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PVN OP 018 Excavation Report

Edward M. Schortman
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Operation 18

Operation 18 consists of 9 surface-visible buildings and the remains of one heavily disturbed edifice (Str. 126) located on the northeastern margin of La Sierra's North Cluster. The constructions overlook a descent from the terrace supporting Ops. 12, 31, 36, and 55 to the low-lying area to the east where Ops. 15 and 17 were raised. Surface remains suggested that a stone construction reinforces the upper portions of this slope, demarcating Op. 18's entire eastern boundary. Back (west) from that terrace, seven structures are irregularly arranged around a patio, the three remaining edifices lying to the north and west. Settlement is continuous from Ops. 31 and 55 immediately to the west through Op. 18. On the east, the aforementioned descent marks a 35-50m wide gap between Op. 18 on the one hand and Ops. 15 and 17 on the other in which buildings were not observed on ground level. The terrain comprising Op. 18 rises gradually from east to west and south to north. Three of the mapped buildings comprising Op. 18 were excavated in 1988 and 1995 (Strs. 22, 99, and 83A) along with one edifice that was not detected on ground surface (Str. 18-Sub1). The clearing of approximately 166m² here resulted in the complete exposure of Strs. 22 and 18-Sub1, the uncovering of roughly 90% of Str. 83A and about 50% of Str. 99. The work was directed by C. Eaton, T. Neff, S. Kane, and J. Miller in 1988 and D. Contreras and B. Reagan during the 1995 field season.

Structure 22

Structure 22 occupies the patio's eastern flank, ca. 6.6m north/northwest of Str. 83A and 2.25m east of Str. 18-Sub1. The ground surrounding Str. 22 is fairly level, ascending only 0.04m over 6.34m east-to-west and maintains the same level across 11.93m north-south. A steep descent lies approximately 5.5m southeast of the building, dropping to the area occupied by structures associated with Ops. 15 and 17. Excavations pursued within Subops. 18A (1988) and 18E, G, J, and K (1995) cleared the entirety of Str. 22 (roughly 55m² of prehistoric deposits exposed in all) and were carried down to maximum depths of 1.74m and 0.96m below modern ground surface outside and within architectural fill, respectively. Three building phases, the last one of which is divided into two segments, were identified during the course of this work. Investigations on and around Str. 22 were overseen by C. Eaton, S. Kane, J. Miller, and T. L. Neff in 1988 and B. Reagan during the 1995 field season. The majority of the work was conducted in 1995.

<u>Time Span</u>	<u>Construction Phase</u>	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1-7, 12-15	-	Mprecl, LPrecl, ECL, LCLI, LCLII
2	Str. 22-3rd	U.1, 2, 24	-	-	LCL I, II?
3	-	-	S.8	-	LCL II
4	Str. 22-2nd	U.3-8	-	-	LCL II?

5	Str. 22-1st	U.7, 9-15	-	-	LCL II/III
6	Str. 22-1st	U.16-27	S.9,10	F.1	LCL III/II, EPC
7	-	-	S.10,11	F.2	-

Time Span 1

Time Span 1's components were most clearly discerned within deep probes dug off Str. 22's southern and northern flanks. On the south, the elements in question comprise a series of sequentially deposited soil levels whose horizontal continuity was disrupted by the excavation of a deep, extensive trash pit (F.1) during TS.6. Stratum 1, a very fine-textured, hard-compacted, tan soil, was uncovered over a limited extent; protruding 0.05m above the base of excavation and extending 0.22m west from F.1 (the pit that truncates S.1). This soil layer dips down in the latter direction and disappears beyond the limits of our trench. An insufficient amount of S.1 was investigated to determine if it contained cultural material. Blanketing S.1 on the west by 0.1m is a fine-textured, very hard-compacted, light brown soil (S.2). Stratum 2 is also cut by F.1, continuing for 0.52m north of the pit before descending 0.15m over 0.27m into the base of excavation. After a gap of 0.38m north-south, S.2 rises steeply out of the excavation limits to 0.05m above its elevation on the south (ascending 0.2m across 0.06m south-to-north), continuing at that height for 0.24m northward to the limits of the deep probe. Stratum 4, a coarse-textured, hard-compacted, tan soil, covers S.2 by 0.1-0.15m and follows the general contours of its predecessor. Stratum 4 runs north from F.1 for 0.5m after which it drops 0.28m over 0.35m south-to-north, disappears into the base of excavation only to reappear 0.26m further north where it is found burying S.2 by 0.1m. Overall, S.1, 2, and 4 appear to be layers that were successively laid down and cut, forming the southern and northern sides of a narrow (0.26-0.38m wide) depression. The declivity's full depth is not known, though it was at least 0.3m deep after S.4 was introduced. Said depression is, in turn, filled in with a soft-compacted, culturally sterile, tan sand (S.3) that also extends beyond this area to cover S.4 by 0.11-0.16m. Stratum 3 was found on the east side of F.1 as well, extending at least 0.5m north of the pit and measuring 0.35m thick from the base of excavation (the bottom of the layer was not encountered here). The manner in which S.2-4 were related on F.1's exposed eastern side was not ascertained. It appears that S.2 and 4 drop down an undetermined amount from west to east (minimally 0.3m over 1m in this direction), having vanished beyond excavation limits by the eastern boundary of the deep probe.

These stratigraphic relations tentatively suggest that a narrow drainage channel cut a west-to-east course through this portion of Op. 18 during the early portions of TS.1, truncating, in reverse chronological order, S.4, 2, and 1. Subsequently, this runnel was filled with sand (S.3), which extended well beyond the channel's original banks. No sign of a successor to the putative erosion channel was noted here. Stratum 3 may have been deposited naturally, as we strongly suspect S.1, 2, and 4 were, or could have been purposefully introduced as fill to level off the uneven surface prior to construction (S.3's top runs more-or-less level for 1.41m north-south and drops roughly 0.06m over 1m west-to-east).

A possible continuation of S.3 was identified 8.3m north of its last known appearance in

the deep southern probe. Here a similar soil was exposed at a comparable depth and measured at least 0.34m thick (the base was not reached). Like its southern analogue, this putative northern extension of S.3 is culturally sterile. *If* these two elements are part of the same deposit, then S.3 drops very roughly 0.3m over 8.3m south-to-north, retaining a more-or-less even upper surface for the 2.57m additional distance it was traced to the north.

No architecture was identified resting on S.3, however. Instead, a very fine-textured, hard-compacted, tan soil (S.6) covers S.3 by 0.31m. Stratum 6 rises 0.36m over 1.36m northward from F.1 and drops ca. 0.11m across 1m west-to-east. A lens composed of fine-textured, hard-compacted, light brown soil (S.5) overlies S.3 and is covered by S.6. Stratum 5 begins 0.5m north of F.1, rapidly increasing to a thickness of 0.27m over 0.88m south-to-north before disappearing beyond the northern limits of the probe. Stratum 6 slopes up and over S.5.

Sealing S.3 on the north is a 0.05-0.12m-thick level yellow soil (S.13). Stratum 13 rises 0.11m across 2.57m south-to-north. Overlying the northern 1.35m of S.13 is a fine-textured gray ash containing large quantities of ceramic vessel fragments and obsidian (S.14). Stratum 14 has a very irregular shape, consisting of a 0.12m-thick lens that extends 0.5m south from the north trench wall and then expands to 0.26-0.46m deep for the remaining distance it was revealed running southward. The size increase results from a near vertical ascent where the thinner component joins the thicker element. Stratum 14 ends abruptly on the south where it is replaced by the earth that also overlies it, S.12. The latter is a moderately coarse-textured brown soil that blankets S.13 by 0.57-0.9m and S.14 by 0.44-0.76m. Stratum 12's upper surface rises 0.38m over 1.6m south-to north within the northern probe, ascending only 0.04m over the remaining 1m excavated further north in this area.

