A Discussion of the Shang Period Palace Foundation at Panlongcheng

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Panlongcheng is an Early Shang period walled site in the Huangpi area of Wuhan municipality. Over thirty years ago palace foundations No.1 and No.2 were excavated within the walled site in addition to preliminary excavations of Palace foundation No.3.

I. The Nature, Arrangement and Structure of the Palace Foundations

1. The nature, arrangement and structure of palace foundation No.1

The pounded-earth platform of Palace foundation No.1 takes a relatively orderly rectangular form, 39.8 m from east to west and 12.3 m from north to south. The top layer(s) of pounded earth had already been destroyed and according to the report the remaining pounded earth platform stands only 20 cm above the contemporaneous ground level (Fig. 1).

From the stratigraphic illustration of the trench dug into the foundation of Palace No.1 published in Panlongcheng, this author understands layer 6 to be the rammed earth of the foundation pit, the line between layers 5 and 6 being the contemporaneous surface and the five types of pounded earth A, B, C, D, E forming the platform. Layers 4 and 5 were the earthen layers supporting the palace drainage. If we take the line between layers 5 and 6 as the contemporaneous surface, then the remaining height of the pounded-earth platform is about 80 cm (Fig. 2).

On top of the pounded-earth platform the remains of a wood-framed wall were discovered with these walls forming four rooms arranged from east to west. Each of the wall troughs are incomplete where an entrance was probably located. The middle two rooms, 2 and 3, seem to have had doors both on the north and the south, while

Fig. 1 Plan and cross-section of Palace foundation No.1 at Panlongcheng
the eastern-most room, 1, only had a south door. The south wall of Room 4 was not preserved, but from the lack of entrance on the north side we can be certain that it only had a southern entrance. According to Shang custom these rooms atop the pounded-earth platform should be termed shi 室 chambers.

Around the platform pillar remains arranged in rows were found postholes, and plinths suggest there were altogether 43 pillars. Between the wood-framed wall and the pillars there was a roughly 2.5 m corridor.

Adjacent to the drainage slope surrounding the edge of the pounded-earth platform (about 70–80 cm from the pillars) a number of scattered discoveries of post holes were made. Altogether 11 were found with diameters between 12 and 18 cm and 6 to 10 cm deep. In their vicinity were arranged a layer of ceramic shards. Concerning these remains the excavators claimed that they were pillar-raising pits and supporting pillars. This author does not feel that we can be sure they were supporting pillars. I hypothesize that they were perhaps the remains of scaffolding used for support during the construction of the platform.

On all four sides of the platform are slope-shaped deposits, 40 cm to 1 m wide with many kinds of ceramic shards scattered on the surface. The excavators believably claim that this was for drainage.

From an analysis of the remains, this palace was a structure built on a high platform, divided into four shi chambers, its wood-framed walls and pillars forming the support for the roof. Reconstructing the roof as four-sloped is possible, but whether it was single or double-eaved is unknowable. Because wood-framed walls can support one level of eaves, and pillars could support another level of eaves it is not impossible that it was a double-eaved structure. Studied together with Palace No.2 however, this author leans toward the single-eave hypothesis.

2. The Nature, Arrangement and Structure of Palace foundation No.2

The platform of Palace foundation No.2 was built with red pounded earth. It was rectangular in shape and 29.95 m long from east to west, 12.7 m wide from north to south. According to the stratigraphic profile, a single foundation pit was not dug for the platform of this palace but rather leveling was done as needed (Fig. 3). This is the first time that a Shang period palace foundation has been discovered where a foundation pit was not dug for the building of the palace platform, but rather earth was mounded to create a level surface. On all four sides of the platform a drainage slopes were built using layer upon layer of yellow pounded-earth. The slopes were 2.5 m wide with ceramic shards scattered over their surface.

