock walls has a specific meaning, conveying people's adoration of red, life, and even rock art. There are also forms of expressing primitive religious beliefs in red in archaeological remains, such as red pigment burials and red burnt clay sacrifices. While concealing the wish of the living to pray for peace, red

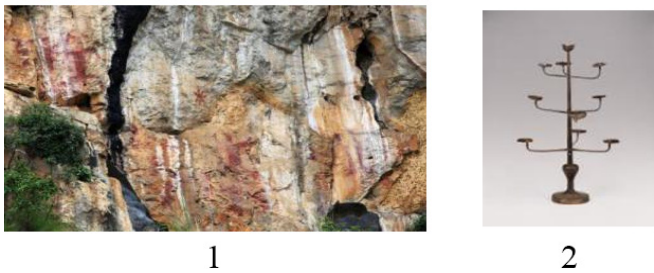
pigment burial is actually a reproduction of a blood and fire environment in which the deceased will pass away but his soul will remain alive (Yang 2011). The red burnt clay sacrifice is probably related to the "fire sacrifice" or "scorch sacrifice", which is the embodiment of fire and the crystallization of fire's life (Jiang 2001).

Thirdly, from the perspective of the content of the sacrifice, the Huashan rock art has many similarities with the content of the sacrifice existing in archaeological remains.

One is the sacrifice of the sun. In many sites of the Zuojiang Huashan Rock Art, there are scenes of the chieftain leading people to solemnly sacrifice to the sun, and archaeological discoveries, especially in bronze drum decorations, also have many scenes of sun rituals (Figure 9). A Fusang tree-shaped bronze lantern was unearthed in the M1 Han tomb in Luobowan. The central column of the lantern has nine branches with lamps, and at the top stands a golden crow carrying the sun, which coincides with the sun totem myth of "nine suns inhabiting one tree" and is used as a bronze ritual ware for the sacrifice. According to the general consensus, the bronze drum serves as an essential tool for sacrificing the sun. The sun pattern depicted in the drumhead's center represents the sun totem, which is a significant symbol of the bronze drum as ritual ware and a potent ware of authenticity. In ancient times, most places regularly espoused sun worship.

The second is sacrifice for the river deity. The images of the sacrificial ferry in the rock art are the same as those found in the early bronze drums of Xilin and Guigang, which are all sacrificing to the river deity (Figure 10). Many of the boats in the sacrificial boat pattern on the bronze drum are placed end to end to form a flotilla with a narrow, long, and relatively light hull. The two ends of each boat are separately decorated with a bird's head and tail, and the shape of each boat is essentially the same. There are about equal numbers of people on each boat, and the majority of them are feathered humans.

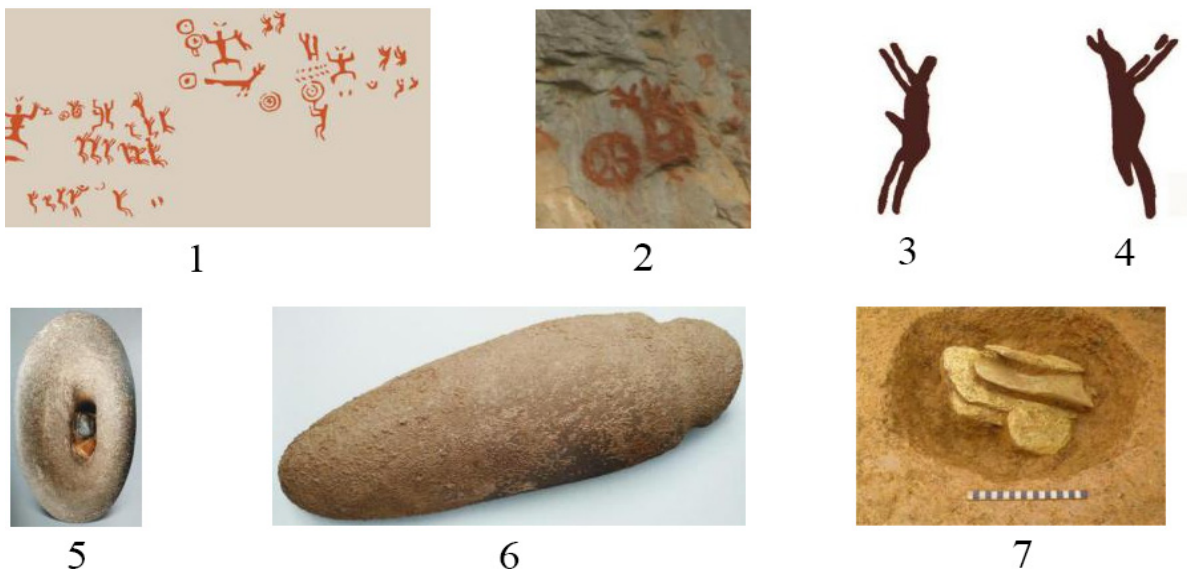
Third, archaeological relics also demonstrate the worship of procreation, procreation gods, and land gods that is shown in rock art. Rock art depictions of copulation, pregnant women, and male figures with conspicuous genitalia are all examples of reproductive worship (Figure 11). Of course, the genital artifacts discovered in archaeology are a reflection of reproductive worship; examples include the stone Zu,



**Figure 9:** Scenes of sun sacrifice in rock art and wares of sun worship and sun sacrifice in archaeology (1. Scenes of sun sacrifice in Tuobaiyinshan rock art; 2. Fusang tree-shaped bronze lantern (Source: National museum of China, The Museum of Guangxi Zhuang Autonomous Region, 2006. Ou Luo Yi Cui. China Social Sciences Press, Beijing)).