Stratum 7, a moderately fine-textured, soft-compacted gray ash containing artifacts, was identified 2.92m north of the deep southern probe (S.7 was not identified in the latter area nor was it encountered in the northern test). This layer was uncovered to a maximum thickness of 0.12m (the base lies beyond excavation limits) and buries the lower portions of some segments of TS.2 construction (U.24; S.7 was not found all along U.24). Stratum 7 was noted only for 0.46m south of U.24 at which point excavation stopped; it was not found north of that construction or elsewhere in Subops. 18A, E, G, J, and K. This ash, therefore, may be a localized trash deposit associated with activities conducted in the immediate vicinity of U.24 prior to TS.2.

Underlying S.7 is a (minimally) 0.32m thick deposit of fine-textured, soft-compacted, brown soil (S.15) that slants down 0.14m across an exposed 1.34m south-to-north. Stratum 15 runs beneath U.24 and may represent a northern continuation of S.5 uncovered in the southern test. Should this be the case, then S.5 would have sloped up approximately 0.1m over the ca. 2m separating the two exposures.

Time Span 2

Three discontinuous architectural segments were uncovered beneath elements of later construction and are glossed here as "Str. 22-3rd." Their similar stratigraphic positions argue strongly that the elements in question are coeval, but we cannot establish that all were components of a single building.

Unit 1 is a 0.16-0.22m-high wall composed of a single course of large cobbles (the one completely visible stone encompasses 0.16x0.42m and seems to be typical of U.1's rock sizes). This element protrudes out from beneath U.5 and may have faced northward (the southern,

uncovered aspects of the stones are rounded, not flattened, as though they are the backs of cobbles; the northern face was not revealed). Unit 1 was exposed for a distance of 1.12m, disappearing beneath subsequent building components on the east and west, and is aligned very approximately 276 degrees.

A cobble floor (U.2) was located 1m east of the easternmost exposed portion of U.1. Unit 2 runs beneath TS.4 (U.6), 5 (U.10), and 6 architecture (U.16), thereby implying its contemporaneity with U.1. The extent of this pavement was not ascertained.

Unit 24, 3.28m south of U.1, is an extensive L-shaped cobble wall the southern “stem” of which runs east-west for 3.75m and measures 0.65m across by 0.3m high (maximum preserved height). The eastern “leg” is 0.35m wide, projects 1.2m northward from the “stem’s” eastern end and disappears on the north beneath U.23. A wall segment at least 0.15m across runs minimally 0.45m east/northeast from the “leg’s” apparent northern terminus, disappearing in the latter direction beyond excavation limits (included in U.24). Unit 24 terminates on the west without any clear resolution. Unit 23, Str. 22-1st’s southern basal facing, overlies U.24, resting 0.12m above the earlier wall. Units 1 and 24 are at comparable elevations, though their orientations diverge (U.24 is aligned roughly 263 degrees).

Unit 24 is most likely a fragment of a foundation that originally bounded a surface-level edifice. This construction might have been open on the west and delimited on the north by U.1 (variations in orientations being due to difficulties in getting an accurate measure for the very small portion of U.1 exposed in our excavation). *If* this was the case, the earthen-floored room bounded by U.1 and 24 would have covered 3.5m on a side. The U.2 cobble pavement may, in this case, have bounded the edifice over an undetermined extent on its eastern flank. None of these connections are established and the reconstruction offered here remains nothing more than conjecture. All floors and footings are made of river-rounded cobbles set in a tan mud mortar.

Time Span 3

Following abandonment of the building or buildings represented by Str. 22-3rd, the edifice(s) was covered by the introduction of S.8, a very fine-textured, moderately hard-compacted, light yellow-tan soil. Stratum 8 blankets S.6 by 0.15-0.25m on the south where it, like its predecessors, was seemingly cut by F.1, and buries S.7 by 0.27m. The level also covers U.1 and overlies U.24 by as much as 0.26m. Stratum 8 rises 0.5m across 4.1m south-to north from F.1 after which it levels out and then very gradually descends 0.4m over 8.27m in the same direction. All subsequent architecture intrudes into or rests on S.8. The behavioral significance of this level is uncertain. The cultural material it contains suggests a human presence in the area while the stratum was being laid down, but whether the causes of the deposition were natural or cultural (i.e., fill introduced prior to raising Str. 22-2nd) we do not know. At the very least, we must entertain the possibility that a hiatus in Str. 22’s occupation intervened between TS.2 and 4, the earlier building(s) being allowed to fall into ruin and covered by soil.

Time Span 4

Structure 22-2nd was most likely a surface-level building, defined on all sides by substantial stone footings (U.3-6) that rise 0.37-0.44m above S.8 and measure 0.27-0.45m across. Stratum 8’s upper surface apparently served as the floor for the single room enclosed by U.3-6. This compartment measures 1.6x2.65m and contains a 0.42m-high stone-faced and

surfaced bench (U.8) located 0.78m south of the northern foundation (U.5). Unit 8 is built against the southern foundation (U.3), is 0.82m wide, and may have run the entire 2.65m east-west length of the enclosure (U.8 is obscured by TS.6 construction [U.19 and 25] on the west and east). No doorways breaching U.3-6 were noted, though modifications visited on Str. 22-2nd during TS.5 and 6 may well have obscured such passageways. Without a clear entrance, however, we cannot be certain that Str. 22-2nd was as surface-level building, though the bench rising above S.8 within the confines of U.3-6 argues for such an interpretation.

Structure 22-2nd measures 2.36x3.27m, contains a single, earthen-floored room that encompasses 4.2m², and is aligned 270 degrees (U.3, the southern foundation) to 264 degrees (U.5, the northern footing). Most of the compartment appears to have been taken up by a stone-faced bench that is 0.42m tall and measures 0.82m across by as much as 2.65m long. The bench's upper surface is earthen. All facings and foundations are made of river-rounded cobbles the naturally flatter faces of which are directed outwards. Chinking stones fill in the gaps among the larger rocks in U.3-6 and a brown mud mortar is employed as a binding agent in all constructions.

Time Span 5

Structure 22-1st encases its immediate predecessor, Str. 22-2nd now serving as the platform's core. Units 9-15, the newly introduced basal facings, in their best preserved segments rise 0.46m high. Unit 9 runs approximately 0.6m east from U.6 (Str. 22-2nd's eastern footing), joining U.6 ca. 0.9m north of that foundation's southeast corner. Unit 9 appears to have been largely dismantled during the construction of overlying U.22 (TS.6) and its original dimensions cannot be reconstructed confidently. Unit 10 joins U.9 on the south and extends 3.1m northward to junction with the northern basal wall (U.12). Unit 11 was unearthed in the floor of Room 2 at the same elevation as U.9-10 and 12 and seems to be U.10's back (western) face. No sign of U.11 was uncovered south of this enclosure and it may be that the eastern facing widens over its northernmost ca. 2m to measure 0.6m across (U.10's width further south was not ascertained because the wall was severely modified in the course of its incorporation into U.16 during the next construction phase). The western step-out to U.11 is probably obscured beneath U.21. Units 13 and 14 comprise the platform's western and southern basal walls, respectively, the latter having been torn down to its base during the addition of U.23 during TS.6. Unit 15 is a poorly preserved, barely discernible wall segment that links U.14 with U.6's southeast corner. The building's overall form, therefore, is a quadrilateral with a deeply inset (0.6x1.45m) southeast corner. A segment of U.6, roughly 0.8m long, was still exposed at this time as part of that corner. Units 3-5 and U.6's northern portion, however, were otherwise engulfed by Str. 22-1st, encapsulated within the platform's fill. The latter consists of a moderately dense to very dense concentration of small to medium-size cobbles set in a brown earth matrix (U.7). A fragmentary, disarticulated burial was found in U.7 between U.4 and 13. The interment lacked offerings and a clear burial pit. Possibly, the individual in question was disinterred during acquisition of fill and included accidentally within U.7

