The artifact pits at Sanxingdui 三星堆 of Guanghan 广汉 in Sichuan 四川 have stimulated perennial debate in the academic community. Scholars are intrigued by the unprecedented wealth and uniqueness of the material remains, and its peripheral location distant from the traditionally conceived center of Chinese civilization. In the core of the debate is the chronology and nature of the pits. To summarize, propositions regarding the chronology of Sanxingdui include mid-Shang, late-Shang, Western Zhou, and Eastern Zhou. Propositions on the nature of the pits include sacrificial offerings, sorcery related burial, firing burial, burial of ominous objects, and the remains of oath of alliance ceremony. Based on the subject, goal and form of the sacrificial ceremony in question, the offering proposition is further partitioned into offerings to the natural forces, the pantheon, the heaven, the earth, the son-bearing god, the ancestors, general sacrifice, agricultural ceremony, termination ceremony of the state, and founding ceremony of the state, etc.

I. Examination of the Research Methods

Contradiction in the interpretation of the Sanxingdui artifact pits is attributable to the lack of effective analogy from archaeological and written documentations. In order to study the artifact pits in depth and get closer to the “historical reality,” one needs to propose hypotheses based on the archaeological assemblage, finds the supporting evidences, and then reaches reasonable interpretations. Modern Western philosophy of science points out that the formation of scientific theory is a cycle of hypothesis and criticism, which involves the formulation of hypothesis, criticism of the hypothesis, and then based on the result, the formulation of a new hypothesis for another round of criticism. In the study of archaeology, no hypothesis and interpretation can claim to be the one and only possibility. It is, therefore, crucial for us to employ a strategy of hypothesis-criticism-hypothesis. The goal of archaeological pursuit is not to search for a uniform and ultimate interpretation; rather, it is a search for the most reasonable and truthful interpretation. In this regard, there is no absolute right or wrong among the different interpretations, but they vary in reasonability and reliability. In fact, to evaluate an interpretation one needs not only to examine the conclusion, but also has to investigate if the research method that leads to the conclusion prevails in a rigorous test of scientific and rational reasoning.

Crucial to the study of the Sanxingdui artifact pits is the absolute chronology. From the stylistic comparison of a few diagnostic artifacts recovered from the pits and the archaeological material of the Central Plains, it is certain that the pits date to the late Shang period. To reject the other chronological interpretations, we need to examine their research methods.

First and foremost, the theoretical framework of any interpretation starts with an assumption. The rationality of the assumption preconditions the rationality of the entire framework. The assumption that no large-scale bronze casting industry occurred in the Sichuan Basin prior to the Western Zhou, or that the Sichuan Bronze Age did not develop until after the Chu culture of the Eastern Zhou is baseless. Second, to determine the chronology of the artifact pits through horizontal comparison must consider the comparability of the assemblages yielded from different times, space and cultures. Otherwise, the comparison would continue indefinitely and truthful conclusion cannot be reached. In addition, there is a distinction between the dates of the artifacts and the dates of the artifact pits. Third, determination of the chronology should start with the absolute dates of the artifacts, and not with that of the written documentations. *Shu Wang Benji* 蜀王本纪 (Basic Annals of the Shu Kings), *Huayang Guo Zhi* 华阳国志

Keywords: artifact pits of Sanxingdui 三星堆 of Guanghan 广汉, interpretation 解释, criticism 批评, ceremonial paraphernalia 礼器, ancestral temple 祖庙, sun-god temple 太阳神庙
The determination of the nature of artifact pits must rest on comprehensive investigation of the remains. Only after reasonable understanding of the nature of the artifact pits has been achieved, meaningful study of individual artifacts would be possible. Otherwise, isolated investigation of any specific class of remains is boundless and the stochastic characteristic of interpretation is magnified. The variation and indeterminacy of the conclusions would geometrically increase. The most influential interpretation of the nature of the artifact pits is that the pits were remains of sacrificial offerings. Therefore, the research methods pertain to this conclusion need to be explicitly discussed.

