

History of Shoushan Stone Culture – Neolithic Period

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Abstract: Fuzhou’s cultural roots can be traced back over 6000 years to the Neolithic period. It evolved from a “barbarian” land to a prominent political, economic, and cultural center over 2000 years. The region witnessed the development of various prehistoric cultures like the Keqiutou, Tanshishan, and Huangguashan cultures. These cultures left behind archaeological sites with stone tools, pottery, and other artifacts, reflecting the lives of ancient Fuzhou inhabitants and the significant influences on other regions. The Fucun site in Fuzhou, as it featured the use of stone tools made from Shoushan stone, provided valuable insights into the Neolithic Age. These tools played a crucial role in the daily lives and production activities of the ancient Fuzhou inhabitants, brought the advancement of labor tools and productivity during that era and potentially influenced the later art and culture of the region.

Keywords: Shoushan stone, Neolithic art, art history, stone culture, sculpture

1. Introduction

Fuzhou is a city surrounded by picturesque landscapes and characterized by low hills, valleys, beautiful mountains, and a dense network of rivers. Over the course of its extensive history, this city, which boasts a unique geographical and historical profile, has developed into a thriving political, cultural, and economic hub on the southeast coast. It has fostered the growth of Min culture—a heritage deeply rooted in its Neolithic origins.

2. Regional Profile

Located in the southeastern part of China, Fuzhou city is surrounded by Gushan, Qishan, Lianhua Mountain, and Wuhu Mountains on three sides and one side facing the sea. While within the city, three mountains—Yushan, Wushan, and Pingshan—are located, giving rise to the urban layout of “mountains within the city, and the city within the mountains.”. The Min River flows through the city, providing a warm and humid climate. The crustal movements that occurred during the Yanshan period 67 million years ago laid the basic framework for the modern topography of the Fuzhou region: a stepped downward topographic feature from northwest to southeast. Hence, Fuzhou is an area characterized by low hills, valleys, beautiful mountains, and dense river networks.

Since its establishment more than 2000 years ago, Fuzhou has become the prominent political, economic, and cultural center of the southeast coast. It has evolved from being initially considered a “barbarian” land to becoming the “chief city of Min” during the Minyue Kingdom era. Throughout various dynasties, it served as the administrative center for Yexian, Houguan, Quanzhou, and Minzhou, and undergoes constant developmental changes. The name “Fuzhou” came into use during

the Tang Dynasty. During the Song and Yuan periods, it governed thirteen counties, eventually rising to become the “great metropolis of Minhai”. As Fuzhou developed economically and politically, it cultivated a prosperous cultural heritage as the cradle of Min culture.

The origins of Min culture can be traced back over six thousand years ago to the Neolithic period of slash-and-burn agriculture. Fuzhou’s early inhabitants relied on its abundant natural resources as they settled and thrived in this land throughout history. The topography upon which the early Fuzhou residents inhabited was vastly different from the urban landscape we see today. In fact, according to the “Geographical Records” in the Fujian Provincial Chronicles, “there were several fluctuations in sea level during the Holocene epochs, resulting in coastal areas of our province submerged to a height of 3-4 meters below sea level. In particular, during the Changle Submergence around 6000 years ago, the sea level rose to the greatest extent, causing widespread inundation in the Fuzhou Basin and the Zhangzhou Basin that turned them into bays” [1].

During the Neolithic period, Fuzhou, due to its geographical location on the west coast of the Pacific Ocean, was significantly impacted by the advancing and retreating tides created by the global rise in temperature and subsequent increase in sea level. The inundation of seawater transformed the low-lying hills into numerous islands, turning the entire Fuzhou area into a bay-like geography. The unique environmental characteristics of the large bay influenced the activities of the early inhabitants of Fuzhou. They typically lived in the hills and islands near the coastline, engaging in daily routines synchronized with sunrise and sunset. They relied on the mountains for hunting, the sea for fishing, and the intertidal zones for gathering shellfish. The cultural sites of the Neolithic period, such as Keqiutou in Pingtan County, Tanshishan in Minhou County, and Huangguashan in Xiapu County, were all situated on the mountainside that faces the sea, reflecting the geographical features of early Fuzhou inhabitants’ lives.

