

## CHAPTER 6

### Excavations at the North Group: Structure 15-1

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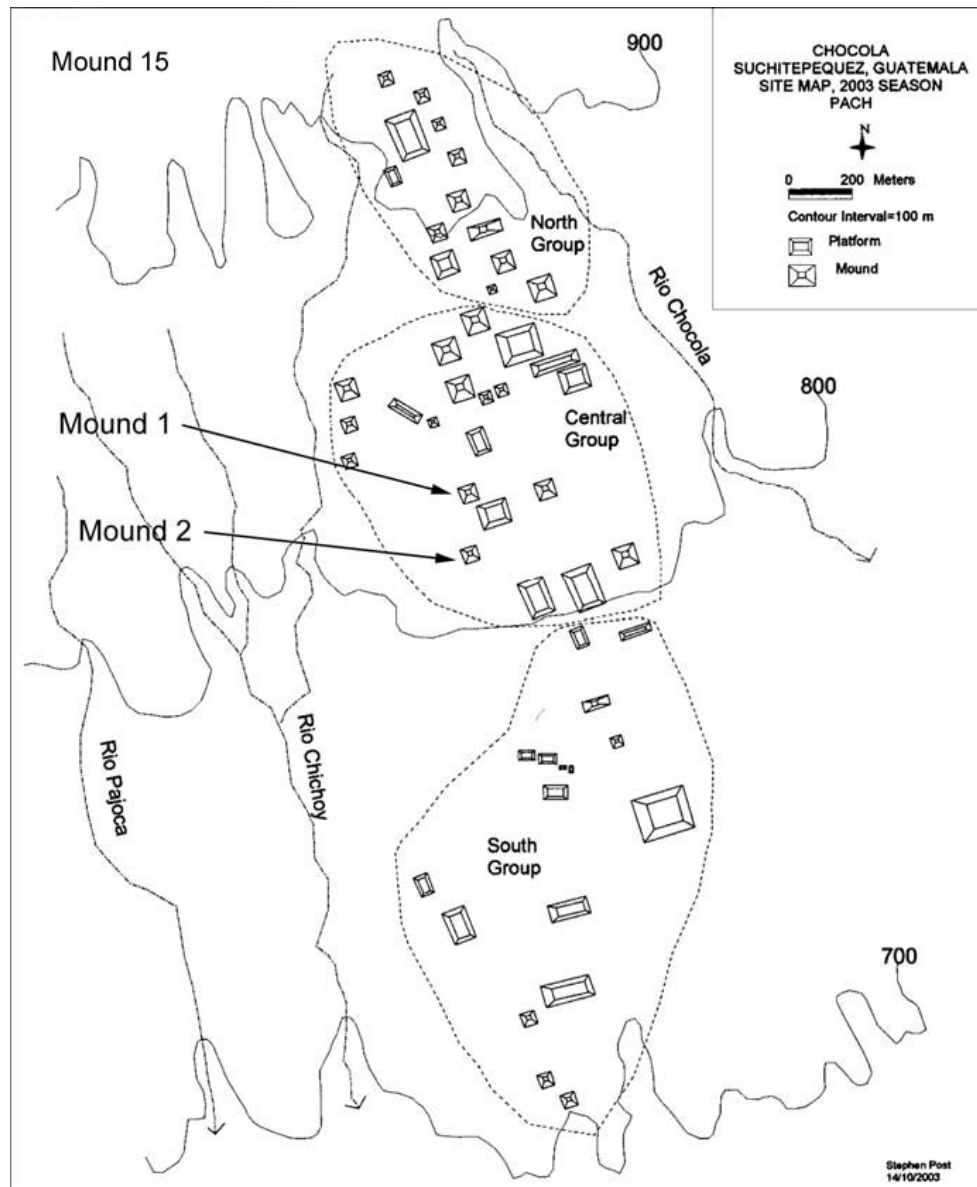


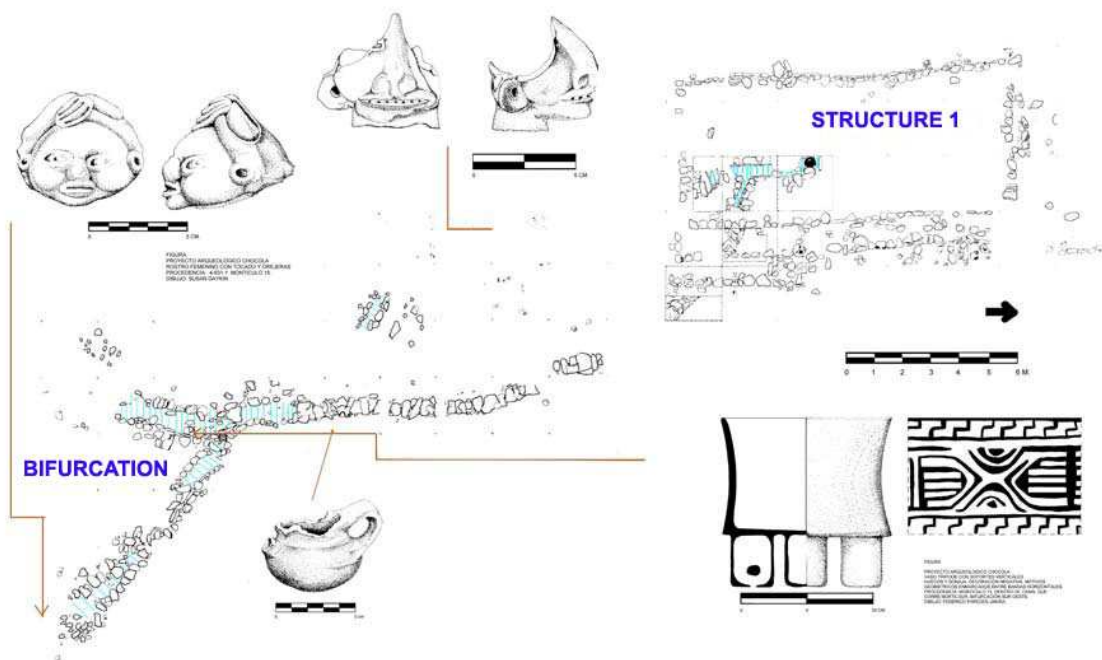
Fig. 6-1. Schematic map of the Chocolá ruins showing Mound 15.

### Introduction

One of the activities accomplished during the field season 2004 was the extensive excavation of a large portion of Mound 15, in the North Group of the site [Fig. 6-1].

The North Group is located in the highest part of the site, and is cut by the road that connects Chocotá with the village of Xojolá, at Nahualá. During the field works of 2003, traits of ancient, very sophisticated water technology were found within the road cut, at an approximate depth of one meter. For this reason, it was decided to continue with the search of architectural traits during the 2004 season, but this time through Cartesian excavations. The excavations resulted in the very interesting discovery of a stone enclosure of large dimensions -6 m by 12 m- with strong evidence of connections with another major discovery: underground canals used for carrying water [Fig. 6-2] (see Chapter 7).

As of the 2003 season and based on general observations, the project director had suggested that the design of the ancient city comprised three different parts: 1) a north area, higher in altitude, with clean water, and long, extended, low platforms that served to support elite residential houses or “palaces”; 2) a central area, with administrative structures represented

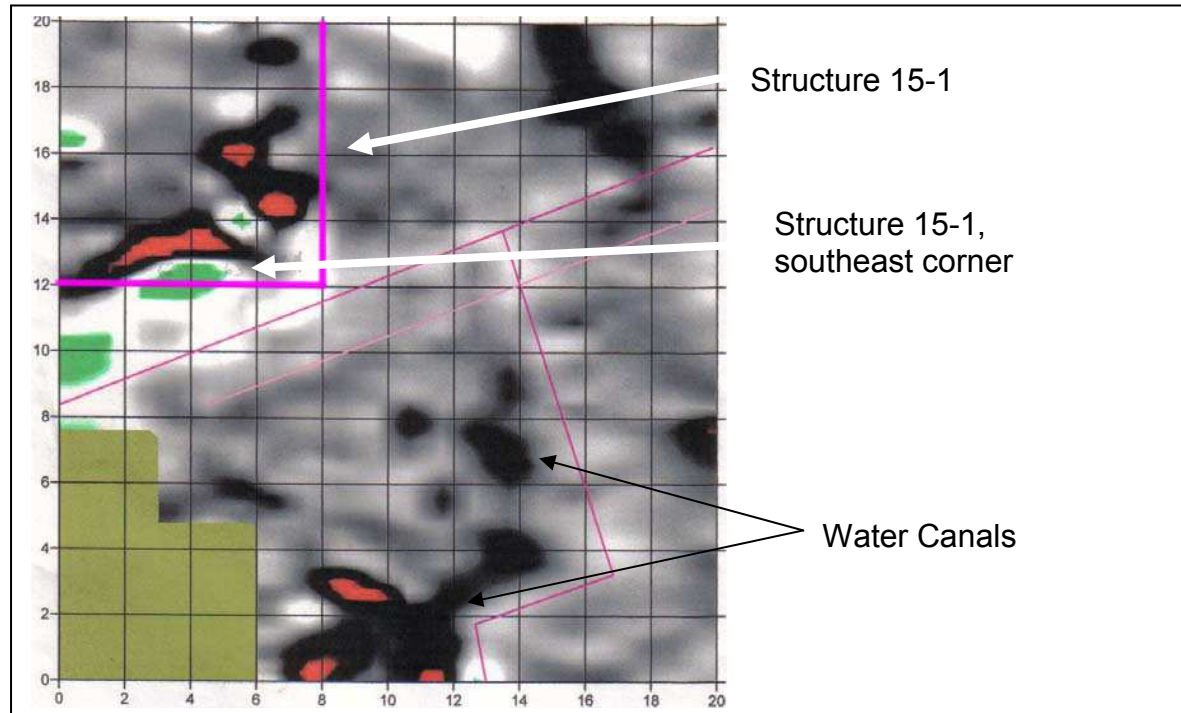


**Fig. 6-2. Plan view of Structure 15-1 including plan view of the associated water canals and artifacts recovered, PACH 2004.**

by very large, pyramidal mounds such as Mounds 1, 2, and 11; and 3) a south area, with abundant surface artifacts, with rather plain or flat prairies, and small and low mounds which probably represented common households, reserved for intensive agriculture and housing of the sustaining population [see Fig. 3-1]. Regarding the north area, it is plausible that the elite group that lived in this position (geographical and social) enjoyed an easy access to the route connecting them with the Guatemalan highlands, no doubt a significant trade route with the south coast. As we know, the control and access of trade routes in many Mesoamerican cultures was in the hands of groups that evidenced some kind of social status, prestige, and economic and political power. This hypothesis was reinforced by the findings obtained during the excavations conducted in the months of June, July, and August, 2004, at Mound 15.

The initial finding during the 2003 season, plus additional discoveries of underground canals for water management in 2004 confirm the notion that this was an area with enough power (economic, ideological, social, etc.) to afford the construction of buildings of this type and significance. After the gradiometric survey (see Chapter 4)

[Fig. 6-3], to the northwest of the grid, we found Structure 15-1, a rectangular structure



**Fig. 6-3. Geoplot of the gradiometric survey conducted by Dr. David Monsees.**

with cobble walls, one of them sloping [Fig. 6-4], and with steps oriented towards the east. Elaborating about the nature of this structure, we may allege that it was located in a residential and administrative area; however, being this a preliminary report, the reader should keep in mind that it is necessary to finish the physical and chemical analyses of ceramics, lithics, and samples of soil and charcoal in order to solidify ideas and make more certain inferences.



**Fig. 6-4. West sloping wall made of cobbles.**

## **Chronology**

On the surface, there is ceramic material that dates to the Postclassic period (A.C. 900-1500); however, the material found from the surface down to a depth of 1.25-1.50 m, in the central pit (Sub-operation 91) at Structure 15-1, seems to date to the Late Pre-Classic period (B.C. 400 – A.C. 250). At a greater depth, the ceramic seems to relate to the Middle Pre-Classic period (B.C. 800-400). This change in chronology is supported, at least initially, by the change and variation of the materials found with the associated architectural traits (see examples of profiles of the ceramics recovered from two pits inside the building, with their radiocarbon dates, Figure 6-36, at the end of this Chapter).

## **Problematics and preliminary conclusions for further discussion**

The project directors discussed the possibility of keeping Structure 15-1 from further excavation, to restore it for future exhibition. Undoubtedly, one of the most important decisions upon realizing its good state of preservation was to carry on with the full excavation. Inevitably, archaeology causes the destruction of traits; however, Structure 15-1 represents a good example of a poorly understood area that was probably seminal in the history of Mayan civilization. Following some discussion between JK and JAV, particularly considering the importance of achieving a full



understanding of whether there was a connection between the canal system found at Mound 15 and Structure 15-1, it was decided to proceed very carefully with the excavation to avoid any damage to the stability of the structure. The decision, apparently, was the right one to make, because a very intimate and significant connection was discovered between the canals outside the structure and traits that could correspond to storage and redistribution of water inside the structure. All this facilitates the understanding of the structure's function as a compound of the elite, indicating a strict social hierarchy capable of controlling corporate labor perhaps very early in time, in comparison with other areas of the Mayan world.

In addition to other general issues such as the preservation of the structure, we faced other challenges during the excavations. One of the major challenges had to do with the identification of floors. We are still discussing the possibility of three different floors. Two distinct floors representing different times of occupation were located: the first one corresponds to the Middle Pre-Classic period, and the second one to the Late Pre-Classic or Early Classic periods. As to the third floor, it possibly represents a filling or some other structural feature (see discussion below, Pit 4-71). Nonetheless, further stratigraphic studies are required to resolve this issue.

A question that still remains unanswered has to do with the identification of constructions older than those presented by Structure 15-1. As was mentioned earlier, the problem of identifying floors stems from the difficulty of clearly distinguishing between natural and artificial layers. This problem arises not only from the composition of the natural soils, but probably also from the great antiquity of the architecture, made of mud and stones in decay; it is assumed that at earlier locations architecture utilized more mud and fewer stones. The increase in the use of stones has been detected in the archaeological patterns of Tak'alik Ab'aj, and other sites, as centuries go by and there is an increase in the energy invested in corporate labor, as power and some sense of permanency of the formal social institutions grow.

