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Francisco Estrada-Belli

Archaeological Research in the Holmul Region, Petén, Guatemala

Preliminary report of the 2004 season

With contributions by Judith Valle, Co-director

Translation of the Spanish by Eduardo Williams

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Research Year: 2004

Culture: Maya

Chronology: Preclassic - Early Classic

Location: Holmul, Petén, Guatemala

Site: La Sufricaya

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Introduction

The 2004 season was one of the longest and most successful since archaeological research was started at Holmul by the Holmul Archaeological Project in the year 2000. This fieldwork was carried out from March to July, 2004, under the direction of the author, Dr. Francisco Estrada-Belli (project director) and Lic. Judith Valle (co-director). Archaeologists and advanced students from United States and Guatemalan universities took part in this fieldwork, as well as experts in several disciplines, such as artist and Maya mural expert Heather Hurst, mural painting conservator Alberto Semeraro (Italy) and Dr. Gene Ware, who is an expert in digital photography of mural paintings. These professionals are joined by Lic. Bernard Hermes, who advised us during the ceramic analysis. The technical team at Holmul was complemented by over 30 workers from the Melchor de Mencos community.

In this season three main archaeological research subjects were addressed. These are defined as follows:

1. The development of architecture and sacred ideology in the Preclassic and its transition to the Early Classic. This topic was focused through the excavation of pits in the main plaza at Cival (E Group), the Triadic Group and a defense wall around Cival. The transition to the Early Classic was documented mainly with an excavation in Building B of Group II at Holmul.
2. The relationship between the Maya and Teotihuacan in the Petén. This problem was developed in the excavations of Group 1 in Structure 1 at La Sufricaya with its mural painting, as well as in a structure in front of it.
3. Holmul's peak and downfall as a center of power during the Terminal Classic. This topic continued developing with excavations in the area of palaces in Group III and the adjacent plazas, where we found an occupation after the abandonment of the palaces and a defensive wall.

The work carried out in 2004 provided us with important data about the three main research subjects, leading us to modify existing theories about the formation and

change in the architecture, ideology, and political organization of the Maya state in this region. Our data and interpretative statements are summarized below.

Results of research at Cival

Mapping

We continued mapping the sacred architecture at Cival with an electronic total station. Through this method we intend to get a more precise documentation of features and later to perform a graphic architectural reconstruction through a geographic information system (GIS). We carried out topographic survey of the west, north and east areas of the main plaza. In the west plaza we observed the remains of radial stairways on the slopes of pyramid Structure 20, which indicates its possible construction as part of the Public Ritual Complex or Group E near the long structure at the east, Structure 7. Likewise we detected new areas of sacred architecture north of the main plaza, and discovered a minor plaza (Group E) 500 m to the north of the same main plaza.

Excavations at Cival

Excavations at Cival's main plaza were supervised by doctoral student Jeremy Bauer. They were conducted in Structure 9, Structure 7, and its Sub-structure 12, as well as in the slopes of Group 1 adjoining the back of Structure 7 (and Structure 12). In the pyramid (Structure 9) we found a stairway of the final stage in good state of conservation. It was constructed with limestone blocks over 1 m long and 40 cm high. These blocks formed a monumental stairway toward the higher temples in the Terminal Preclassic or beginnings of the Early Classic (Proto-Classic) period. We also recorded features of an inset stairway and several floors under the last stage. The building sequence starts with modifications to the limestone in the Middle Preclassic period. An excavation in the north part of Pyramid 9 corroborated the existence of a stairway in this part of the contemporary structure in the same style of massive blocks of the east stairway. This fact lends weight to the initial hypothesis that Pyramid 9 was constructed as part of an E Group and therefore it formed an astronomical cluster with the long Structure 7 on the east side of the main plaza. The pyramid known as Structure 20 was built behind Structure 9, in a second moment, thus increasing by 100% the area of the E Group itself. Likewise we found in the excavation of the north corner of Structure 7 that in its final phase Structure 7 served as foundation for a perishable sub-structure. We also found one in the center (Str. 12) and one in the south. Deeper test pits conducted in the center of the long Structure 7 showed that this structure in its first stage was built by modifying the limestone rock and was of very small dimensions in height and north-south extension. The first phase is tentatively dated to the Middle Preclassic period.

A 16 x 2 m trench was excavated in the back of Str. 7 in order to investigate its last building stages, as well as its relationship with the last stages of Group 1, located a few meters to the east. At the back of Structure 7 we saw a wall of approximately 2

m in height, which corresponds to the wall of the lower body of the same structure in its final phase. The observed features indicate a building technique of blocks of massive size (cyclopean type), measuring around 90 cm long. This technique is directly similar to the technique of massive blocks of the stairway of the last stage of the same Structure 1, and to the stairway of the last stage of the pyramid west of the plaza of Group E, Structure 9.

Under this wall we found a wall of smaller blocks and cobbles, which belongs to the penultimate stage of the structure. The building technique of this wall is clearly different from the last one, and of less quality. Under this same wall we detected the remains of a previous stage, the third and last. In this stage the building technique is of cobblestone blocks, which appears in several structures of Group 1 and its stairway. This technique was apparently also used in Tikal and the El Mirador basin around A.D. 100.

To the east of Structure 7 this same trench discovered the well-preserved remains of a monumental stairway inset in the basal platform of Group 1, or Triadic Group 1. This stairway is distinguished by the same technique of cobblestone blocks seen in the third and last phase of Structure 7 and in the last phase of the substructures of the same Triadic Group. Its first steps were found below the wall of Structure 7's last stage. Therefore, based on its building technique the last phase of Group 1 is dated around AD 100, and because of its stratigraphic relationships it must be earlier than the last stage of Structure 7, and possibly its penultimate stage, too. Because it has the same building technique of cobblestone blocks, the third and last stage of the long structure 7 and the last stage of Triadic Group 1 may be contemporaneous, both dating around AD 100.

To the south of the main plaza at Cival and related with a wall running along the south side of the ceremonial area we excavated a 3 x 4 m pit. This excavation was able to show that in fact this wall was built over the last floor of the plaza. This wall was built with roughly hewn stones and cobbles without mortar or drily. This wall could have been up to 2 m high and 80 cm thick. The ceramics found in the plaza levels suggest that this wall, like the last floor of the plaza, date to the end of the Late Preclassic. However, we can't exclude the possibility that the wall was built in a later time or during a reoccupation of the plaza in the Late Classic.

The excavation was continued until we reached a depth of 6.5 m without reaching the level of limestone rock. We saw a massive fill at least 4 m deep. This was interpreted as an event in which, in the Middle Preclassic period, the area of plazas was massively extended toward the south. On top of this construction we identified five plaza levels spanning from the Late Preclassic period to the earliest phase of the Early Classic.

