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PVN OP 031 and 056 Excavation Report

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Operations 31 and 56

Operations 31 and 56 encompass 28 surface-visible buildings the vast majority of which are scattered southeast-northwest along the summit and slopes of the terrace that defines La Sierra's northern margin. The land ascends very gradually from southwest-to-northeast towards the terrace edge, the latter marked by a relatively steep, ca. 2m high, drop. Northeast of this descent the terrain levels out. Low-lying areas northeast of the terrace are known to support standing pools of water following protracted periods of rain. The terrace summit is better drained, with runoff only collecting in several basin-shaped depressions immediately southwest of Op. 31 and 56.

The buildings found within Op. 31 and 56 are generally extensive constructions that stand less than 1m high. The only patio-focused group discernible on the surface is defined by Strs. 114-117, 121-123 on Op. 31's southeastern edge. Most of the remaining Op. 31 and 56 edifices either cling to the terrace slope or are dispersed without obvious plan across the terrace summit northwest of the patio cluster. Structures 56-1/5 stand out in their location on level terrain at the base of the terrace ascent. No other Op. 31 and 56 buildings are found within this low-lying zone. Surface appearances are frequently deceiving at La Sierra, and this is especially the case for Op. 31 and 56. Excavations conducted here from February 12-May 18, 1990 and March 25-May 16, 1995 revealed numerous constructions filling in the "empty" spaces separating more physically prominent edifices. Clearing of approximately 745m2 of prehistoric deposits within these operations uncovered 22 edifices of which ca. 55% had not been identified prior to digging. The 1990 work was overseen by L. Aldrete, E. Bell, S. Buchmueller, C. Siders, H. Henderson, K. Miller, and S. Yates while J. Dietler supervised the 1995 research.

Structure 114

Structure 114 closes off the northeast corner of the patio delimited by Strs. 114-117, 121-123. Structure 123 is ca. 39m across the patio to the southwest while Str. 114 appeared, on the surface, to be joined to Str. 115 on the northwest. The topographic positions of Strs. 114 and 115 are nearly identical in that they are both perched on the northern terrace margin overlooking the ca. 2m descent to level terrain below. Back from the edge, the land is relatively even, ascending very gradually from southwest-to-northeast towards the edifice. Roughly 66m2 were excavated in the course of completely clearing Str. 114 (carried out as part of Subops. 31B, H, J, V, O, and T). Digging was carried down to maximum depths of 1.7m below modern ground surface outside construction and 0.88m beneath ground level into architectural fill, revealing a single building phase. The work was supervised by E. Bell and S. Yates from February 12-May 18, 1990.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	Str. 31-Sub1	U.24	S.1-4	-	LCLII, I MPrecl?

2	Str. 114-1st	U.1-15	-	F.1	LCLII
3	Str. 114-1st	U.16-23, 25	S.4	-	LCLII/III EPC?
4	-	-	S.5-8	F.2	-

Time Span 1

A deep probe excavated into the north face of the terrace ascent revealed considerable evidence for human activity predating the erection of Str. 114-1st. The earliest activity identified is the deposition of S.1, a fine-textured, hard-compacted brown soil containing artifacts and charcoal flecks. Stratum 1 was exposed to a maximum thickness of 0.17m (the base lies beyond excavation limits) and rises 0.19m over 1.22m north-to-south before slanting down 0.16m over 0.35m north-to-south. Stratum 2, a fine-textured, soft-compacted, tan soil containing large numbers of pebbles (there are more small, river-rounded rocks than dirt), overlies S.1's downward slope. Stratum 2's top runs more-or-less even over the 0.58m north-south distance revealed in the trench, ascending 0.18m over 1m east-to-west. Stratum 2 was revealed to a maximum thickness of 0.35m, the base not being found in 1990. Covering both layers by 0.2-0.5m is S.3, a fine-textured, hard-compacted, tan soil including both artifacts and charcoal flecks. Stratum 3 rises 0.4m over 1.8m north-to-south and 0.18m east-to-west. A 0.12m-thick lens of S.2-like soil was noted in S.3 at 0.11m above the S.2/3 interface. The S.2 and 3 slopes imply that the ground in this area originally dropped off from southwest-to-northeast. Stratum 3, in turn, was covered by 0.8-0.9m of fine-textured, very soft-compacted gray ash rich in cultural material, especially ceramic fragments (S.4). Stratum 4 slopes up north-to-south ca. 0.8m over 3.28m. The general inclination of the sherds embedded in S.4, dipping down south-to-north, coupled with the similar underlying slope of S.3, indicates that S.4 was introduced onto the terrace ascent from the south.