By the end of TS.5, Str. 22-1st was a stone-faced, earth-and-stone-filled platform that rose 0.46m high, measured 4.51x 4.9m, and was oriented roughly 358 degrees. The superstructure's form and dimensions are not known--some of the summit constructions described for TS.6 could have been erected now, especially those associated with Rooms 1, 3, and 4 (Room 2 could not have reached its final form until U.16 was built). Our inability to

separate superstructure components pertaining to TS.5 from those belonging in TS.6 has led us to opt for the conservative solution of describing summit architecture during the construction phase in which all of these elements would have been in use (TS.6) regardless of when they were raised. All facings are made primarily of river cobbles the naturally flatter faces of which are oriented outwards. A few cut blocks are interspersed among the river-rounded stones, making up a small proportion of the rocks used. Chinking pebbles do not seem to have been as prevalent as they were in TS.4 construction, though a brown mud mortar was still being employed as a binding agent in all basal walls.

Time Span 6

During this interval, Str. 22-1st was expanded on the east and south. As noted earlier, U.14, the former southern basal facing, was almost completely dismantled and replaced by U.23. Addition of the latter extended the platform 0.66m south. Unit 23 joins U.13 to create the building's southwest corner but stops 0.6m short (west of) its junction with U.16 on the east. Unit 14, therefore, continues to be exposed over this distance, forming the northern side of an inset southeast corner measuring 0.6x0.66m. Unit 3, Str. 22-2nd's southern footing, protrudes roughly 0.4m above the summit surface, the only portion of TS.4 architecture to project so high. This discrepancy tentatively suggests that U.3 now formed the northern facing of a bench that ran 1.4m southward to U.23. The putative bench is 3.5m long east-west and faces northward over the formal entry corridor (Room 3, see below).

Reworking of the eastern facing (U.10) was a more complex process ultimately creating an entirely new basal wall (U.16). During this process, U.10 was largely demolished and replaced by a facing that runs 3.3m north from its intersection with U.14 at the edifice's southeast corner. Here, U.16 apparently stepped in (westward) 0.4m where it joined U.10, that wall continuing to be exposed to its junction with U.12, the northern facing. This created an inset northeastern corner encompassing 0.4x1.5m. Later, U.16 was extended northward where it joined with a 0.4m-long eastern extension of U.12, burying the northern portion of U.10 in the process. The last modification sealed the northeast inset corner, continuing U.16's line all the way from U.14 to 12. Unit 22 was laid in between U.6 and 16, overlying the mostly disassembled remnants of U.9 (Str. 22-2nd, TS.4). Units 6, 16, and 22, together, now demarcated a cubicle (Room 5) measuring 0.75x0.9m and completely open on the south where it faced over U.14/23. Room 5 contained no built-in furniture.

Access to the summit was from the north where a 0.55x0.6m stone step rises 0.16m high (U.20) and abuts U.12 east of that facing's center-line. Unit 20 is offset to the east from Room 3, a 1.2x1.82m earthen-floored corridor flanked by low (ca. 0.3m high by 0.25-0.3m wide) stone walls on the east and west (U.18 and 17, respectively). Room 3 is bounded by U.5 on the south, but completely open to the north. Unit 12 is lower where it fronts Room 3 than elsewhere along its east-west extent, suggesting that passage was being channeled through this space in antiquity. Rooms 1 and 2 border the corridor on the west and east. Both are featureless, earthen-floored compartments and cover 1.25x1.55m (Room 1) and 1.25x1.45m (Room 2). Units 12, 13, and 16 delimit the enclosures' northern, western, and eastern sides while Unit 21, a late, shallow foundation, bounds Room 2 on the south. An elevated portion of U.5, ca. 0.2m higher here than elsewhere along its extent, marks Room 1's southern limit. Backing the raised portion of U.5 on the south is a 0.27m-high cobble-faced and surfaced shelf (U.19) that covers 0.9x0.9-1.1m. Unit 19 occupies the northwest interior corner of Room 4. This enclosure was entered over U.5,

the center of which now functioned as a 0.2m-high step-up from Room 3. Unit 19 flanks the entryway into Room 4 on the west, matched by a smaller (0.5x0.9m) stone block 1.15m to the east (U.25). Unit 25, in turn, is backed on the east by an earth-filled cubicle bounded by U.6, 16, 21, and 22. The architectural significance of this small (0.75x0.8m) compartment is unclear; it may have been an eastward, unpaved extension of U.25, converting that block into a 1.7m-long by 0.5-0.75m-wide bench. Room 4's floor essentially conforms to the area defined by U.3-6 (measuring roughly 1.55x2.65m) computed across the center), backed on the south by the aforementioned bench faced by U.3. The southern 0.82m of Room 4 fronting the bench is paved with cobbles (the still-exposed top of U.8) while the remaining area on the north is floored with earth.

Fill backing renovations made during TS.6 (especially U.16 and 23) is essentially the same as that described above under TS.5 (U.7, i.e., varying densities of cobbles suspended in a brown soil matrix). Because of this similarity, fill introduced during TS.6 is treated as an extension of, and is included in, U.7.

Two constructions were identified close, but not directly linked, to Str. 22-1st (U.26 and 27). Their proximity to the platform suggests that they figured in activities conducted in and around the building while their shallow stratigraphic locations imply contemporaneity with the edifice's final period of construction and use. Unit 26 is an L-shaped cobble wall lying 2.4m south of Str. 22-1st's southern basal facing (U.23). The figure's "stem" is 2.65m long east-west, the "leg projecting" 0.4m northeast from the former's eastern margin. The wall is 0.24m high and 0.6-0.65m wide. There is no sign that U.26 was ever much larger or was part of a more sizable construction. Instead, this entity appears to be a foundation for a free-standing perishable wall. Unit 27, 0.22m south of U.23, is a circular cobble construction that overlies the western edge of U.24 (Str. 22-3rd, TS.2). The element's overall diameter is 1.4-1.5m, its 0.24m-high stone walls defining a round opening in the center that measures 0.65-0.8m across. Unit 27's architectural significance is abundantly obscure.

Both U.26 and 27 rest not on S.8 but S.10, a moderately coarse-textured, moderately hard-compacted, brown soil. Roughly 0.05m and 0.08m of S.10 intervenes between S.8 and the bases of U.26 and 27, respectively. It, therefore, appears that natural deposition of the former soil began during TS.6, probably near the end of that interval.