Another basic issue pending to be resolved is elucidating the original function of Structure 15-1. Considering its relatively large size, compared to what we know about other common domestic structures, and considering its orientation with respect to the cardinal points –perhaps evidencing the formal ideology behind the construction of the structure- we believe this is an elite enclosure. The apparent divisions or rooms and their restricted size are notable, but it should also be noted that small rooms were common in Classic Mayan cities. One additional piece of evidence indicating that it could possibly be an elite precinct was the presence of a very well built conduit which might have had the capacity to store a modest amount of liquid, with more than one conduit to feed and distribute the fluid. This feature runs along the interior of the structure and is connected with the underground canal of largest capacity outside the structure, suggesting that it carried water to the house as part of a distribution system. The *in situ* finding of a vessel at the bottom of the square-shaped putative deposit at the center of the house reinforces this assumption. Given the numerous hydraulic resources found in and around Chokolá, we would like to suggest the possibility that the structure represents a “spring water house” (Vernon Scarborough, personal communication 2004), built on top of, and to manage, the fluid of a source or mouth.

An additional unsolved problem is the original shape of the architecture on the east side of the structure –was it a wall associated with rooms? A wall associated with a corridor? A wall associated with steps to access the structure? At this point we believe there was a small corridor with steps, though it would be hard to say exactly

if these were part of stairs or not. The west wall also poses problems of interpretation because it is composed of massive stones that form a sloping wall on top of soil, beneath which there is another stone alignment, possibly representing an even earlier building.

It is possible that Structure 15-1 represents one of the elite buildings of the north group at Chocotá. Evidence of another structure was found very close, to the north of Structure 15-1, and the finding, during the 2003 season, of underground canals at the base of Mound 9, some 100 m south of Mound 15, is additional evidence of an ancient pattern of elite buildings with associated canals, or of a formal and sophisticated water management system. The data recovered from the extended canals in Mound 15 particularly confirms this assertion (see Chapter 7).

The methodology of excavation is described in Chapter 5 with an overview of the method used and the particularities of each operation. Mound 15 is referred to as Operation 4.

In summary, excavations at Mound 15 were initiated on June 1, 2004, with a previously reticulated area established by JK; Figure 6-37 shows the pits within the grid corresponding to Structure 15-1. Dr. David Monsees directed a gradiometric survey prior to the start of the excavation process. As previously mentioned, this survey resulted in a digital map of the reticulated area, showing some sections of the terrain with remarkable anomalies. The areas with such anomalies were the ones that motivated the first pits.

The main reference for Mound 15 is the datum located at BM 4, with an elevation of 920.6975 m above sea level: this was located by a high fidelity GPS and calibrated with the total station to define its precise location within the full map of the site. To reference the excavations described in this chapter the following Subdatum (SD) were used: SD 2 with the same elevation of the datum but 15 m to the east, SD 3 at 0.20 m over the datum, and SD 4 at 0.60 m over the datum. The datum was used for pits 4-17 and 4-735, SD 2 for all pits comprehended between pits 400 and 700, SD 3 was used for pits 3 to 45, and SD 4 for pits 4-64 and 4-65. The nomenclature on each one of the following paragraphs refers to the Operation number: 4 (Mound 15) and Sub-operation (pit).

SD NUMBER	HEIGHT OVER THE DATUM	HEIGHT ABOVE SEA LEVEL
2	0.00 m	920.6975 m
3	0.20 m	920.8975 m
4	0.60 m	921.2975 m

### **Description of excavations by units**

What follows is a description of the excavation units or sub-operations carried out in Structure 15-1 (or in association with it); all units were under the responsibility of DBL with the collaboration of Margarita Cossich V. and Edgar Arévalo B., during the months of June and July, 2004. The beginning date was June 12, 2004, and the date of conclusion was July 15, 2004.

***Pit 4-52***

The objective was to define the continuity of traits or the presence of new ones to the south of the southern wall (Trait 4-R-7) of Structure 15-1. The excavation took place with respect to Subdatum 2. In Lot 1 we found humus and dark brown earth, and the roots of a tree approximately 7 meters high. The artifacts found included ceramics, 61, and obsidian, 20.

In Lot 2, measuring 0.45-0.60 m, the presence of a floor was inferred from the change of the natural layer, where dark brown switches to dark, yellowish brown (natural Layer 3). The stones rest on the very dark brown layer. The artifacts found included: ceramics, 57; obsidian, 17; carved stone, 3; metal, 1. Charcoal was discovered 24 centimeters below the surface.

***Pit 4-53***

The objective was to identify the possible continuity of traits 4-R-4, 4-R-7 and 4-R-8 towards the southwest. Lot 1 does not show the continuity of any of the traits we were seeking. A stone rests on the second natural layer. Artifacts found: ceramics, 99; obsidian, 21; metal, 1.

***Pit 4-54***

The objective was to define the southern boundary of Trait 4-R-3. In Lot 1 there is an apparent continuity of Trait 4-R-3. To the east, there are tunnel holes and tree roots. The size of the stones is smaller in relation with the ones found in Pit 4-64. The stones are distributed with no apparent arrangement, and there are two 'metate' (base or lower grinding stone of a two-part mill) fragments and one fragment of a 'mano' (upper, movable grinding stone of the mill). Artifacts found: ceramics, 65; obsidian, 9.

In Lot 2 we found stones at the lowest levels; probably the alignment continues to the north of Trait 4-R-3. The stones rest on the dark brown layer. This grouping of stones located on the outside of the southeast corner of Structure 15-1 has been designated Trait 4-R-8. Artifacts found: ceramics, 36; obsidian, 2.

***Pit 4-61***

The objective was to look for the continuity of Trait 4-R-7 towards the west, the presence of the interior floor of Structure 15-1, and its external boundaries to the south. In Lot 1 we found a number of stones resting on the dark brown layer (Layer 2), there were plenty of roots, and a possible interior floor delimited by stones aligned towards the west. Artifacts found: ceramics, 48; obsidian, 7. A charcoal sample was taken 27 cm below the surface; however, the sample could be of little or no use for dating tests, due to the place where it was found.

In Lot 2, the group of stones has been designated Trait 4-R-32, and it is very likely that the interior floor of Structure 15-1 would have been where the dark brown, and the dark, yellowish brown layers (Layers 2 and 4, or 2 and 3, respectively) meet. Trait 4-R-32 consists of a grouping of four stones which do not present any defined arrangement or function. They are clearly associated with the southern interior of the

structure in an area where the continuity of stones that would form a wall, is absent. Are these stones a part of the south wall and have they for some reason been removed intentionally off the alignment? Are these stones at their primary placement? If the stones were not removed, they might probably represent some kind of boundary to a southern access of the structure.

### ***Pit 4-62***

The objective consisted in defining the cause of variation in the results obtained with the gradiometer in this quadrant, and describing the archaeological information that explains what kind of findings may have caused the signal obtained with the gradiometer at Mound 15. In Lot 1 we found humus and a dark brown layer (Layers 1 and 2, respectively), with roots of a tree that was approximately 7 meters high. There are stones aligned in an east-west direction (Trait 4-R-7) and a small canal or tunnel that could be the space left by the roots of some tree or trunk after decomposing, or simply a tunnel dug by some animal, as is the case in the pits nearby. Artifacts found: ceramics, 115 (including the "little toad" zoomorphic face, see figure in the chapter of important artifacts); obsidian, 17; and porcelain, 1.

In Lot 2 we excavated a window south of the stone alignment, Trait 4-R-7, to eliminate dirt on the external surface of the stones or wall. There were several stones of approximately 12-15 cm in diameter, rounded in shape and with irregular edges. We consider that they are probably fallen stones. Earth Layers 2, 3 and 4 (see Layer charts) are visible. Artifacts found: ceramics, 4; obsidian, 1.

Lots 3 to 8 have been worked by Margarita Cossich V. In lot 3, at 0.82 m, the rim and part of the body of a bowl with abundant incisions were found. The earth in this lot varies from dark brown at the beginning changing later to light brown. The pit measures 2 m from east to west, and only 1.14 m from north to south, as the excavation reached the south wall boundary of Structure 15-1. This is why only the northeast and northwest corners were measured. The attempt was made to locate a possible water canal that comes from Pit 4-72 to define its precise function. A small bench was left in place because we think it may be a step of the house; this bench was solid and dark brown, and it was located at the stone level of Trait 4-R-7. Artifacts found: Lot 3, ceramics 65, obsidian 6; Lot 4, ceramics 114, obsidian 4; Lot 5, ceramics 63, obsidian 1, taxcal 14; Lot 6, ceramics 81, obsidian 24; Lot 7, ceramics 9, charcoal sample 1; Lot 8, ceramics 35, obsidian 4.

In lots 4-5, there was light brown earth, or Layer 3, with no other significant features.

Lot 6 measures 1.25-1.45 m at the corners. We found taxcal and gravel in Layer 3. Floor 3, observed in Pit 4-71, stretches towards the south and continues at an approximate distance of 30 cm from the northwest corner of this pit, always heading south.

In Lot 7, measuring 1.45-1.65 m at the northeast and southeast corners, no additional excavation was carried out to produce a greater depth in the northwest and southwest corners. There was Layer 4 with a larger concentration of gravel on the east side, and it would appear that a small extension of Floor 3 was also present.

In Lot 8, measuring 1.65-1.85 m in the northeast and southeast corners, there was a new layer, whitish or light, yellowish brown in color. Floor 3 did not continue.



In Lot 9, measuring 1.85-2.05 m in the east corners, and 1.45 m in the west corners, the objective was to identify the architectural characteristics of the possible canal to the south and their relationship with traits 4-R-17, 4-R-18 and 4-R-22. In a trench towards the south, gravel was abundant and provided the floor of this lot with a hard consistency; it probably was a filling or a structure that covered the canal in an east-west orientation. There was also a combination of areas with very compacted, "hard packed" sand, with zones of weak or "loose" sand, and scarce gravel. Artifacts found: ceramics 60, obsidian 5, charcoal sample 1.

In Lot 10, measuring 2.05-2.25 m in the eastern corners, a window was made at the interior of the canal, corresponding to the area towards the west, parallel to the canal, or Trait 4-R-28, oriented in a southward direction. This matrix was "soft" in consistency. It was removed and we noticed that it was present in areas directly associated with the internal space limited by the stones that form the canal in this part of the pit, to the south of traits 4-R-22 and 4-R-18. Artifacts found: ceramics 35, obsidian 4, charcoal sample 1.

In Lot 11, measuring 2.25-2.45 m in its eastern corners, we found yellowish brown sand with abundance of small gravel and several stones measuring 3-5 cm. There were just a few stones of a larger size, such as those found in the other layers with an approximate diameter of 10 cm. This matrix seems to be a filling, the same one associated with traits 4-R-17 and 4-R-18. At the bottom of this lot there was a layer of whitish sand with a rather thick grain, covering the flagstones that form a canal which heads south and is identified as Trait 4-R-28. Artifacts: ceramic 9.

Lot 12 measures 2.45-2.65 m in the eastern corners. No sherds or other artifacts were found in the matrix associated with the canal to the south. The matrix corresponds to Layer 8, like the one briefly described for the previous lots. Artifacts found: ceramic 17.

In Lot 13, work was accomplished at the interior of the canal or space limited by traits 4-R-17, 4-R-18 and 4-R-22. The matrix was very loose and with scarce gravel. No artifacts were found except for taxcal and stone, which were sampled.

Lot 13 *bis* is a 1.00 m by 1.00 m pit excavated by Dr. Cristina Vidal, only in its eastern half and on 0.11 m. It was excavated further in its northeast-southeast sector in an attempt to spot the floor where the canal that runs in a northeast-southwest direction was built. At a depth of 2.80 m, the floor level on which the canal ran was reached, made of tightly packed taxcal of different colors, equivalent to that of the canals of Pit 4-72. No artifacts were found.

### ***Pit 4-63***

The objective was to discern the continuity of the stone alignment identified as Trait 4-R-3 towards the west. In Lot 1 we found black earth (humus) and dark brown earth (Layer 2). A cedar tree, approximately 5 years old, was preserved in this pit to mark in the trunk the references used for recording the vertical measurements: Datum 1 and Datum 2. Large stones form a corner to the southeast of the pit. A stone alignment identified as Trait 4-R-6 continues towards the north, close to the west wall of the pit; the stone alignment identified as Trait 4-R-4 also continues towards the north, but close to the east wall of the pit. Artifacts found: ceramic, 48; obsidian, 7.

In Lot 2 the dark brown earth was removed (Layer 2) from the area between the stone alignments, identified as traits 4-R-4 and 4-R-6. Only 5 ceramic artifacts were found.

#### ***Pit 4-64***

The objective was to define the type of trait or finding evidenced by the magnetism measured with the gradiometer. In Lot 1 we found black earth (humus) and dark brown clayish sand (Layer 2), where the stone alignment positioned in a north-south direction was found. Roots were abundant. Artifacts found: ceramic, 121; obsidian, 17.

In Lot 2 we found dark brown clayish sand (Layer 2) and abundant roots of 0.5 to 0.7 cm in diameter. Artifacts found: ceramic, 75; obsidian, 8; stone, 1.

In Lot 3 we found yellowish dark brown clayish sand (Layer 3), with irregular stones of approximately 1 to 3 cm in diameter. Artifacts found: ceramic sherds, 75; obsidian, 10; stones for describing the matrix, 9.

In Lot 4, in a yellowish dark brown layer with taxcal and gravel (Layer 3), 34 ceramic fragments and 3 fragments of obsidian were found. Among the ceramic sherds found, there was a rim approximately 10 cm long, found at a depth of 1.60 m (in relation to Datum 2), which was assigned a PP ('Punto de Proveniencia' or Point of Origin) number. Artifacts found: ceramic 34, obsidian 3.

In Lot 5 we tried to locate the intersection between the canal and Structure 15.1. Artifacts collected: ceramic 20, obsidian 2

In Lot 6 there were flagstones from the canal which proceeds to Structure 15-1. 40 pieces of ceramics were recovered together with 30 obsidian pieces.

In Lot 7 only the canal's flagstones were discovered. Collections: ceramic 21 and taxcal 8.

#### ***Pit 4-65***

The objective was to define the extension of the trait associated with Trait 4-R-3 or the continuation towards the east of the flagstones found in Pit 4-64. In Lot 1, a metate fragment was found in natural layer 2. Artifacts found: ceramic, 165; obsidian, 28.

#### ***Pit 4-71***

In Lot 1 the objective was to define the architectural characteristics inside Structure 15.1. We found humus and roots of different sizes. Some areas show the slight occurrence of natural Layer 2. Artifacts found: ceramics, 65; obsidian, 4.