Stratum 4 represents a midden that accumulated along the northern margins of Op.31. Its stratigraphic position, running beneath U.20, suggests that the S.4 trash had reached pretty near its revealed thickness by the time this construction was introduced. Strata 1 and 3 lack S.4's high ash content. The artifacts and carbon fragments dispersed throughout the first two layers indicate a significant human presence in the vicinity of the northern terrace edge when these soils were being deposited. Variations in composition between S.1 and 3 on the one hand and S.4 on the other, however, probably reflect differences in the cultural and natural contexts in which these earth levels developed. Stratum 2's marked divergence in content from S.1, 3, and 4 indicates that it was introduced under conditions that differed strikingly from those that pertained during the formation of the other three strata. The S.2 lens recorded in S.3 hints at a brief reoccurrence of those circumstances while the latter soil was being laid down.

Structure 31-Sub1 is represented by a roughly 0.2m-high by 0.4m-wide fragment of cobble wall (U.24) projecting 0.25m south from beneath Str. 114-1st's southernmost construction (U.2). Unit 2 rides over the top of U.24, clearly indicating the latter's temporal priority. Unit 24 is fashioned of medium-size cobbles that are set in a brown mud mortar with their naturally flatter faces oriented out to the east and west. This construction is likely part of a surface-level edifice

oriented approximately 20 degrees that was submerged by construction of Str. 114-1st's southern platform (see below).

Time Span 2

Structure 114-1st is a platform bounded by substantial cobble facings on all four sides (U.4-7). These walls stand 0.8-0.95m high, measure 1-1.2m across (the southern facing's height [U.7] was not fully revealed), and contain a fill composed of stones set in a brown earth matrix (U.15; only the upper 0.2-0.4m of U.15 were exposed). The southwest, southeast, and northeast basal corners of Str. 114-1st's core platform are poorly preserved, though available evidence suggests that the facing junctions in each case were direct. The northwest corner, however, is deeply inset, the indentation encompassing 1x1m. A ca. 0.3m-high step-out projects 0.2m south from U.7 and is, in turn, buried by the southern platform delimited by U.1 and 2 (see below). Discovered late in the 1990 season, we were unable to ascertain whether this step-out continues along the entirety of U.7's southern face or is limited to the area exposed near the platform's southeast corner. No comparable outsets were recorded fronting the other basal walls save for U.22, an apparent late addition to U.5 (see TS.3, below).

A ca. 0.6m-high cobble-faced platform fronts Str. 114-1st on the south (U.1-3). This construction's western facing (U.1) extends 3.3m south from the core's reconstructed southwest corner. The southern basal wall (U.2) was followed for 1.5m eastward before it was lost. It is quite possible that the cause of this precipitous decline in preservation is stone-robbing in antiquity (see TS.3). Both of the above walls are substantial constructions, measuring 1-1.95m across. A stone pavement (U.3) caps the southward projection.

The vast majority of the summit consists of a single, earthen-floored room into the northwest corner of which is built a 0.17m high (preserved) stone-faced bench (U.11). Unit 11 is 0.6-1.05m wide by 2.65m long, surfaced with earth, and contains a fill composed of small stones set in a brown soil matrix (U.10). A ca. 0.15m high cobble-faced shelf (U.13) covering 1m north-south by 0.35m east-west is set against the summit room's east wall. The only clear subdivision within this extensive space is delimited by U.8, 9, 14, and the top of U.7. These 0.24-0.32m-high by 0.2-0.3m-wide cobble foundations define a space covering 1x1.5m set near the center of the southern summit. The compartment is recessed ca. 0.8m into U.7. Passage from the main summit room into the smaller cubicle is through a 0.5m gap in the northern footing (between U.8 and 9). Lying 0.1-0.15m below the southern room's earthen floor are the remnants of a stone construction (F.1). The full extent of F.1 is unknown but it at least fills the area between U.9 and 14 on the east and west and stops 1.16m north of U.7. Feature 1 may represent the portion of U.7 that was left after the latter's upper stones were removed to create the southern room or the remains of summit architecture superseded by construction of that enclosure.

Structure 114-1st is, therefore, a 0.8-0.95m-tall stone-faced platform that measures 5.25x6.4m and is aligned approximately 110 degrees. A ca. 0.6m-high projection extends 3.3m southward from the building's southwest corner; its east-west dimensions encompassing 5.35m. The projection's summit is capped with a cobble pavement while the main platform supports an extensive earthen-floored room covering approximately 15.1m2. The compartment's northwest corner is occupied by a 0.17m-high stone-faced bench while a 0.15m-high shelf is built against

the east wall. An enclosure on the summit's southern margin is separated from the principal space by low stone footings and measures 1.5m2. No summit access features were recorded.