The investigation was continued in Structure 1 of Group 1 to improve our knowledge of the stucco masks which might have decorated the sub-structure's façade. We carried on with this investigation, started in 2003, with two additional tunnels on the north and south sides of Structure 1. Through these tunnels we

were able to reach the north face of mask 1, which had been partially uncovered in 2003, and almost the whole of mask 2, or south mask, of the same structure. The observed characteristics of the two masks are identical. Both sculptures seem to represent the same deity, and many iconographic details, such as the brow and the earplug are stylistically similar to sculptures from the area of the Mirador basin, and of sites such as Cerros, Uaxactun, Kaminaljuyu and Izapa, as well as --in an indirect and elusive way-- with the Olmec area. This suggests that this work is placed in the first part of the Late Preclassic. Pottery found in the structure's fill includes Middle Preclassic types together with others from the initial Late Preclassic. This indicates that the masks were not buried before the initial Late Preclassic, probably between 300 and 100 B.C. The early style of the sculpture also confirms this hypothesis.

Besides, in Structure 1 we could investigate the stairway from its base in the platform of Group 1 all the way to the masks. This let us know that the structure is elevated in three stepped bodies with stuccoed inset moldings and an inset 2 m wide stairway on its central axis. In the fill covering this substructure we found several fragments of stuccoed blocks with polychrome paint, indicating the existence of a vaulted temple on top of the substructure, which was partially or totally demolished during the construction of the last stage of the structure itself.

In summary, the excavations in the main plaza or Group E of Cival confirmed the antiquity of its first phase in the Middle Preclassic. Afterwards there were five building phases in the east structure, the last one dating in the Terminal Preclassic or Early Classic (AD 150-300). The last building stage of Triadic Group 1 is dated around A.D. 100. It was around this date that substructure 1 was buried with two stuccoed masks on the east side of Group 1, with a new and last construction stage. After this date two other stages of Structure 7 of Group E were built, between A.D. 100 and 250. However, in this same epoch the Triadic Group was not renovated. Finally, a preliminary hypothesis would be that the construction of the 2 m high defensive wall around Cival's whole sacred area might have taken place in this same time, between A.D. 100 and 250. After this event there are no major construction features in Cival, but there are signs of a reoccupation of part of its residential area during the Late Classic.

Conservation measures at Cival

It should be mentioned that as part of the requirements of archaeological research, and to ensure the protection of archaeological features, all excavations in Cival were completely filled up.

The north and south tunnels of Structure 1 were also completely filled up, and the west tunnel that gave access to the masks was partially filled up and its inside was temporarily reinforced with wooden boards so as to allow the continuation of studies in the next season. Finally, we built a new roof for protecting Stela 2 in the main plaza.

Research at La Sufricaya

Structure 1 and Structure 146 were investigated in the upper part of Group 1 in La Sufricaya. Research at Structure 1 carried on with the conservation of walls with polychrome painting started in 2002 and 2003, as well as the excavation of new areas around them.

Conservation of Mural 1

Mural 1 is located in a room that was partially destroyed by a looters' trench. This mural was found in 2001, and afterwards we proceeded to clean it, to record it graphically, and to conserve it during successive seasons. In 2004, having completed the cleaning and recording of this mural, we followed the recommendations of a group of conservation experts from the United States (Angelyn Rivera and Leslie Rainer), who inspected this feature in 2003 for its long-term conservation. These specialists evaluated the preservation conditions of the painted stucco as very fragile and in bad condition. It was also seen that the room where these paintings are located had stability problems and water filtrations. Because it was near the surface there was some leaking of water into its interior, and the ceiling of the cavity made by the looters was in danger of collapse. Therefore, we decided to completely bury the area of room 1 (Structure Sub 1) to prevent its collapse and damage to painted walls. This was accomplished by (1) building a wall of worked stone at some 30 cm of the painted walls; (2) this space was filled up with sieved earth; (3) behind this support wall the area of the room was filled up with earth, cobbles and blocks from the rubble left by the looters outside the trench itself. In this way the north and west walls of room 1 (sub 1) and the space in front of them was completely buried to the height of the walls of the room itself.

Murals 6 and 6N

Mural 6 is located in the west end of room 1. Here a small tunnel (70 cm wide by 1.70 m high) had been excavated in order to have access to a painted wall named Mural 6. This tunnel has a northward direction, and permits access independently from the main access to the room, which from now on has been buried, as described above. Several specialists concentrated on the cleaning, conservation and graphic recording of mural 6, including Dr. Alberto Semeraro (Italy) for the conservation of stucco and paint; Dr. Gene Ware (Brigham Young University, USA) for recording the paint with infra-red digital camera; archaeologist-draftsperson Heather Hurst (Yale University, USA) for the graphic reproduction of the painting. These tasks were completed during the 2004 season. This mural was found in slightly better conditions than Mural 1, although part of the composition was mutilated when it was hit by rocks from the fill during the moment of its burial in antiquity.

After cleaning the stucco and applying chemical and natural materials for its conservation (a 5% solution of paraloid and acetone for the paint and a mixture of

lime and fine sand for the stucco fragments), we could see a good deal of new details, not seen before the conservation procedure.

Like Mural 1, Mural 6 is dated during the first half of the Early Classic and includes several standing and seated figures in procession. The seated figures show stylistic features in their attire from the central Highlands of Mexico, specifically from Teotihuacan. The other figures, which are standing up, show purely Maya features. In the north side (Mural 6N) of this composition two perishable structures are shown in profile, with a seated person inside them. In the upper part of this scene is one of these structures, above a pyramid with stepped bodies with panels painted in red. A person in Maya attire is seen climbing the stairway. Under this person a trail of footprints may be seen going downward to where other characters with Maya attire are found.

After the conservation and recording work the tunnel was sealed with stones and earth to prevent access and changes in humidity and temperature from outside the structure.

Excavations in Structure 1

On the north side of Structure 1 Jennifer Foley continued with the investigation of buried architectonic remains under a stratum of superficial rubble. In this sector two rooms were found with their walls preserved to a height of 2 m, roughly covered with stucco and interior floors stuccoed as well. In the northwest sector of Structure 1 a series of six rooms or substructures were found. All of them had been filled by the same fill with materials from the Early Classic (Tzakol 3), as has been the case with all rooms in this cluster until now. Sub-3 and Sub-9 rooms are distinguished by having fragments of vaulting and of a frieze still preserved on the exterior façade. This frieze consists of a simple stone panel covered with stucco without decorative motifs and a plain cornice around it. All eight rooms found under the rubble in the north and west sectors of Structure 1 show signs of burning in the floors and the base of the walls. The stuccos of the walls were only partially preserved. In the case of room Sub 10 a special discovery took place.

Room Sub 10 was built in the space between rooms Sub 14 and Sub 4, with a small access door on its north side. Through this door the excavators went inside the room removing the fill stones. However, they immediately saw remains of mural paintings on the west wall around the entrance door on an area of the wall measuring approximately 0.5 x 0.5 m (Mural 7). Excavation was stopped so as not to damage the mural painting and after recording it with photos and drawings this room was completely sealed up. Alex Tokovinine, a doctoral student and the project's epigraphist, suggested that this wall contains the remains of a mural inscription of the Early Classic. Only some four columns and three rows of glyphs could be exposed until now. Among these glyphs there are two painted in red representing a date in the Tzolkin calendar: 11 Eb 16 Mak. In another part of the inscription it was possible to identify a name or title: "Chak- Tok- Wayib", which may mean "soothsayer of red clouds". These preliminary data indicate that this

inscription may continue on the same wall and may be in a relatively good state of conservation. We hope that in the future we will be able to preserve the rest of this interesting inscription.