In Lot 2 the objective was to proceed with the intensive excavation to achieve a better view of the feature, identified as number 20. Stones were found in the second natural layer (dark brown earth), with their bases resting on earth 10-15 cm thick before changing to a yellowish dark brown earthen layer or Layer 3. At 1.30 m below Datum 1 (921.7818 m above sea level) the change of layer takes place (from Layer 2

to 3), this change is being considered as the possible location of a probable floor. Artifacts found: ceramic, 158; obsidian, 26. Nine taxcal samples were collected.

In Lot 3 we found yellowish dark brown soil (Layer 3). A cluster of stones concentrated in the northwestern section of the pit; the stones forming this trait (4-R-20) seemed to be the largest in the entire surface of Structure 15-1, and they continue in a northward direction. Artifacts found: ceramic, 88; obsidian, 11.

In Lot 4 we found 75 ceramic artifacts. No floor was noticed, and the layer was identified as number 3.

In Lot 5 the yellowish dark brown layer with taxcal and gravel was still present (3). Artifacts found: ceramic, 37; obsidian, 2.

In Lot 6, at 1.25 m below Datum 2 and near the east wall, there was a large sherd (rim), which later, due to its position, could be associated with Trait 4-R-26. Layer 3 seems to slightly increase its hardness. Pumice stone (?) at a depth of 1.25 m, associated with the south wall of the pit, may probably represent the same structural element present west of Pit 4-72. Two charcoal samples and three samples of pumice stone (?) were included. Artifacts found: ceramic, 63; obsidian, 9.

In Lot 7, we determined that the filling of yellowish dark brown earth present in the previous layers, in spite of having become harder, seems unchanged in its taxcal concentration, and is therefore considered the same layer. The matrix or soil was richer in sand and had a greater presence of taxcal at a depth of 1.45-1.46 m below Datum 2. This was considered a probable floor (it has been designated Floor 3 and Trait 4-R-33) but it could also be a filling or a different structural element, like a wall or roof. In Pit 4-72, on the west profile, this possible structural feature or probable floor appeared at a depth of 1.49 m, while a circular space filled with a different layer was observed. Maybe this is a secondary modification produced by animals, or perhaps it is a part of the structure. Artifacts found: ceramic, 25; obsidian, 2. The collected evidence included a soil sample of the possible floor (MC 385) and a sample of the possible Floor 3 (MC 386) for further description and analysis.

#### ***Pit 4-72***

In Lot 1 the objective was to identify the internal characteristics of Structure 15-1 that could contribute to its better comprehension and interpretation; the area comprising this lot occupies what could very possibly be defined as the interior floor of the building, delimited by the stone alignment (Trait 4-R-6) towards the west. We found humus and dark brown sand, mainly on the west side. Artifacts found: ceramic, 84; obsidian, 21, and some taxcal samples.

Lots 2-4 were excavated by the archaeologist Edgar Arévalo B. In Lot 2, Layers 1 and 2 were removed. 217 ceramic sherds and 29 obsidian pieces were recovered. In Lot 3, Layer 2 is observed, 155 sherds were found, together with 13 obsidian fragments, 13 taxcal pieces and one charcoal sample. In Lot 4, the archaeologist in charge considered the presence of a probable floor at a height of 1.16 m below Datum 2. This "floor" coincides with the level where the stone located directly on top the vessel in the central pit was located [see Fig. 6-6g]. 116 ceramic fragments were recovered, together with 15 obsidian fragments and one charcoal sample.

In Lot 5 the objective was to define the presence of a canal (Trait 4-R-9) at the interior or below Structure 15-1. In Layers 3 and 4 there were small stones that seemed to have been burned (?). Artifacts found: ceramic, 143; obsidian, 18. 16 taxcal stones were also recovered, together with one charcoal sample.

In Lot 6 we found Layer 4 with several intrusions of white and yellowish-white sand in accumulations of irregular shape and thickness. An accumulation of “pink” stones was identified as Trait 4-R-26, within which there were several large ceramic fragments, some of them apparently with signs of having been in contact with fire. Samples of matrix, ceramic and charcoal were collected for dating. Artifacts such as obsidian (17), ceramic (156) and carved stone (1) were recovered.

In Lot 7 we found a matrix consistent with Layer 4, which grew “harder” towards the north. We attempted to locate the probable “floor” present in Pit 4-71, to no avail; however, some indications of it were associated with the northeast section of the pit. Artifacts found: ceramic, 70; obsidian, 6.

In Lot 8 we found a matrix consistent with Layer 4, but with no sand intrusions like those found in the two previous lots. In the north half of the pit, the consistency of the earth was very hard, probably representing a wall. Two traits, 4-R-18, to the south, and 4-R-17, to the north, are visible. Trait 4-R-17 was covered by a very hard, thick layer of taxcal and sand, showing areas of probable intrusions of “soft” dirt. We detected the possible continuity of a “tunnel” at the northwest corner of the pit. Traits 4-R-17 and 4-R-18 form a canal. This canal under Structure 15-1 corresponds to the one outside and southeast of this structure, which was identified as Trait 4-R-9. Artifacts found: ceramic, 70; obsidian, 8. Also, one charcoal sample for dating was taken.

Lot 9 corresponds to the excavation conducted in the space delimited by traits 4-R-17 and 4-R-18 but (inside the canal) removing the matrix corresponding to Layer 8, with the recovery of 77 sherds and 4 obsidian fragments.

In Lot 10 the matrix corresponding to Layer 9, and entirely originating from the internal part of the canal, was removed. 30 ceramic fragments were recovered [Fig. 6-5a, b].

In Lot 11 the gravel stones, present in the matrix removed, were less than 3 cm in diameter. A few sherds were recovered, and no obsidian fragments were found.



**Fig. 6-5a, b:** (a) Small canal inside the Structure; (b) Pits 62 and 72; this view from the south shows, from left to right, traits 4-R-22 and 4-R-26 (to the north), and the canal formed by traits 4-R-17 (to the north) and 4-R-18 (to the south).

**Pit 4-73**

In Lot 1 the objective was to expand the excavation to the west of Pit 4-74, to find the continuity of Trait 4-R-3. The presence of a new stone alignment was detected along a north-south direction, identified as Trait 4-R-4. Artifacts found: ceramic, 82; obsidian, 14. Two stones were also collected for matrix description, together with 3 small taxcal accumulations.

In Lot 2, with dimensions of 0.50 by 0.50 m, the objective was to proceed with intensive excavation to uncover the details of Trait 4-R-4. Two stone alignments running along a north-south direction were noted, which are continued in Pit 4-83. The matrix on which these aligned stones rest has 0.5 to 1 cm in diameter, irregular gravel stones, in addition to orange, amorphous stones, and black, greenish, and yellowish stones. The amount of gravel grows larger with depth. Artifacts found: ceramic, 21; obsidian, 7.

**Pit 4-74**

In Lot 1 the objective was to establish the continuity of Trait 4-R-3 towards the north. We found humus and dark brown clayish sand (natural Layers 1 and 2). The continuity of traits 4-R-3 and 4-R-4 towards the north was established. Artifacts found: ceramic, 102; obsidian, 17.

**Pit 4-81**

The objective of this pit was to identify the continuity of Trait 4-R-20 to the north, to describe its characteristics and analyze its possible function. In Lot 1 we found humus and a dark brown layer, a small "*volador*" (*gyrocarpus americanus*, also known as Cooliman tree) and a coffee tree. Stones are present in the dark brown layer (Layer 2). Some stones show a smooth surface and sharp edges, others have a rugged surface and rounded edges. The amount of gravel increases at the base of the stones. Very small sherds of approximately 1 cm in diameter are observed within the gravel, being a part of a possible filling or some kind of cementing agent. Materials found: ceramic, 40; obsidian, 10; taxcal, 2.

In Lot 2, the entire Trait 4-R-20 is clearly identified. The base or seat of the stones occurs in Layer 3 or very close to it, as opposed to what happens in Pit 4-71, where stones mostly rest on layer 2. Materials found: ceramic, 45; obsidian, 16.

In Lot 3, the northern and eastern walls maintain the dimensions described earlier. We modified the initial area of excavation in order to make space to protect the identified trait while continuing the intensive excavation. The elevation was of 0.60-0.80 m. We found Layers 2 and 3, and 38 ceramic fragments.

In Lot 4 large sherds were recovered mainly associated with Trait 4-R-20 and the southeast corner of the pit (Trait 4-R-26). Charcoal was scarce and taxcal abundant. There was a lens or intrusive layer, visible like a dark brown, diffuse spot on the lot's floor. Materials found: ceramic, 44; obsidian, 20; one charcoal sample.

In Lot 5, at 1.00-1.20 m below Datum 2, we found a pink stone of fragile consistency and irregular shape at the southeast corner of the pit as a part of a stone accumulation, of shape, color and consistency similar to those observed in Pits 4-71 and 4-72 as part of Trait 4-R-26. At this depth it was decided to open a window below Trait 4-R-20. No ceramic artifacts or obsidian were found in the matrix removed, except a large stone, irregular in shape, with a smooth surface and sharp edges, similar to those observed in the accumulation of stones identified as Trait 4-R-20 on the surface. This stone is included in the illustrations, but as it was found practically isolated, it was not considered relevant, at least in relation with the information obtained so far. Materials found: ceramic, 25; obsidian, 4; one sample of matrix stone.

### ***Pit 4-82***

In Lot 1, the objective was to identify the characteristics of the interior of the structure. We found Layer 1, with the following materials: ceramic, 29; obsidian, 7.

In Lot 2, layers 1 and 2 were removed. Materials found: ceramic, 38; obsidian, 8.

In Lot 3, the objective was to identify the probable continuity towards north of the canal formed by traits 4-R-22 and 4-R-17. We found removal of layers 2 and 3 and the following materials: ceramics 44, and obsidian, 11.

In Lot 4, with dimensions of 1.50 by 2.00 m, we found a patch of dark brown earth within the matrix corresponding to Layer 3. Materials found: ceramic, 57; obsidian, 10.

In Lot 5, with dimensions of 1.50 by 2.00 m, we found a matrix corresponding to Layer 3. We believe that traits associated with the canal probably predate Structure 15-1 in chronology and/or function. Materials found: 41 ceramic fragments.

In Lot 6, with dimensions of 1.50 by 2.00 m, we found a matrix corresponding to Layer 3, and probably also to Layer 4. Materials found: ceramic, 71; obsidian, 8.

In Lot 7, with dimensions of 1.50 by 2.00 m, we found matrix corresponding to Layer 4, and an intrusion of white sand forming a flap, at a depth of 1.50 m, underneath which there is a flagstone and a large sherd associated with it. Materials found: ceramic, 97; obsidian, 10; charcoal sample.

In Lot 8, with dimensions of 1.50 by 2.00 m, we found Layers 4 and 8, as well as sherds in association with Trait 4-R-26, 1.79 m below Datum 2, which were identified with a PP number. We were able to recover a very good sample of charcoal for dating. 84 ceramic fragments and 7 obsidian fragments were also recovered.

In Lot 9, with dimensions of 1.50 by 2.00 m, Trait 4-R-27 was identified as a grouping of stones placed in a north-south direction, which are a part of the canal that seems to be the continuation of the one formed by traits 4-R-22 and 4-R-18. Materials found: ceramic, 65; obsidian, 5.

In Lot 10, with dimensions of 1.50 by 2.00 m, we found a canal associated with traits 4-R-26 (towards the south) and 4-R-27 (towards the east). Materials found: ceramic, 15; obsidian, 2.



In Lot 11, with dimensions of 1.50 by 2.00 m, we found a vessel surrounded by clayish soil inside the canal; together these features are considered Trait 4-R-31. The canal heads towards the northwest. Materials found: 9 ceramic fragments.

In Lot 12, with a dimension of 1.50 by 2.00 m and an elevation of 2.40-2.60 m below Datum 2 and inside the canal, we removed the soil close to the vessel. The west wall of the canal remains within the adjacent profile, corresponding to the east wall of Pit 4-81. No sherds were found at this lot.

### ***Pit 4-83***

The objective was to try to find the continuity of Trait 4-R-4 to the west, to define and interpret it. In Lot 1 we found a circular accumulation of stones, which seemed to be located north of the stone alignment identified as Trait 4-R-4. This new stone accumulation was identified as Trait 4-R-5. Layers 1 and 2 were present. Artifacts found: ceramic, 112; obsidian, 14; and one contemporary metal fragment. 10 taxcal samples were taken.

In Lot 2, we found stones resting on a dark brown layer (Layer 2); stones with a similar aspect but of smaller size were observed resting on Layer 3. 34 sherds were found.

### ***Pit 4-84***

The objective was to establish the continuity of Trait 4-R-3 towards the north, and to define its characteristics. In Lot 1 there was humus and very dark brown earth. Six taxcal samples and one charcoal sample were included. Artifacts found: ceramic, 194; obsidian, 42.

In Lot 2, with an elevation of 1.05-1.25 m, we found Layers 2 and 3. Stones rest on layer 3, which is rich in taxcal and gravel of approximately 1 cm in diameter, and of irregular shape. Materials: ceramic, 20; obsidian, 5.

### ***Pit 4.91 W***

(Note: the nomenclature "W" indicates its position to the west of the main pit or Pit 4-91, inside Structure 15-1). The objective was to identify the characteristics of Trait 4-R-14 towards the west, inside Structure 15-1, for its better comprehension. In Lot 1 only humus was removed; 39 ceramic artifacts and 12 obsidian artifacts were found.

In Lot 2, with dimensions of 1.00 by 2.00 m, there are stones at the same level of the stones aligned in a north-south direction in Pit 4-91 (Trait 4-R-14), which rest on Layer 2. Artifacts found: ceramics, 22; obsidian, 6.

### ***Pit 4-91***

The objective was to define the stratigraphy of Structure 15-1. In Lot 1, the humus was removed. No trait was visible. Artifacts found: ceramic, 27; obsidian, 7.

In Lot 2 Layers 1 and 2 were removed, and four stones aligned in a north-south direction were observed, with their bases resting on soil of Layer 2 type. Artifacts found: ceramic, 69; obsidian, 28.

In Lot 3, with an elevation of 1.30 –1.50 m below Datum 2, we found a large pot intentionally placed for ritual purposes very close to the center of the house, this niche was identified as Trait 4-R-14 [Fig. 6-6 a, b, c, d, e, f, g]. After taking all the notes regarding the origin, context and recovery of the pot, Dr. Juan Antonio Valdés supervised the excavation of the niche and observed that the stones around the pot represented the five directions of Mayan cosmology.



