

THE 2001 SEASON OF THE CROSS GROUP PROJECT

ARCHAEOLOGICAL EXCAVATION AND PRELIMINARY RESULTS OF OPERATIONS AT TEMPLES XIX AND XX

The investigatory personnel began operations on February 12, 2001, with the first undertaking at Temple XX, situating the structure within a topographical grid that would permit mathematical control of the documentation process. Following the numerical sequence of our operations in years past, the excavations at Structure XX correspond to Operation 6 and those at Temple XIX are subsumed under Operation 4.

In the present report, we include sub-operation 6.4, which corresponds to the south side of Structure XX, and sub-operation 6.5 which refers to the entire east side, including the platform that extends from Structure XIX, which evidently formed the supporting surface of the structure presently under investigation. The other operations carried out at the end of the season were sub-operations 6.7, in which we excavated the interior of the building, and 6.8, where we excavated the lowest section of the substructure on the south and west sides looking for possible remains of architecture covered by rubble.

Our first exploratory transect (Op. 6.4) was on the south side, where we determined the state of structural preservation. This transect was laid out in eight 2x2 meter test pits and respective lots, defined by corresponding stratigraphic changes. These were assigned coordinates in latitude and longitude according to recognized principles.

The operation began with a pit at N14 W42 and extended to N20 W42. The architectural features discovered in this transect revealed two primary alignments, one of which seems to correspond to a sloped retaining wall at N4 W42 and a banquette at N6 W42. Secondly, there were only two indications of architecture: the remains of one or more collapsed walls and, higher up, part of another wall which seems to correspond to the final building phase.

Our second transect (Op. 6.5) on the east side began directly at the level of the plaza that integrates Structures XVIII, XIX and XX, with the intention of determining the connection of this plaza to Structure XX. In ten test pits we detected only eight areas with architectural remains in a distance of 22 meters. In one test pit we documented what appear to be the remains of a balustrade, but its spacial orientation does not correspond to the higher substructure of Temple XX. It would appear therefore to belong to an earlier building phase. It is interesting to note that the stones of this balustrade are softer and a little different from those which we know from the more recent structure.

The principle objective of our third transect (Op. 6.5) was to define the architecture of the principal stairway and its state of preservation, as well as whatever architecture might remain in the central part of the building. In our first test pit, only a few centimeters under the surface layer of organic matter, a number of well-formed rectangular stones were encountered. These must belong to the first stairs of the final phase of Structure XX.

Behind two of the pits under the lens of humus were a series of collapsed architectural elements: roofstones, pillars and rough stones in a state of disorder. At the bottom of one pit we found the first of six stairs, the material, level and location of which seems to correspond to the ballustrade already mentioned. It is clear that their position does not correspond to the final building phase.

The materials excavated in an extension of this transect indicate the almost total absence of access stairs at Temple XX, except for the very first one, which could be seen clearly, albeit in a state of collapse. Further extensions liberated two alfardas and revealed the following strange circumstance: One wall two meters from a ballustrade changed abruptly in its masonry, employing rough and minimally squared-off stones as if to build up the wall in order to support the enormous weight of the substructure of the final building phase.

Inside Temple XX (Op. 6.7) we used Ground Penetrating Radar to explore for sub-surface anomalies, the investigation of which might reveal important remains of architecture. The first anomaly was detected in the southwest corner of the building. This area comprises a room with the remains of a stucco floor of approximately 2.4 by 2.2 meters. The area is delimited on the north by an alignment of stones and one of the pillars, on the south by an internal wall, and on the east by another, similar alignment of stones. These did not totally block access to what would have been a small, private room. On the west side there is a bearing wall.

Exploratory Pit 1 encountered a "caja de piedras", a stone coffin or cist tomb with a twenty-centimeter aperture on its east end and a small squared stone that served as a lintel. At first sight there did not appear to be artifacts inside the cist, but detailed excavation revealed remains of red pigment on the floor, probably cinnabar, as suggested by Arq. Arnoldo Gonzalez Cruz. Eleven jade beads and two earflares were found. This stone box was denominated Tomb 1.

After this discovery, we decided to sink a second test pit to investigate the structure's stratigraphic levels. The first lot was comprised of rough stones and coffee-colored clay. The next stratum contained larger stones, like those comprising the lid of Tomb 1. There were no ceramics and only one fragment of obsidian.