I have identified five different problems regarding the research methods employed by other archaeologists in determining the nature of the artifact pits. The first problem is that ruling out the possibility of a particular proposition cannot be used to support the alternative proposition. The possibility of logic is infinite. Elimination only indicates what the subject of study is not, but it says nothing about what it is. Nevertheless, we need to admit that it is a cognitive step forward in itself when the incorrect understanding or unreasonable interpretation is eliminated. The second problem is that the sacrificial interpretation is based on intuition rather than systematic study, or that there lacks an inevitable connection between the observed patterns and conclusion. With an intuitive interpretation in mind, one can always find the “pattern” or “idea” to satisfy the interpretation in almost all kinds of depositions. The third problem is that the nature of artifacts does not equate the nature of the pits. The sacrificial proposition fails to provide the supporting evidences that the intention of pit digging and the eventual burial was ceremonial offering, or there was sacrificial behavior in the process. The fourth problem involves the arbitrary use of one or a few artifact classes to determine the nature of the pits. As a result, the conclusion is not compatible with or even contradicts to the other artifact classes or patterns. For a hypothesis to become a theoretical framework, the hypothesis needs to be a self-sustaining system in itself. On the one hand, it is supported by all of the data. On the other hand, it generates rational interpretations for all dataset. Finally, there is the problem of drawing analogies from the literatures, such as the Zhou Li 周礼 (Rites of Zhou) and Li Ji 礼记 (Records of Rites), of the Central Plains, and oracle inscriptions of the Shang. Given the fact that we are very likely dealing with two different cultures, and their religious beliefs and ritual practices must have been differed. An analogy of the Shang ritual practice to the discovery at Sanxingdui is not only unconvincing, it also generates contradictions between the interpretation and the data.

Among the other viewpoints, the proposition that the pits were firing burials rests on the elimination of the possibility of sacrificial pits. The proposition that the pits were the remains of oath of alliance ceremony lacks a systematic investigation of all the material remains. The background of burial of sorcery paraphernalia is that of shamanistic culture. Yet, the possibility of frequent failure and burning of sorcery paraphernalia is low. The ominous artifacts proposition bases on the assumption that the two pits were used in different time. In addition, it needs more explanation on the custom of abandonment of luxurious artifacts. Finally, the proposition that the pits were the results of political conflicts such as regime change is speculative and lacks explanation of the functions and natures of the artifacts.

Accurate determination of the chronology and nature of the pits hinges on the appropriate use and treatment of the written documentation. The appropriateness and functions of received texts originated from different regions or cultural traditions vary. Caution is needed when handling the texts of the Central Plains cultural system. On the contrary, the Shan Hai Jing 山海经 (Classic of Mountains and Seas) and Treatises of the Huayang State are writings about the Bashu 巴蜀 culture; therefore, they are more useful in our pursuit. Yet, several hundred and up to more than a thousand of years had elapsed between the artifact pits and the compilation of these texts. Although some documentation in the texts may have connection to the discovery at Sanxingdui, it involves a serious question of methodology. In other words, is our task to verify the legends and myths documented in the texts by using the archaeological findings, or is it to interpret the archaeological discoveries through analogies derived from the texts?
Alternatively, we shall treat this exchange as the two sides of a coin. Cultural remains and written texts are different forms of “records” documenting the same facts, legends and beliefs. Consequently, we need to be sensitive on how to view the differentially “recorded facts.” Written documentation can assist us on the understanding of the archaeological material and guide our thought. Nevertheless, no material, including the written text, can bring out a definitive conclusion. All researches and interpretations can only lead us closer to the “historical reality.”

II. Comparing the Artifact Pits

To accurately interpret the artifact pits at Sanxingdui one must consider why the two pits appeared in the first place and their relative chronology. If the pits were contemporar y to each other, we need to explain why the two functionally similar pits were dug at the same time. If the pits were not contemporary, we then need to consider the tremendous resource expenditure pertained to the practice of frequent burning and disposal of such luxurious assemblages. In order to answer these questions, it is crucial first to delineate the similarity and difference between the two assemblages of buried artifacts.