**Fig. 6-6a, b:** Large pot found *in situ* in a special nook (Trait 14). It was covered with three large stones together with other five stones which apparently represent the world's five directions, four cardinal ones and a vertical one at the centre; **c)** The author with Edgar Arévalo immediately after recovery of the vessel; **d)** the stones representing the five directions of Mayan cosmology.



**Fig. 6-6e:** the vessel after cleaning:

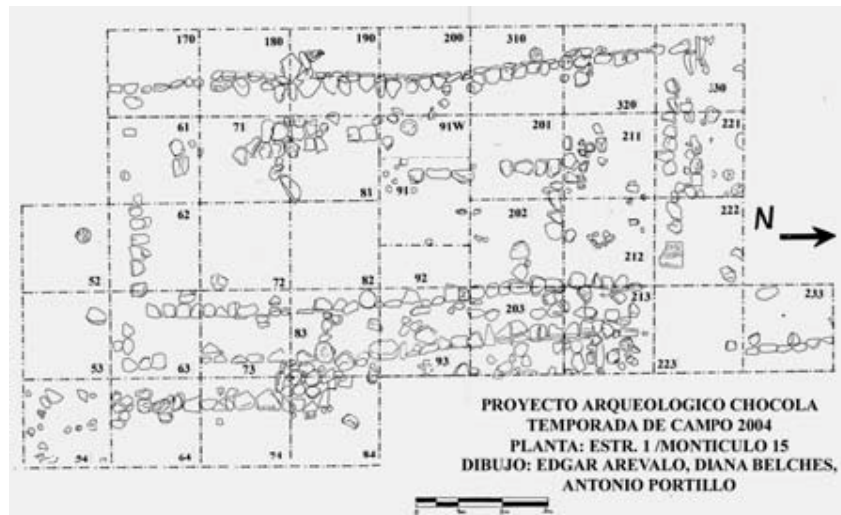


Fig. 6f: location of the finding.

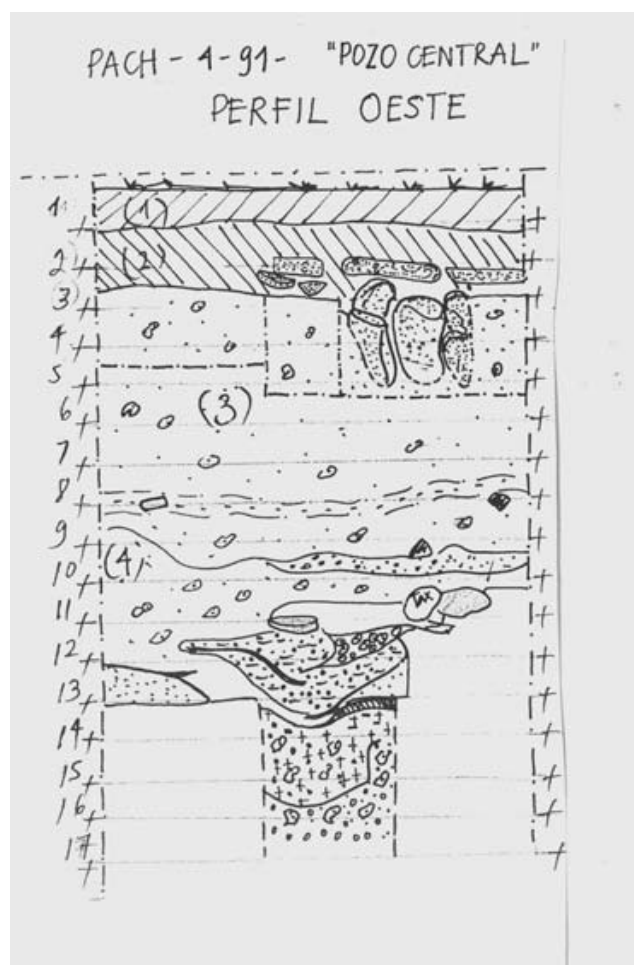


Fig. 6g: west profile, pit 4.91.

### Pit 4-92

The objective was to obtain a sample of ceramic artifacts and obsidian according to their occurrence in lots that were delineated by their natural strata (Layers 1 and 2). In Lot 1, with dimensions of 1.00 by 2.00 m, the first natural layer or humus was removed. Materials: ceramic, 41; obsidian, 7.

In Lot 2, with dimensions of 1.00 by 2.00 m, we clearly defined the characteristics of the stones located east of the pit which are a part of the wall of Structure 15-1, initially identified as Trait 4-R-6. Materials found: ceramic, 68; obsidian, 21.

### ***Pit 4-93***

The objective was to identify the characteristics of traits 4-R-4 and 4-R-6 towards the north. In Lot 1, traits 4-R-6 and 4-R-4 continue towards the north of the structure. There are abundant “disordered” stones, apparently fallen or collapsed, which continue in this disorderly manner towards the east. Since this stone grouping with no apparent order cannot be clearly explained, it is designated as Trait 4-R-10. Artifacts found: ceramic, 40; obsidian, 6.

In Lot 2 we uncovered the front and a portion of the base of the stones which aligned in this pit were identified as Trait 4-R-4, and the part defined as the “exterior” of the structure in this sub-operation. We found that the stones rest on Layer 3 (yellowish dark brown with taxcal and gravel), at approximately 1.00 – 1.06 m below Datum 2. Materials found: 19 ceramic sherds.

### ***Pit 4-170***

In Lot 1, the objective was to find the southwest corner of Structure 15-1, by following the south wall (Trait 4-R-7) to the west. The southwest corner of Structure 15-1 was located. This corner corresponds as well to the south end of the stone alignment identified as Trait 4-R-11. Artifacts found: ceramic, 80; obsidian, 21. A charcoal sample is included.

In Lot 2, with dimensions of 1.25 by 2.00 m, the objective was to define the architectural characteristics of the west wall of Structure 15-1 towards the exterior. A flagstone was found at a depth of 1.40 m below Datum 2. Artifacts found: ceramic sherds, 32; obsidian fragments, 10.

In Lot 3, with dimensions of 1.25 by 2.00 m, we found a long, river flagstone of over 50 cm in length and 4 cm in thickness. The stones vertically placed and in a slight incline, form a sloping wall and their bases reach Layer 3. 5 sherds were found.

In Lot 4, with dimensions of 1.25 by 2.00 m, we found a floor rich in taxcal. A sample was left where we considered that a probable floor may have existed, approximately 10 cm above the lower edge of the inclined stones. This was done because JAV believed that in order to preserve their position, the stones of the wall required that a soil level (at least at their lower third) be used to keep them fixed in a predetermined place.

In Lot 5, with dimensions of 1.25 by 2.00 m, a pink stone of friable consistency was observed at the bottom. The matrix changes to yellowish dark brown with scarce gravel (Layer 7) in the area associated with the pink stone. Materials found: ceramic, 57; obsidian, 7.

In Lot 6, with dimensions of 1.25 by 2.00 m, a small area associated with the stones and with the southwest corner of the structure presented a slight matrix change in the floor; however, this was not visible in the profile. Materials found: ceramic, 92; obsidian, 3; taxcal, 10.

**Pit 4-180**

The objective was to identify the characteristics of Trait 4-R-11 towards the north. In Lot 1, we found Layers 1 and 2. The matrix of Layer 2 was soft in consistency, rich in mica, and contains increasing amounts of gravel as its depth increases. Artifacts found: ceramic, 77; obsidian, 17.

In Lot 2, with dimensions of 0.80 by 2.00 m, we observed part of the “outer face” of the west wall of the structure. Artifacts found: ceramics 65, obsidian 13, taxcal 3.

Lot 3 measured 0.80 by 2.00 m, and at this level the pit’s floor presented a scarce amount of taxcal resulting in a consistency that was not too hard. At the southern edge of the sub-operation (1.60 m deep), there were four stones of approximately 8-10 cm in diameter, of an irregular shape and rounded edges, aligned in an east-west direction. Artifacts found: ceramic, 66; obsidian, 4. A charcoal sample was taken.

In Lot 4, with dimensions of 0.80 by 2.00 m, we found a yellowish dark brown soil (Layer 3). It was associated with stones that formed the west wall, sand with medium fine grains, white-light brown and yellowish in color, compacted and with a firm consistency as if it formed a “model” not distributed throughout the entire lot. It could probably be a lens. Artifacts found: ceramic, 19; obsidian, 3. A charcoal sample was included together with a sample of stones, for matrix description.

In Lot 5, with dimensions of 0.80 by 2.00 m, a soil sample of Layer 7 was included. This layer was associated with three stones, two of which were pumice stones, located at 40-50 cm below the lower edge of the stones that formed the sloping wall (West Wall of Structure 15-1, or Trait 4-R-11). Layer 7 appears then at 1.86–1.89 cm below Datum 1. In the south side of the pit, the matrix has a high concentration of small gravel (1–1.5 cm) of rounded shape, and stones of 1.5–3 cm in diameter, with irregular shapes and sharp angles with an occurrence of approximately 75%. Small accumulations of yellowish-white sand (lens) occur in the northwest corner and on stones associated with the east wall, towards the south. Artifacts found: ceramic, 32; obsidian, 3. One charcoal and 13 taxcal samples were taken.

Lot 6 measured 0.50 by 1.00 m. This lot originates inside Structure 15-1, east of the stone alignment that forms the western wall of this structure. The dimensions were reduced because the space is also limited by Trait 4-R-20 to the east. It corresponded to lots 1 and 2 worked in this same pit, but outside of the structure. Artifacts found: 27 ceramic fragments, and 2 fragments of obsidian.

Lot 7 measured 0.50 by 1.00 m. According to the excavation level, this lot corresponded to lot 3 outside of the structure. A stone with sharp edges, irregular shape and smooth surface was located at the bottom of this lot on a Layer 7 matrix. Materials found: 25 ceramic fragments and 7 obsidian fragments.

**Pit 4-190**

The purpose was to look for the continuity of Trait 4-R-11 towards the north, to identify the northwest corner of Structure 15-1. In Lot 1 we found a stone alignment which formed a probable wall, whose exterior was located towards the west. Artifacts found: ceramic, 131; obsidian, 14; carved stone, 1.

In Lot 2 they remain at a depth of 0.85 m. The dirt in the west section of the pit was removed to uncover the “outer faces” of the stones that form the *talud* or sloping west wall of the Structure. There is a “box” built with 3 stones, among which a flat one with sharp edges (the largest one) and another one of a greenish color stand out. Under the “box” and towards the north wall, there is an alignment of stones no larger than 10 cm in their widest diameters. These stones have irregular surfaces but they fit perfectly, forming a flap to the northwest. Among these stones there was a fragment of grinding stone or hatchet. In the south wall of the “box” there are two small flagstone triangles, placed as if they were supporting the largest stone probably to create a space. Artifacts found: ceramics, 38; obsidian, 24.

Lot 3 corresponds to the “inner” part of the structure delimited in this sub-operation, where we proceeded to remove the matrix corresponding to Layer 2. Materials found: 23 ceramic fragments.

#### **Pit 4-200**

The purpose was to define the architectural characteristics of the structure by finding the continuity of Trait 4-R-11 towards the north, or the northwestern corner of the structure. In Lot 1 the continuity of Trait 4-R-11 towards the north was seen, gradually increasing its incline to the west. Artifacts found: ceramic, 40; obsidian, 4.

In Lot 2, while looking for the continuity of the wall, we noted that the stones located in the eastern section of the pit were resting on Layer 2. The “external face” of the elongated stones vertically placed to form a *talud* or sloping wall, identified as Trait 4-R-11, was uncovered. In the west profile, Layer 3 disappeared at a depth of 1.05 m below Datum 1. Artifacts found: ceramics, 35; obsidian, 7.

In Lot 3 the eastern portion of the pit, or “internal” part of the west wall of Structure 15-1 was removed. Earth corresponding to Layer 2 was removed. Materials found: ceramic, 15; obsidian, 6.

#### **Pit 4-201**

The objective was to identify the probable continuity of the stone alignments associated with Trait 4-R-14. Humus was found in Lot 1. A coffee tree and a “volador” (*gyrocarpus americanus*, also known as Cooliman tree) were present. Materials found: ceramic, 42; obsidian, 3.

In Lot 2, Layers 1, 2 and 3 were present. At this level we did not observe any new traits or the continuation of the ones present in the adjacent sub-operations. Materials found: ceramic 133; obsidian, 34.

In Lot 3 there is a stone alignment placed in a north-south direction, probably the same stone alignment observed in Pit 4-91. Materials found: ceramic, 95; obsidian, 15; taxcal, 18.

#### **Pit 4-202**

The objective was to identify the existing interior traits of what is seemingly the latest construction stage of Structure 15-1 and to define the relationships with the vessel found in Trait 4-R-14. In Lot 1 we found humus and a matrix that corresponded to Layer 2. Artifacts found: ceramics, 68; obsidian, 9.



In Lot 2 we found stones seated on a yellowish dark brown layer (Layer 3). Artifacts found: ceramic, 75; obsidian, 21; carved stone, 4; and one charcoal sample.

### ***Pit 4-203***

The objective was to look for the continuation of traits 4-R-4, 4-R-6 and 4-R-10 towards the north to identify and describe the architectural characteristics of Structure 15-1 towards the east. In Lot 1, loose humus was removed together with abundant roots. Artifacts found: ceramic, 42; obsidian, 14.

Lot 2 presents scattered stones with no apparent arrangement and of different sizes and shapes. Artifacts found: ceramic, 33; obsidian, 11.

In Lot 3 only 10 cm of dirt were removed to eliminate the matrix corresponding to Layer 2. There were stones that very probably collapsed from upper levels. Materials found: ceramic, 30; obsidian, 3.

### ***Pit 4-211***

The objective was to look for the continuation of Trait 4-R-19 towards the north of the structure to identify its interior architectural characteristics. In lot 1 we found humus and roots of a caspirol tree. No stones were visible. Materials found: ceramic, 98; obsidian, 10.

Lot 2 shows no stone alignment on the west side of the pit. On the east side, Trait 4-R-19 continues towards the north. One stone extends towards the north the alignment of 5 stones with similar size and shape to those that formed the "roof" of the niche in Trait 4-R-14. This stone alignment was identified as Trait 4-R-21. Materials found: ceramic, 135; taxcal, 34.

