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## PVC Op 18 2018 Field Season Excavation Report

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## Operation PVC 18, 2018 Field Season

Investigations within Op. 18 within the site of El Coyote's southeast corner were first conducted in 2002 (<https://digital.kenyon.edu/cgi/viewcontent.cgi?article=72139&context=honduras>). We returned here during March, 2018 to continue collecting ceramic and clay samples for Instrumental Neutron Activation, X-Ray Florescence, and petrographic analyses. These studies were designed to help reconstruct where vessels within certain widely distributed pottery taxa were made, how they were fashioned, and to infer the means by which they were distributed. Excavations conducted within Op. 18 during 2002 tentatively suggested that ceramic containers were made in this area during the Late and, possibly, Terminal Classic (CE 600-800 and 800-1000, respectively). Work was, therefore, resumed in Op. 18 to retrieve examples of the vessels that might have been made there.

Attention in 2018 focused on what seemed on ground surface to have been an artificial terrace (Str. 90) built into a natural rise that borders Op. 18 on the west. We thought that the relatively flat summit of this terrace system, located 4.5m west of Str. 94 which was largely cleared in 2002, might have been a place suitable for firing pottery. This is because the prevailing winds coming from the northeast would carry some of the heat and smoke away from nearby residences. A second terrace system (Str. 92) located further upslope to the west was also investigated. March 26-28, 2018 were devoted to uncovering ca. 28m<sup>2</sup>, most of that work centered on Str. 90.

### Structure 90

Structure 90 appeared on ground surface as a series of terraces that ascended a 1m-high rise 4.5m west of Str. 94. Clearing of the latter during the 2002 field season had not proceeded far enough westward to encounter Str. 90. Digging here within Subop. 18BA, BB, and BD cleared 20.44m<sup>2</sup>, portions of the construction's east face being exposed in three distinct segments separated by 4m (Subop. 18BA in the middle and BB on the north) and 0.6m (Subop. BA and BD on the south). Digging reached maximum depths of 0.53m and 0.64m below modern ground surface beyond and within architecture, respectively. Three periods of construction were identified in the course of this work.

### Time Spans

<u>Time Span</u>	<u>Construction Phase</u>	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Dates</u>
1	Str. 90-Sub1	U.1, 2	-	F.2, 3	TCL/LCL
2	-	-	S.3	-	TCL
3	Str. 90-1 <sup>st</sup>	U.3-11	-	-	TCL
4	Str. 90-Sub2	U.12, 13	S.2	-	TCL
5	-	-	S.1, 2	F.1	

Note: A few Middle Preclassic sherds (800-400BCE) were recovered, mixed with the later material retrieved from Str. 90.

### Time Span 1

The earliest activity that was revealed in these investigations was the construction of two small firing facilities (U.1 and 2) atop a surface that was distinguished by a moderately dense concentration of pebbles set in a very hard-compacted, fine-textured, brown soil (F.2). Feature 2 is further characterized by evidence of burning. Scattered across the surfaces are numerous small flecks of burnt earth. Feature 2's north end was identified by a marked decrease in the density of the included small, river-rounded stones though the orange flecking continued for at least 1.4m further to the north. The surface's remaining edges were not found, the exposed portion running 3m east-west by 4.2m. The density of rocks included in F.2 is not sufficient to designate it as a formal floor, though it is highly likely that these pebbles were purposefully introduced. It may well be that F.2 was designed to create a fairly extensive area that was flat, relatively dry, and free of extraneous dust and dirt. The orange flecking in its matrix implies that the activities conducted on F.2 involved burning.

Some of that burning occurred within U.1. Unit 1 is a 'U-shaped' construction, open to the north, that is bounded by walls, composed of river cobbles. Those walls rise 0.1-0.3m above F.2 and are as much as 0.8m wide (the eastern wall, the only one that was completely cleared, measures 0.8m across). The entire construction covers at least 1m east-west by, minimally, 1.95m, its interior encompassing 0.8x0.9m. That space is surfaced with a few small stones set in an earth that was heavily burnt, fragments of charred soil adhering to the stones that frame U.1.