Beginning immediately south of U.26 is an extensive trash deposit consisting of numerous artifacts (especially large fragments of pottery vessels) embedded within a fine-textured, soft-compacted, gray ash (S.9). Stratum 9 covers the lower exposed 0.14m of U.26 and continues southward where it overrides S.8 by 0.15-0.31m. Located 2.8m south of U.26 is a pit (F.1) at least 0.84m deep and of undetermined horizontal dimensions (we only encountered F.1's northwest corner). Original excavation of F.1 truncated S.1-4, 6, and 8 (TS.1), the depression eventually being filled with S.9. Many of the sherds noted within F.1's confines are oriented either vertically or at an angle roughly paralleling the sides of the pit. Such dispositions suggest that ceramic fragments, along with the ash in which they are now suspended, were tossed into F.1 from all sides during a protracted interval of trash deposition. As noted earlier, S.9 extends at least 2.8m northward from F.1, and may well exceed the pit's boundary on other sides as well. Those portions of S.9 found outside F.1's confines, therefore, probably represent overflow from the declivity, debris continuing to be jettisoned in this area even after F.1 was full. That S.9 runs up to, but not north of, U.26 suggests that the two are coeval; the similar stratigraphic positions of U.26 and 27, sitting up in S.10 above S.8, implies that the same temporal relationship pertains among these elements. Units 26, 27, and F.1

(including S.9), therefore, are probably all roughly contemporary.

Structure 22-1st, by TS.6's conclusion, was a 0.46m-high stone-faced platform that measured 5.23x5.33m and retained the general orientation of its immediate predecessor (ca. 358 degrees). Though slightly enlarged, the edifice's basal outlines are much the same as they had been in TS.5. The primary difference is that now Str. 22-1st had an inset southeast corner, encompassing 0.6x0.66m. A larger inset northeast corner (0.4x1.5m) was eventually filled in late in the interval. The summit is divisible into two major segments. The northern portion is composed of two earthen-floored enclosures (Rooms 1 and 2, 1.94m² and 1.81m²) flanking a corridor (Room 3, 2.18m²) that opens over the northern basal wall and runs south to a 0.2m-high step-up to the southern summit. A 0.16m-high stone step provided access from ancient ground surface to the aforementioned formal entryway. The southern summit consists of a single large compartment (Room 4, 4.1m²) backed by an ample bench (1.4x3.5x0.4m high) on the south. A stone-faced shelf (0.9x0.9-1.1mx0.27m high) and narrow bench (0.5x1.7m) border the western and eastern sides of the northern passage issuing into the southern enclosure from the corridor. The doorway they define is 1.15m wide. A very small cubicle (Room 5, 0.68m²) lies immediately east, and below the level, of Room 4. Room 5 does not seem to have been accessible from Rooms 1-4, opening instead to the back (south) side of the building.

A stone circle measuring 1.4-1.5m across is 0.22m south of Str. 22-1st, just off the latter's southwest corner. These curved stone walls delimit a central, open space with a diameter of 0.65-0.8m. Lying 2.4m south of Str. 22-1st is a seemingly isolated 0.22m-high L-shaped rock wall that bounds the northern side of an extensive trash deposit composed primarily of large portions of ceramic vessels and gray ash. This debris was apparently originally tossed into a deep trash pit (F.1) south of Str. 22-1st, material eventually overflowing the receptacle and extending 2.8m north of F.1 at thicknesses of 0.14-0.31m.

All architecture dated to TS.6 is fashioned primarily of unmodified river cobbles set in a brown mud mortar. A few cut blocks are mixed in with these stones, but comprise a small minority of TS.6 building materials. The naturally flatter aspects of cobbles are generally directed outwards in those facings and footings raised on Str. 22-1st itself; less care is evidenced in the selection and placement of the rocks making up U.26 and 27.

Time Span 7

After abandonment of Str. 22-1st and its environs, natural deposition of S.10 resumed. Stratum 11, which caps the local stratigraphic sequence, is identical to S.10 save for its darker brown hue and greater concentration of small roots. Strata 10 and 11, therefore, are most likely parts of the same soil level distinguished by their differential proximity to modern ground surface and susceptibility to processes occurring in this uppermost zone. Together, S.10 and 11 accumulated to thicknesses of 0.25-0.61m, covering all but the uppermost stones of final phase architecture. Embedded within S.11 and the upper portions of S.10 are rocks fallen from construction (F.2). Feature 2 is found in moderate to high densities for at least 0.82m, 0.4m, 5.74m, and 0.71m north, east, south, and west of Str. 22-1st, respectively.

Structure 83A

Structure 83A, originally mapped as joined to Str. 22's southeastern corner, lies 6.6m south-southeast of that building and 10m southeast of Str. 18-Sub1 outside the Op. 18 patio.

The ground drops off markedly east of the building, though the terrain immediately surrounding Str. 83A is relatively flat, descending 0.18m over 6.2m northwest-southeast and approximately 0.3m southwest-northeast. Digging carried out in Subops. 18O and P cleared ca. 25m² (virtually the entirety of the edifice) and reached maximum depths of 0.52m and 0.44m below modern ground surface outside and within the building's confines. A single clear construction period was recognized in the course of this work. All investigations were overseen by B. Reagan during April, 1995.

Time Spans

<u>Time Span</u>	<u>Construction Phase</u>	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1,2	-	LCL I, II/III
2	Str. 83A-1st	U.1-16	-	-	LCL III/II
3	-	-	S.2,3	F.1	-

Time Span 1

Stratum 1, a fine-textured, soft-compacted, sherd-rich tan to gray ash, was exposed to a maximum thickness of 0.08m at the base of excavation northeast and southwest of construction (the base was not located). This soil level probably underlies TS.2 construction on all sides, but the above point could not be established as digging was not carried deep enough on the southeast and northwest to test for the stratum's presence. Sizable numbers of rocks are also embedded in S.1, as though the level contains both living and construction debris. Approximately 0.04m of S.2, a fine-textured, hard-compacted, brown soil containing a less dense concentration of artifacts than S.1, intervenes between the latter and the base of Str. 83A-1st architecture. At least this much of S.2, likely somewhat more, was laid down prior to raising the edifice. The large amount of cultural material in S.1 points to a significant human occupation in the area when this layer was being introduced. Alternatively, S.1 may have been purposefully laid down as fill to raise ground surface (see Strs. 114-116, Op. 31). Artifacts recovered from the lower portion of S.2 indicate that occupation persisted through to TS.1's conclusion.

Time Span 2

Structure 83A-1st consists of four surface-level rooms appended to the southeast and northwest sides of a ca. 0.45m-high platform defined by vertical facings (U.2-5). A single ascent on each side of the platform leads to the stone-paved (U.6), but otherwise featureless, summit. A step, 0.55m long by 0.3m wide by 0.14m high (U.7) is set against the platform's western corner and may have facilitated passage to the summit. Rooms 1 and 2 are arranged in a northeast-southwest line, bounded by the platform on the southeast and a set of ca. 0.15m-high by 0.2-0.6m-wide stone foundations on the other sides (U.8-11, all but one are 0.2-0.5m across). Unit 9 is the longest of these entities, bordering the northwestern flank of both compartments.

This footing narrows considerably over the 0.55m near its southwestern terminus (from 0.5m to 0.25m wide going northeast to southwest) before turning to run 0.4m to the southeast to junction with U.8. The latter bounds the U.7 step on the northwest. Unit 9 extends 0.5m southeastward from the foundation's northeastern margin, defining the northeast side of Room 2. A 0.6m-wide doorway, bordered by U.9 and 5 on the northwest and southeast, respectively, leads directly into this enclosure. Unit 10 was added to U.9's northeast face, transforming this portion of the foundation into a 0.6m-wide wall. The renovation did not affect the aforementioned doorway. Unit 11 separates Rooms 1 and 2; it is not clear whether this footing spanned the full distance between U.9 and 5 or if a 0.4m-wide space was left open between U.11 and 5. Said gap, *if* it existed, might have marked a passageway between the two compartments. Rooms 1 and 2 are earthen-floored, featureless enclosures that cover 1.3x1.85m and 0.5x1.25m, respectively.