All facings and footings consist of unmodified river cobbles measuring 0.03x0.13m to 0.2x0.49m. Horizontal coursing of larger stones is noted in U.1, 2, 5, and 7, but is not so obviously expressed elsewhere. Chinking stones were used to fill in the gaps between medium and large cobbles everywhere, but are more commonly employed in the basal walls, much less so in the more casually built summit constructions. There is a tendency for the flatter aspects of all stones to be oriented outwards and a brown mud mortar serves as a binding agent in every unit.

Time Span 3

Continued deposition of S.4 initiates this span. This earth level covers the platform extending southward from Str. 114-1st's core (U.1 and 2) up to, but not including, its stone-paved summit (U.3). Stratum 4's high ash content strongly implies that it originated as a byproduct of cultural activity. Identification of S.4 below TS.2 architecture east and north of Str. 114-1-1st further suggests that the behaviors generating so much ash were pursued over a protracted period within and/or in the immediate vicinity of Op.31. Though the picture is far from clear, we hypothesize that those segments of S.4 found burying U.1 and 2 were purposefully introduced as part of an effort to elevate the Op.31 living surface (see Strs. 115 and 116). The apparent homogeneity of S.4, coupled with the absence of clear boundaries separating those portions of the stratum laid down in TS.1 from those introduced in TS.3, lead us to include all manifestations of this level within the same earth layer. Nevertheless, there are good reasons for believing that the processes responsible for S.4's deposition varied over the lengthy period in which it was being deposited; as trash jettisoned off the northern margins of Op. 31 in TS.1 and as architectural fill in TS.3.

Units 17-19 are seemingly the remnants of a cobble staircase that projects roughly 4m south of Str. 114-1st's southern core facing (U.7). Though very poorly preserved, portions of two risers (U.17 and 19) were discerned along with the stair's western facing (U.18). The basal riser (U.17) is 0.33m high, was traced for 2.4m east before it became too jumbled to follow, and extends ca. 0.5m south of U.2's projected line. The earth surface backing U.17 is roughly 2.85m wide. Unit 19 ascends 0.24m above this level, was preserved for a distance of 0.85m to the east, and probably leads directly back approximately 0.8m to the platform's southern facing (U.7). Unit 7 stands a reconstructed 0.19m above the U.19 tread. Earth fill backs and underlays U.17-19 (U.23). The width of the U.17/19, 23 stairs is not known. All we can say at present is that the steps intersect U.7 ca. 2m east of the latter's southwest corner with U.4, ride over and extend 0.5m south of the now-buried U.1/3 platform, and appear to be centered on the small summit room delimited by U.7, 8, 9, and 14. The deterioration suffered by U.2 at the point where it is overlain by U.17/18 may result from stone-robbing attendant on the construction of the southern stairs.

The only other modifications made to Str. 114-1st during TS.3 consist of U.20-22. Unit 21 is a 0.3m-wide wall that extends ca. 0.65m north from U.6's northwest corner to the U.16 terrace (see below). Unit 21's architectural significance is unclear. It may have sealed the eastern side of a stone-and-earth fill (U.20) that now linked Strs. 114-1st and 115-1st. Unit 20

seems to have completely buried the western (U.4) and eastern facings (U.17), respectively, of these edifices. A major problem with this interpretation is the absence of a retaining wall on U.20's southern margin. The area where such a unit might be found, however, is heavily disturbed; the southwest and southeast corners of Strs. 114-1st and 115-1st having largely been lost as well. The 0.4-0.55m separating these two adjoining structures was, therefore, probably filled with U.20 during TS.3, essentially converting two distinct buildings into one complex construction. Unit 22, a 0.20-0.35m high, L-shaped cobble wall, projects ca. 0.75m east of Str. 114-1st's eastern basal facing (U.5). The unit joins U.5 approximately 2.6m south of the latter's northeast corner with U.6 and was traced for 1.2m south before it could no longer be identified. Unit 22's architectural import is abundantly unclear.

Unit 16 is a ca. 0.8m high by 0.85-1m wide terrace located 0.7-1.1m north and slightly downslope from Str. 114-1st. This construction is the eastward continuation of the comparably substantial terrace recorded in an analogous position vis a vis Str. 115-1st to the west (also glossed as U.16, see below). Both apparently served to slow erosion down the relatively steep south-to-north descent above which Strs. 114-1st and 115-1st were erected. Unit 16 appears to stop without clear resolution ca. 2.5m west of Str. 114-1st's northeast corner. Whether this is a result of poor preservation or indicates that the terrace was never completed remains unknown. Unit 25 is a 0.2m high by 0.34m wide terrace situated approximately 1.4m north and further downslope from U.16. Only 1m of this construction's east-west length was exposed and we are not sure whether it, like U.16, continues westward to front Str. 115-1st.