Lying 1m south of U.1 is an arc of stones that is open to the south and east. Its bordering walls stand 0.2-0.3m tall and measure at least 0.24m across (U.2; its full dimensions were not revealed). The arc formed by U.2 covers 0.5m southwest-northeast, its deepest point near the center measuring 0.2m northwest-southeast. Signs of burning are not as clear within U.2 as they are in U.1. Being set on F.2, U.2's interior shows the same evidence of earth that has been charred orange as is found throughout that surface. There is some evidence that F.2 is significantly thicker south of U.2, reaching an exposed depth of 0.2m within the 0.55m uncovered south of that construction (this deposit is designated F.3). Feature 3's increased thickness is achieved by raising its upper surface, the latter being 0.15m above that of F.2 where it is found within and east of U.2. How extensive F.3 might have been is unknown; it was mostly identified in the west excavation wall of Subop. 18BD, the trench in which U.2 was exposed. Why there was this localized change in the deposition of the small rocks and burnt earth that constitute F.2 is unknown.

Structure 90-Sub1 was, by the end of TS.1, an apparent work surface that covered at least 12.6m<sup>2</sup> and supported, minimally, two diminutive constructions made of river cobbles. The surface itself was characterized by a level of pebbles set in a very hard-compacted, fine-textured, brown clay that showed signs of having been exposed to high temperatures. Some of that heat was likely generated within a U-shaped construction that was bounded on all sides save the north by stone walls that were 0.1-0.3m high by 0.8m wide and covered at least 1.95m<sup>2</sup> (U.1). Unit 1's heavily burnt earthen floored interior encompassed 0.7m<sup>2</sup>; evidence of charring was also found in fragments of burnt earth that covered parts of the interior facings of the bordering walls. About 1m south of U.1 was another stone construction (U.2) the walls of which were 0.2-0.3m high by minimally 0.24m across. Unit 2's walls defined an arch that was open on the south and east, that opening measuring 0.5m across northeast-southwest by 0.2m deep (northwest-southeast) at its center. Though there was some evidence of burning within U.2's

interior, it was not as marked as was the case in U.1. Whatever occurred in this complex, therefore, involved several small facilities that were devoted to tending fires that generated high temperatures. There was, however, no clear sign that pottery making was pursued here.

### Time Span 2

Following Str. 90-Sub1's abandonment, it was covered at first by as much as 0.25m of a very hard-compacted, fine-textured, dark brown soil that was mottled with small flecks of earth that had been burnt orange (S.3). Stratum 3 largely filled and covered U.1 and 2 along with the portions of F.2 found in their environs. It may well be that S.3 was introduced as fill to cover Str. 90-Sub1 and thus prepare the ground for the raising of Str. 90-1<sup>st</sup>. As that interpretation remains uncertain, we have designated this earth level as a stratum rather than a construction unit.

### Time Span 3

Structure 90-1<sup>st</sup> consists of a series of four terraces (U.3-6) built into a natural ascent that rises 1m from east-to-west. The basal riser (U.3) rests directly on U.1's west wall, standing 0.2m tall and measuring 0.58m east-west. Unit 4 ascends 0.17m above U.3 and runs back 0.42m to the west where it is succeeded by U.5. The latter is 0.13m high by 1.3m wide and gives way on the west to U.6. This terrace stands 0.2m high and extends 0.74m to the west where it ends in a 0.35m-tall step-up (U.7) to the summit. The latter, as it was revealed in Subop. 18BA near the center of Str. 90-1<sup>st</sup>, was surfaced with a pavement composed of small river-rounded stones (U.11). Unit 11 was followed for 4.05m to the west when excavation ceased. Little in the way of summit architecture was found in the 1m-wide swath that Subop. 18BA cut across Str. 90-1<sup>st</sup>. A 0.15m-high square composed of tightly packed rocks, the whole measuring 0.4x0.47m (U.9) was located 2.2m west of U.7.

Subop. 18BB, located 4m north of the architecture revealed in Subop. 18BA, identified northward extensions of U. 6 and 7; it was not extended far enough to the east to test for the presence of U.3-5. An additional construction, U.8, was identified on the summit and lying 1.5m west of U.7. Unit 8 stands 0.35m high and is backed on the west by a stone surface (U.10) that was followed for 1.2m to the west before excavations drew to a close. Nothing comparable to U.8 and 10 was recorded in Subop. 18BA; they may have been parts of a low, stone-surfaced platform that was raised atop the Str. 90-1<sup>st</sup> terraces.