Conservation

After filling up the tunnels that lead to the painted walls (murals 6, 7, and 8) we thought more protection was needed to avoid water infiltrations over the painted stuccos. These conservation measures were possible thanks to emergency funds provided by the Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI) with the aim of ensuring the protection of the paintings. With this objective the funds were used to build a wood and palm (*guano*) roof over the total space of the north area of Structure 1. The space under this roof measures 15 m long by 5 m wide and 3-5 m tall. The wood and palm for the construction were taken from local plants, and other building materials were brought from the city (Melchor de Mencos).

The conservation of Mural 7 was undertaken by conservator Alberto Semeraro once a wide enough area of fill was removed in order to have access to the paintings. The conservator's intervention was carried out in two stages. First the painted wall with glyphs was freed of blocks and earth which were resting on the wall. This area turned out to be 0.5 m² on the upper half of the western wall of Sub-10 room, or the part immediately under the vault. Only the northern part of the painting was accessible on this occasion (2004). The glyphs were found in an eroded state, but we could carry out the cleaning and consolidation of the stucco on which they are painted.

Several blank areas were found in the inscriptions because fragments of stucco were lost in ancient times and before the current archaeological excavation. The stucco margins around the missing areas were consolidated with several measures. First a fluid paste was injected, a mixture of lime and refined sand under the fragments partially peeled off the wall. After the injected paste dried, more paste of the same material was added in the marginal areas of the fragments in order to fix them to the wall. This operation was repeated for all areas of the painted wall which were affected by breaks, cracks, and even partial areas of missing stucco. After this we continued with cleaning the stucco and the pigmentation. The surface of the mural was damaged in several spots by the stones with which the room was buried. Most of the painted area had been covered by a layer of lime and water (white-wash), no thicker than 1 mm in most cases. This layer was removed to reveal the hieroglyphic painting underneath. Cleaning was performed with a mechanical method using thin and soft balsa-wood stakes. After the clean-up we proceeded to reintegrate the fallen fragments recovered during the excavation phase. Only one of these fragments had an effect on the inscription. This was placed on the glyph before the glyph **chak-tok-wayaab**. Its reintegration to the stuccoed wall was undertaken using the same paste made of lime, refined sand and water that had been used for the consolidation of the damaged fragments on the stuccoed wall.

Lastly, the pigments on the mural painting were consolidated by manually applying an acrylic consolidating agent on the surface using a hand-held vaporizer. This consolidating agent is composed of a mixture of 5% acetone and acrylic (B-72/"paraloid").

Regarding the consolidation of the area of the room where this painting is found, we should mention that the liberated area of the room corresponds approximately to an area of 1 x 2 x 2 m, from which the stones and earth of the original fill were removed. The upper part of this cavity in the fill consists of fill material made up of a mixture of rough blocks with earth, limestone sand and small stones. Due to its instability a platform was built with posts of 3-4" diameter of local wood and boards of 1" thickness of local cedar at a maximum height of 2 m from the floor to allow the workers access to the painting. Finally, on the outside of the mound where the structure and the mural are located, the earth surface was covered with plastic sheets to prevent erosion and infiltrations of water in the rooms under the surface. The whole of the part of the mound affected by the excavation of architecture and its painted decoration was under the roof and the plastic sheet described above. Likewise, the exterior rooms (sub 7 and 9) of the structure beside the painted rooms were completely filled-up.

After the conservator's intervention we proceeded to record the exposed fragment of the mural painting. This was carried out initially through conventional photography and drawing by artist-archaeologist Heather Hurst ([Figure 12](#)). We proposed carrying out the complete recording of the mural with drawings and infrared images on the next season (2005).

Excavations on Structure 146

This structure is located directly in front (south) of Structure 1, which is near the southwest corner of Group 1. An excavation by Anna Browne-Ribeiro found several architectonic features from the Early and Late Classic periods. It was seen that at the end of the Early Classic a rectangular structure with walls made of worked blocks and a possible vault was razed and in its place were built several low platforms for at least two small, perishable residential structures. In association with the stuccoed floor of this occupation were found two burials with ceramic material from the Late Classic. Among these there is a fragmented polychrome vessel with the figure of an aquatic bird.

Research at Holmul

In central Holmul, Groups II and III, as well as the east plaza were investigated, as well as completing the investigation in the South Group 1, one kilometer to the south of the plaza.

Nina Neivens excavated an area of 5 x 3 m in Group II in front of building B, which had been subjected to a previous excavation by R. Merwin in 1911. This excavation found that the building consists of two previous stages to the ones

recorded during Merwin's excavations. These are identified with the remains of two stages of the frontal stairway of the same building and a fragment of its stepped body. The stairway fragments are tentatively dated to the end of the Late Preclassic. The excavation ended without reaching the plaza level and was completely filled up.

In Group III Ryan Mongelluzzo and Judith Valle investigated the structures on the north and south sides of the main sunken patio. In the south side Judith Valle found the remains of a buried structure with a wall almost 2 m high under the fill of a Late Classic structure. The first structure had access from the south, while the later one had access on the north side. After recording these features the excavation was completely filled up.

On the north side Ryan Mongelluzzo cleaned five structures, removing the surface rubble. Among these it was seen that in the final phase of Group III --pertaining to the Terminal Classic period-- the buildings' occupants supported the vaults by constructing retaining walls inside. Likewise, a building sequence was identified between these structures. Some of these apparently were built in the empty space between bigger structures of the Late Classic period. A burial of a young person was found in a room in the northeast corner of the group. As part of the burial offering five anthropomorphic and zoomorphic ceramic figurines were found. Lastly, in two instances the last floor was perforated at a depth of approximately 1 m, and an earlier building stage was recorded in Group III.

In the south corner of the east plaza Alex Tokovinine explored a wall that apparently closes the plaza on all its south side. His excavation recorded the fact that indeed this is a wall of great size. It is provisionally identified as a defense wall, although it could have been used for a dwelling at some point. A stratum of fill was found in its south side, while in the north side a well-preserved plaza floor was identified. In the lower levels plenty of material from the Late Preclassic was found, although the construction of the "defensive" wall must be dated, if provisionally, to the Late or Terminal Classic.

Lastly, in the East Plaza a looters' trench was investigated in the normative axis of Structure 7. A fragment of a plain stela with red stucco was found *in situ*, buried in the looters' rubble here. This fragment apparently was put standing up in antiquity over the previously existing rubble of the structure, but after the partial collapse of the substructure and its stairway. It was not possible to reach the level of the lower plaza, but it was seen that in front of the stela and of Structure 7 a basal platform of approximately 0.50 m in height had been built. Because of insufficient time it was not possible to continue with the investigation, and the excavation was completely filled up.