Moreover, the force of seawater also played a significant role in shaping the current Fuzhou landscape. From the Warring States period to the Han and Jin dynasties, as the sea level lowered and sediment accumulated, more of the land originally submersed under water now becomes exposed to the air. At the same time, numerous sandbars and marshes emerged. These changes transformed the Fuzhou region into a peninsula. Additionally, Fuzhou inhabitants consciously reclaimed land from the sea for agricultural purposes starting from the Tang Dynasty further expanding the area of land and gradually forming the current urban layout of Fuzhou.

However, despite the changing tides of time and the transformation of the landscape, Fuzhou still retains many place names that reflect the geographical features of the Neolithic period: locations such as Taiyu Island, Hengyu Island, Panyu Island, Qianyu Island, and Houyu Island were once islands names in the ancient bay. Today, these location names continue to serve as a symbol of Fuzhou’s rich history and its connection to its coastal roots.

3. Cultural Summarization

More than 5,000 years ago during the Neolithic period, the ancestors of the Fuzhou region chose to settle near the sea to utilize the abundant marine resources. Thus, they created a prehistoric culture that was unique to the coastal region; the prehistoric maritime civilization of Fuzhou is composed of various cultural groups, from the Keqiutou Culture to the Tanshishan Culture, and finally the Huangguashan Culture. These archaeological sites represent the essence of Fuzhou’s prehistoric maritime civilization.

3.1. The Keqiutou Culture

The Shell Mound Site is identified as a late Neolithic period relic, dating back approximately 6,500 to 5,500 years ago. It is one of the earliest Neolithic sites discovered in the Fuzhou region to date.

The site is located in Nanlong Village, Pingyuan Township, an area in the northwest of Hainan Island, Pingtan County. The site is bordered by Mahoupuzhan Mountains to the north and faces the coastal mudflats to the south. These geographical locations made it a typical shell mound site. The archaeological excavations have yielded stone tools, pottery, as well as a small amount of shell and bone artifacts. The stone tools are primarily made through knapping and grinding, characterized by simple shapes and rough craftsmanship; the pottery style is highly unified and mainly consists of sand-made pottery characterized by rounded bottoms and ring feet.

In addition, the excavation of the shell mound has revealed various marine organisms, including clams, oysters, and razor clams, as well as deep-sea creatures like sharks and groupers. This indicates that the prehistoric inhabitants of Fuzhou during the Neolithic period could not only collect resources from the mudflats but also engage in deep-sea fishing.

3.2. The Tanshishan Culture

The most representative cultural site in the late Neolithic period in the Fuzhou region is the Tanshi Mountain Culture. Since its initial discovery in 1954, it has undergone 10 archaeological excavations. The site can be roughly divided into three cultural layers: upper, middle, and lower. In particular, the upper layer entered the Bronze Age, and the majority of scholars in the field of archaeology have named the middle and lower cultural layers the “Tanshi Mountain Culture”. The lower layer dates back approximately 5500-5000 years and has a historical connection with the Keqiutou Culture and the middle layer dates back approximately 5000-4300 years.

The site of Tanshishan is located in the northwest of Tanshi Village, Sugarcane Town, Minhou County, a place about 20 kilometers away from Fuzhou City. The terrain is a long hill pointing in the direction of northeast to southwest, with an altitude of about 26 meters. According to geologists, the mouth of the Minjiang River during the Neolithic period can be traced back to the area of Sugarcane Baisha. Tanshishan is a low island close to the sea, where water is sufficient, the climate is warm and humid, and the vegetation is dense. These characteristics provide good natural conditions for the living and production of Fuzhou ancestors.

The materials used to make the cultural relics unearthed at Tanshishan Site can be divided into stone tools, pottery, bone, and shell ware. In particular, stone tools are the most important production tools of the people of Tanshishan and can be divided into adzes, arrowheads, axes, chisels, yue, knives, sickles, and more pottery is divided into bowls, beans, and other living utensils, as well as spinning wheels, net pendant, and other production tools. The main designs of the pots include sand-made gray-yellow pottery and argillaceous gray-black pottery, both having a variety of shapes. Bone is a tool made of animal bones or horns, including arrowheads, cones, needles, chisels, etc.; Shellfish are mostly made of oyster shells, which are used for cutting and scraping. Various kinds of utensils reflect the life of the ancestors of Tanshishan in this period, such as fishing, hunting, gathering, weaving, and pottery making.