In Lot 3 we did not remove the full lot, as we attempted to leave the inner part and the traits being uncovered at the same level, for a better understanding of their relationship. A very good charcoal sample was collected. We observed a group of stones in dark brown earth, with abundant, irregular gravel that ranged from 1 to 5 cm in diameter, and taxcal. The stones found rested on Layer 3. Whenever the earth shows abundant gravel or taxcal, the hardness or compactness of the floor also seems to increase. Artifacts found: charcoal, 61; obsidian, 6. One charcoal sample of approximately 2 x 3 cm was collected.

### ***Pit 4-212***

The objective was to identify traits and characteristics inside Structure 15-1 that could contribute to the understanding and interpretation of this construction stage and of the activities that may have taken place within this space. Lot 1 shows no new traits and no continuation of those already identified at this level. We found Layers 1 and 2. Materials found: ceramic, 102; obsidian, 18.

Lot 2 shows an accumulation of middle-sized stones, with slightly rounded shapes distributed with no apparent arrangement. We found small blocks of taxcal. This trait was identified with the number 29. Materials found: ceramic, 128; obsidian, 25.

**Pit 4-213**

The objective was to look for traits 4-R-4 and 4-R-6 towards the north, to define the architectural characteristics of the east wall of Structure 15-1. In Lot 1 we found Layers 1 and 2, both strata presenting the characteristics described earlier. Artifacts found: ceramic, 47; obsidian, 17.

In Lot 2, 10 cm of dirt were eliminated from the east corners at 0.45–0.55 m below Datum 2. The irregular stone grouping identified as Trait 4-R-10 continues, basically scattered in the matrix corresponding to Layer 2. Materials found: ceramic, 4.

**Pit 4-221**

The objective was to identify the characteristics of the north wall of Structure 15-1. Lot 1 included two small coffee trees and one “volador” tree of approximately one year of age. It contained an abundant amount of humus on top of which a large boulder with sharp edges and irregular shape rested. Ceramic found: 74 sherds.

In Lot 2 the elevation at the south half of the pit remained at 1.10 m, corresponding to the place where possibly the inner floor of the structure was found. At the north half, 20 cm of earth were removed, and the levels at both corners were of 1.10–1.30 m below Datum 1. According to our findings in Pit 4-330, we were able to establish the continuity of the stone alignment of the structure’s north wall positioned in an east- west direction. This trait was identified as number 30 and consists, at least in the excavated area of this sub-operation, of two stone alignments that probably constituted a kind of steps. Artifacts found: ceramics, 52; obsidian, 13.

In Lot 3 the south corners maintain an elevation of 1.10 m. The stones of the second alignment rest on Layer 2, below them the concentration of gravel increases, the earth is loose and roots are abundant. Ceramics found, 47.

**Pit 4-222**

The objective, as with Pit 4-221, was to locate the north wall of the structure. There is a coffee tree at the surface of the sub-operation at lot 1. There is abundant humus and tree roots also present in Pit 4-223, and Layer 2 is present. Artifacts found: ceramic, 64; obsidian, 2.

In the Lot 2 sub-operation the north wall of Structure 15-1 shows a stone alignment visible on the second layer and resting on the third layer, where there is also irregular gravel of a lighter coloration. Artifacts found: ceramic, 42; obsidian, 4.

**Pit 4-223**

The objective was to find the northeast corner of Structure 15-1. We did not find the stone or stones that jointly could constitute the northeast corner of the structure, in Lot 1. Due to the abundance of roots it was very hard to maintain a level of 20 cm. Artifacts: ceramic, 74; obsidian, 9. One sample of taxcal was collected. We found an anthropomorphic face with an axial hole, elaborated with a thin paste.

**Pit 4-233**

The objective was to identify the northeast corner of Structure 15-1 by following traits 4-R-4 and 4-R-6 towards the north. Lot 1 included a coffee tree, humus and plenty of roots, as well as a new trait towards the northeast of Structure 15-1 which consisted of a stone alignment. Artifacts found: ceramic, 34; obsidian, 6.

Lot 2 has: Layers 1 and 2, a yellowish patch (probably taxcal with sand) to the south of the alignment, approximately 25 cm long and 12 cm wide, and the outer face of the stones towards the west, therefore confirming that most probably this represents a trait associated with Structure 15-1, and not a component part of the structure. Artifacts found: ceramic, 39; obsidian, 7.

**Pit 4-310**

The objective was to find the continuation of Trait 4-R-11 towards the north, and its connection with Trait 4-R-12. We found Layers 1 and 2 in Lot 1, as well as the following artifacts: obsidian, 25; ceramic, 33, and one nail.

Lot 2 has an elevation of 0.8–1.15 m below Datum 1. Even though the stones are not fully visible, the continuation of Trait 4-R-11 towards the north is clear. The stones occur in Layer 2. A border with PP number was located 0.65 m below Datum 2, and with the following coordinates: 1.55 m east and 0.07 m north. Other artifacts found: ceramic, 40; obsidian, 26.

Lot 3 is inside Structure 15-1. Dirt was removed towards the east of the stone alignment, and 25 ceramic fragments were recovered.

**Pit 4-320**

The objective was to look for the continuity of Trait 4-R-11 towards the north. Lot 1 included a stone whose association with the existing traits is still uncertain, and large ceramic fragments. Layers 1 and 2 were present. Artifacts found: ceramics, 25; obsidian, 7.

In Lot 2 we found stones aligned on a northern direction, with a slight inclination to the west. Artifacts found: ceramics, 44; obsidian, 13.

Lot 3 measured 0.50 by 2.00 m. The exterior that delimited the stone alignment constituted by Trait 4-R-11 was located to the west. It was initially thought that this stone alignment constituted a trait different from Trait 4-R-11, and was therefore identified as Trait 4-R-12. The dirt present on top of the horizontal stones found above the vertically placed stones was considered as a possible floor and/or filling. Artifacts found: ceramic, 30; obsidian, 11.

Lot 4 measured 1.50 by 2.00 m. In this lot the earth (Layer 2) inside the structure, associated with the west wall or Trait 4-R-11, was removed. Materials found: ceramic, 19.

**Pit 4-330**

The objective was to identify the northwest corner of Structure 15-1. In lot 1 there was an approximately 15 m high caspirol tree at the junction of this pit with pit 320 (to the south), and therefore abundant roots were present.

Lot 2 measured 1.50 by 1.60 m. We found dark brown clayish sand (Layer 2) and tree roots which had moved some stones that were part of the northwest corner of the structure. Materials found: ceramic, 64; obsidian, 5; taxcal, 1.

Lot 3 measured 1.50 by 1.60 m, and contained Layer 2. Artifacts found: Ceramics, 20; obsidian, 2; pumice, 1.

Lot 4 measured 1.50 by 1.60 m. We found a matrix with plenty of gravel, though possibly the soil, identified as Layer 3, may have been supporting the large flagstones of the corner; its presence was not visible in the west profile associated with them. Materials found: ceramic, 71; obsidian, 10.

**Conclusions about the excavations**

The excavations conducted in Structure 15-1, operation 4, were initiated with Pit 4-64 with the purpose of identifying the trait or traits that caused a white reading (negative, very strong) in the gradiometer. The discovered trait diverged from the results obtained elsewhere, in non-Mayan sites around the world; therefore, new adjustments and calibrations were required to establish the region's own standards, which were completed in later measurements and will be carried on in future field seasons.

Each trait located in one or more sub-operations was assigned an identification number to facilitate its description and interpretation within the overall complex ultimately formed by Structure 15-1 and the possible substructure associated with a water management canal.

The general characteristics of Structure 15-1, based on evidence and comparisons with other data, are described below:

1. A rectangular structure, with its longest sides positioned in an east-west orientation, probably a basal platform;
2. A roof made of perishable material;
3. A putative floor, compressed, difficult to identify;
4. A west, sloping wall (*talud*);
5. An east wall formed by aligned stones;
6. Two stone courses that form the boundaries for benches or external corridors;
7. A north wall with one possible external step;
8. Two to four interior rooms;
9. An accumulation of stones which may have served as a hearth;
10. An accumulation of stones of unknown function;
11. A ritual offering placed in a niche under the "floor" at the center of the structure;

12. A water distribution canal discovered under the structure, related to the structure or to a substructure, and associated to traits that suggest ritual celebrations, and mud constructions built as far back as the Middle Pre-Classic period.

The list and description of these and other traits are included below.



Fig. 6-7a. South profile of pit 4-82, including the first 4 lots, showing the presence of natural Layers 1, 2 and 3.



Fig. 6-7b. West profile of pit 4-45, showing the same Layers.

### ***Description of natural layers [Fig. 6-7a, b]***

Jointly with MCV, we accomplished the description of the five more repeated layers found in Mound 15 as follows: Layer 1, humus, organic, black soil; Layer 2, dark brown soil; Layer 3, dark brown soil with taxcal; Layer 4, light brown soil; and Layer 5, yellow soil with taxcal; as we proceeded with our work, the most common strata were reduced to three: Layers 1 and 2, and light brown soil with taxcal.

*LAYER 1 (E-1)*

Humus or very dark brown clayish sand (10 YR 2/2. Note: all colors have been identified in wet soil). This layer covers the entire surface of the excavation, in and out of Structure 15-1 at Mound 15. It is associated with Layer 2. It consists of a mix of roots, organic remains, plants and earth, mixed with stones of varied sizes and cultural artifacts such as ceramic and obsidian. The stones are irregular in shape, including very large ones that exceed 30 cm in diameter, like those observed in buildings. There are many stones of 10 to 12 cm in diameter (10%); stones of 5 to 10 cm in diameter (20%) and stones of less than 5 cm in diameter (30%). The average width of this layer was 20 cm; it shows a minimum width of 0.15, and a maximum of 25 cm.

*LAYER 2 (E-2)*

It corresponds to a dark brown clayish sand (7.5 YR 3/2), with a maximum width of approximately 60 cm (northwestern corner of the excavation – Pit 4-330), and a minimum width of 10 cm. This soil or matrix is of a granular consistency, loose, with a remarkable frequency of artifacts, sherds of 1.5 to 5 cm long (some figurines were present) and obsidian (many small and used prismatic blades). The soils present abundant roots with diameters of 1 cm or less, mostly originated in middle size trees such as the coffee trees. Gravel is irregular, with edges both sharp and rounded, a 15% of which exceeds 2.5 cm in diameter, and 40% with diameters that range between 1 and 2.5 cm. Mica is present, as well as small clusters of taxcal of 1.5 to 0.5 cm, with an occurrence of 5-10%. Most disturbances (tunnels) were found in this layer. Most of the stones corresponding to the southern half of the structure (traits 4-R-20, 4-R-7, 4-R-8, 4-R-4, 4-R-3, 4-R-6, 4-R-5) and some associated with the northern half of the structure (Trait 4-R-25) rest on this layer, with an increased presence of gravel and small sherds, less than 1.5 cm long.

*LAYER 3 (E-3)*

This layer is represented by a yellowish dark brown clayish sand (10 YR 4/6), with taxcal and gravel. This layer appears with a minimum width of 0.50 m and a maximum approximate width of 1.20 m, and possibly wider. Its texture is less granular, of a compact consistency, and has some small roots which do not exceed 2 mm in thickness. In general, compared with layer 2, the amount of sherds seems to have decreased in concentration given the larger size and thickness of this layer; however, for the same reason, the total number of artifacts increases, yielding most of the material found. Rich in mica, and very fine colored sand. The percentage of the inclusions of stones or taxcal rocks, gravel, greenstone (unidentified), and probably pumice stone was as follows: 15% of small stones, 70% of irregular stones of some 2.5–5 cm in diameter, and 10% of larger stones of over 5 cm in diameter. In some areas, there were some minor inclusions of charcoal of less than 1 mm in diameter. Charcoal samples of a good size (up to 3 cm in its greatest diameter) were collected. This was the layer directly associated with the bowl found in the niche, at the center of the structure (Trait 4-R-14) and it was the same layer in which most of the stones of the northern half structure were resting.

*LAYER 4 (E-4)*

It consists of a sandy clay similar in color to that of the preceding layer: yellowish dark brown (10 YR 4/6) with abundant taxcal and gravel. The hardness of this layer



seems to increase, possibly because of the larger amount of small stones between 0.5 and 1.5-2 cm in diameter, of irregular or rounded shape (mostly taxcal) in a concentration of 50% to 75%, which produced a more compact layer. The stones of 2.5 to 5 cm in diameter diminished by 10% and those over 5 cm were sometimes present at a concentration of 5%. The greatest thickness of the layer was of 80–85 cm, and the smallest thickness was of 40–45 cm with associated charcoal samples.

#### *LAYER 5 (E-5)*

It was not observed in a direct association with this structure but only with the canal to the south of it, at Mound 15.

#### *LAYER 6 (E-6)*

This was a special layer, and was assigned to the trait identified as Floor 3, present in pits 4-71, 4-62 and 4-73. It is a sandy clay of a yellowish dark brown color (10 YR 4/4), made of sand, taxcal and some mica, at an approximate depth of 1.49–1.60 m (deeper towards the east) below Datum 2. In the southern profile of Pit 4-62, it shows an approximate thickness of 2–3 cm, but it is part of the wall, or west wall of Pit 4-72, where it is visible; it continues as part of the “floor” identified in Pit 4-71, where, towards west, it seems to recover its 2–3 cm in thickness, and can be observed as well defined, smoothed (relatively), well separated from the previous layer (Layer 3 in Pit 4-71), and with a regular inclination towards the east. It did not contain large gravel, but presented some small intrusions probably made of ground pumice stone (yellowish white); these intrusions make the layer look whitish, and constitute 15% of its composition with sizes of 0.3–1 cm. There is a concentration of 5–10% of larger stones, of 1–2 cm in size, and rounded shape.

#### *LAYER 7 (E-7)*

Sandy clay of a yellowish dark brown color (10 YR 4/6), not very compact in consistency, with intrusions of rounded stones of approximately 1–2.5 cm in diameter in a concentration of approximately 20%. It appeared in association with stones located in the two last Lots of Pits 4-170 and 4-180, and with the stone found under Trait 4-R-20, at the same depth. In pits 4-62 (lots 10 and 11) and 4-72 (lots 8 and 9), it was associated with the stones of the canal and was described as a “soft” layer, probably filling material. Mica was present.