Based on the presence and absence of artifact classes, buried items of the pits can be grouped into three sets. The first set of artifacts is those only seen in Pit No.1. They include bronze shaved human head, human head wearing two-horned helmet, human face portrait, dragon cylinder, gold staff, and some of the bronze ritual paraphernalia. The second set of artifacts are those shared by both pits. They are human figurines, models of spirit trees and altars. The spirit tree is the bird’s body. These godly imagines are also found in the over-sized facemasks with protruding eyeballs (Fig. 2:4) were painted with black pigment. Perhaps they represented different roles played by the ruling class. All the bronze face masks (Fig. 2:4) were painted with black pigment. Anthropomorphic motifs are also applied on the bronze model “altar” and the jade zhang-scepter (Fig. 3). The shared features of these human figurines are that they are depicted in either standing or kneeling posture, wearing headaddress, their hands are either holding elongated objects or in holding fists. They are imagines of the priests in ritual ceremony. The subjects of worship are depicted in the over-sized facemasks with protruding eyeballs (Fig. 4:2) and the hybrid figure of a human’s head on a bird’s body. These godly imagines are also found in the models of spirit trees and altars. The spirit tree is the center of the Pit No.2 bronze assemblage (Fig. 5). Many studies connect them to the fusang and ruomu 若木 as described in the Classic of Mountains and Seas and Huainanzi.

Pit No.2 yielded a larger variety of bronze human heads. Similar to the human heads of Pit No.1, they are also imagines of the rulers of the Shu state (Fig. 2:1–3, 5). Unique to the Pit No.2 human head assemblage are those wearing facemasks of gold foil or painted with cinnabar and black pigment. Perhaps they represented different roles played by the ruling class. All the bronze face masks (Fig. 2:4) were painted with black pigment. Anthropomorphic motifs are also applied on the bronze model “altar” and the jade zhang-scepter (Fig. 3). The shared features of these human figurines are that they are depicted in either standing or kneeling posture, wearing headaddress, their hands are either holding elongated objects or in holding fists. They are imagines of the priests in ritual ceremony. The subjects of worship are depicted in the over-sized facemasks with protruding eyeballs (Fig. 4:2) and the hybrid figure of a human’s head on a bird’s body. These godly imagines are also found in the models of spirit trees and altars. The spirit tree is the center of the Pit No.2 bronze assemblage (Fig. 5). Many studies connect them to the fusang 扶桑 and ruomu 落木 as described in the Classic of Mountains and Seas and Huainanzi.

The bronze human heads of different hairstyles in Pit No.1 are possibly the images of the leaders of different ethnic groups. It is likely that the heads with coiled hair are images of the Shu people, while the heads with braided hair are that of the other ethnic groups (Fig. 1:1–3). This variation indicates that the Shu state was a confederation of several ethnic groups. The nature of facemask is similar to that of the human head. The gold staff is a symbol of kingly authority. The motifs of fish, bird, arrow and human heads etched on the staff (Fig. 1: 6) also reflect that politically the Shu state was some sort of tribal confederacy. The bronze dragon cylinder (Fig. 1:5) perhaps is ritual paraphernalia related to power. The hairstyle, garment and posture of the kneeling figurine (Fig. 1:4) are different from that of the figurines depicted in the model of ritual activities of Pit No.2; therefore, it is not depicting a ritual participant. Other bronze ritual paraphernalia, jade and hard stone artifacts, pottery, cowrie shells and ivory tusks are offerings or ceremonial paraphernalia.

The second set of artifacts shares a lot of motifs and styles; some artifacts are almost identical, in spite of the fact that they were yielded from different pits. The first and the third artifact sets are different to the extent that they share no common characteristics at all. Yet, the similarity and difference between the pits have no implication on the relative chronology between the pits. Their difference may attributable to the difference in function and nature.

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Fig. 1 Artifacts from Pit No.1
1. bronze hairless head (K1:2)  2. bronze head with helmet (K1:5)  3. bronze head with braided hair (K1:72)  4. bronze kneeling figure (K1:293)  5. bronze dragon-shaped artifact (K1:36)  6. design of a gold stick (K1:1)