Conclusions

Among the many scientific results of the 2004 research the most outstanding are the advances on our knowledge about the Preclassic achieved at Cival, about the

Early Classic at La Sufricaya, and about the terminal period of Maya collapse at Holmul. These data give us the first indications of the complexity of the development sequence of the Maya state, which clearly did not just involve the center of Holmul, but at least three different power centers in this region from the Preclassic to the Late Classic. Also outstanding among the data from Cival is the advanced elaboration of Maya ideology during the Middle Preclassic and the monumental nature of their ceremonial works. This early development, although not surprising, is an incentive to keep looking for more information to clarify not just the antiquity of the Maya state in the Preclassic, but also its ideology and its organization. At the same time, the findings at La Sufricaya, albeit preliminary, indicate that this site was a center where very peculiar events took place of contact between Maya and Teotihuacan groups, and it may continue providing important information to understand the ways and motives of this interaction between two Mesoamerican cultures so far from each other. Lastly, no doubt Holmul was an important center from the last phase of the Classic period and its plazas and palaces witnessed the last ceremonial, residential and other activities during and after the collapse of the Maya cities of the Petén as power centers around A.D. 900. This is why the investigation of these subjects at Holmul may produce interesting results in the future.

Lastly, we should mention that in this season important advances were made in the relationship between the archaeological project and the agencies appointed with the conservation and sustainable development of the Petén (CONAP, BIOFOR, ACOFOP, IDAEH). We hope that this project will be able to contribute not just scientific data for archaeology, but it will sponsor the development of a sustainable tourism economy based on the cultural resources as well as the sustainable management of natural resources in this area, according to the guidelines of the IDAEH authorities. Therefore, the mission of the Holmul project is to continue the collaboration with local authorities and communities in order to appreciate the cultural resources for the development of a sustainable cultural and natural tourism in the Holmul area.

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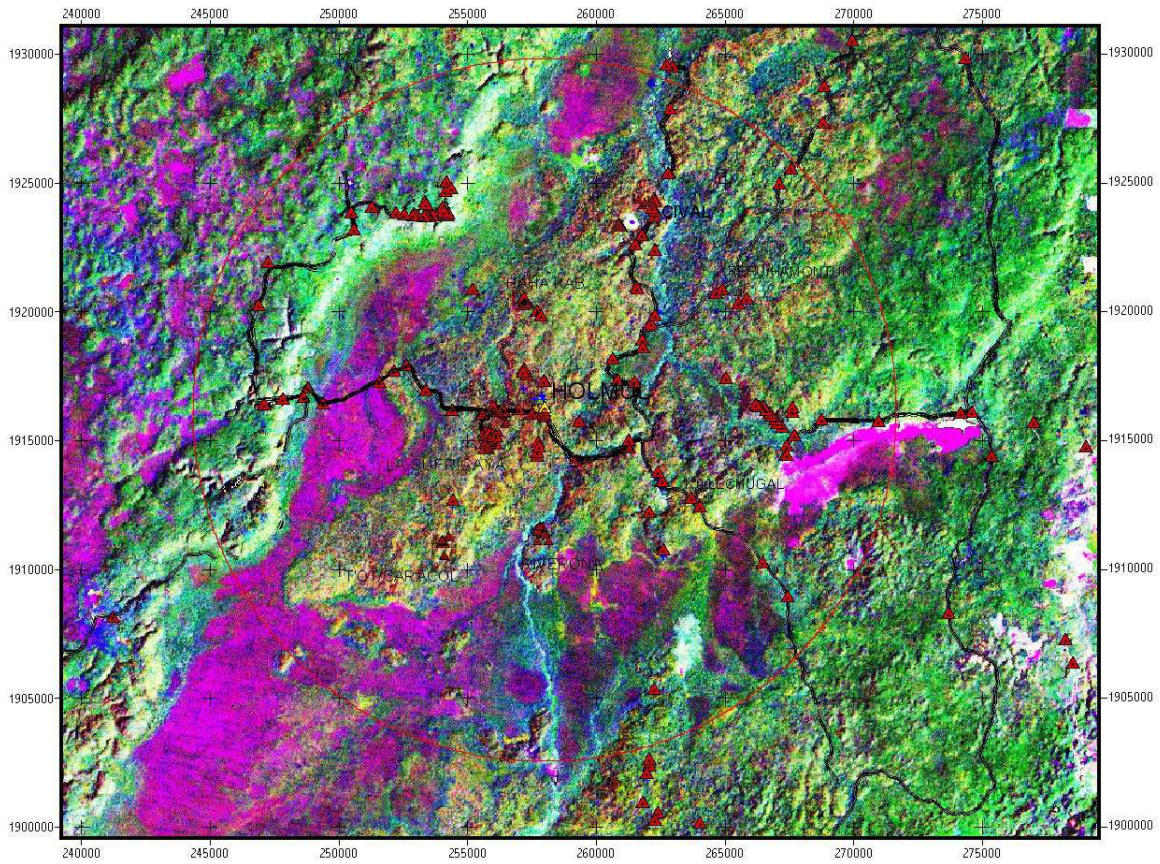


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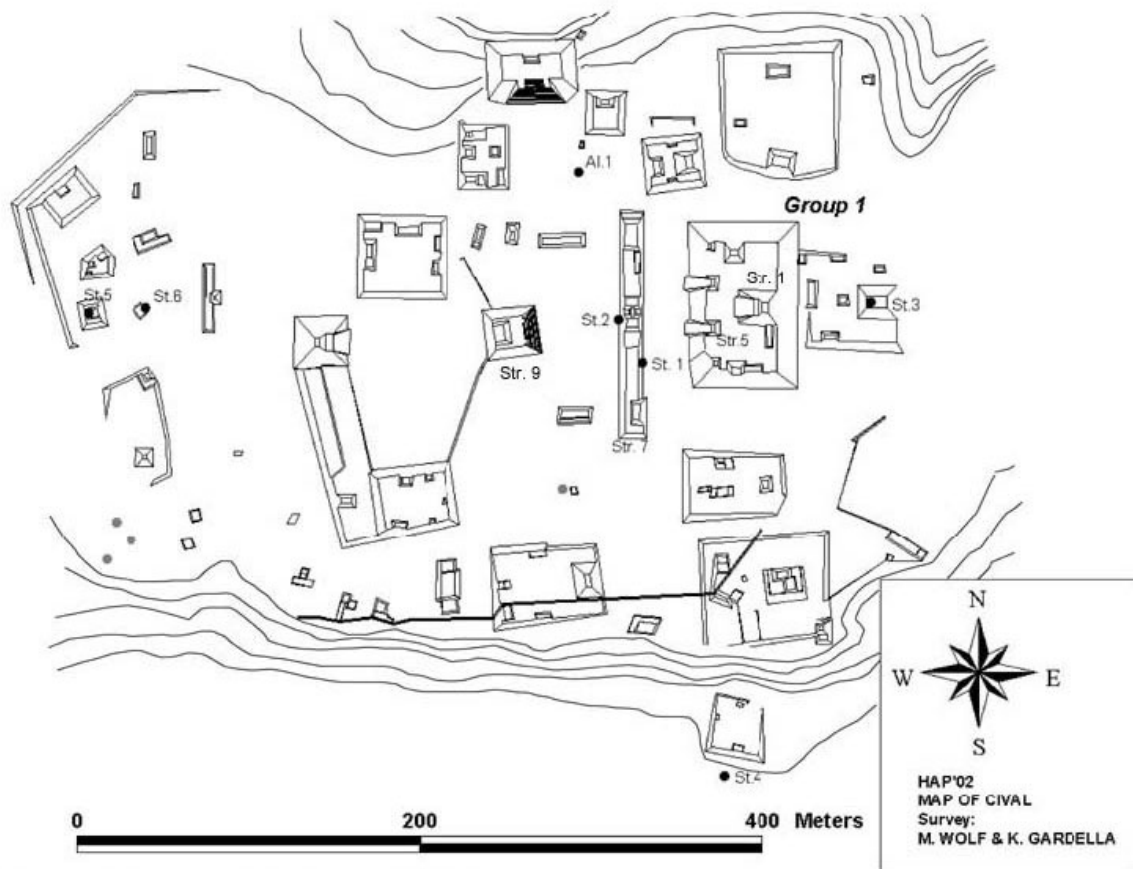