The culture of Tanshishan is represented in middle-level accumulation, where a large number of cultural relics have been unearthed, including tombs, trenches, pottery kilns, pottery stoves, ash pits, etc., showing the social features of production, life, customs, culture and other aspects of Tanshishan people. Compared with the early Huqiutou culture, the quality, quantity, and variety of production tools and living tools made in the late primitive society of the Tanshishan people have shown great improvement which marks the significant improvement of the development level of social productive forces of the time. The emergence of public cemeteries, husband and wife tombs, and the disparity in the number of buried goods reflect the polarization of the rich and the poor and the emergence of private ownership, indicating that they have entered the patrilineal clan society. In addition, the rice grains, pig, and dog bones found in the ruins of the Tanshishan Culture further indicate that agriculture and animal husbandry had developed to a certain extent in human primitive society at this time.

In addition to the Tanshishan site, archaeologists have found other sites in Fuqing Dongzhang, Minhou County Zhuangbian Mountain, Baishaxi and other sites similar to the Tanshishan culture remains. The cultural relics in these areas have similar production tools, living utensils, and cultural connotations, and are all located near the sea hills, presenting the basic features of the prehistoric Marine civilization in Fujian in the Neolithic period.

As a typical cultural site of the Neolithic Age in the southeast coastal area of China, Tanshishan culture has a wide range of influences. The Neolithic sites in Wuyi Mountain, Shaowu, and Mingxi in the upper reaches of the Minjiang River, as well as the surrounding areas in southern Zhejiang, are highly similar to the culture of Tanshishan in terms of decorative style and pottery modeling. Taiwan Island, which is separated from Fujian, is also influenced by Tanshishan culture. Dachengkeng culture, Fengsnutou culture, and Yuanshan culture have similar cultural characteristics which indicates that the residents of Fujian and Taiwan began to interact with each other as early as the Neolithic period, carrying out cultural exchanges and technological dissemination.

Furthermore, Tanshishan culture even casts its influence on a wider area as many researchers believe that the origin of Austronesian, the largest language family in the world, comes from the southeast coast of China and has close cultural ties with the Tanshishan culture. In the late Neolithic Age between 6500 and 4300 years ago, the ancestors started from the southeast coast of China and migrated from the southeast coast to Taiwan Island, the Philippines, as far as the Pacific and Indian Ocean islands, and gradually formed the most widely distributed Austronesian language group. In the process of their outward development, the stone tools, pottery-making techniques, and navigation techniques of the Tanshishan culture were also spread in various regions with a far-reaching influence.

The journey of the ancestors to conquer the sea, crossing the vast ocean along the monsoon and ocean currents, and creating a new life on a foreign island became the source of the spirit of “pioneering and enterprising” in the later Min culture and deeply rooted in the cultural consciousness of the Min people.

3.3. The Huangguashan Culture

Huangguashan site is located in Xiapu County, Nansha Jiang Town Ma village, north of the general mountain, south of the Dongwu Ocean, with rivers flowing through the east and west sides. The site inherits some characteristics of the Tan Shishan culture. The pottery is mainly orange and hard colored pottery with diversified shapes like kettle, pot, basin, bowl, bean, statue, and decorative patterns such as cloud thunder, grid, patting grid, triangle, and more. Stone tools are mostly small adzes, arrowheads, stone gow, stone spears, and other types. In addition, ash pits, drainage ditches, stove holes, settlement houses, and other traces of life were also found. The basic age is between 4300-3500 years ago, which is equivalent to the Xia Dynasty to the early Shang Dynasty in the Central Plains.

4. The Excavation of the Fucun Site

In 1955, the provincial cultural relics Management Committee learned that Fuzhou No. 7 Middle School found cultural relics in the capital construction. The site was officially excavated in 1957, revealing an area of 90 square meters.

According to the archaeological findings, researcher Zeng Fan wrote in his 1958 Excavation of the Fucun Site in Fuzhou concluded that the site “contains two cultures of different nature, namely, the Neolithic culture and the architectural remains of the later period”, and that “whether from stone tools, pottery pieces or other unearthed relics, compared with the Tanshishan site in the province, it is close. They all depend on water products, crops, and so on for their livelihood” [2].