Fig. 2 Bronze artifacts from Pit No.2
1. head with a hairpin (K2②①:58)  2. head with a hat (K2②①:90)  3. head with a hat (K2②①:83)  4. mask (K2②①:153)  5. head with a hair bun (K2②①:63)
haps reflect some shared myths of the Shu region. *Fusang* and *ruomu* are where the sun rises and sets respectively. The bird on the tree symbolizes the sun. Therefore, the bronze tree is related to sun worshipping. Relating artifact includes the sun-shaped artifact (Fig. 4:6). Moreover, a plaque in the shape of human torso (Fig. 4:1) symbol-
izes the destiny of the sun. In addition to the facemasks of protruding eyeballs and human bird hybrid figurine, Pit No.2 also yielded a number of almond-shaped eyes (Fig. 4:3–5). They are also related to the sun. The other birds in the pit are either the subjects of worship or spirit birds used by the priests. Many human figures are depicted on the altar model. The model itself is likely a depiction of a sun worshipping ceremony. The other bronze zun-vessels, lei-vessels, jade and hard stone artifacts, and ivory tusks are ritual paraphernalia.

The decorative motifs cast on the bronze objects of Pit No.2 can be classified into two groups. The first group includes the beast, hooked cloud and kui motifs seen on the zun-vessels. They are similar to the typical motifs often seen on the bronze vessels of the Central Plains. The second group of motifs comprises the motifs completely different from that of the Central Plains. They are patterns of sun halo, eye, bird and bird feather. These decorative motifs have corresponding figurines in the Pit No.2 assemblage. The decorative patterns as well as the figurines relate to sun worshipping (Figs. 6 and 7).

III. Reinterpretation of the Artifact Pits at Sanxingdui

A new interpretation has gradually emerged through the above comprehensive analysis of the pit assemblages. The bronze human heads of Pit No.1 represented the various leaders of the Shu state and subjects of worship. The gold staff symbolized power. The other artifacts were offerings or ceremonial paraphernalia. What buried in Pit No.1 were the ritual objects of the ancestral temple. Pit No.2 yielded symbols of the sun, such as sun-shaped artifact, birds and almond-shaped eyes, and the spirit tree symbolizing the rising and setting of the sun. They were the subjects of worship. Human heads and facemasks were the leaders of different groups, but they were also the worshippers. The various anthropomorphic figurines were imagines of the priests. The figurines with protruding eyes and the hybrid of human and bird were representations of gods or spirits. Bird was related to the sun; therefore, the human bird hybrid probably had a connection to the sun. The “altar” was a representation...
of ritual activity. The rest of the assemblages were offerings. What buried in Pit No.2 were the artifacts related to the sun-god temple. Both the ancestral and sun-god temples were destroyed by warfare or other conflict. As a result, their ritual paraphernalia were buried in separated pits.

Jinsha 金沙, a recently excavated settlement site dated to the late Shang to Spring and Autumn periods,
was another prehistoric center in the Chengdu 成都 Plain. It yielded gold foiled human heads, gold belts decorated with fish, bird, arrow and human head, bronze standing human statues with braided hair, headdress and hands in fists, and many other bronze and jade implements. The discovery of Jinsha further illustrates that the relative chronology of Sanxingdui artifact pits should not be later than the late Shang, and the cultural tradition of Sanxingdui had an uninterrupted development. Remains from Jinsha also provide clues for the interpretation of the artifact pits of Sanxingdui. For instance, in a delicate gold ornament the sun and the bird reunion as four birds encircling the sun (Fig. 8:1). Flying birds are also depicted in a bronze disc-shaped artifact (Fig. 8:2); their meaning is similar to that of the gold ornament. A standing human statue is similar in style to that of Sanxingdui and
its headdress looks like the sun (Fig. 8:3).

Sun-god temple existed in other ancient civilizations of the world. As a regional culture, it is likely that Sanxingdui culture simultaneously worshipped the ancestors and the sun, indicating the coexistence of ancestral and religious temples, and power sharing between the king and the priest. This is a major difference between the Sanxingdui civilization and the Xia-Shang-Zhou civilization, and therefore enriches the pluralistic characteristic of ancient Chinese civilization.

This exercise of reinvestigating the artifact pits demonstrates two important notions. First, an interpretation-criticism cycle is a productive strategy to study archaeological materials like the artifact pits of Sanxingdui. Following this strategy, the interpretation presented here needs to be suspected and tested. Second, a rational interpretation is not the only interpretation. Interpretation itself is a process. Questions in archaeology are always open-ended.

References