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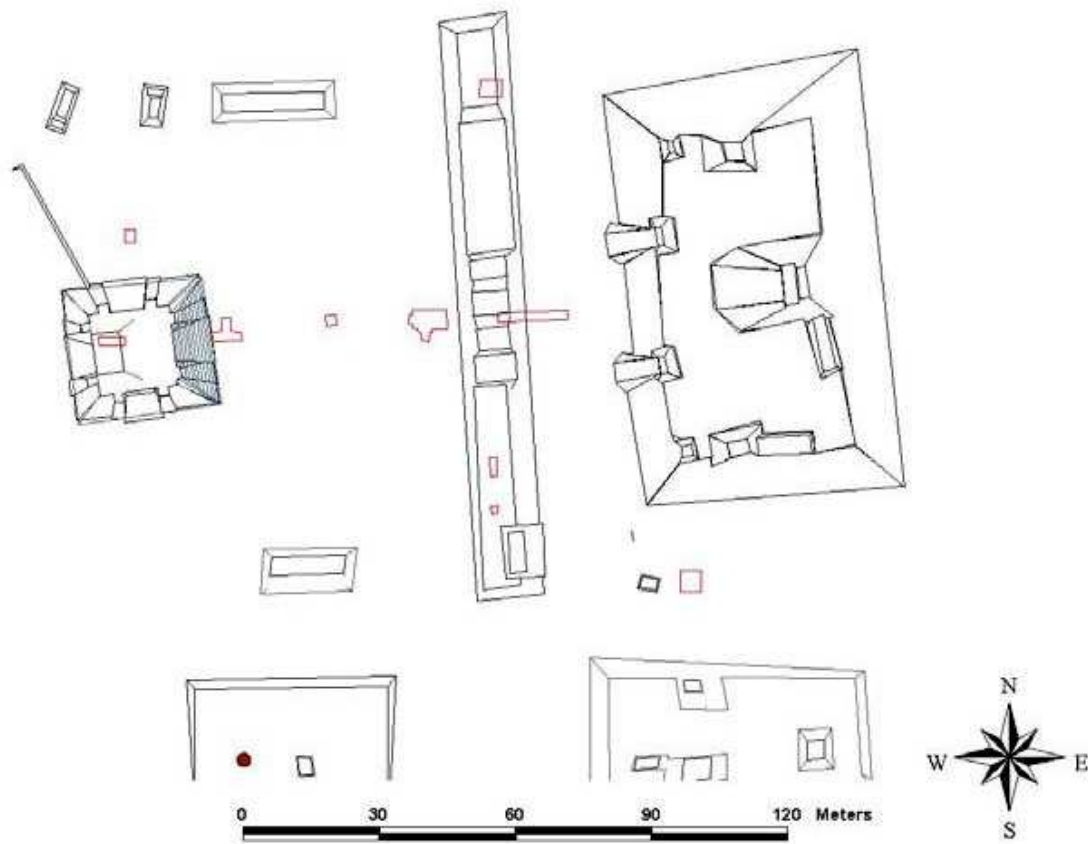


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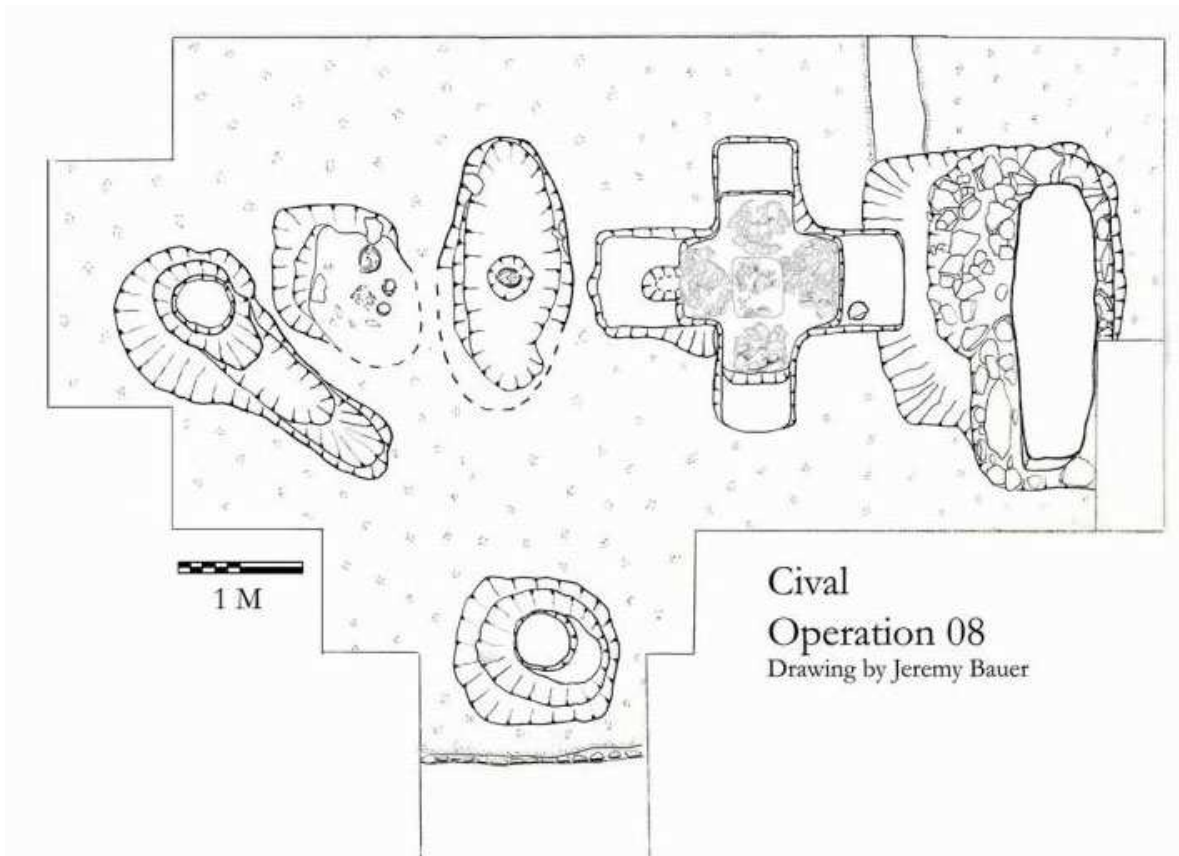


Figure 4. Trench at the east of the plaza at Cival.