4.1. The Geographical Location of Mount Fucangshan

The site of Fucun is located in Fucun, Huqian Township in the northern outskirts of Fuzhou, backed by Fucang Mountain, a high terrain around 38 meters high pointing in the direction of a southeast-northwest trend and is encircled by mountains and streams. Thousands of years ago, Fucang Mountain was an island located in the center of the East Lake. After the Southern Song Dynasty, the East Lake was silted up for farmland, and the island has become a mountain, many villages were built around Fucang Mountain, called “floating villages”, and in 1951, Fuzhou No. 7 High School was relocated to Fucang Mountain.

4.2. The Earliest Stone Tools of Shoushan Stone

According to the Excavation of the Fuzhou Fucun Site, a total of 25 stone tools were unearthed in the excavation, and the materials used were flint, shale, Shoushan stone, sandstone, quartzite, and several other materials.

Among all the stone tools, tools made from Shoushan stone account for the highest proportion: a stone adze, a stone arrowhead, 2 stone chisels, and 7 shape unidentified stone tools are all made from Shoushan stone. This is the oldest group of Shoushan stone products found by archeology so far. Fuzhou Fucun Site Excavation Report introduced it separately: “Shoushan stone origin in Fuzhou north gate Shoushan, its material is not very hard, suitable for carving, so Shoushan stone carving for the province’s special crafts, has been well-known domestically and abroad” [2].

Among them, the stone adze length of 3.4 cm, top width of 1 cm, blade width of 1.5 cm, thickness of 0.75 cm, and “gray white, like limestone.” Exquisitely grind piece with a little notch at the top. It is the smallest piece of stone adze and not a practical tool” [2];

The stone arrowhead stump is 4.4 cm long, 1.5 cm wide, and 0.5 cm thick, “the collar is incomplete, both sides have ridges in a willow leaf shape, and the cross-section is a flat diamond shape” [2];

Stone chisel is 3.9 cm long, 1.3 cm wide, 0.7 cm thick, “like adze, the top edge of the same width, the surface is slightly convex and the bottom is flat. The grinding is quite exquisite, and the top is slightly short, making this a delicate stone tool” [2].

Based on the appearance characteristics of these stone tools, Excavation of Fuzhou Fucun Site believes that: “In the Neolithic sites within this province, Wuping, Guangze, Minhou Tanshishan all had such small stone tools”, and further launched the view: “the unearthed stone tools are similar to the stone tools in Tanshishan and they may be the remains of the same time” [2].

Taking the stone tools of Tanshishan as an example to explore the use of such stone tools, we can see that the stone adze is indispensable in the daily life of the indigenous people in Fuzhou, and its common feature is short, polished, and exquisite, and the length and width are mostly around 3 centimeters. The article “Brief Discussion of Tan Shishan Culture Adze and Mounting Handles” published by Fujian Literature has analyzed such small adze as “very small for local fine work, slightly larger can also participate in low and medium strength planning and so on” [3]. According to the Fujian Provincial Museum Minhoutan Shishan Site’s sixth excavation report, “in the sixth excavation, the walls of the tomb were mostly neat, and the walls of the tomb No. M21 were even found to have “traces trimmed from the tools such as small stone adzes “. Thus, it is highly likely that fine adzes are mostly used for fine processing operations [4].

In the Excavation Report of the Tanshishan Site in Fujian Province from 1954 to 2004 the use of small adzes is explored, “Although the number of stone tools excavated is the largest, most of them are small or extremely small adzes, which may not be directly used for obtaining food, but mainly used for processing bamboo and wood and other utensils and digging trenches, building houses.” From the slash marks and scratches seen on the bones of the animals, it is believed that the stone tools were also used to make bone and cut off animal fur” [4].

It is evident that the extremely small stone adze plays an important role in Fuzhou's primitive life, production, labor, and other scenes. The specific use of the small adze varies according to its different morphological characteristics, it can be used to trim, grind, cut, and chop, making it a multi-functional tool with strong flexibility.

The function of the stone arrowhead and stone chisel tools is more specific. The stone arrowhead is specially used for hunting or war and is second only to the stone adze in the unearthed number of the Tan Shishan cultural site. Stone chisel is an important tool of primitive people in the wood processing process, which can be used to dig and perforate.