In general, Str. 90-1<sup>st</sup> was a terrace system that ascended a gradual east-to-west rise. Together, these terraces ascend 1.05m east-to-west, rising in increments of 0.13-0.35m and measuring 0.42-1.3m across. The building is oriented 5-20 degrees. The summit reached after traversing these ascents was surfaced with stones and supported at least two constructions. One is a stone block measuring 0.4x0.47m and standing 0.15m high that was located 2.2m west of the summit step-up (U.7). Approximately 3.2m to the north are the remains of what might have been a 0.35m-tall stone-faced and -surfaced platform that covers approximately 1m east-west. This construction (U.8) is so small that it might have been a free-standing bench that looks over the terrace risers to the east. All constructions raised during TS.3 were made primarily of river cobbles the flatter aspects of which were directed outwards. The rocks are set in a mud mortar.

### Time Span 4

The first event that occurred during this interval was the deposition of 0.1-0.15m of a fine-textured, moderately hard-compacted, dark brown soil mottled with small (3mm or less in diameter) orange specks (S.2). As S.2 resumed deposition in TS.5, it is hard to determine how much of this earth was laid down now. The estimate presented here reflects the amount of this soil that needed to be in place to support Str. 90-Sub2.

Structure 90-Sub2, as revealed in Subop. 18BA, consists of two stone walls (U.12 and 13) that are 0.15m-high by 0.33-0.4m wide and intersect to form the east (U.12) and south (U.13) foundations for what was likely a surface-level building. Unit 12 rests atop U.1 while U.13 extends up to Str. 90-1<sup>st</sup>'s basal riser (U.3), U.13's base resting 0.17m above the top of U.3. The area encompassed by the exposed portions of Str. 90-Sub2 is 1.9m east-west by 1m, the building being aligned roughly 90 degrees. The earthen-floored interior covers 1.5m by 0.6m north-south. If there was more to this building, it lies beyond excavations to the north. Units 12 and 13 were both constructed using river cobbles the flatter aspects of which were directed outwards. The rocks are set in a mud mortar. It appears that Str. 90-Sub1 was built either late in Str. 90-1<sup>st</sup>'s use life or soon after it was abandoned.

### Time Span 5

After the Strs. 90-1<sup>st</sup> and 90-Sub2 were abandoned, the deposition of S.2 resumed, eventually reaching a maximum thickness of 0.24m. The orange mottling is distinctive of those portions of S.2 that overlie F.2 and U.1 and 2 and was not noted further north in Subop. 18BB. A moderately fine-textured, moderately soft-compacted, dark brown humus horizon (S.1) subsequently formed to a thickness of 0.12-0.19m atop S.2. Embedded in S.1 and 2 are stones (F.1) that likely fell from final-phase architecture. Rocks comprising F.1 are especially concentrated within 0.74m of U.8 atop Str. 90-1<sup>st</sup>. Here the stones are generally flat-laid and densely packed, obscuring most of U.8 from view from the east. It may be that this portion of F.1 represents a purposefully laid fill that might have been part of a late renovation to U.8, possibly an addition that was never finished. If this was the case, the putative renovation would have made U.8 fully 1.74m wide east-west.

### Structure 92

Structure 92 is built into a relatively steep east-to-west natural rise located 9m west of Str. 90. This building was investigated during the 2018 field season by digging a 1m-wide by 7.56m-long (east-west) trench (Subop. 18BC) that extends across the east-west width of the construction. Fully 7.56m<sup>2</sup> was excavated in the course of this work, digging reaching maximum depths of 0.45m and 0.4m below modern ground surface beyond and within architecture, respectively. One major building phase was recognized in the course of this work.

### Time Spans

<u>Time Span</u>	<u>Construction Phase</u>	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Dates</u>
1	-	-	S.3, 4	-	-
2	-	-	S.2	-	TCL?
3	Str. 92-1 <sup>st</sup>	U.1-6	-	-	TCL

### Time Span 1

Excavations within Subop. 18BC indicate that the ascent into which Str. 92-1<sup>st</sup> was built was underlain by a soft, white limestone bedrock (S.4) that rose 1.63m across 6.5m east-to-west. A fine-textured, hard-compacted, brown clay (S.3), that is mottled with patches of white limestone, formed to a thickness of as much as 0.17m atop this limestone. There is little evidence of human occupation in the area when S.3 was being deposited.