Another two surface-level compartments bound the platform's southeastern flank (Rooms 3 and 4). Here, U.3, the platform's southeastern facing, delimits the northwestern side of the enclosures while rock foundations roughly 0.15m high by 0.2-0.45m wide mark the other sides (U.1, 12, and 15). Room 3 contains a 0.14m-high stone-faced and -surfaced bench (U.13 and 14). The bench seems to have been added in two sections. The first (U.13), is built against U.3, stands 0.14m tall, and measures 0.7x1.8m. Based on observed stratigraphic relations, U.12, the southwestern foundation, may have been in place at this time as might U.15, the northeastern foundation. The former extends 1.45m southeastward from U.3 while U.15 projects at least 1.65m in the same direction from U.13. Unit 14 was appended to U.13's southeastern side, continuing the line of that construction's southwestern flank but ending on the northeast against U.15. This addition may have been 0.08m lower than U.13 and measures 0.95x1.3m. Room 3, therefore, is in an earthen-floored compartment whose 1.75x1.9m interior is mostly taken up by a low but extensive bench. Unit 16, a ca. 0.15m-high by 0.32m-wide footing, possibly defines the room's southeastern side. Gaps measuring 0.7m across separate U.16 from U.12 and 15 and may have been doorways into Room 3. Unit 16's southwestern end was not uncovered and this element might continue beyond Room 3's limits, to be incorporated within yet another surface-level compartment located beyond our excavations to the southwest.

Unit 1 is a narrow (0.2m across) L-shaped footing that extends 0.75m northeast of U.15 before turning to continue 0.5m to the northwest. Together with U.3 and 15, U.1 delimits an earthen-floored enclosure that covers 0.5x1.8m (Room 4). The 1.3m-wide breach between U.1 and 3 appears to have served as the ample entryway into diminutive Room 4.

Structure 83A-1st is a suite of at least four surface-level enclosures erected against the southeast and northwest flanks of a stone-faced platform that stands ca. 0.45m high, encompasses 1.6x3.44m, and is aligned roughly 42 degrees. A 0.14m-high stone step situated on the platform's western corner probably eased passage to the central construction's summit. The latter is paved with cobbles but is otherwise featureless. Perhaps this central element was less of a platform than an extensive bench. The four earthen-floored rooms are bounded by 0.15m-high x 0.2-0.6m-wide stone foundations along with the "platform's" facings. These compartments are arranged in two pairs (Rooms 1 and 2; 3 and 4) set in northeast-southwest-running lines. In each dyad, the northeastern most member is the smallest (0.6m² [Room 2] and 0.9m² [Room 4]) while its southwestern neighbor is roughly four-times as large (2.4m² [Room 1] and 3.3m² [Room 3]). The smaller, northeastern compartments have some of the clearest passageways leading to the exterior (0.6m- and 1.3m-wide doors for Rooms 2 and 4, respectively); Room 3's interior was accessed through 0.7m-wide breaches in its eastern and southern corners whereas Room 1 may have been reachable only by passing through Room 2.

The single piece of built-in furniture identified within these compartments is a low (0.06-0.14m-high) stone-faced and -surfaced bench that takes up most of Room 3. The core of this entity measures 1.3x1.65m, the projection off the northern corner up against the “platform” encompassing 0.5x0.7m. The vast majority of stones used to fashion facings, footings, and floors are unmodified river cobbles the naturally flatter aspects of which tend to be oriented outwards. At least one faced block was incorporated within U.2. All rocks are set in a brown mud mortar.

Time Span 3

Following abandonment, Str. 83A-1st was almost completely covered by the natural deposition of a fine-textured, hard-compacted soil that we divided into two levels (S.2 and 3) based on the slightly darker brown color and greater concentration of small roots characteristic of overlying S.3. Approximately 0.4m of S.2 and 3 were laid down during TS.3, obscuring all but the highest stones of U.2-5. Embedded within this earth are rocks and large quantities of ceramics likely fallen from Str. 83A-1st (F.1). Feature 1 extends for at least 2.42m northwest and 0.32m southeast of construction, the debris appearing in moderately dense concentrations in both cases.

Structure 99

Structure 99 is situated on the northwest corner of the patio, ca. 6.6m northwest of Str. 22 and 7.5m southwest of Str. 20. The ground surrounding Str. 99 rises 0.34m over 11.46m south-to-north. Excavations conducted within Subops. 18D, F, H, I, L, and M revealed the western half of the building (roughly 64m² exposed), digging being carried down to maximum depths of 1.8m and 0.8m below modern ground surface outside architecture and within construction fill, respectively. Two major building phases were identified in the course of this work. All investigations were overseen by D. Contreras who directed the research from January 30-March 23, 1995.

Time Spans

<u>Time Span</u>	<u>Construction Phase</u>	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1-4	-	LCL I, II/III
2	Str. 99-2nd	U.1-6	-	-	LCL II/III?
3	Str. 99-1st	U.7-23, 25, 26, 27, 31, 32, 34, 35	-	-	LCL II/III?
4	Str. 99-1st	U.24, 28-30, 33, 36	S.5	-	LCL II/III, LCL III/II, III?

Time Span 1

Stratum 1, the earliest known soil level assigned to TS.1, is a moderately coarse-textured, soft-compacted, brown sand exposed to a maximum thickness of 0.07m in a 0.9m wide (north-south) probe dug immediately outside and adjacent to Str. 99-2nd's basal northern facing (U.2). This layer is 1.72-1.74m below current ground level and ascends 0.02m north-to-south over the exposed 0.9m. No artifacts were unambiguously derived from S.1, though the very small segment excavated precludes statements concerning its cultural status. Stratum 2, a fine-textured, hard-compacted, dark brown clay, blankets S.1 by 0.6-0.61m. Like its predecessor, S.2 was identified only in the northern test and retains a more-or-less even upper surface (rising 0.02m across 0.9m north-to-south). Deep excavations pursued 9.1m to the south, did not come upon this level, suggesting that the clay deposit either terminates within, or drops at least 0.12m over, this distance. Recovery of artifacts from S.2 points to a human presence nearby when this soil was being deposited.

Artifact densities increase sharply within overlying S.3, a fine-textured, soft-compacted gray-brown soil, the grayish hue of which results from the inclusion of significant quantities of ash. Fully 0.4-0.44m of S.3 covers S.2 and the base of Str. 99-2nd construction (U.2) is sunk 0.18m into this level. At least 0.43m of a fine-textured, soft-compacted, tan soil was deposited south of Str. 99-2nd prior to that building's construction (S.4; the base was not encountered). This layer slopes up slightly (0.05m over 0.86m) from south to north and contains large quantities of cultural material, especially ceramic sherds. So dense is the artifact concentration in S.4 that it may well represent a midden, possibly a continuation of the similar debris found in S.3 on the north (the tops of both strata are within 0.1m of each other by the end of TS.1). The origins of S.3 and 4 are unknown. Both are clearly outcomes of considerable human activity in which sizable quantities of trash were generated. These behaviors may have been performed near Str. 99-2nd's eventual construction site. Alternatively, S.3 and 4 could be parts of fill introduced to raise ground surface in this area (an argument was advanced for the recycling of ash-rich debris in similar ground-raising efforts in nearby Op. 31, see especially Strs. 114-116). Purposefully deposited fill or not, S.3 and 4 represent a significant upswing in the intensity of human activity near Str. 99 at TS.1's conclusion.