By the conclusion of TS.3, Str. 114-1st faced an elevated living surface on the south, built up by the addition of roughly 0.6m of ashy soil. The platform that previously fronted Str. 114-1st's patio-facing side was now represented solely by its stone-pave summit over which was raised a staircase consisting of two cobble-faced risers. The U.3 floor rests at the same level as, and is joined by, the stone surface (U.19, see below) extending south from Str. 115-1st on the west. Together, Str. 114-1st's U.3 and Str. 115-1st's U.19 make up a pavement that covers 5.3m east-west from the Str. 114-1st stairs. Addition of a stone-and-earth fill unit between Strs. 114-1st and 115-1st seems to have linked these close neighbors into a single construction late in their use-lives. The northern descent over which Str. 114-1-1st looked was also faced with at least two stone-faced terraces during TS.3, thereby safeguarding the platform from the effects of No significant modifications to the summit were noted and the core downslope erosion. platform, delimited by U.4-7, remains pretty much unchanged from TS.2. All additions and terraces were fashioned of unmodified river cobbles measuring 0.06x0.06m to 0.17x0.29m and set in a brown mud mortar. The rocks tended to be positioned with their naturally flatter faces oriented outwards, though there was some variation in adherence to this pattern. Clear horizontal coursing was not recorded in any TS.3 construction nor were chinking stones consistently used to fill the gaps among larger rocks.

Time Span 4

Following abandonment, Str. 114-1st was largely covered by the natural deposition of S.5-8. Stratum 5 is a fine-textured, soft-compacted, brown soil that was exposed to a maximum thickness of 0.29m south of construction (its base was not revealed in our excavations). Stratum 5 was obscured, in turn, by the introduction of a moderately coarse-textured, moderately hard-

compacted, brown-to-gray soil (S.6). Stratum 6 blankets S.5 by 0.14-0.25m on the east and directly overlies S.4 by 0.19-0.29m north of U.16. Strata 7 and 8 were recorded east and west of Str. 114-1st. They are essentially identical moderately coarse-textured, hard-compacted soils that are distinguished by slight color differences (S.8 is a darker brown than underlying S.7) and the greater concentration of small roots in overlying S.8. Together, these earth level are as much as 0.74m thick east of Str. 114-1st. Dense concentrations of fallen architectural debris were recorded for distances of at least 1.2m, 1.76m, and 0.5m east, north, and south of final-phase architecture (F.2). Moderately dense collections of tumbled stone were also noted coming from atop Str. 114-1st (all included in F.2). The extensive disruption suffered by Str. 114-1st, seen particularly on its southeast, southwest, and northeast basal corners and the southern steps, hints at stone-robbing over the years succeeding abandonment. It may well be that significant portions of Str. 114-1st were recycled to erect some of the late constructions reported in the western portions of Op. 31.

Structure 115

Structure 115 is part of a line of buildings erected along the terrace margin on the northeast edge of the patio defined by Strs. 114-117, 121-123. Structures 114, 116, and 117 are part of that line, the last two being 2.5m and 6.5m to the northwest, respectively. Immediately to the southeast, Strs. 114 and 115 appeared, on the basis of surface observations, to be joined. The land rises gradually from southwest-to-northeast towards Str. 115, the ground dropping off abruptly away from the edifice's northeast flank. Roughly 66m2 were excavated in the course of completely clearing Str. 115 (Subops. 31G, I, and S). Digging was carried down to a maximum depth of 1m below modern ground surface outside architecture (construction fill was not probed) revealing at least three building phases. The work was overseen by E. Bell and S. Yates from February 12-May 18, 1990.

Time Spans

Time Span 1	Construction Phase -	<u>Units</u>	<u>Strata</u> S.1	<u>Features</u>	<u>Date</u> LCLII?
2	Str. 115-3rd	U.1-2	-	F.1	LCLII?
3	-	-	S.2	F.2	LCLII
4	Str. 115-2nd	U.3-12, 18, 19	-	-	LCLII?
5	Str. 115-1st	U.13-15	-	-	LCLII/III, EPC?, LPC?
6	Str. 115-1st	U.16, 17	-	-	EFC!, LFC!
7	-	-	S.3-5	F.3	-

Time Span 1

Stratum 1 is a fine-textured, moderately hard-compacted tan soil mottled with white/gray ash that underlies construction pertaining to TS.2. Excavations revealed that S.1 is at least 0.31m thick and rises 0.11m over 0.62m west-to-east before it is lost beneath the mass of Str. 114 and 115 construction (S.1's base was not encountered). Recovery of cultural material from S.1 points to a human presence in the immediate vicinity of Str.115 prior to that building's erection. Unfortunately, comparable stratigraphic information was not obtained for Str. 115's southwestern and northeastern flanks, though it is clear that both U.1 and 2 of Str. 115-3rd are set on S.1.