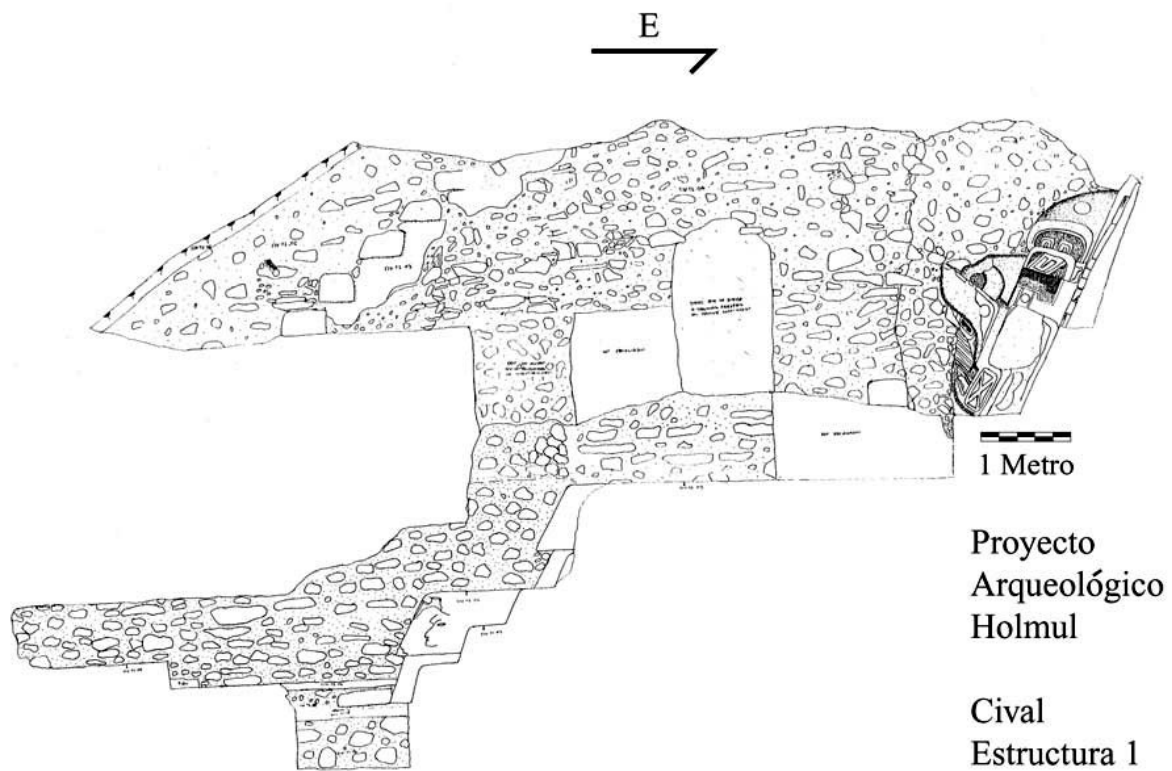
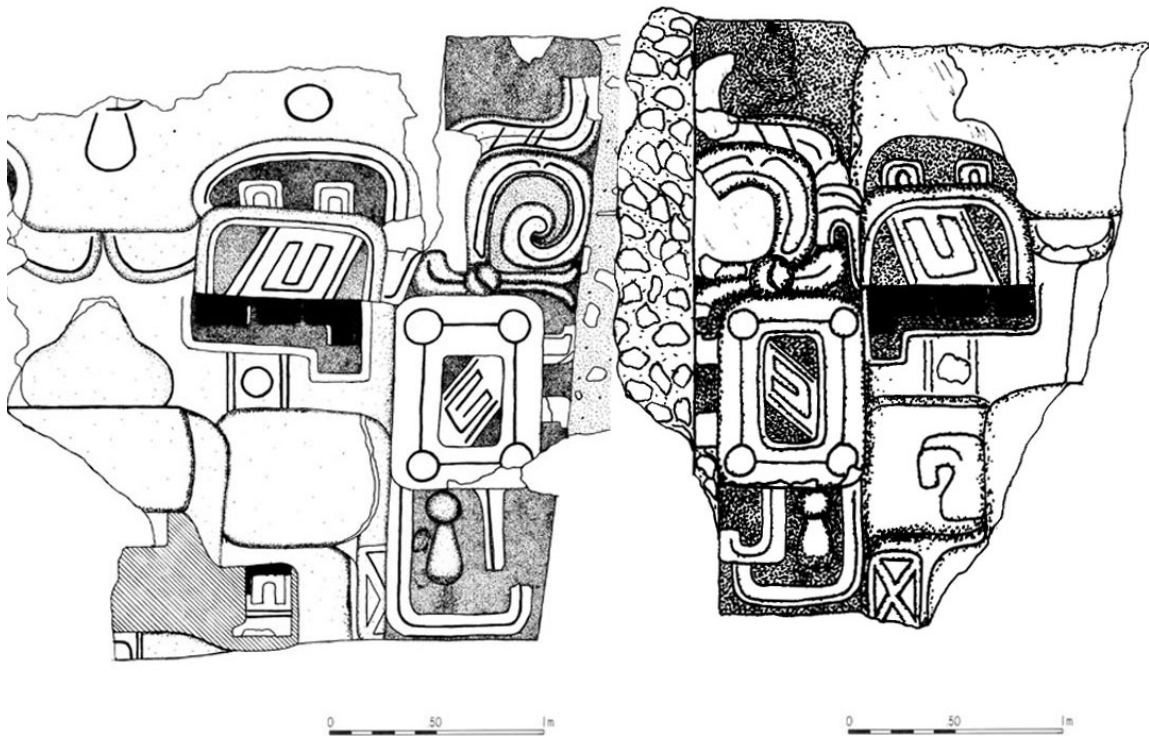


Figure 5. Profile of the west tunnel in Cival's Structure 1 (Angel Castillo).



mask 1, north

mask 2, south

Figure 6. North and south masks of Cival's Structure 1 (Angel Castillo).



Figure 7. South mask of Structure 1 from Cival, front view (three-photo mosaic).