**Figure 10:** Images of sacrifice for the river deity in rock art and archaeology (1. Scene of sacrifice for the river deity in rock art (Source: Guangxi Zuojiang Huashan Rock Art Research Center, 2017); 2. Images of sacrifice for the river deity on Luobowan M1:10 Bronze Drum (Source: Wu, C.J., Luo, K.X., Cai, H., 2018)).



**Figure 11:** Images of reproductive worship in rock art and wares of reproductive worship in archaeology (1. Worship of land gods in rock art (Source: Guangxi Zuojiang Huashan Rock Art Research Center, 2017); 2. Image of copulation in rock art (Source: Guangxi Zuojiang Huashan Rock Art Research Center, 2017); 3. Image of male genitalia in rock art (Source: Guangxi Zuojiang Huashan Rock Art Research Center, 2017); 4. Image of pregnant woman in rock art (Source: Guangxi Zuojiang Huashan Rock Art Research Center, 2017); 5. Product of reproductive worship - stone Yin (Source: The Museum of Guangxi Zhuang Autonomous Region, 2010. Zhe Li De Shi Tou Hui Shuo Hua. Guangxi Education Publishing House, Nanning); 6. Product of reproductive worship - stone Zu (provided by Guangxi Institute of Cultural Relic Protection and Archaeology); 7. Product of reproductive (Mother Earth) worship - stone shovel (provided by Guangxi Institute of Cultural Relic Protection and Archaeology)).

stone Yin, and other relics discovered in archaeological sites in Guangxi. Additionally, reproductive worship can be found on the decorations of bronze drums, such as the deer image on No. 280 bronze drum of Xilin, where the male deer's genitalia are purposefully depicted. The remains of the big stone shovel sacrifice also imply the worship of the procreation god and the land god. According to some researchers, the earth deity was the target of sacrifice for the large stone shovel placed in the shape of the character "冂", while the sky deity was the object of worship for the stone shovel circle discovered at the Long'an Dalongtan site (Zhang 1991; He 2007). In this way, the deities of sky and earth are included among the targets of the big stone shovel sacrifice. The ancients believed that by worshipping a spiritual object like the big stone shovel and praying to the gods of heaven and earth, they could bestow their blessings upon the tribe in the form of good weather, abundant harvests, and a prosperous population (He 2007). It is also believed that the purpose and function embodied in the big stone shovel are multiple (Yang et al., 2006), and as symbolic ritual or sacrificial ware, the big stone shovel is given mystical functions: reproductive worship, agricultural sacrifice, and oath of alliance (He 2007). The Yazhang-tablets unearthed at the Gantuoyan site is also a ritual ware for sacrificing the sky and earth.

Fourth, the scenes of sacrificing drums in bronze drum dances and sacrificing gods by drum depicted in rock art are undoubtedly true reflections of real life. Archaeological discoveries and documents show that the Luo Yue people believed that the bronze drum could be psychic, so they used the bronze drum as the core instrument in the sacrificial ritual, and the crowd sang and danced with the beats of the bronze drum, praying for good weather, abundant harvests, peaceful living, and a prosperous population.

In addition, the content of sacrificing souls and gods in the rock art is also consistent with the concepts expressed in some special tombs, both showing the concept of the immortality of the soul and the fear of souls and gods.

Finally, the archaeological religious remains are consistent with the purpose of the Zuojiang Huashan rock art sacrifice. Huashan rock art possesses a strong sense of mystery and sacredness and has a variety of functions, whether from the choice of painting location, the shape of individual images in the rock art, or the overall structure of each image. The ancient Luo Yue people, who lived in low-production, low-thinking, and low-cognitive societies, believed that all natural beings, ghosts, and gods could endanger themselves and their tribe. As a result, they attempted to control or please them through sacrifice and worship, hoping that they would not harm themselves or their tribe and might even be able to turn harm into profit and bestow upon their tribe a bountiful harvest and population. In archaeological remains such as reproductive worship objects or sacrificial remains like big stone shovels, there is a purpose for praying for the prosperity of the tribe and harvest. Various unique burial customs, rowing and racing sacrifices, etc. all contain the intention of trying to dominate or please those natural beings, ghosts, and gods that threaten them through sacrifice and worship in order to stop them from harming themselves or their tribe and turning harm into profit. The use of ochre-red materials for Huashan rock art is the same as the ancient Luoyue people's use of red burial customs and the holding of "fire sacrifice" or "scorch sacrifice" rituals, which all have the meaning of witchcraft: the tribe prospered and life was not extinguished.