Time Span 2

Structure 99-2nd is a platform defined by single, vertical, stone-faced ascents of 0.3-0.85m to the summit (U.2, 3, and 4 on the north, west, and south, respectively; the eastern basal wall was not encountered). The lowest facing is on the south and may have given way to at least one more riser leading to the summit. Modification of this area during TS.3, however, was so extensive that traces of higher terraces, if they ever existed, could not be discerned. It is also likely that portions of U.4 were dismantled during the next time span, resulting in the truncation of what may have been a taller southern basal wall. Structure 99-2nd, therefore, probably stood closer to 0.85m, than 0.3m, high. Unit 1 is a 0.25m-high by 0.4m-wide wall that runs out from under, and at least 0.5m south of, Str. 99-1st's southern facing (U.19). Unit 1's base is at approximately the same level as those of U.2-4 (there is no more than an 0.11m discrepancy in

the basal elevations of U.1-4) enhancing the likelihood that it is contemporary with, and was possibly connected to, Str. 99-2nd. Unit 1 might well be the remnants of a foundation for a surface-level building that adjoined the platform's southern face.

Structure 99-2nd's summit architecture is preserved and revealed in two discontinuous segments where it is covered by construction pertaining to Str. 99-1st. Unit 6 is a 1.85m-long (north-south) segment of wall that protrudes no more than 0.11m above the base of excavation and directly underlies U.23. Approximately 1.55m west of U.6 is U.5, an earthen construction revealed to a height of 0.18-0.22m and measuring 0.64m across (northeast-southwest). The northeastern face is roughly smoothed and still bears distinct human hand impressions (only 0.08m of the southwestern side's full height was uncovered). Unit 5 was revealed for 1m northwest-southeast, disappearing at both ends under architecture raised during TS.3 (U.8 and 7). The unit's top exhibited signs of intense burning and the entire construction was apparently formed by heating until the earth was hard. How U.5 was integrated within Str. 99-2nd's superstructure is unknown. Its orientation (291 degrees) diverges markedly from that of the other Str. 99-2nd components (266 degrees) as does its mode of construction. Nevertheless, elevation measurements suggest that U.5 sat atop Str. 99-2nd's summit and was part of this edifice.

Structure 99-2nd is a 0.85m-high platform that measures 4.95m by, at least, 5.55m and is aligned roughly 266 degrees. The edifice's southern flank may have been mounted via one or more terraces, though this is far from clear. A surface-level building seems to have been appended to this side of Str. 99-2nd as well. Superstructure form and architecture remains a mystery, though its components included both stone foundations (U.6) and fire-hardened earthen constructions. The summit was apparently surfaced with earth. Aside from U.5, elements of Str. 99-2nd are built using unmodified river cobbles the naturally flat aspects of which face outwards. The larger stones in U.1-4 are set in two to four horizontal courses, interstices filled with chinking stones (U.6 was not cleared sufficiently to determine its architectural style). All rocks are set in a brown mud mortar. Sizable portions of U.2 and 4 seem to have been dismantled during TS.3 and there are even segments of the former that are completely missing. These modifications relate to renovations conducted during TS.3-4 and, possibly, stone-robbing after abandonment.

Time Span 3

Structure 99-2nd's northern and western basal walls (U.2 and 3) continued to bound Str. 99-1st. Structure 99-2nd's southern facing (U.4) was probably reduced in height to roughly 0.3m now and was still visible protruding 0.75m west of Str. 99-1st's southern basal wall (U.13 and 19). Unit 13 is a ca. 0.45m-high riser that projects 1.6m south of U.4 to junction with U.19. The latter is inferred to have stood 0.25m high and extends roughly 3.9m to the east where it corners with U.7. Unit 13 was not well preserved and it is unclear whether it stepped down southward toward its junction with U.19 or if it stood 0.2m above the latter at their corner. Together, U.4, 13, and 19 combine to give Str. 99-1st an inset southwestern corner encompassing 0.75x1.6m. A low, 0.45m-wide cobble wall (U.21) projects 0.4-0.6m west from U.19, 0.8m south of U.4. Unit 21's architectural significance is unclear, though its introduction had the effect of creating a small enclosure (0.4x0.8m) on ground surface adjoining Str. 99-1st. Said cubicle is open to the west.

Unit 20, a ca. 0.6m-high stone-faced riser, probably marks the southern limits of Str. 99-

1st's eastern portion. This wall abuts U.7, 1.22m north of that construction's intersection with U.19, and was traced for 1.2m to the east where excavations ceased. On the north, U.2 steps back (south) ca. 0.75m at a point 5.75m east of the platform's northwest corner. This facing may now link up with U.25, a poorly preserved wall, rising an extant 0.4m, that served as the northern facing of Str. 99-1st's eastern segment. Unit 25 was uncovered over an east-west distance of 2.9m. The 1.7m of unexcavated terrain intervening between the closest uncovered parts of U.2 and 25 makes the above reconstruction tentative. Structure 99-1st's western portion, therefore, is a distinct unit that projects 1.22m south and 0.75m north of its eastern segment.

The exposed western summit is divided among three rooms each of which is bounded by cobble foundations standing 0.15-0.3m high and measuring 0.4-0.6m across (U.13, 14, 16-18). Defining the eastern superstructure margin is U.7, a 0.45m-high by 0.7m-wide wall that nearly runs the full north-south length of Str. 99-1st, from its junction with the southern basal facing (U.19) 5.5m north to its corner with U.8. Only 1m intervenes between U.7's northern limit and the northern basal facing (U.2). Though U.7 may well have been a foundation, its great length and substantial construction suggest that the wall also emphasized the separation between Str. 99-1st's western and eastern portions.

The first compartment encountered ascending Str. 99-1st from the south is Room 1, a stone-paved (U.15) enclosure that covers 1.35x2m. Room 1 takes up nearly the entirety of the southern summit margin and is bounded by stone footings (U.13 and 14) on the west and east. Access from the south was unimpeded by construction, Room 1 looking out over the low southern basal facing (U.19). To the north, the enclosure is demarcated by a stone surface (U.12) that is approximately 0.5m above Room 1's floor. Access to U.12 was achieved by ascending three steps (U.34) recessed 0.6m into the northern Room 1 wall. The basal riser is ca. 0.2m high, the succeeding two steps each measuring roughly 0.15m tall. Unit 34 is 0.5m wide while treads measure 0.15-0.3m across. No built-in furniture was identified in Room 1. In fact, this compartment is so open to the north and south that it may be less a room than a formal entryway through which people moved on their way south-to-north to the summit (U.12 and the adjoining rooms).

The U.12 stone surface encompasses 1.5x2m (excluding the U.34 steps) and seems to have served as a landing from which Rooms 2 and 3 could be accessed. The latter is directly to the north, its earthen floor covering 1.3x1.5m. Room 3 is delimited by low foundations (U.17 and 18) on the west and north along with a bench, bounded by U.7-10, on the east. No construction separates U.12 from Room 3 and the two floors are at the same elevation. On the north, it is unclear whether U.18 sealed off this flank or if the observed 1m-wide gap between it and U.8 on the east was purposefully left open, possibly functioning as a doorway. A 0.28-0.35m-diameter circle bounded by cut blocks and cobbles (U.35) and set into the eastern preserved end of U.18 may be remains of a support used to hold up a post employed in superstructure construction. The bench in Room 3, bordered by U.7-10, is built over the earlier, enigmatic U.5, stands roughly 0.2m high, and measures 1.4x2.85m. There is an indentation encompassing 0.25x1m located slightly north of center in the western bench facing (U.9). This cut seems to have been intentionally created though its architectural significance is not known.