On the surface of the pounded-earth platform a circle of pillar holes were discovered (including some remains of plinth stones) distributed 1–1.5 m from the edge of the platform. Altogether there were 28 wooden pillars with plinth stone beneath them. The pillars had diameters of 40–50 cm and generally the pillar holes were 50–60 cm deep from the currently preserved surface of the platform. A minority are only 10–25 cm in width.
It is worth noting that extrapolating from the current distribution and symmetry it seems as though the south-east and north-west areas are each missing a pillar. However, these areas are without any trace of a posthole so unfortunately we cannot simply make this assumption. In the middle of the platform no wood-framed wall remains were found. The yellow clay distributed on the surface of the platform is missing in four places, between pillars 12 and 13 in the western area of the platform and slightly to the south, between pillars 9 and 10 in the south and slightly to the west, between 3 and 4 in the south, slightly to the east, and between pillars 1 and 28 in the eastern part, slightly to the south. These four areas are symmetrically paired and are perhaps were entrances once stood.

As for the reconstruction of Palace No.2, this is a very difficult task. The greatest problem is that the platform does not have any remains of wood-framed walls such as those found at Palace No.1. Is this because it never had them or because they simply didn’t preserve? Facing this question it seems as though there are only two choices: 1) taking Palace No.1 as an example, assume that it did originally have wood-framed walls and that we only need to look at Palace No.1 to reconstruct Palace No.2. Or, 2) to not subjectively add features for which no evidence has been found, but rather attempt to reasonably explain according to the evidence we do possess. In this view, Palace No.2 only has a circle of pillars and no wood-framed walls separating rooms in a hall-type structure. This author takes the latter choice. Extrapolating from the positions of the pillars, Palace No.2 was an 11 pillar long and 4 pillar deep, four walled (with the pillars serving as the frame), spacious hall with two main doors and two side doors (opening onto eastern and western side-corridors).

3. The Foundations of Palace No.3
Yet to receive large exposure excavation, only parts of the foundation of Palace No.3 have been discovered in three units. The foundation is an east-west oriented rectangle, approximately 5.1 m wide. Beyond this the situation is unclear.

II. The Date of the Palace Foundation
The authors of Panlongcheng make the following claim, “based on the stratigraphic situation where the palace foundation is located, the F1, F2 palaces were built upon the pounded earth platform of layer 5 and belong to Panlongcheng phase IV. The ceramic li-tripods, zun-vessels and gang-vats found in the architectural foundations show late phase IV characteristics and thus we argue that the palatial architecture of the upper layers were built at the same time as the surrounding wall or a bit later.” Because the excavation report did not publish the shards associated with the stratigraphic layers in question, we have no way of judging if the excavators assessment of the date of palace architecture is completely accurate and so we provisionally accept the excavators conclusion of Panlongcheng
Panlongcheng published some Panlongcheng phase IV culture ceramics and bronze artifacts and these can be used to discuss the excavation report’s so-called Panlongcheng phase IV and its relationship with Central Plains Shang culture periodization. In the interests of brevity and clarity, I will only use ceramic li-tripods as an example. Among the phase IV ceramics reported in Panlongcheng, the ceramic li-tripods are largely comparable to those of Yanshi 偃师 Shang city culture phase II, sub-phase 4 and Zhengzhou 郑州 Shang city late Lower Erligang 二里冈.

Accordingly, the dates of Panlongcheng palaces 1 and 2 are Early Shang period, precisely the period of Yanshi Shang city and Zhengzhou Shang city’s florescence.

III. The Nature of the Palace and Architectural Arrangement

1. Nature of the Palace

Concerning the nature of Panlongcheng culture, the scholarly world has had many debates. Some scholars feel that its cultural character in general is that of a southern branch of the Central Plains Shang culture melded with Shijiahe 石家河 Culture and which absorbed southern stamped pottery and Hushu 湖熟 cultural influences forming a new Shang cultural periphery variant, namely the Panlongcheng variant of Shang culture. Other scholars feel that the Panlongcheng site belongs within the cultural province of the Shang culture and is the remains of a Shang period regional polity. Yet other scholars have proposed that Panlongcheng was “the Shang dynasty’s southern territory.” Whatever the case, the culture of the Panlongcheng site belongs to a local variant of Early Shang culture. Thus, its palatial architecture ought to have relatively great similarities with palatial architecture of the Shang period Central Plains, indeed enough for fruitful comparison.

Firstly, let us discuss the nature of Palace No.1. The excavators noted in the summary that, “this large palace, with its four chambers is not like a court or administrative hall but rather is a residential palace.” The scholar of ancient architecture Yang Hongxun 杨鸿勋 also stated that it was a “four chamber residential palace.”