Time Span 2

Only what appear to be the western and southern basal facings of Str. 115-3rd were revealed in Subops. 31G, I, and S (U.1 and 2, respectively). These cobble retaining walls stand 0.3-0.45m tall and define the perimeter of a building that measures 5.6m north-south by at least 2.7m east-west (U.2's full length is obscured by later architecture on the east). Most of Str. 115-3rd's summit is buried beneath subsequent construction, the small portion of it visible on the west being floored with earth. The platform is oriented roughly 12 degrees. Units 1 and 2 are fashioned of unmodified river cobbles measuring 0.1x0.23m up to 0.1x0.49m. The rocks are oriented with their naturally flatter aspects facing outwards and are set in a tan mud mortar. Chinking stones are not much in evidence and horizontal courses are difficult to discern.

Possible remnants of a cobble foundation, 0.08m high by 0.3m wide, were recorded roughly 2.3m southeast of the easternmost exposed point on U.2 (F.1). This putative construction was exposed over a north-south length of 0.8m and is oriented approximately 13 degrees. The building of which F.1 may be a component is seemingly unrelated to Str. 115-3rd. Instead, F.1 might be part of a complex of humble edifices scattered along the northern terrace edge and later covered when more substantial architecture was raised in this area (U.24, underlying Str. 114-1st, is another potential element in the aforementioned complex).

Time Span 3

Following Str. 115-3rd's abandonment, the building, along with nearby F.1, were largely covered by the introduction of S.2. This earth layer consists of a fine-textured, soft-compacted, tan to gray ashy soil that covers S.1 on the west by 0.08-0.2m. Stratum 2 maintains a more-orless even upper surface over the 1.22m west-to-east it was exposed west of U.1. A light concentration of small stones was found embedded in S.2 for a distance of up to 0.34m west of that construction (F.2). Feature 2 may represent materials fallen from Str. 115-3rd construction. The situation south of Str. 115-3rd is less clear, though we could ascertain that TS.4 construction was raised atop S.2 in this area. Stratum 2's source remains uncertain though its high ash content hints that it includes debris originating from cultural activities. Given the apparent modification of natural terrain through the introduction of earth fill in areas southwest of Str. 116 and south of Str. 114 immediately to the northwest and east, respectively, we cannot rule out the possibility that S.2 was deposited as part of the same effort to level out the terrace summit around Strs. 114-116.

Time Span 4

Structure 115-2nd is a platform delimited by 0.42-0.8m-high cobble walls (U.3, 4, 6, and 7). This new construction overlaps its predecessor, remnants of the latter found extending out 0.2m to the south and 0.25-0.65m to the west from under U.3 and 4, in turn. The most massive of these elements, the northern basal riser (U.6), stands 0.8m high and is ca. 1m wide. So substantial a construction was probably needed to withstand erosion on this side where Str. 115-2nd overlooks the descent from the terrace summit. The southwest corner may have been inset ca. 0.7m originally (U.18 marking the eastern margin of the proposed indentation). At some later date, U.3 was continued westward burying the putative inset, an interpretation suggested by a change in construction noted west of the U.3/18 junction.

Structure 115-2nd's summit was ascended <u>via</u> two sets of steps, each of which consists of a single riser, situated near the middle of the edifice's south (U.8) and west (U.9) faces. Unit 8, ca. 0.25m deep and ascending 0.18m from the patio surface, is built of an upper course of faced stone blocks underlain by a mix of cobbles, chinking stones, and at least one masonry block. This step is integrated with Str. 115-2nd's southern basal facing (U.3) and is 0.7m wide. Its western counterpart (U.9) measures 2.1m north-south and projects 0.3m west from the platform's western basal wall (U.4). Unit 9 abuts U.4, stands ca. 0.3m tall, and is fashioned of cobbles mixed with chinking stones, possibly capped with schist slabs.

The summit reached by stepping up and over U.8 and 9 consists of two rooms running in an east-west line backed on the north by another enclosure. These compartments are delimited by low stone foundations that stand 0.3-0.53m high and are 0.3-1m wide (U.5, 10, and the tops of U.4, 6, and 7). Unit 9 provides direct access to the western room, an earthen-floored compartment that measures 1.1x1.45m. This enclosure is completely open on the west where it overlooks U.9. Passage from the patio to Str. 115-2nd's summit is equally direct, U.8 leading up to a 0.65-0.7m wide open space beyond which on the north is the eastern room. The latter covers 1.45x1.7m (measured across the center) and is paved with cobbles and some schist slabs (U.12). Entrance is obtained by stepping on and/or over the 0.1-0.15m high by 0.3m wide foundation that bounds the enclosure on the south (U.5). Unit 5 is so low where it delimits the eastern room's south flank that it may have served as no more than a threshold. Both the western and eastern compartments, therefore, were apparently left open where they overlooked formal steps. A 0.24m-wide gap in the top of U.11, the foundation separating the west and east rooms, may signify a passageway between these enclosures. A concentration of schist slabs within the U.12 floor of the eastern room opposite the putative door may have formalized this accessway. Nevertheless, movement between the compartments would still require stepping up 0.23m onto the top of U.11.