Unit 31, a (minimally) 1.5m-long ledge rises ca. 0.15m above the top of the northern basal facing (U.2; U.31's eastern end was not clearly identified despite attempts to follow the construction in this direction). Unit 8, the bench's northern facing, rises an equivalent distance above U.31. The surface backing U.31's low riser is 0.34m wide and may have been paved with

stone.

Room 2 borders Room 3 on the west and overlooks the western basal facing (U.3). Bounded by cobble foundations on the east, north, and south (U.17, 18, and 16), this enclosure covers 0.8x1.7m and has an earthen floor set roughly 0.2m below that of Room 3 and the U.12 pavement.

Very little of the eastern summit was cleared. We were able to discern the presence of a cobble floor (U.22) backing U.20 on the north and lying immediately east of U.7. Unit 22 extends north of U.20 for at least 4.16m but extensive disruption on the building's northern flank makes it impossible to ascertain whether this pavement continued all the way to U.2. A great deal of bajareque was found resting on U.22. Unit 23, measuring 0.32m high by 2.6m long north-south and at least 0.3m wide, is probably the western facing of a foundation incorporated into the eastern superstructure. This construction rests on U.6 and was not investigated further. A barely discernible cobble surface (U.26) extends at least 3.46m south of U.19 near the latter's southeast corner. We are not certain how extensive this putative pavement is east-west or if we identified its southern margin.

Fill, in the few areas where it was exposed (backing U.19 to the north and within the U.7-10 bench, all designated U.27) consists of cobbles set in a brown soil matrix.

Structure 99-1st, by the end of TS.3, was a platform rising 0.7m to 0.85m high that measured 6.5m north-south (across U.19) by at least 10.3m east-west, and was oriented roughly 357 degrees. Single, vertical ascents border the summit on the north and west, while on the south a 0.25m-high step-up affords access to a formal, stone-paved entryway covering 2.7m² (Room 1). A set of three small steps recessed into Room 1's northern wall gives access to a 3m² stone pavement on the summit. Two earthen-floored enclosures run in an east-west line north of this landing; Room 2 on the west, encompassing 1.4m², and Room 3 on the east, measuring 2m². The former's floor is ca. 0.2m below that of the rest of the summit while Room 3 and the paved landing are at about the same elevation. A hole bounded by rocks and measuring ca. 0.28-0.35m across is embedded in Room 3's northern foundation and may have originally supported a wooden post used in superstructure construction. Room 3 was possibly entered through a 1m-wide doorway on the north in addition to its unimpeded southern passage from the paved landing, though the northern entryway could be more a product of differential preservation than purposeful construction. A 0.2m-high stone-faced bench measuring 1.4x2.85m defines Room 3's eastern margin.

Structure 99-1st's western and (unexcavated) eastern summit portions are separated by a substantial stone wall (U.7) that runs across nearly the full north-south width of the platform. Investigations east of this apparent dividing line were restricted, though an extensive stone pavement continues for an undetermined distance east of U.7 and what may very well be a foundation delimiting yet another summit room lies 0.8m in the same direction from that wall. An informal stone surface was also identified on ancient ground surface and extending 3.46m south of Str. 99-1st. The exact dimensions of this pavement were not ascertained.

Platform and bench facings, as well as foundations and floors, are built primarily of unmodified river cobbles set in a brown mud matrix. Cut blocks comprise minority components of U.18 (the same ones bordering U.35), 23, and 31 while schist slabs were found mixed with cobbles in U.12 and 15. There is a tendency to place the naturally flatter aspects of cobbles facing outwards in basal walls and footings. Horizontal coursing of the larger stones is variably pronounced in the uncovered walls, being especially obvious in the more substantial examples (such as U.7) and not discernible in the smaller constructions. Chinking stones were used to fill

in the interstices between and among sizable rocks in all facings and foundations.

Time Span 4

Most known changes visited on Str. 99-1st during this interval occurred on the building's northern margin. The first stage in the renovation process apparently involved the addition of a 0.17-0.3m-high stone-faced terrace (U.24) onto the platform's northern basal facing (U.2). Unit 24's vertical ascent is backed by a brown earth fill containing a few stones (U.33) that blankets S.3. The terrace, in fact, rests on S.3, the artifact-rich soil into which Str. 99-2nd's/99-1st's northern foundation is set. Unit 24 may, therefore, have been erected at any point after U.2 was in place. The northern terrace measures 1.02-1.5m across, its width expanding from east to west, and intersects U.2, 2.2m east of its northwest corner with U.3. Unit 24's eastern terminus lies beyond our excavation limits.

At a considerably later date, a very shallow stone construction (U.28) was laid over the tops of U.2 and 24, upper portions of the former being dismantled to make way for the latest renovation. A section of U.2's north face, at least 1m wide east-west, was also removed down to the basal stones. This disturbance is located at the point where U.2 jogs back to the south, that step-back possibly being the result of removing stones used to build U.28. The latter casual construction is a ca. 0.2m-high stone platform the base of which rests approximately 0.5m above that of U.2. Roughly 0.3m of S.5, a moderately coarse-textured, moderately hard-compacted, brown soil, had been laid down over S.3 prior to U.28's construction. These stratigraphic relations indicate that U.28 and its associated architecture were built after Str. 99-1st was no longer in use and being maintained. Unit 28 has an irregular northern border, meandering northward from east to west, though its other flanks are defined by more-or-less straight facings. This element encompasses 1-1.35x2.35m and overlaps Str. 99-1st's summit at its northwest corner.

A 0.8x0.8m addition (U.36) overlies U.24's western margin and expands U.28 primarily to the north and east (to a lesser extent in the latter direction). Unit 29-30 comprise a set of two short, 0.2m-high by 0.28-0.6m-wide, stone walls that extend in a dog-leg west and south from U.28. Together, U.29-30 run minimally 2.15m south from their juncture with U.28's northwest corner (the southern edge was not definitively recognized) and step out 0.2m to the west at a point 0.6m south of U.29's northern edge. These walls may have been foundations associated with surface-level buildings continuing westward outside our excavations.

A 0.17-0.3m-high stone-faced terrace (U.24) was seemingly appended to Str. 99-1st's northern face early in this interval (though it may have been added any time after TS.2). This construction expanded the platform's north-south dimension by 1.02-1.5m, though it did not extend as far westward as the building's northwest corner (its relationship to the eastern portion of Str. 99-1st is not known). Near TS.4's conclusion, a 0.2m-high stone platform (U.28) was added west of U.24. This construction rests in soil well above the base of Str. 99-1st architecture and overlaps the summit's northwest corner. These relations strongly suggest that U.28 and its eastern addition, U.36, were constructed well after Str. 99-1st (including U.24) had been abandoned. Units 28 and 36, together, measure approximately 1.1-1.8x 2.4m. Built off the building's west side are two, interconnected 0.2m-high stone walls that are probably footings for perishable, surface-level edifices. The whole U.28-30, 36 complex is aligned very roughly 86 degrees.

Facings and foundations are built primarily of unmodified river cobbles, though cut

blocks are the primary construction material used in U.36. Horizontal coursing of the larger rocks is not clearly manifest in these low, casual constructions and chinking stones are not much in evidence save in U.24. The distribution of stones with naturally flat faces is highly variable across TS. 4 constructions; they are most clearly attested to on U.28's northern and western facings but are not marked elsewhere. A brown mud mortar is used as a binding agent in all walls.

Two very fragmentary interments recovered from atop dismantled portions of U.2 may pertain to this interval as well. They are very approximately 0.2m below the ground surface tentatively associated with U.28-30, 36, resting at levels where the original excavators apparently encountered too much rock (U.2's surviving hearting) to continue digging. *If* only 0.2m separates these remains from the ground surface associated with U.28-30, 36, then it might well be the case that these two burials were introduced at an even later date after T.S. 4 architecture was abandoned.