#### *LAYER 8 (E-8)*

Sandy clay of a yellowish dark brown color (10 YR 4/4) associated with the canal, very hard in consistency, with a high percentage (75–85 %) of small gravel and taxcal of approximately 1-2 cm in diameter, and 15% of stones of a larger size (over 2-5 cm in diameter). There was an abundance of whitish, red, and yellowish sand, and mica. The greatest thickness was observed at the south and east corner and walls of Pit 4-62, and was also present in the north profile of Pit 4-72.

#### *LAYER 9 (E-9)*

Sandy clay of a yellowish dark brown color (10 YR 3/4) it is present inside the canal in Pits 4-62, 4-72 and 4-82. This layer has a low incidence of ceramic artifacts. It contains a fair amount of sand and small gravel, which diminishes as the depth

inside the canal increases. It was associated with the vessel identified as Trait 4-R-31, and at times it was seen adjacent to Layer 7 (in Pit 4-62).

#### *LAYER 10 (E-10)*

It was composed of thick and fine sand of a light brown, yellowish and whitish color. It appeared as a lens in all the pits. Quartz and mica were abundant, and the latter appears at times mixed with black, greenish or pink grains. The thickness varied from less than 1 cm up to 5 cm. It was found associated with all the previously described layers, with the exception of Layer 1.

#### *LAYER 11 (E-11)*

Sedimentary clay of a yellowish dark brown color with a very large amount of mica (10 YR 4/4) found at the bottom of the central pit. Initially it presented just a few sherds, but it seems to be a sterile layer. It contained an elevated percentage of taxcal, pumice stone (?), gravel and thick stones. It was visible in all the profiles of the main pit, in the deeper layers (15, 16 and 17), and it reached a maximum thickness of 60-70 cm, though it could be thicker. Figure 6-8 shows the code for the identification of the layers observed in the excavations conducted at Structure 15-1.

TABLA 2

Código para la identificación de estratos que se presentan en ilustraciones de excavaciones.

I. Humus	
II	
III	
IV	
VI	
VII	
VIII	
IX	
X	
XI	
XII	
XIII	
XIV	
XV	
XVI	
XVII	
XVIII	
XIX	
Intrusión	
XX	

\* Ver Anexo D

Fig. 6-8. Layer identification code shown in the illustrations of the excavations conducted.

### ***Special layers***

These are considered as inclusions not present in every pit, they occur mostly in the main pit and in Pit 4-72. They may consist of thick sand used in refills, intrusions created by animals or by other unknown causes.

### ***Description of significant artifacts***

Figurines

Pit 4-62-1

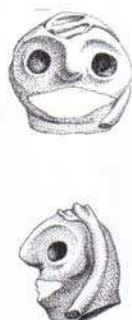
ZOOMORPHIC CERAMIC FIGURINE. A bowl rim decoration elaborated with a red paste [Fig. 6-9].



**Fig. 6-9. Zoomorphic ceramic figurine. A bowl rim decoration elaborated with a red paste.  
Code: 4-62-1.**

Pit 4-82-4

ZOOMORPHIC FACE, PROBABLY REPRESENTING AN OWL. Large eyes, elaborated through the puncturing technique, an appliqué ornament decorates the head and descends surrounding the face. Elaborated with a red paste and eroded at the front [Fig. 6-10].



**Fig. 6-10. Zoomorphic face, probably representing an owl. Large eyes, elaborated through the puncturing technique, an appliqué ornament decorates the head and descends surrounding the face. Elaborated with a red paste and eroded at its front. Code 4-82-4.**

Pit 4-91-7

ANTHROPOMORPHIC FEMALE FACE WITH HEADDRESS. Similar to PACH 4-631-2, almond-shaped eyes, eroded nose, with signs of smoke exposure [Fig. 6-11a, b]



**Fig. 6-11a, b. Anthropomorphic female face with headdress. Similar to PACH 4-631-2, almond-shaped eyes, eroded nose, with signs of smoke exposure. Code 4-91-7.**

Pit 4-223-1

SMALL MALE HEAD MOUNTED ON A CYLINDER. Elaborated in a light cream paste, probably a white paste, with punctured, triangular eyes and remains of red paint on its surface [Fig. 6-12]



**Fig. 6-12. Small male head mounted on a cylinder. Elaborated in a light cream paste, probably a white paste, with punctured, triangular eyes and remains of red paint on its surface. Code 4-223-1.**

Ceramic

Pit 4-82-11

**BROWN PITCHER** with lateral handles attached to a punctured rim. Signs of smoke exposure, coarse surface [Fig. 6-13]



**Fig. 6-13. Brown pitcher with lateral handles attached to a punctured rim. Code 4-82-11.**

Pit 4-91-4, 5 and 6

**RED PITCHER** with vertical incisions on the outer rim; it is part of an offering situated at the center of Structure 15-1, the paste is of medium thickness [Fig. 6-14].



**Fig. 6-14. Red pitcher with vertical incisions on the outer rim. Code 4-91-(4, 5, 6).**

Pit 4-221-2

Rim of brown bowl with notched decoration of parallel, vertical lines [Fig. 6-15].



**Fig. 6-15. Rim of brown bowl with notched decoration of parallel, vertical lines. Code 4-221-2.**

Pit 4-72-?

Ceramic fragment with red slip and incised decoration made of circular designs. It was found isolated at the bottom of the canal in Pit 4-72, between traits 4-R-17 and 4-R-22 [Fig. 6-16].





**Fig. 6-16. Ceramic fragment with a red slip and incised decoration made of circular designs.**

**Pit 4-91-?**

Rim of dark brown bowl with incised decoration of parallel vertical lines, horizontal lines, and semicircles. The precise place of origin is uncertain, and it was found while clearing the profile of the main pit (91) [Fig. 6-17].



**Fig. 6-17. Rim of dark brown bowl with incised decoration of parallel vertical lines, horizontal lines, and semicircles.**

**List of traits, Structure 15-1, Operation 4**

This list includes the traits detected during the excavations at Mound 15, this includes the excavations conducted at Structure 15-1 (Belches-Luín) and the excavations at the canals (Cossich V.; see Chapter 7) [Figs. 6-18, 6-19].



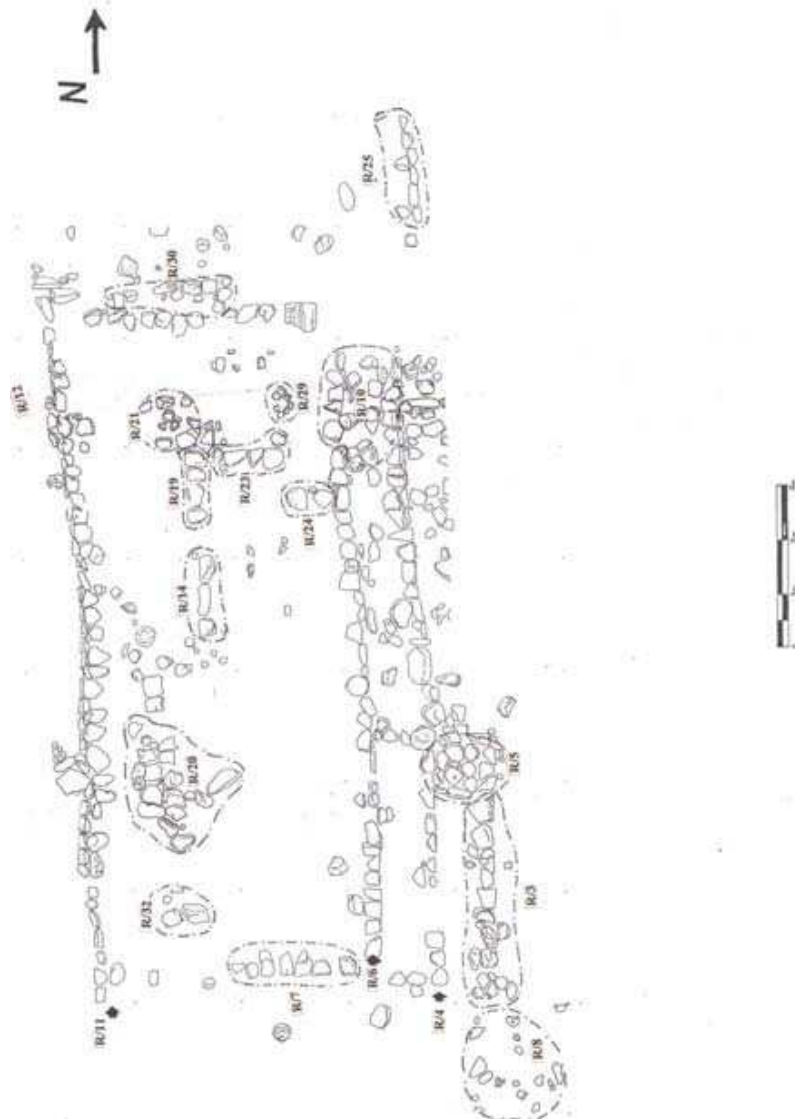


Fig. 6-18. Traits of Structure 15-1.

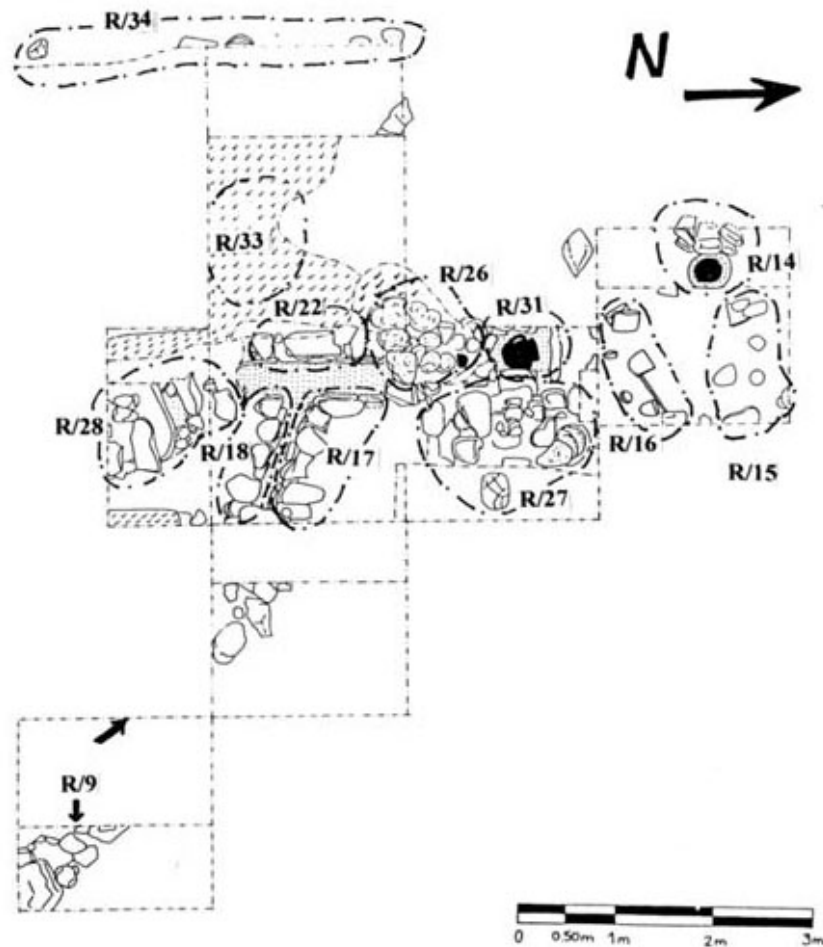


Fig. 6-19. Traits discovered under Structure 15-1.

### LIST OF TRAITS

No.	Description	Comment
1	Canal south of Structure 15-1 (archaeologist in charge: Margarita Cossich V.)	It corresponds to the finding of one segment of a canal (Pits 4-4, 4-5 and 4-14) which presented no prolongation. Only 1.50 m of each lateral wall were found. It runs on a northwest-southeast direction.
2	Canal south of Structure 15-1 (archaeologist in charge: Margarita Cossich V.)	It corresponds to the flagstone and other stones located close to Trait 4-R-1, which do not follow an alignment or possible relationship with the preceding trait. The orientation of this little canal was measured at the center (considering traits 4-R-1 and 4-R-2 as one single canal), the orientation is 305° Az.
3	Stone alignment positioned in a north-south direction	Stone alignment later identified as part of the southeast corner of Structure 15-1, presumably collapsed.

4	Stone alignment positioned in a north-south direction	Stone alignment
5	Circular grouping of stones associated with traits 4-R-4 and 4-R-6	Accumulation of stones in Pit 4-83
6	Stone alignment positioned in a north-south direction, east wall of Structure 15-1	Stone alignment located in Pit 4-63 and 4-72, later identified as part of the east wall of Structure 15-1
7	Stone alignment positioned in an east-west direction, south wall of Structure 15-1	South wall of Structure 15-1
8	Stones irregularly grouped at the southeast corner of Structure 15-1	Group of stones located on the outside of the southeast corner of Structure 15-1
9	Canal observed under Structure 15-1	Canal outside Structure 15-1 connecting with the small canal inside the structure. This constitutes the 18 m of the total north-south alignment of the canal, up to the canal found below Structure 15-1. Its construction variants include covered and uncovered sections, but none of them present any type of floor inside the canal. There are two types of traits classified by the differences in branching construction and orientation. The orientation of this canal is as follows: 356° Az following a straight line from Pit 4-6 to Pit 4-36, and 340° Az along the curvature from Pit 4-36 to Pit 4-64.
10	Irregular grouping of stones near the northeast corner of Structure 15-1	Abundant “disordered” stones, apparently fallen or collapsed, which continue towards the east in the same disordered manner.
11	Stone alignment along a north-south direction; this is the west wall of Structure 15-1	This corner also corresponds to the south end of the stone alignment identified as Trait 4-R-11 in Pit 4-170.
12	Stone alignment positioned in a north-south direction, part of the west wall of Structure 15-1	Later identified as a part of Trait 4-R-11.
13	Canal at the south of Structure 15-1 (archaeologist in charge: Margarita Cossich V.)	This was classified as a different canal because we do not know whether this branching to the southeast is part of the same canal positioned in a north-south orientation. It is 12 m long. It is formed by sections with no covers and with a stone floor inside the canals. The orientation is 335° Az from Pit 4-631 to Pit 4-641, 361° Az from Pit 4-641 to Pit 4-459, and 305° Az from Pit 4-459 to Pit 4-486.
14	Niche and vessel at the center of Structure 15-1	Excavated below Structure 15-1, it represents the niche containing the large vessel and large stones on top of the deposit that show the four cardinal directions and the additional vertical direction of Maya cosmology. Interestingly,

		the modern Maya around Chocotá still build their hearths with three stones as base or support, while ethnohistorical Maya origins reflect the belief that through the hearths in each household, there is a connection with the underworld and heaven. Perhaps that's why the large bowl represented an offering required to show respect to the myths of the origin of the universe.
15	Group of stones north of the main pit at Structure 15-1	Excavated below Structure 15-1.
16	Group of stones south of the main pit at Structure 15-1	Excavated below Structure 15-1.
17	Slightly semicircular stone alignment, part of the canal identified as Trait 4-R-9, under Structure 15-1.	Excavated below Structure 15-1.
18	Stone alignment that forms the south portion of the canal, identified as Trait 4-R-9 below Structure 15-1.	Excavated below Structure 15-1.
19	Stones aligned in a north-south orientation inside Structure 15-1, located north of the stone alignment above the vessel (offering and niche identified as Trait 4-R-14).	Stone alignment.
20	Group of stones inside Structure 15-1, associated with the west wall.	In lot 4 of Pit 4-81 there were large sherds mainly associated with Trait 4-R-20 and with the southeastern corner of the pit (Trait 4-R-26). There was also little charcoal and abundant taxcal, together with a lens or intrusive layer seen as a dark brown, diffuse patch on the lot's floor.
21	Group of stones associated with the northern part of Trait 4-R-19	In pit 4-211, towards the east, Trait 4-R-19 continues towards the north. One stone prolongs in a northward direction the alignment of 5 large stones of size and shape similar to those that formed the "roof" of the niche in Trait 4-R-14. This stone alignment has been identified as Trait 4-R-21. Materials: ceramic, 135; taxcal, 34.
22	Stone alignment positioned in a north-south direction, associated with traits 4-R-17 and 4-R-18; it was finally identified as the extension of the canal and as Trait 4-R-9 below Structure 15-1.	Excavated below Structure 15-1.
23	Stone alignment positioned in an east-west direction inside Structure 15-1; traits 4-R-19 and 4-R-21 are visible west of this	An alignment or small group of stones immediately north of the niche with the large pot found in Pit 4-91 (Trait 4-R-14).