### Time Span 2

A fine-textured, hard-compacted, brown clay (S.2) was laid down now atop S.3. Pebbles, 0.01m or less in diameter, are scattered throughout S.2 along with some artifacts. Stratum 2 follows the east-to-west rise of S.3, ascending 0.55m from its easternmost exposure in Subop. 18BC's east excavation wall to where it disappears 3.1m upslope and to the west. This earth reappears immediately west of Str. 92-1<sup>st</sup>'s third ascending terrace (U.3) but this iteration of it may have been introduced as architectural fill (U.6).

### Time Span 3

Structure 92-1<sup>st</sup> consists of at least four stone terraces (U.1-4) that are built into the east-to-west upward slope. The basal riser (U.1) is an estimated 0.3m tall, its tread running 1.95m back to the west where it is succeeded by U.2. The latter rises 0.3m above U.1 and measures 1.13m east-west. Unit 3, the next ascending terrace, stands 0.4m high, its eastern facing being backed for 1.2m to the west by a solid packing of stones. The terrace's earthen tread extends 2.13m west of that stone fill, creating a level surface that encompasses 3.33m east-west from U.3's east face (all included in U.3). A 0.11m-tall block of stones (U.5), measuring 0.73m east-west by at least 0.4m north-south, was located 0.19m west of U.3's backing rocks (U.5's south edge was not identified). The uppermost ascent (U.4) was not well preserved. Based on the surviving evidence, this riser stood approximately 0.5m tall. There were no signs on ground surface of additional constructions to the west that were parts of Str. 92-1<sup>st</sup>. It is possible that another step-up intervened between U.3 and 4. This inference is based on the observation that the preserved base of the latter is 0.36m above the level of U.3's tread. If an additional terrace once existed between U.3 and 4, there was no evidence for it.

Units 1 and 2 rest on (U.1) or are set 0.07m into S.2 (U.2). Unit 3 was set 0.08m into S.3, there being no signs of S.2 in its immediate area. The area backing U.3 for 1.4m to the west consists of a lens composed of earth identical to S.2. This deposit is thickest (0.24m) where it adjoins U.3, pinching out 1.4m upslope and to the west against S.3. The U.5 stone block rests on this soil. Based on these observed relations, it seems likely that at least some, probably all, of S.2's unusual thickness here results from its use by the builders to create a level surface within rising terrain. Stratum 2 west of U.3 is, therefore, likely part of a fill deposit (U.6).

Structure 92-1<sup>st</sup>, therefore, was a series of four stone-faced terraces that were oriented ca. 109 degrees and ascended an east-to-west slope on the western margin of Op. 18. Together, these ascents reached a total height of 1.5m, the terraces rising in increments of 0.3-0.4m from east-to-west while their treads spanned 1.95m, 1.13m, and 3.33m, from bottom-to-top. The third ascending terrace (U.3) is especially robust, its riser measuring 1.2m thick. The locally

unusual thickness of this solid rock wall, much wider than was necessary to slow erosion down the eastern slope, suggests that it served other functions. Whatever those purposes were, they may have been related to activities conducted on a 0.11m-tall stone block that rests on U.3's tread, a scant 0.19m west of the stones comprising and backing that riser. The former construction measures 0.73m east-west by at least 0.4m north-south and sits on an earthen fill backing U.3 to the west. All of these constructions were made primarily of river cobbles the flatter aspects of which were directed outwards. The rocks were set in a mud mortar.

Structure 92-1<sup>st</sup> was likely built to preserve the eastern slope of a limestone ridge intact while creating flat areas for the conduct of activities that required such spaces. Its construction may signal a growing loss of open areas on the flat terrace summit that supports the Southeast Group, a sizable architectural complex that includes Op. 18. As building expanded in this zone, converting portions of hillslopes to flat surfaces may have seemed to be the best option to meeting demands for work areas. The few artifacts recovered here provide little information on what may have transpired atop these terraces save that none apparently served as a residence.

#### Time Span 4

Following Str. 92-1<sup>st</sup>'s abandonment, a gritty-textured, hard-compacted, brown humus horizon (S.1) formed to a thickness of 0.08-0.12m atop S.2 and 3. Embedded in S.1 are a few scattered small rocks (F.1) at least some of which likely fell from TS.3 architecture.