In this author’s opinion, however, Panlongcheng Palace No.1 ought to be a court-hall structure as I will attempt to argue below.

Firstly, the architectural structure of Palace No.1 demonstrates that it is a court-hall and not a residential palace. Palace No.1 does indeed have four chambers running east-west, but the middle two have south-facing front and north facing back entrances, while the two end rooms only have south-facing doors. In the tradition of Chinese palatial architecture, for the emperor or king’s residential palace to have doors opening to both north and south is without example and illogical, residential palaces are closed spaces, and having symmetrically arranged northern and southern doors does not suit dwelling. The situation with Panlongcheng Palace No.1 is the same as Palace No.2 at Yanshi Shang city.

Secondly, from the scale of the architecture, Palace No.1 is not a residential palace. If Palace No.1 is a “rear residence,” then Palace No.2 must be the “front hall,” but to have the latter of larger scale than the former is obviously not in accordance with the rules of propriety.

Thirdly, from the arrangement of the palaces, Palace No.1 should also not be a residential palace. Concerning the opinion that Palace No.1 is residential, it is partially based on the assumption that Palace No.3 is a flanking corridor. We have reason to believe that Palace No.3 was not a flanking corridor, but rather a residential palace (see below).

Next we will discuss the nature of Palace No.2.

Mr. Yang Hongxun analyzed Palace No.2 to be “an early forerunner of the front court-hall,” “the overall location F2 foundation and its remains demonstrate that it ought to be an audience and administrative hall located in front of the residential palace.” In the summary the excavators state that Palace No.2 is “a main hall.” This author agrees that it was a “front court-hall” but claiming that it is “an audience and administrative hall located in front of the residential palace” is inappropriate as will be argued below.

Firstly, from the location of the palatial architecture, we can exclude the possibility that Palace No.2 is a residential palace.

Secondly, from the scale and organization of the palace architecture, we can be sure that Palace No.2 is hall structure and not a closed residential palace.

Thirdly, the notion that Palace No.2 is a front hall cannot be based simply on the system of “holding court in front and residing behind,” nor can it be completely based on the logic of “not residential then administrative.” The author believes that Palaces No.1 and No.2 were both court-halls, only that they had a different function. From the Zhou period on, the palace where emperors and kings administered government were called court-halls and were divided into inner and outer courts, or “the Son
of Heaven and the assembled lords have three courts.” It has already been demonstrated by archaeological discovery that Yanshi Shang city had at least inner and outer courts: with Palace No.3 as the outer court and Palace No.2 seeming to be the “administrative hall” of the inner court (Fig. 4). In fact, palaces No.1 and No.2 at Panlongcheng should also be considered inner and outer courts.

Finally, we will discuss the nature of Palace No.3. Because Palace No.3 has not been completely exposed, and its architectural structure is not clear, Mr. Yang Hongxun stated that “F3 was not a palace-hall, but rather was originally a north-south flanking corridor.”

In reality, F3 is possibly a residential palace. Based on Yanshi Erlitou, Yanshi Shang city, Huanbei 汾北 Shang and such Xia, Shang Dynasty palaces we know that in the Xia period the main palace hall was surrounded on four sides by flanking corridors (there was corridor architecture behind the main hall as well). That in the Shang period the main palace hall only had three flanking corridors surrounding it (no corridor behind the main hall), is an uncontroversial archaeological fact. Thus, this author believes that the arrangement of the palaces at Panlongcheng should be the same as that of the Central Plains Shang period sites and northern-most palace structure ought to be the residential palace. Whether or not this is really the case only future archaeological investigations can prove.

2. Architectural arrangement

The three palace architectural foundations F1, F2, and F3 discovered in the north-eastern area of the Panlongcheng site are arranged in line from south to north (see Fig. 1). Palace foundation No.1 is in the middle, Palace foundation No.2 is 13 m to the south of Palace foundation No.1 and Palace foundation No.3 is 7.5 m north of Palace foundation No.1. The orientation of the foundations of palaces 1 and 2 are identical, both 20 degrees east of north (or 20 degrees west of south) and from the map of the palace foundations published in Panlongcheng, the orientation of Palace foundation No.3 is basically the same as that of Palace foundation No.1. We can be certain that these structures were built according to a preconceived plan, but we have discovered that the axes running through Palace No.1 and Palace No.2 do not line up and that Palace No.2 is to the east. This kind of situation also appears at Yanshi where the axis running through Palace No.2 is slightly west relative to the axis running through Palace No.3. The reason for this is probably related to the late phase extension of Palace No.2 westward. Perhaps the variance from symmetry along the central axis at Panlongcheng between Palace No.1 and No.2 is due to the same thing.