The earthen-floored northern enclosure covers 0.85x2.5m (measured across the center) and is isolated from the aforementioned enclosures by one of the largest summit constructions, U.10. The latter is 0.53m high by as much as 1m across, far larger than would be needed to support a perishable wall demarcating the summit rooms. Unit 10 may well have served both to segregate enclosures and as a 2.75m-long bench. Outside of the possibility presented by U.10, there is no evidence of built-in architecture atop Str. 115-2nd.

The patio fronting Str. 115-2nd is partially surfaced with cobbles and schist slabs (U.19). Unit 19's western margin lines up with the western edge of the U.8 step and extends for roughly 3.2m south of that riser. West of this curving boundary the patio seems to have been covered with earth. Unit 19's irregular perimeter does not seem to be a product of variable preservation, though the architectural significance of its erratic boundary still eludes us.

Structure 115-2nd is a cobble-faced platform that stands 0.42m, 0.8m, and 0.53m high on the south, north, and west, respectively (the east flank, buried beneath renovations added in TS.5 and 6, was not uncovered), encompasses 3.35x5.5m (excluding the U.8 and 9 steps), and is oriented approximately 12 degrees. The building's superstructure consists of three rooms, two arranged in an east-west line and entered through wide doorways overlooking formalized steps and a more private space on the north. The latter is separated from the more easily accessible portions of the summit by a substantial cobble wall that may have doubled as a bench. The compartments encompass 1.6m2 (southwest), 2.5m2 (southeast), and 2.1m2 (north) and are floored with earth (southwest and north) as well as stone (southeast). Facings and foundations consist primarily of unmodified river cobbles that range in size from 0.06x0.11m to 0.18x0.26m (excluding chinking stones). Faced masonry blocks are a minority component in U.5 and are the primary material from which the U.8 step is fashioned (sizes of measured examples are 0.12x0.2m, 0.12x0.31m, 0.12x0.4m, and 0.12x0.46m). Wall and footing stones are set in one to five horizontal courses, packed round with chinking stones, all held together by a brown mud mortar. This same binding agent fills the interstices among the rocks comprising the U.12 payement. The naturally flat faces of cobbles in walls and foundations tend to be oriented outwards.

Time Span 5

The platform was expanded eastward during this interval, all other flanks apparently remaining unchanged. The top of U.7, Str. 115-2nd's east basal wall, remained visible south of U.10, the former serving now as a room divider. The eastern facing now consists of U.13 and 14. The former is ca. 0.7m high, corners with U.6, and runs 2.9m south to its junction with a 0.95m eastward extension of U.10 (U.10 is built up and over U.7 here). Unit 14, a 0.5m-high cobble wall, joins U.13 at a point 0.9m south of the platform's northeast corner, projects 0.3m eastward from that facing, and continues 4.4m south to form Str. 115-1st's southeast corner with an eastward extension of U.3. South of the U.13/14 intersection, U.13 serves as the eastern foundation for the newly enlarged northern summit room (now covering 0.85x2.85m), replacing U.7 in that capacity. The latter apparently protruded ca. 0.25m above floor level, possibly acting as a 0.3m-wide by 0.8m-long shelf set against the northern room's eastern wall. Together, U.13 and 14 give Str. 115-1st an inset northeast corner measuring 0.3x0.9m. A new summit room was created between U.7, 14, and eastward extensions of U.5 and 10. This enclosure measures 0.7x1.65m and is surfaced with schist slabs (primarily) and cobbles (U.15). This compartment was probably entered from the south by stepping up and over an eastward continuation of U.5. Unit 5 rises only 0.1-0.14m above the U.15 floor and, as was the case in the room immediately to the west, probably served more as a threshold than a foundation.

Structure 115-1st stands 0.42m, 0.8m. 0.53m, and 0.7m high on the south, north, west, and east, measures 4.5x5.5m, and retains the orientation of approximately 12 degrees. The summit

now supports three rooms set in an east-west line, a relative large central enclosure (measuring 2.5m2) flanked by two smaller compartments (covering 1.6m2 on the west and 1.2m2 on the east). The northern room now encompasses 2.4m2, its eastern end taken up with a low stone shelf. Unit 10 most likely continued to serve as a bench and room divider. Walls and foundations added at this time are built mostly of unmodified river cobbles falling along the size continuum from 0.07x0.12m to 0.1x0.26m (excluding chinking stones). The rocks are placed in horizontal courses, packed round with chinking stones, and bound together with a brown mud mortar. The naturally flatter aspects of the cobbles face outwards.