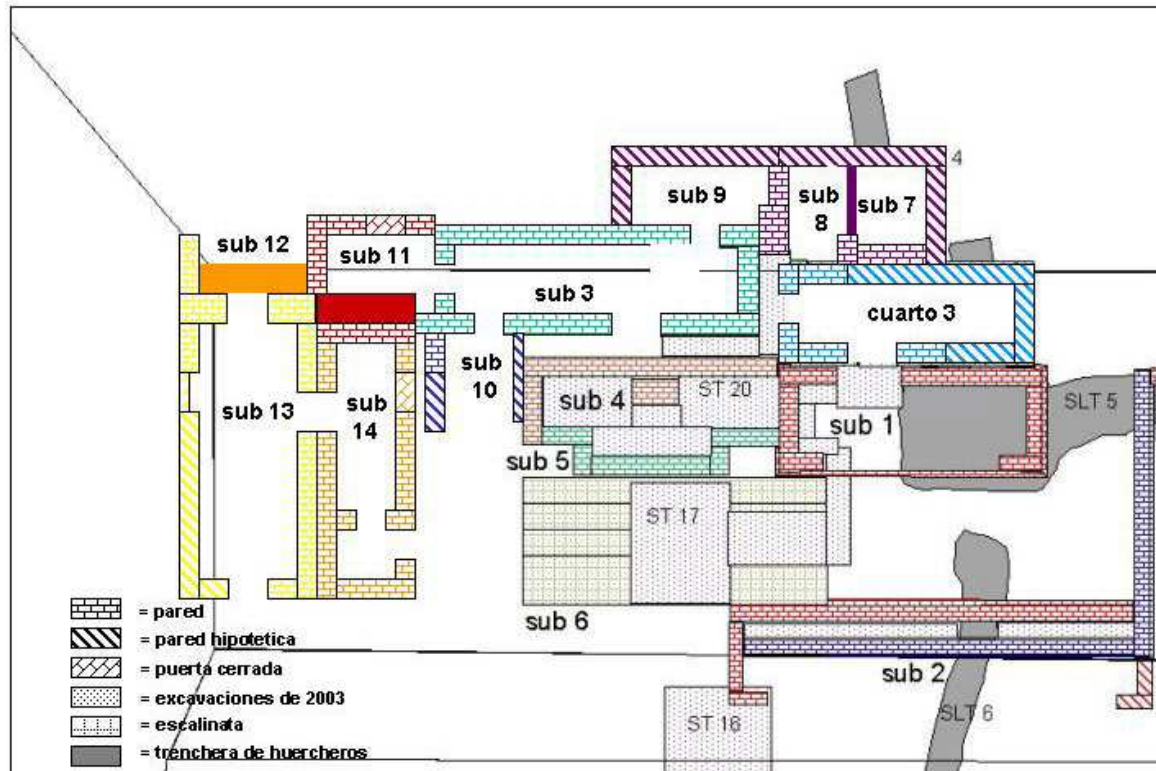
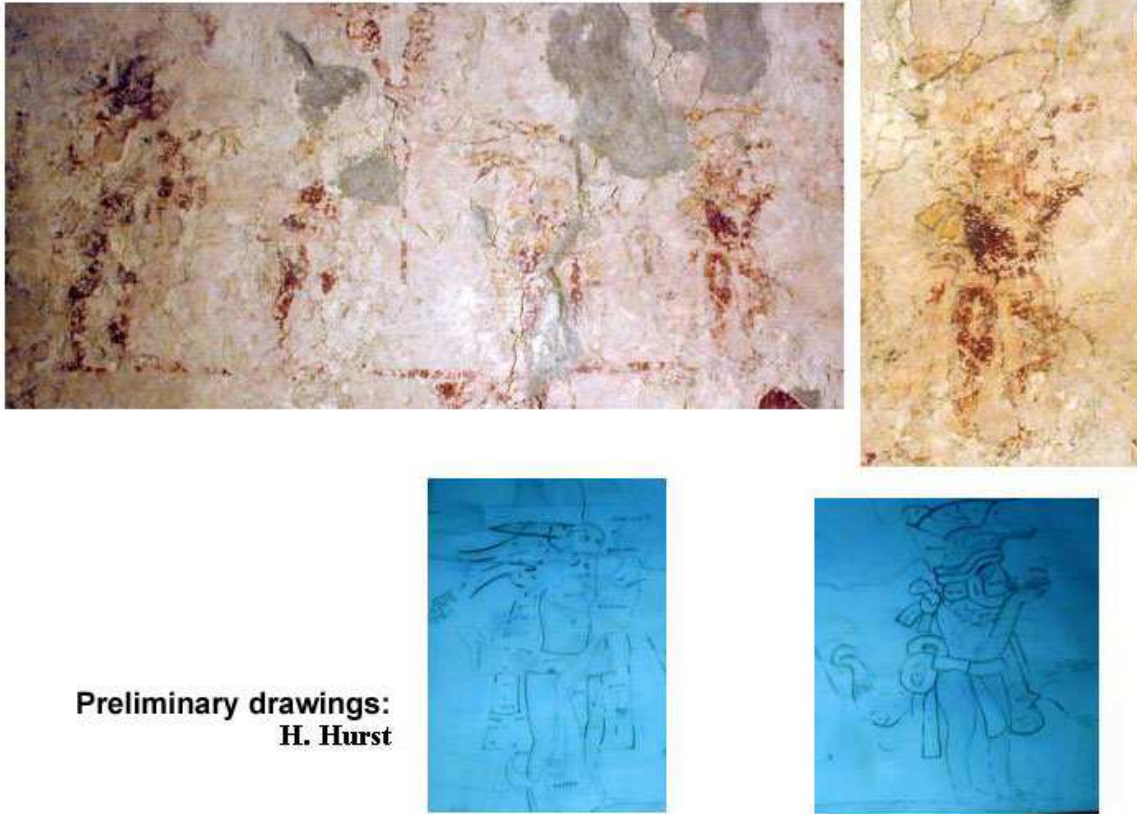


Figure 8. Schematic plan of the substructures of Structure 1 from La Sufricaya.

Mural 6



Preliminary drawings:
H. Hurst

Figure 9. Photo and field drawings of mural 6 in Sub 1 room of Structure 1 of La Sufricaya (drawings by H. Hurst).



Figure 10. Details of mural 6 N (Structure 1 sub- 1).