	alignment.	
24	Stone alignment positioned in an east-west direction, directly associated with the east wall of Structure 15-1 (Trait 4-R-6)	
25	Stone alignment positioned in a north-south direction, north of Structure 15-1; probably part of an adjacent structure	A trait similar to other stone traits found in the southern half of Structure 15-1 (traits 4-R-3, 4-R-4, 4-R-5, 4-R-6, 4-R-7, 4-R-8, 4-R-20) which rests on Layer 2, with an increased presence of gravel and small sherds not exceeding 1.5 cm in length but ties to the north within the structure
26	Circular grouping of pink stones, below Structure 15-1 and associated with traits 4-R-17, 4-R-18, 4-R-22, 4-R-27, 4-R-28, 4-R-31 and 4-R-33. 4-R-9 (canal)	Excavated below Structure 15-1
27	Grouping of stones, east of Trait 4-R-31, placed in a north-south direction, which are a part of the canal that seems to be the continuation of the one formed by traits 4-R-22 and 4-R-18.	Excavated below Structure 15-1
28	South extension of canal formed by traits 4-R-18 and 4-R-22 to the north	Excavated below Structure 15-1
29	Group of stones within Structure 15-1, near its northwestern corner	
30	Stone alignment positioned in an east-west direction, parallel to the north wall of Structure 15-1	Probably an access step on the wall or north wall of the structure
31	Extension towards the northwest, North of the canal (Trait 4-R-9) which extends below Structure 15-1	Excavated below Structure 15-1
32	Small group of stones associated with the south wall of Structure 15-1	Group of stones found in Pit 4-61
33	Floor 3, maybe a part of a substructure (?)	Excavated under Structure 15-1; a trait is constituted by a special finding, such as architectural systems, floors, etc. These ones were given a correlative number as they appeared, jointly with the excavation conducted by Belches
34	Stone alignment positioned in a north-south direction under the southern section of the west wall of Structure 15-1	Excavated below Structure 15-1
35	Canal south of Structure 15-1 (archaeologist in charge:	This classification was made, like that of Trait 4-R-13, consisting of a bifurcation in a

	Margarita Cossich V.)	southwest direction. The system of construction changes by having no covers and no interior stones as a floor inside the canal. Orientation 37° Az from Pit 4-455 to Pit 4-465 and 20° Az from Pit 4-465 to Pit 4-486 <sup>1</sup>
36	Floor, southwest canal	This is the floor located in Pit 4-735, made of a very compacted reddish brown mud 1 cm thick, on top of another gray sandy layer with pumice stone which gives the sand a lighter tone, with a thickness of up to 3 cm. One light brown, almost yellow layer with abundant taxcal of many colors, and 5 to 10 cm in thickness is visible under the sand layer; we still do not know whether it is a filling or a part of the floor. This floor was only located at the west side of the pit, at 0.90 m (measurement taken in relation to the Datum).
37	Southwest canal excavated in 2003 and re-excavated in 2004	Located in Pit 4-735 like the preceding one, but this one is a section of the canal, with a portion with covering and another one without covering that follows the same alignment as Pit 4-17 excavated in 2003. The orientation of the canal in Pit 4-17 is 310° Az and the canal in Pit 4-735 is 330° Az.

### ***Description of particularly significant traits***

#### **STRATIGRAPHY [See Fig. 6-7a]**

Natural layers 1, 2 and 3 are present and distinguishable in the south profile of Pit 4-82, shown here with the first 4 lots in view.

#### **STRUCTURE 15-1, LATE CONSTRUCTION PHASE [Fig. 6-20].**

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<sup>1</sup> The two orientations of the bifurcations were taken up to the red stone at the center of the bifurcation.

Northeast view of excavations conducted at Structure 15-1. The stone alignments are well defined, and the west wall is seen uncovered at the level of what probably may have been a platform supporting a structure which did not last through time.



**Fig. 6-20. Southwest view of the excavation conducted at Structure 15-1.**

TRAIT 4-R-11 [Fig. 6-21]

A different southwest view of the excavation; the individual stands precisely on the stone alignment identified as Trait 4-R-11, where the continuity of stones disappears, we believe, because it is where some kind of access to the structure would have been placed.



**Fig. 6-21. Another southwest view of the excavation; the individual stands precisely on the stone alignment identified as Trait 4-R-11.**

TRAIT 4-R-9 [Fig. 6-22]

Trait 4-R-9 seen from the south; the stone alignment towards the north was initially identified as Trait 4-R-17, and the stone alignment towards the south was initially identified as Trait 4-R-18. The canal continues with the characteristics already observed in some of its stretches to the south; basically, there are middle sized cobbles vertically placed [Trait 4-R-18] or horizontally placed (Trait 4-R-17), crowned



by a border of totally horizontal stones covered by a layer of hard and compact dirt with abundant taxcal and gravel (Layer 8).



**Fig. 6-22. Trait 9, viewed from the south; the stone alignment to the north was initially identified as Trait 17, and the stone alignment to the south was initially identified as Trait 18.**

TRAIT 4-R-S 9, 20 and 33 [Fig. 6-23]

Northeast view of traits 4-R-9, 4-R-20 and 4-R-33 and how they relate to the external alignments of the structure.



**Fig. 6-23. The northeast view of traits 4-R-9, 4-R-20 and 4-R-33.**

TRAIT 4-R-6 [Fig. 6-24]

Accumulation of stones identified as Trait 4-R-5. Note the inclusion of a metate fragment in the architecture. This may probably be an access way.



Fig. 6-24. Accumulation of stones identified as Trait 4-R-5. Note the inclusion of a metate fragment in the architecture.

#### TRAITS 4-R-28 and 4-R-29 [Fig. 6-25]

These traits show two types of canals. The canal corresponding to Trait 4-R-28 includes large flagstones covers. The canal identified as Trait 4-R-9 is open, narrower, and shows a pronounced curve.



Fig. 6-25. Traits 4-R-28 and 4-R-9. The canal identified as Trait 4-R-9 is open, narrower, and shows a pronounced curve.

#### TRAIT 4-R-19 [Fig. 6-26]



Seen from the west, Trait 4-R-19 is visible across the center of the picture, at its left the stone alignment identified as Trait 4-R-23, and the two alignments in the back: Trait 4-R-6 and Trait 4-R-4 behind it.



Fig. 6-26. Seen from the west, Trait 4-R-19, Trait 4-R-23, Trait 4-R-6 and then Trait 4-R-4.

TRAIT 4-R-30 [Fig. 6-27]

Trait 4-R-30 viewed from the northeast corner; it is probably an access step in the northern wall of the structure.



Fig. 6-27. Trait 4-R-30 viewed from the northeast corner, probably an access step.

#### TRAIT 4-R-14 [Fig. 6-28]

Viewed from the east, Trait 4-R-14 before the vessel was removed. This is the main pit of the excavation.



Fig. 6-28. Viewed from the east, Trait 4-R-14 before the vessel was removed.

#### TRAIT 4-R-11 [6-29]

The stone alignment identified as Trait 4-R-11 viewed from the northwest; the sloping stones exhibit a more marked inclination as they extend north.





**Fig. 6-29.** The stone alignment identified as Trait 4-R-11 viewed from the northwest.

TRAIT 4-R-20 [Fig. 6-30]

From the west, Trait 4-R-20, the presumed “Floor 3”, is observed on the surface; the relationship between Trait 4-R-26 (accumulation of pink stones on top of which abundant ceramic remains and charcoal were found) with the canal or Trait 4-R-9 are also visible.



**Fig. 6-30.** From the west, Trait 4-R-20, the presumed “Floor 3”, is observed on the surface; the connections between Trait 4-R-26 with the canal or Trait 4-R-9 are also visible.

TRAIT 4-R-26 [Fig. 6-31]

Another view (to the south) of the same image presented earlier.



**Fig. 6-31.** Another view (to the south) of the same image presented earlier.

TRAIT 4-R-9 [Fig. 6-32]

Detail of Trait 4-R-9, with a circular space probably left by a tree trunk placed inside the canal. This is the view from the west.



**Fig. 6-32. Detail of Trait 4-R-9. View from the west.**

### THE SMALL CANAL AND OTHER TRAITS [Fig. 6-33]

The canal and its association with other traits. This has been described earlier.



**Fig. 6.33. The canal and its association with other traits.**

### TRAIT 4-R-31 [Fig. 6-34a, b]

Detail of Trait 4-R-31 or “Vessel number 2”, found inside the canal. Its size and placement rule out any functional purpose (like water control); it probably fell down accidentally or was put in place, when the water level was very low or absent, as a part of a ritual. Further definition of its function requires association with other findings, mainly with Trait 4-R-26.





Fig. 6-34a, b. Detail of “Vessel number 2”, found inside the canal.

#### TRAITS LOCATED UNDER STRUCTURE 15-1 [Fig. 6-35]

View from the southeast of traits of interest found under Structure 15-1.



Fig. 6-35. View from the southeast of traits of interest found under Structure 15-1.

## Conclusion

Structure 15-1 at Mound 15 is located in the north group of the site. We classify it within the elite structure groups because of its geographical location, the architectural characteristics of the structure itself and those of its associated constructions, as well as the characteristics of the ceramic artifacts found as evidence in the area. As we said earlier, drawing definite conclusions at this point of the research would be premature, since it is necessary to evaluate the information obtained through the physical and chemical analysis of the material obtained.

Basically, we have a construction made of river cobbles of rather similar size and shape: they are rounded, some show traces of carving, and some of them vary from a whitish to a pink or greenish coloration, porous and bulky stones are scarce. The stones appear in alignments that connect to delimit a rectangular area whose major axis extends in a north-south direction, obviously sharing a very usual pattern in Mesoamerica, and certainly an important one in Mayan ideology.

The west wall of the structure presents carved, long, oval stones, placed in an inclined plane or *talud*.

The east wall presents a stone alignment of big and roughly circular stones. Towards the east of the wall there are two stone alignments which in my view very probably represent two outer steps or benches. We may even speculate that they were external planters. The accumulation of stones in association with these two stone courses may indicate an access ramp.

The south wall shows a loss of continuity in the aligned stones, and therefore we could speculate that this wall may have included some kind of access, just as the north wall where apparently there were one or two access steps.

If we consider that the stone alignments were the walls that defined a platform or support of a building that vanished, the surface dirt immediately above the stones or at their same level would then represent the interior floor of the structure.

The interior of the structure seems to be divided in at least two to four rooms not fully independent from one another, or at least not fully delimited by stone walls.

A stone alignment stands out, inside the structure, under which an offering, consisting of a vessel, was found. This offering was in a niche with ritual and religious significance, built with five stones that represent the four cardinal points and a central one, symbolizing the five points of Mayan cosmology (Dr. Juan Antonio Valdés, personal communication, 2004); this finding outlines the major significance, for the ancient inhabitants, of the strict orientation towards the cardinal directions and its associated ideology.

The stone accumulation identified as Trait 4-R-20 may have been used as a bench, resting area, or as a place to position something or someone that was not to be in direct contact with the floor. We have ruled out the possibility that the stones were a part of a different niche, offering, or burial.

No postholes or areas with an accumulation of gravel or small stones were found in the internal corners of the structure to house the pillars of the walls and the roof of a perishable structure.

To the north of the structure there are three stone accumulations, one of them probably serving as a hearth; however, no major indicators of constant fire such as burned mud, special stone arrangements or abundant charcoal were observed, though a large fragment of charcoal was found in one of these stone accumulations.

I am not prepared to assert that there was an interior hearth, at least one used for the constant cooking of meals during an extended period of time, understood as the occupational time.

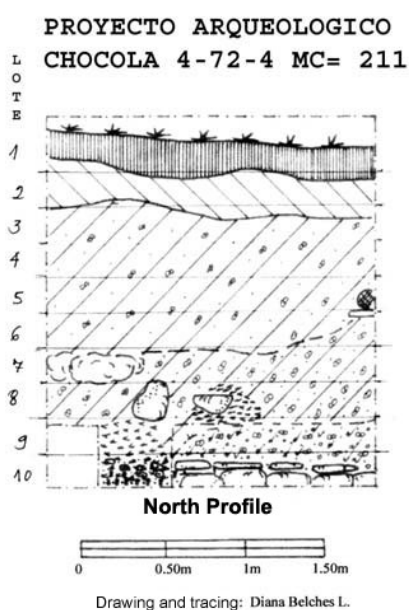
For now, the occupational temporality of the structure may be traced back to the Late Pre-Classic period, with possible periods without occupation or with reoccupation at a later time.