Time Span 5

Stratum 5 continued to be deposited after U.28 and its associated constructions were abandoned. Eventually, this soil reach total depths of 0.33-0.57m above S.3 and 4 north and south of Str. 99-1st, respectively. Stratum 6, a moderately coarse-textured, moderately hard-compacted, dark brown soil, covers S.5 by 0.1-0.19m. Strata 5 and 6 are virtually identical, distinguished solely by the uppermost layer's darker color and greater concentration of small roots. These elements are probably parts of the same earth level. Embedded with S.5 and 6 is a moderate to very dense concentration of debris fallen from construction pertaining to TS.3 and 4 (F.1). Feature 1 is distributed across the platform's summit and extends for at least 0.4m north and 3.46m south of uncovered architecture (U.24 and 19). The density of materials included in F.1 is considerably greater south of Str. 99-1st than it is north of the building.

Structure 18-Sub1

Structure 18-Sub1 lies 7.7m southeast of Str. 99-1st and 2.25m west of Str. 22-1st, just southwest of the Op. 18 patio. The land surrounding Str. 18-Sub1 is fairly level, ascending only 0.13m across 5m south-to-north. Excavations here, conducted within Subop. 18Q, cleared the entire edifice (a total of ca. 22m² exposed) and were carried down to maximum depths of 0.25m and 0.28m below modern ground surface outside and within the building's perimeter. A single construction phase was recognized in the course of this work, overseen by B. Reagan.

Time Spans

<u>Time Span</u>	<u>Construction Phase</u>	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	Str. 18-Sub1-1st	U.1-6	-	-	MPrecl.* LCLIII/II
2	-	-	S.1	F.1	-

* The few diagnostic Middle Preclassic vessel fragments found here are mixed with Late Classic III/II material and almost certainly originated in much older deposits.

Time Span 1

Structure 18-Sub1-1st is a surface-level building bounded by 0.18-0.2m-high stone foundations that measure 0.5-1m across (U.1-4). The western footing (U.4) is the widest of this cohort and, together with U.5, may be part of an L-shaped bench. Unit 5 is 0.7m wide north-south and projects 1.3m eastward, occupying the interior corner formed by the junction of U.3 (the northern foundation) and 4. Unlike U.1-4, U.5 is not a uniform mass of stone but consists of southern and eastern cobble facings roughly 0.1m high that retain a brown earth fill (U.6). The inference that U.4 and 5 are part of an L-shaped bench is based on the presumption that U.4 is broader than necessary to support a perishable upper wall and may, therefore, have doubled as a bench.

The single earthen-floored room bordered by U.1-4 covers 1.5x2.2m (including the area taken up by U.5) and was entered through a 1.35m-wide doorway that takes up most of the eastern foundation (U.2). The latter entryway is marked by a lowering in U.2's height over this distance.

Structure 18-Sub1-1st encompasses 2.6x3.7m, contains one earthen-floored enclosure that covers 3.3m², and is oriented approximately 88 degrees. Access to Str. 18-Sub1's interior was via a 1.35m-wide doorway centered in its eastern footing. The 1m-wide western foundation seems to have been the stem of an L-shaped bench, the leg of which is located in the room's northwest interior corner. The stem measures 1.5m north-south while the leg extends 1.3m eastward into the enclosure and is 0.7m wide. All foundations and facings are made of unmodified river cobbles the naturally flatter faces of which are directed outwards. A brown mud mortar is used as a binding agent in all cases.

Time Span 2

Following abandonment, Str. 18-Sub1-1st was covered by the natural accumulation of a moderately coarse-textured, moderately hard-compacted, brown to dark brown soil (S.1). Stratum 1 accumulated to a depth of at least 0.28m (its base was not found) and covered all of the building. A very light scattering of rocks fallen from TS.1 architecture (F.1) was found on all sides of the edifice, extending for 0.63m north and 1m south of Str. 18-Sub1-1st. The paucity of stones comprising F.1 implies that Str. 18-Sub1-1st's foundations never stood much taller than their recorded heights. Considerable quantities of bajareque found immediately outside (south and west of) U.1 and 4, respectively, suggest that the footings supported upper walls made of this material.

Chronological Summary

The few pottery fragments diagnostic of the Middle Preclassic and Late Preclassic found mixed with later materials near Strs. 22 and 18-Sub1 most likely derive from early deposits disturbed by the flurry of later building activities. No Preclassic architecture or even pure deposits of these very old artifacts were recovered in Op. 18 excavations. All the limited evidence allows is the tentative surmise that Op. 18 was occupied during the Middle Preclassic.

Given the small quantities of materials assignable to this lengthy span, we would guess that the settlement was relatively insubstantial.

It is not until Late Classic I that Op. 18 experiences a significant upsurge in use. Late Classic I diagnostics were unearthed from levels antedating uncovered architecture at Strs. 22, 83A, and 99. This distribution indicates widespread occupation throughout that portion of La Sierra encompassed by Op. 18 during Late Classic I. Remnants of at least one extensive surface-level edifice (Str. 22-3rd) appear to date to the transition between Late Classic I and II. The covering of this building by an earth level during Late Classic II may point to a brief hiatus in Op.18 construction. Nevertheless, building apparently resumed at Str. 22 during Late Classic II (Str. 22-2nd). The Late Classic II/III transition witnesses a considerable increase in construction activity, Strs. 99-2nd and 99-1st being raised at this time along with Str.22-1st. These are three of the largest edifices examined in Op. 18, their erection now implying the presence of a considerable work force in the vicinity and the ability of some to harness that labor for their own purposes. Late Classic III/II was apparently marked by the raising of the relatively diminutive Strs. 83A-1st and 18-Sub1-1st and the renovation of Str. 22-1st. At least part of the considerable trash deposit found south of the last building probably accumulated during Late Classic III/II (F.1, TS.6), though deeper levels seem to pertain to Late Classic II/III. The pit that partially contains F.1, therefore, may have been dug during the latter span. The shallow constructions off Str. 99-1st's northern flank were probably raised now or, perhaps, slightly later during Late Classic III. This surmise is based primarily on the stratigraphic position of the latter, sitting high up on dirt that largely buries the platform's northern facade. Considerable time must have elapsed between the northern facing's construction in Late Classic II/III and erection of the later elements to allow for the deposition of so much earth (there is no evidence that the soil was purposefully introduced as fill). That so much earth was allowed to accumulate unimpeded, coupled with the apparent partial dismantling of Str. 99-1st's northern basal wall, suggest that the main platform had fallen into disuse prior to the final building phase. This finding, tentative as it is, hints at the complex histories of construction, abandonment, and reuse of edifices that are found even within restricted portions of La Sierra.

Given difficulties distinguishing Late Classic III from Late Classic III/II materials, we have to allow for the possibility that Op. 18 was occupied throughout the former period. As mentioned above, small constructions may have been appended to Str. 99-1st at this time. Only Str. 22-1st yielded evidence of Early Postclassic use. The few ceramics diagnostic of this period found on and around Str. 22-1st point to a very short-lived occupation unassociated with any newly raised construction. There were no signs of later settlement in Op. 18.

The use of Op. 18, therefore, was long-lived, peaking in both architectural activity and, presumably, population size during Late Classic II/III. Constructions continued to be raised in the area, and existing buildings modified, throughout the Late Classic III/II, occupation persisting unabated most likely throughout Late Classic III. Operation 18 buildings were almost completely abandoned by the Early Postclassic and there is no sign that the area was in use during the Late Postclassic.