LA SUFRICAYA
FIELD DRAWING
HEATHER HURST
5.2004

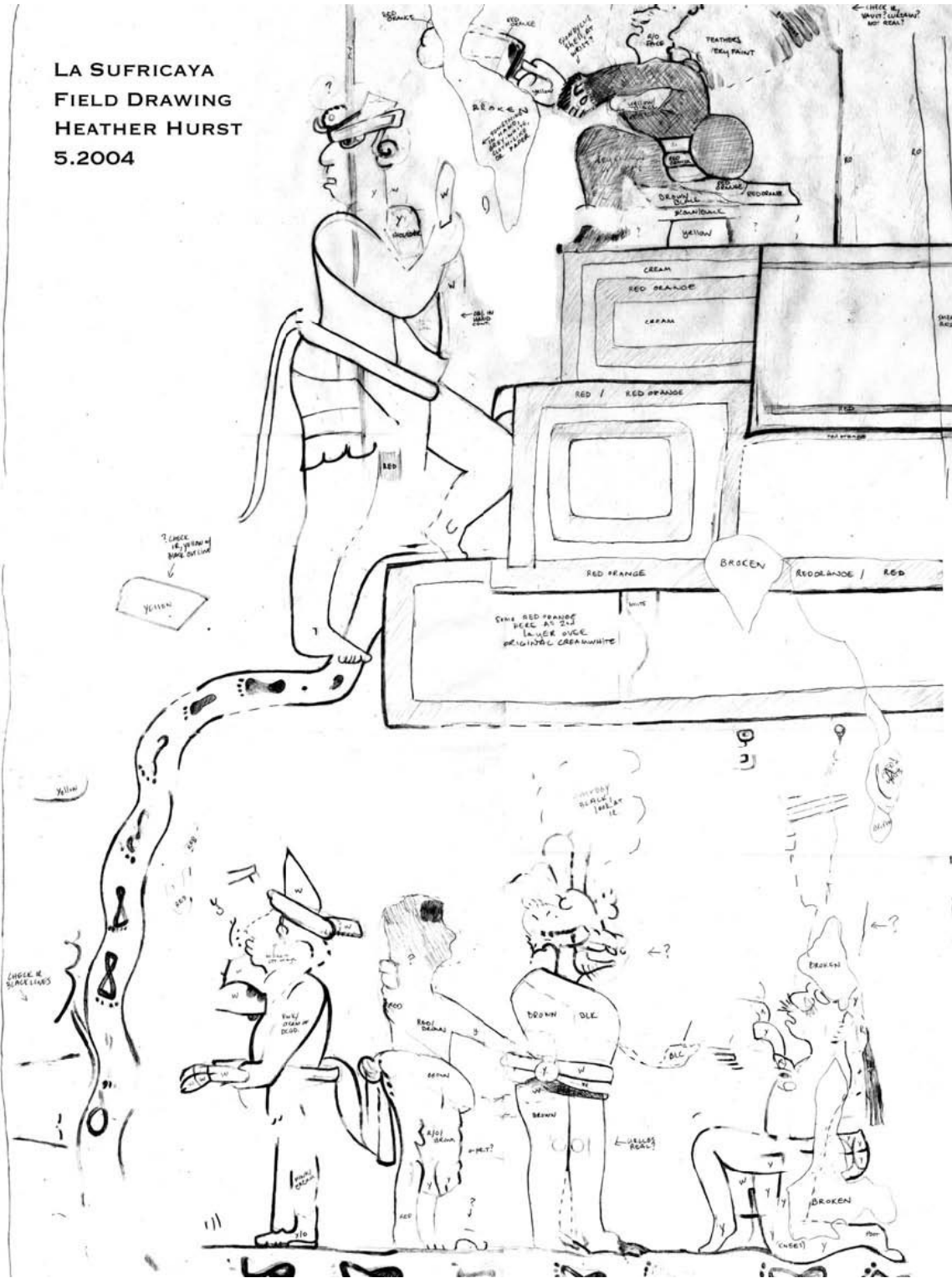
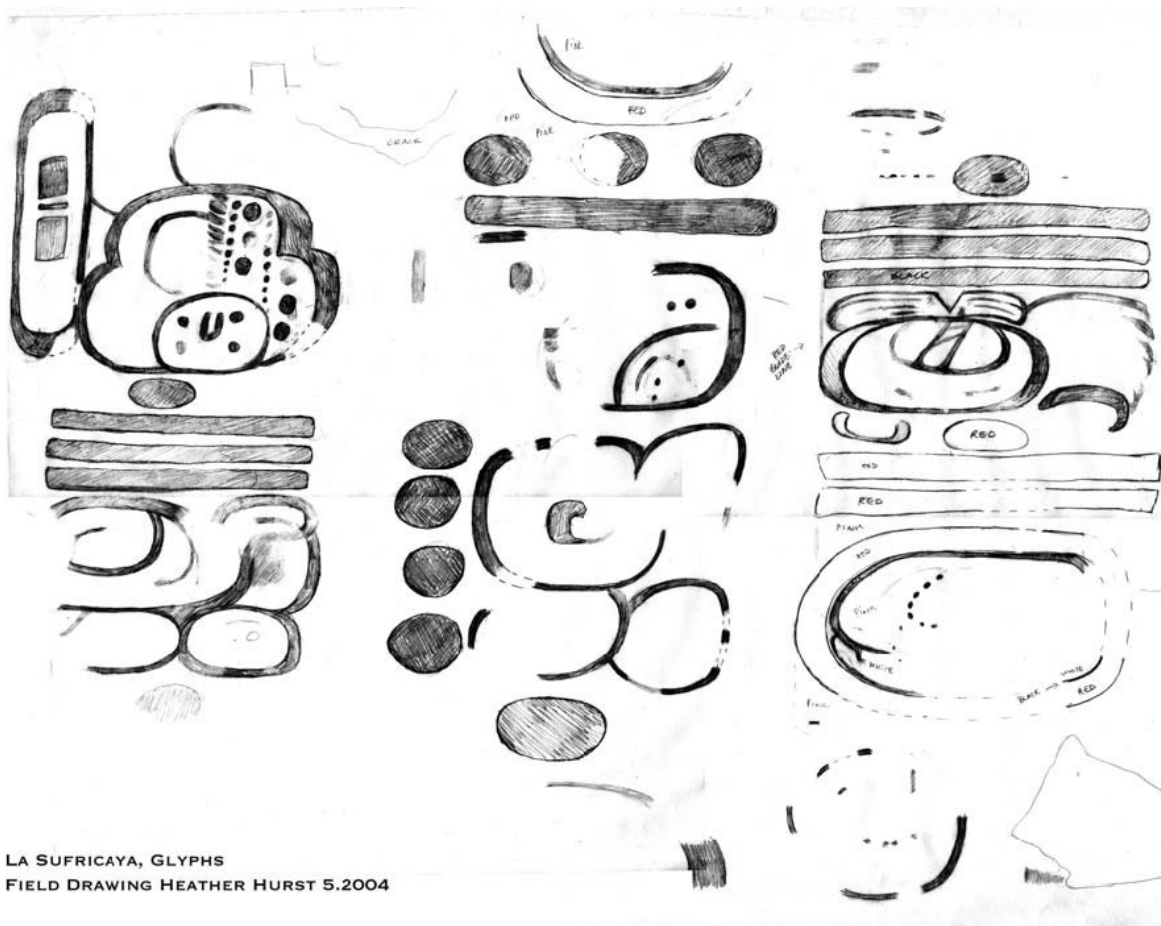


Figure 11. Preliminary drawing of mural 6 N
(Structure 1 sub- 1) by Heather Hurst.



**Figure 12. Preliminary drawing of mural 7
(Structure 1 sub- 10) by Heather Hurst.**



Figure 13. View from the south of the excavations in structures 146 and 148 of La Sufricaya over foundations of the Early Classic (foreground).



Figure 14. Roof and protections for Structure 1 of La Sufricaya.



Figure 15. Excavation on the south side of B Patio of Group II in Holmul, with a substructure completely buried and the north door sealed with fill (Judith Valle).



Figure 16. View of the excavations on the north side of B Patio of Group III of Holmul (Ryan Mongelluzzo). The complexity of building superpositions can be seen.