A first constructive stage seems to exist under Structure 15-1, associated with the water management canal found at the south. Its chronological association possibly dates to the Middle Pre-Classic period.

The methods of construction used, apparently involved the use of cobbles, and carved and plain pumice stone; the walls were made with a mix of mud, organic material and taxcal that may have been burnt for consolidation, as we have noted tiny particles of charcoal dispersed in the composition of several layers, mainly at the south of Pit 4-62 associated with traits 4-R-28, 4-R-18 and 4-R-22.

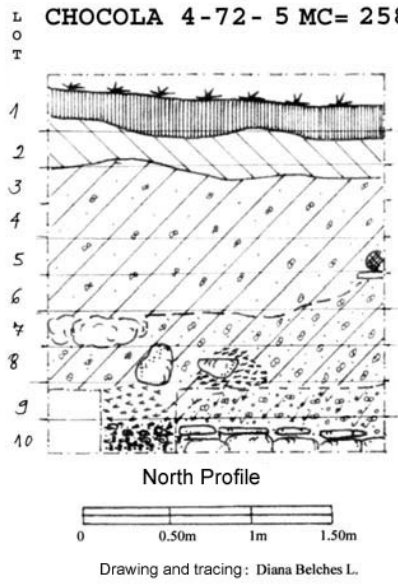
The trait identified as Floor 3, in addition to having served as a floor, may have been the body of a structure, or the way an earlier architectural trait was filled in.

In the main pit, the stone accumulation and its association with sherds, earth blocks and gravel with signs of fire, suggests that it was there for the cooking of meals or for use in ritual celebrations, more intense or frequent than the presumed hearths found in the internal surface of the structure.



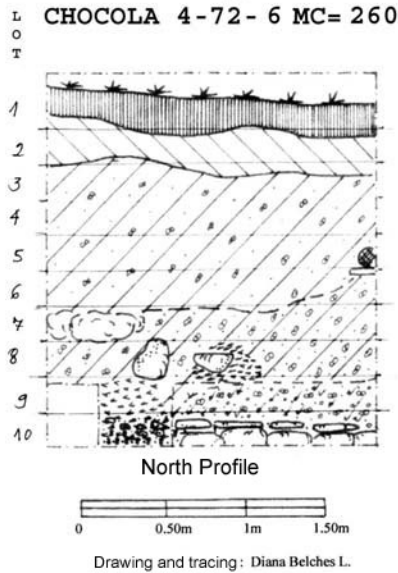
$^{14}\text{C}$  B.C. 390-190 (cal)

PROYECTO ARQUEOLOGICO  
CHOCOLA 4-72- 5 MC= 258



<sup>14</sup>C B.C. 390-80 (cal)

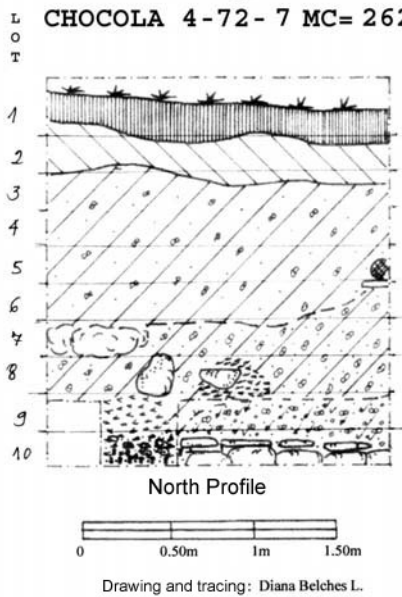
PROYECTO ARQUEOLOGICO  
CHOCOLA 4-72- 6 MC= 260



<sup>14</sup>C B.C. 390-160 (cal)

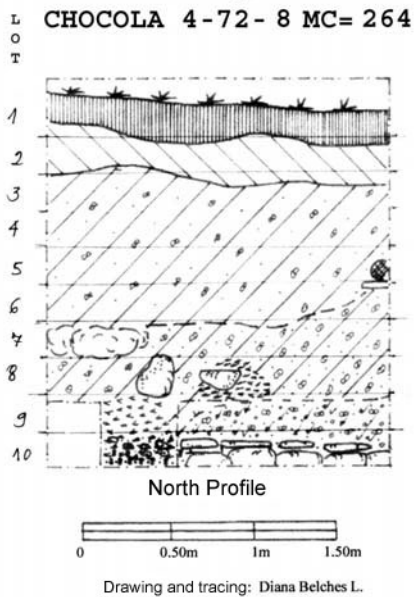


PROYECTO ARQUEOLOGICO  
CHOCOLA 4-72-7 MC= 262



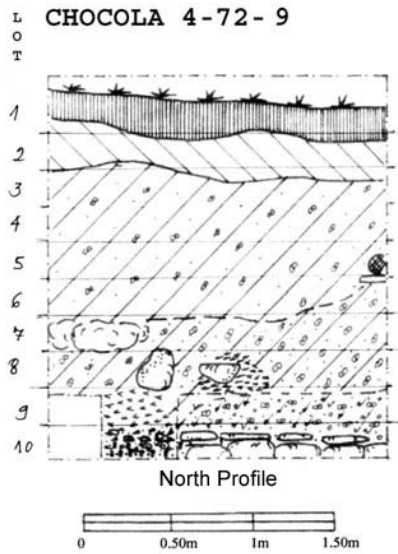
<sup>14</sup>C B.C. 370-110 (cal)

PROYECTO ARQUEOLOGICO  
CHOCOLA 4-72-8 MC= 264



<sup>14</sup>C B.C. 500-460/B.C. 430-A.C. 20 (cal)

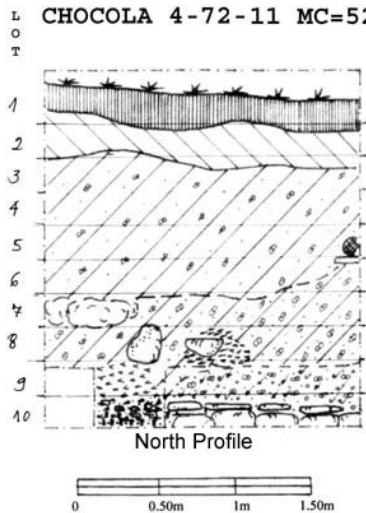
PROYECTO ARQUEOLOGICO  
CHOCOLA 4-72-9



Drawing and tracing: Diana Belches L.



PROYECTO ARQUEOLOGICO  
CHOCOLA 4-72-11 MC=527

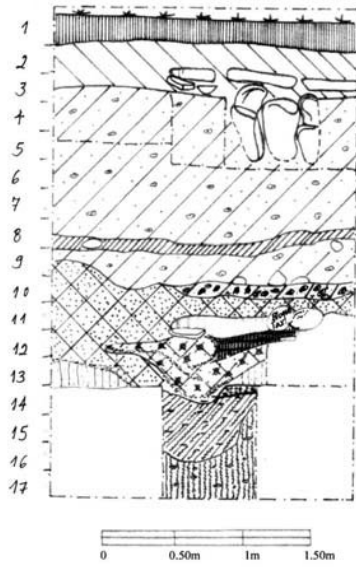


Drawing and tracing: Diana Belches L.



**PROYECTO ARQUEOLOGICO  
CHOCOLA 4-91- 4**

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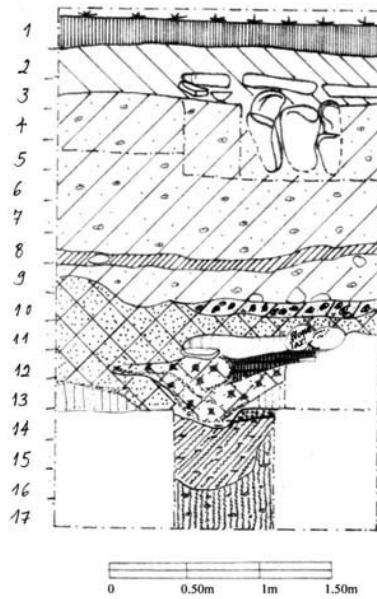


Drawing and tracing: Diana Belches



**PROYECTO ARQUEOLOGICO  
CHOCOLA 4-91- 5**

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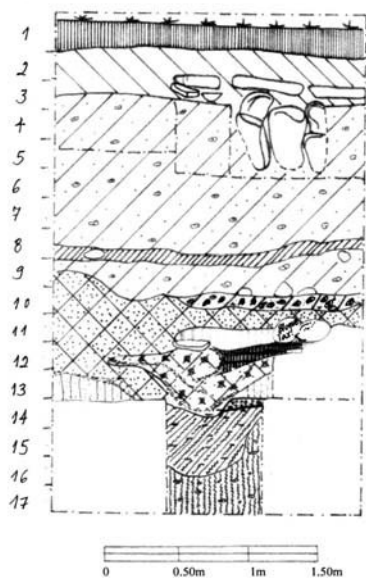
Drawing and tracing: Diana Belches





**PROYECTO ARQUEOLOGICO  
CHOCOLA 4-91- 6 MC = 231**

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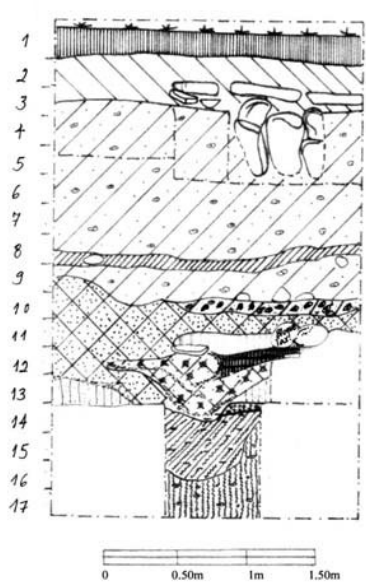
Drawing and tracing: Diana Belches



<sup>14</sup>C A.C. 380-160 (cal)

**PROYECTO ARQUEOLOGICO  
CHOCOLA 4-91- 7 MC = 233**

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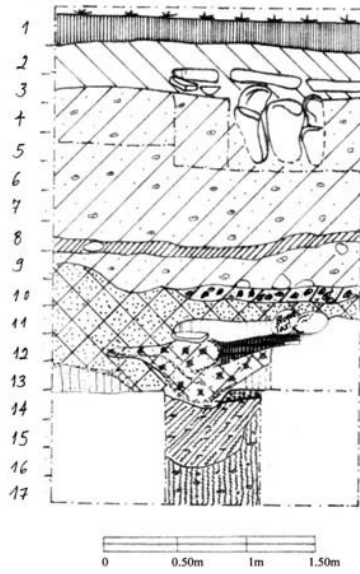


Drawing and tracing: Diana Belches



**PROYECTO ARQUEOLOGICO  
CHOCOLA 4-91- 8 MC = 235**

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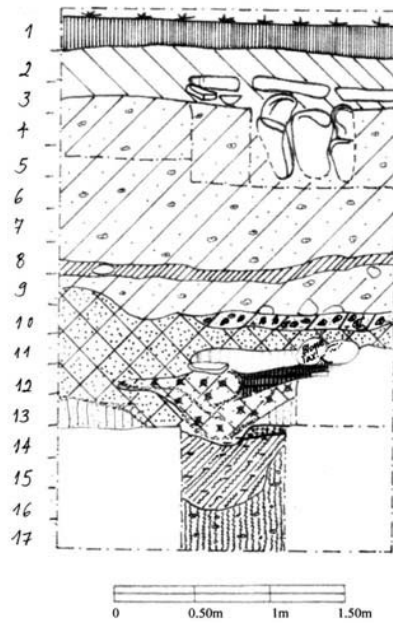
Drawing and tracing: Diana Belches



<sup>14</sup>C B.C. 350-110 (cal)

**PROYECTO ARQUEOLOGICO  
CHOCOLA 4-91-12**

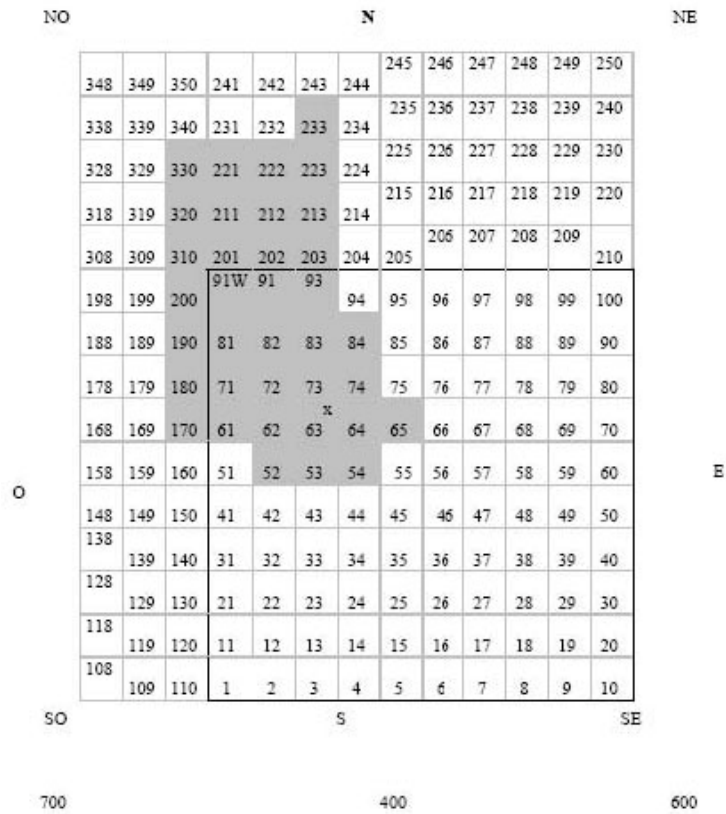
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Drawing and tracing: Diana Belches



**Fig. 6-36. Sample of profiles of ceramics recovered from two pits inside Structure 15-1, with radiocarbon dates.**



**Fig. 6-37. Diagram for the identification of sub-operations excavated at Mound 15 (Operation 4), June-July 2004. The central area (also the initial excavation area) is shown within the black square frame. The shaded area indicates the operations involving Structure 15-1 and the water canal below. Each square represents a 2 m by 2 m area, except operations 91W, and 92, with an excavated area of 2 x 1 m. Each quadrant outside the central area has been given a different number in the hundreds, assigned according to the arrangement of the extension of the excavation within them. The "x" indicates the location of Datum 1 and Subdatum 2.**