Thinking of similarities to Temple XVIII, where three tombs in a row were discovered with affinities to that in Temple XX, we suspected another tomb lined up with Tomb 1. We sunk two more pits, and at approximately 40 centimeters below the floor of temple we found a cist in which the skeletal material was badly preserved and highly disordered. Four teeth with jade incrustations and a small jade head were found. In the south part of the room ceramics were found corresponding to the Murcielagos phase, dated by Dr. Robert Rands to between AD 700 and 770.

Other pits revealed the first stones of the construction fill, of about .7 to .9 meters in size. These were arranged in parallel and perpendicular order. There wasn't the slightest trace of architecture corresponding to the substructure or any cultural remains.

In Pit 6 we explored the psychoduct that originates in the tomb within the substructure. (A "psychoduct" is a tube connected to a tomb, such as the one that extends from the crypt of Pakal in the substructure of the Temple of the Inscriptions up to the temple above. It has been suggested that this would have provided a connection to the spirit of the deceased.) Pit 7 revealed the remains of a black stucco floor with traces of a layer of burnt material on top of it. This was 1.1 meters below the floor in the southeast corner of the pit and 2.08 in the northwest corner. The depth varies because of the collapse of the building.

Below the black floor was a lens of very damp and soft gravel, and below this large stones of a harder material. In the center of the pit and a little towards the southeast were squared stones mortared with stucco forming a kind of wall for the hollow of the psychoduct. The latter terminates at the level of the black floor and thus pertains to the substructure for which the tomb was built.

The marked difference between the construction fill above and below the floor indicates to us that there were two different construction methods, in which the selection of building materials was based on economic considerations, which is to say initial access to better building materials or, on the other hand, perhaps a process of trial and error in the development of construction techniques.

In Operation 6.8, we sunk one test pit in order to define the limits of the substructure of Temple XX and determine if these were outside the platform of the temple. Another pit was excavated where we had found two cylindrical altars of limestone. Other pits investigated a stepped wall in a good state of preservation.

CONCLUSION

Our observations lead us to conclude that Temple XX was built on a natural hill of *roca madre*. Those who built the structure in prehispanic times took advantage of the volume of the bedrock, such that in several places they merely sheathed it with an architectural covering. This contributed directly to the sliding off and obvious destruction of the greater part of the architectural elements and explains the evidence of collapsed walls in our first transect of Operation 6.5.

The upper substructure of the temple was composed of three stepped terraces which surrounded four pillars, two in front and two located in the middle of the temple. The remains of walls in the west suggest that the temple had four sides, forming a central room, the floors of which were stuccoed. It should be mentioned that the rooms do not appear to have been part of the original design but rather a modification after construction. Other buildings at Palenque with similar plans include the Olvidado, the Temple of the Count and Temple II of the North Group.

On its front or east side, Temple XX must have had at least six terraces and a central stairway. We know that Temple XX, like other structures at Palenque, was centrally situated at the highest point of its bedrock mound, such that when they extended the building to the north they augmented the substructure with fill. At the base of the

principal stairway of the pyramid, the stairs met the level of an earlier plaza and the lowest were therefore covered when the plaza level was subsequently raised.

It is certainly of great significance that the accumulated rubble is so small compared to the size of the pyramid as it must have been in its time of splendor. This may be accounted for in part by several considerations. Temple XX-sub was partially destroyed to introduce the tomb of a ruler, and its remodeling was begun but not completed. We believe that this structure is older than Temple XIX and perhaps the Temple of the Inscriptions as well. Analyzing the masonry of Temple XX, particularly the stairs, we discovered that the action of rain is sufficient to destroy the stone. The bedrock which was covered with masonry also deteriorates naturally.

The abandonment for over a thousand years, the total absence of maintenance, and the filtration of water together caused an extraordinary collapse. The terraces of the pyramid slid down exposing the bedrock. To complete the catastrophe, rainwater over the course of ten centuries dissolved the construction materials and carried them far from the monument.

With regard to the building constructed atop the pyramid, its ruin was also catastrophic. Not a single vault remains, and the bearing wall is no higher than two meters on the south side. Based on drawings and comparison with other structures at Palenque, we have projected that the remains of stone are not sufficient to fill out the projected volume of Temple XX. It is quite probable that many of the finished stones were re-used in subsequent constructions.