## 7. CONCLUSION

Zuojiang Huashan Rock Art is a masterwork in the world's rock art heritage. In addition to relying on the methods of ethnology, iconography, folklore, art, and others, the study of them is inseparable from the support of archaeology. Archaeology is a subject depending on material, and the age of the rock art, the interpretation of image content, and the explanation of connotations all require the support of archaeological materials. Therefore, archaeology is a key to decoding the rock art and also one of the most important means of relating the story behind the rock art. In the study of Zuojiang Huashan rock art, archaeology also plays an indispensable role. On the basis of fully studying the archaeological material that has been continuously discovered, striving to find the relationship between rock art and archaeological remains can play a crucial role in accurately judging the age, content, ethnic origin,

connotation, social property, and other issues of Zuojiang Huashan rock art, while at the same time enhancing the authenticity and uniqueness of rock art heritage.

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## ANNOTATION

1. The term "Huashan rock art" has both a specific and general meaning. In the limited meaning, "Ningming Huashan rock art" is particularly referred to; in the wide sense, it refers to the various rock art groups distributed along the Zuojiang River. Here, we're referring to Huashan rock art widely.

2. Guangxi Zhuang Autonomous Region Department of Culture, Guangxi Zhuang Autonomous Region Cultural Relics Bureau, 2015. Archaeology in the Zuojiang River and Youjiang River basins. Guangxi Science&Technology Publishing House, Nanning. Pp.85.

3. Guangxi Zhuang Autonomous Region Institute of Nationalities, 1987. Investigation and research on cliff paintings in the Zuojiang River Basin of Guangxi. Guangxi Nationalities Publishing House, Nanning. Pp.178.

4. Guangxi Zhuang Autonomous Region Department of Culture, Guangxi Zhuang Autonomous Region Cultural Relics Bureau, 2015. Reports of Zuojiang Huashan Rock Art Research (Volume 1). Guangxi Science&Technology Publishing House, Nanning. Pp.62-67.

5. Yunnan Provincial Museum, 1959. Excavation report of Shizhaishan ancient tomb group in Jinning, Yunnan. Cultural Relics Press, Beijing.

## REFERENCES

- He, A.Y., 2007. Discussing the Era and Function of the Great Stone Spade in Guinan. *Guangxi Ethnic Studies*, (3), Pp.162-167.
- Jiang, L.P., 2001. Prehistoric red burnt clay and remains of red burnt clay in Jiangnan. *China Cultural Relics News*, Sunday, 22.
- Li, X.P., 2014. Guangxi's application for the World Heritage is making efforts. *Guangxi Daily*, Wednesday, 27 March.
- Li, Z., 2011. Shell Mound, Large Stone Spade, and Burial Cave: the Evolution of Prehistoric Cultures in the Nanning Region. *Journal of National Museum of China*, (7), Pp.58-68.
- Luo, Y., Li, X.R., 2018. The Protective Utilization and Value Propagation of Huashan Rock Paintings in Zuojiang under the Framework of the Belt and Road Initiative. *Journal of Guangxi College of Education*, (3), Pp.21-24.
- Xiao, B., 2016. The view of life and death of the ancient Zhuang people seen in the Zuojiang rock art. *National Arts*, (6), Pp.69-78.
- Yang, Q.P., Wei, S.S., Huang, X., 2016. A preliminary study on the correlation between archaeological remains in the Zuojiang River and Youjiang River basins and the Zuojiang Huashan rock art. *China Cultural Heritage*, (4), Pp.41-47.
- Yang, Q.P., Wei, S.S., Huang, X., 2016. A preliminary study on the correlation between archaeological remains in the Zuojiang River and Youjiang River basins and the Zuojiang Huashan rock art. *China Cultural Heritage*, (4), Pp.41-47.
- Yang, Q.P., He, A.Y., 2011. A brief analysis of several special customs of

- prehistoric burials in Guangxi. In: The Museum of Guangxi Zhuang Autonomous Region, Guangxi Museum Anthology (Volume 8). Guangxi People's Publishing House, Nanning. Pp.74.
- Yang, Q.P., He, A.Y., 2006. Cultural anthropological investigation of the function of cliff rock art in the Zuojiang River Basin of Guangxi. In: Tang, H., Huashan Cultural Studies. Guangxi People's Publishing House, Nanning. Pp.138.
- Zhang, Y.S., 2016. Rock art and rivers: A unique type of rock art site in the Zuojiang River Basin. Songs Bimonthly, (6), Pp.14-20+27.
- Zhao, Y., 2016. Zuojiang Huashan rock art cultural landscape highlights the interpretation of universal value - outstanding rock art and unique cultural landscape. China Cultural Heritage, (4), Pp.4-13.
- Zhang, Y.S., 2016. Huashan Rock Art - Ancient Ethnography of the Zuojiang River Basin. China Cultural Heritage, (4), Pp.33-40.
- Zheng, C.X., Li, G.J., 1991. Discussing the 'Stone Spade' sites in Guinan of Guangxi. Archaeology and Cultural Relics, (3).