Time Span 6

The final construction episode attested to in the Str. 115 investigations consists of raising U.16 and 17. The first is a substantial stone terrace, measuring 0.65-0.9m wide and ca. 0.5m high, that lies 0.7-1.1m north and downslope from Str. 115-1st. This construction is apparently part of an extensive erosion-control system, other components of which were recorded below Strs. 114-1st and 116-1st to the east and west. Unit 16, in fact, is the westward continuation of a comparably large terrace fronting Str. 114-1st on the north. The architectural import of U.17 is more problematic. This 0.5m-wide by 0.46m-high cobble wall is integrated with U.16 on the north and extends southwest at an angle of 198 degrees to intersect Str. 115-1st near its southeast corner. It is not clear whether U.16 and 17 together comprise eastern and northern retaining walls for an enlarged version of Str. 115-1st. The absence of a western basal facing linking up with U.16 renders this interpretation improbable. In the absence of a better alternative, we tentatively suggest that U.17 was raised to mark the boundary between neighboring Strs. 114-1st and 115-1st. As noted in the discussion of Str. 114-1st (TS.3), this edifice and Str. 115-1st were eventually linked during their final period of occupation.

Units 16 and 17 are built of unmodified river cobbles measuring 0.07x0.12m to 0.16x0.26m (not including chinking stones). Horizontal coursing is not clear. Chinking stones are loosely set around some of the larger rocks and a brown mud mortar is used as a binding agent. Though the naturally flatter aspects of cobbles are generally oriented outwards, the effort devoted to this task is less than that evidenced on other Str. 115 walls and foundations.

No other significant changes were seemingly visited on Str. 115-1st during this span.

Time Span 7

Following Str. 115-1st's abandonment, S.3-5 accumulated to ca. 0.5m above S.2 and covered all but the uppermost portions of the platform. These earth levels are distinguished by minor variations in color, ranging from tan lower down (S.3) through brown (S.4) to dark brown (S.5) as modern ground surface is approached. Stratum 5 also contains a much denser concentration of small roots than the underlying layers. Otherwise, S. 3-5 are all moderately coarse to coarse-textured, hard-packed earthen levels. Debris fallen from final-phase architecture was found embedded in S.3-5 on all sides of the platform (F.3). Feature 3 was particularly dense off Str. 115-1st's southeast and northeast corners, both of which were very poorly preserved.

Structure 31-Sub2

Structure 31-Sub2, 0.25m south of Str. 114-1st and 6m southeast of Str. 115-1st, closes off the southeast corner of the patio delimited by Strs. 114-117, 121-123. This building is apparently part of an architectural complex that went undetected during initial survey and extends for an undetermined distance south-southwest of Str. 114-1st. Originally encountered during the excavation of Str. 114, approximately 11.3m2 were eventually cleared within Subop. 31J and T on and around Str. 31-Sub2. Because of time constraints, investigations were limited to fully exposing the building's western, patio-facing side and digging a 1m-wide trench that cut completely across the edifice from east-to-west. Excavations continued down to a maximum depth of 0.9m below ground surface outside construction (architectural fill was not probed). A single building phase was revealed in the course of this work. Structure 31-Sub2's investigation was supervised by S. Yates.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	LCLII?
2	Str. 31-Sub2-1st	U.1-10	-	-	LCLII/III
3	-	-	S.2, 3	-	-

Time Span 1

Stratum 1, a fine-textured, moderately hard-compacted, tan soil, underlies Str. 31-Sub2-1st architecture by at least 0.12m (S.1's base was not revealed). Recovery of numerous artifacts from this earth level indicates a significant human presence in the immediate environs prior to the initiation of TS.2 construction.

Time Span 2

Structure 31-Sub2-1st is a low platform defined by cobble walls on all flanks. The building's northern (U.3) and southern sides (U.4) are faced with cobble walls that stand 0.25-0.4m high. Though no excavations were conducted above these facings on Str. 31-Sub2-1st, evidence gathered on the edifice's eastern and western flanks suggests that at least one additional riser intervenes between U.3 and 4 and the summit. Unit 6, for example, the 0.32m-high eastern basal facing, defines the edge of a ca. 0.55m wide terrace that ends on the west in the 0.25m ascent of U.7. Unit 7 marks the eastern boundary of Str. 31-Sub2-1st's summit. The platform's western, patio-facing side is fronted by U.1 which rises 0.29m and runs back (east) ca. 0.15m where it is succeeded by U.2. The latter rests on, and ascends as much as 0.42m above, U.1. A stone pavement (U.8) extends 3.02m back (east) from U.2; the remaining 0.32m of the summit between U.8 and 7 is apparently surfaced with earth. Unit 8 was exposed within the narrow trench dug across Str. 31-Sub2-1st and we are not sure how far it extended to the north and south. The summit pavement ends on the east at U.9, the upper 0.23m of a cobble wall that may well have