The Excavation of the Fucun Site in Fuzhou initially dates the Shoushan stone tools to the Neolithic Age, while the age of the Fucun Site is further explained in Zeng Fan's A Discussion on Prehistoric Cultural Sites in Fujian in 1985: "The lower layer of Fucun is hard pottery with geometric impression. It shows that it is later than the lower and middle strata of Tanshishan" [5]. Currently, many archeologists believe that the geometric engraving pottery unearthed at the same time as the stone tools characteristics are the same as the upper pottery of Tanshishan, that is, the lower age of Fucun Site corresponds to the upper layer of Tanshishan Site, which should have entered the Bronze Age.

However, due to the serious destruction of the Fucun site, the age of the lower remains is not uniform, and thus the cultural stage of this group of stone tools was unclear. However, it is certain that the Shoushan stone, famous for its exquisite carving crafts, was an important material for the ancestors in Fuzhou to build production tools thousands of years ago. It is closely related to production activities such as obtaining food, changing the living environment, and making tools for daily use.

4.3. Primitive Man and Shoushan Stone

Stone is an important material that primitive humans utilized to make production tools. In the Paleolithic Age, primitive people made tools with simple methods such as hammering and smashing which resulted in stone tools that were rough in shape and single in type. In the Neolithic Age, grinding stone tools is one of the signs that primitive society has developed into a new stage as people began to make stone tools that meet their needs of use purposefully; the trend of growing detailed, diversified, and complicated stone tools reflects the change and development of economy of society.

After a preliminary comparative study, the Excavation report from "Anthology of Tanshishan Cultural Materials summarized the appearance of this batch of stone tools, "the production of stone tools, except for a few hammered stone tools, most are ground; few ornaments and small stone tools are very exquisite which reflects the technology of stone making has reached a considerable height at the time" [6]. This batch of exquisitely shaped and finely polished Shoushan stone tools unearthed from the Fucun site is the concrete manifestation of the improvement of labor tools and productivity in ancient times.

Among the materials used by primitive humans to make tools, Shoushan stone accounts for the largest proportion, which is related to the geographical location of Fucun and the daily activities of the ancestors. The northern mountains of Fu village are both where primitive human collect living materials and the origin of the Shoushan stone. In the process of hunting in the dense forest, Shoushan stone becomes easy to find and accessible. Thus a series of processes including picking, polishing, and making stone tools naturally occurred. Shoushan stone became a ubiquitous material that ran through the daily work of Fuzhou ancestors.

In ancient times, Shoushan stone is only used as a material for making production tools and has not yet produced aesthetic modeling characteristics. However, if compared with other hard rocks such as flint, shale, and sandstone, Shoushan stone is significantly easier to polish and shape. The ancestors

of Fuzhou at that time have long realized its unique characteristics in the process of polishing and using Shoushan stone.

Among the 9 original stone tools unearthed in the Fusun site, Shoushan stone occupied 7. This is highly possible to be a result of the Shoushan stone's soft texture that made it easy to shape into daily tools. From the other side, we can see the shortcomings of Shoushan stone used in production tools, which also creates an ideological and experiential prerequisite for Shoushan stone to enter the level of sculpture art materials.

Both culture and art are closely connected with the era humans are in. In the slash-and-burn era, the beautiful and warm Shoushan stone can not become a work of art appreciated by people but is used to make production tools to meet personal needs, and adapt to the development of the whole society.

This batch of Shoushan stone tools unearthed at the Fusun site has far-reaching significance. It is not only a typical portrait of the life of Fuzhou ancestors, carrying ancient civilization and history, but also opened the history of Shoushan stone culture and become the starting point for future generations to understand Shoushan stone culture.

5. Conclusion

Fuzhou's landscape and history weaves a narrative of both resilience and progress. Its transformation from its Neolithic maritime origins to its status as a cultural cornerstone underscores the influential role of heritage and innovation in molding the identity and trajectory of a region. This journey, tracing back from its early days as a coastal settlement to its present as a vibrant city, reflects the profound impact of geography and the adaptability of its inhabitants. The archaeological discoveries, exemplified by artifacts like the Shoushan stone tools, intricately showcase the dynamic interplay between human creativity and the available resources, not only shed light on the pragmatic aspects of ancient life but also hint at the origins of artistic endeavors that would eventually flourish.

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