In overview, Panlongcheng’s F1, F2, and F3 are arranged from front to back to create a three courtyard space with the southernmost Palace No.2 the front hall where important ceremonies were held, also known as the outer court. Palace No.1, situated in the middle was the place of daily administration, also known as the inner court, while Palace No.3 was the residential palace, of the same nature as rear palaces of historical times. Obviously, the palace architecture and that of Yanshi Shang city is the same, creating a linked north-south three courtyard space, already a “holding court in front and residing behind” layout. Apparently, the so called “Son of Heaven and the assembled lords have three courts” was not a system invented in the Zhou.

IV. Concerning the Problem of the Palace Area Wall

1. Other structures in the palace area

According the Panlongcheng report, before Palaces No.1 and No.3 were constructed this area already had Early Shang architecture, although whether there were palaces is unknown. Based on the discoveries of Yanshi Shang city and Anyang 安阳 Yinxu殷墟, it is not unknown for Shang period palace structures to be rebuilt or refurbished on the site of earlier palaces and so we
cannot rule out the possibility that before palaces Nos. 1, 2, and 3, Panlongcheng already had palace structures.

The Panlongcheng report also states: near the inside slope of the eastern wall five large post-holes and plinths were found arranged in a line probably indicating the presence of a structure. This author agrees with the opinion that these remains belong to another palatial structure and that they are likely from an architectural structure of a different nature than palaces Nos. 1, 2 and 3.

2. Hypothesis concerning the arrangement of palace wall ceremonial architecture

In high antiquity, the ceremonial architecture of state rulership was primarily ancestral temple, altar of the soil, court and residential palace. Panlongcheng’s palace foundations Nos. 1, 2 and 3, ordered from south to north and forming a three-courtyard arrangement, creates the basic “holding court in front and residing behind” layout. According to the *Li ji* (Rites of Zhou), Zhou period ceremonial architectural arrangement was “altars to soil and grain on right, ancestral temple on left.” That is to say, the court and residential structures where on the central axis with the alter of soil and grain to the left (east) and ancestral temple on the right (west). Thus, when building a capital site (whether that of the Son of Heaven or a regional lord), there must be an ancestral temple, an altar of the soil, a court and residential palace.

Archaeological discovery demonstrates that the ceremonial system described above was already established in the Shang period, with its most classic expression in Anyang Yinxu’s ceremonial architecture, while Yanshi Shang city already shows a “holding court in front, residing behind,” “altar and temple separately located” organization (the remains of the altar of the soil hasn’t been found). Extrapolating from this, then Panlongcheng should also have, in addition to court and residential palace structures, an ancestral temple and even an altar of the soil.

From the relative locations of structures, 80 m to the south-east of Panlongcheng’s Palace No. 2 is another structure, perhaps an ancestral temple structure. If we base our analysis on the locational relationship between the court-halls, residential palaces and altar of soil in Yinxu’s palace district, if Panlongcheng had an “altar of the soil” it should be somewhere to the southwest of Palace No. 2.

Based on what we have argued above, Panlongcheng’s palace area ceremonial architecture is already organized into a court and residential palace arrangement, and the pounded earth structure to the southeast of Palace No. 2 is quite possibly an ancestral temple. This forms the basic architectural group of the palace area and extrapolating from it the area of the palace district should be about 150–160 m from north to south and 140–150 m from east to west (Fig. 5).

Naturally, whether or not the hypotheses above will be verified, awaits the results of future archaeological excavation.

**Reference Works**


3. Concerning the organization and nature of


Note: The original paper, published in Kaogu Xuebao 考古学报 2005.2: 161–184, with ten figures, is written by Du Jinpeng. This summary is prepared by Du Jinpeng and English-translated by Rod Campbell 江雨德.