marked the eastern summit margin prior to U.7's construction. A floor (U.10) composed of cobbles and schist slabs extends 0.5-1.35m into the patio from Str. 31-Sub2-1st's western basal facing. This surface's western margin follows an irregular, generally curving, southwesterly course from the platform's northwest corner, reaching its greatest extent approximately 0.5m north of the southwest corner. It is at this point that U.10 turns abruptly eastward to rejoin U.1. Unit 10 almost completely buries U.1, a scant 0.1m of the latter is left projecting above the western floor. This relationship suggests that U.10 was introduced relatively late in Str. 31-Sub2-1st's occupation history, possibly after the patio level was raised ca. 0.19m above its elevation when U.1 was constructed. Another element that appeared late in Str. 31-Sub2-1st's construction sequence is U.5, a roughly 0.45m-high cobble wall that was traced for 1.5m south from where it abuts U.4. Unit 5 joins Str. 31-Sub2-1st at a point 1.4m east of the edifice's southwest corner. Because only a limited portion of U.5 was revealed, we cannot say whether it represents a southward augmentation of the platform or the remnants of a distinct building erected adjacent to Str. 31-Sub2-1st.

Overall, Str. 31-Sub2-1st is platform roughly 0.7m high that covers ca. 4.25x4.75m and is aligned roughly 6 degrees. The summit measures 3.7m east-west, approximately 82% of that area covered with a stone pavement. No other evidence of superstructure construction was noted. The east and west flanks (along with, probably, the north and south sides) are ascended via one terrace that give way to a step-up to the summit. Fragments of a possible earlier wall at the eastern end of the summit pavement imply that Str. 31-Sub2-1st reached the final version described here by means of several stages. The cobble-and-slab pavement that all but buries Str. 31-Sub2-1st's western basal facing and the U.5 wall appended onto the platform's southern flank suggest that the building was subject to extensive renovations during its use-life.

All walls and floors are fashioned, primarily, of unmodified river cobbles that measure 0.03x0.13m to 0.1x0.4m. Two cut blocks were incorporated into U.2 and, as noted, schist slabs are components of the U.10 floor. There was a general tendency to orient the naturally flatter aspects of rocks comprising all facings outward. Chinking stones were used everywhere to fill in the gaps between larger rocks. Horizontal coursing of the more substantial stones was clearly attested to in U.1, 2, 4, 5, and 6. In U.1, a level of chinking stones underlies two courses of cobbles which are, themselves, packed round with small pebbles. Otherwise, chinking pebbles are scattered around the larger rocks and not concentrated at the base. A brown mud mortar serves as a binding agent in all uncovered units.

Time Span 3

Following abandonment, Str. 31-Sub2-1st was buried by the natural deposition of S.2, a moderately coarse-textured, moderately hard-compacted, brown soil. This earth level was succeeded, in turn, by S.3, a 0.1-0.16m-thick layer of earth that differs from S.2 only in its darker brown to gray hue and in the greater density of small roots it contains. As noted earlier, S.2 and 3 completely obscure Str. 31-Sub2-1st from view.

Structure 31-Sub3

Structure 31-Sub3 lies a scant 0.9m east of Str. 31-Sub2, both edifices being essentially

invisible on ground surface. Beginning as distinct buildings, Strs. 31-Sub2 and 31-Sub3 were linked during their final occupation phases into a single construction of undetermined size. The 1m-wide, east-west running trench that traverses Str. 31-Sub2 (part of Subop. 31J) was extended across Str. 31-Sub3, a total of approximately 4.5m2 on and around the latter building being uncovered in the course of this work. Excavations were carried down to a maximum depth of 0.72m below modern ground surface into the fill located between Strs. 31-Sub2 and 31-Sub3; the platform's hearting was not investigated. A single clear construction phase was identified in the investigations overseen by E. Bell.

Time Spans

Time Span	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	LCLII?
2	Str. 31-Sub3-1st	U.1-4	-	-	LCLII/III
3	-	-	S.1, 2	F.1	-

Time Span 1

At least 0.1m of S.1, a moderately coarse-textured, moderately hard-compacted, brown soil, underlies TS.2 architecture and must, therefore, have been laid down prior to Str. 31-Sub3-1st's erection (S.1's base was not revealed). An insufficient amount of S.1 was uncovered to determine whether it contained cultural material. A very similar soil overlies Str. 31-Sub2-1st construction immediately to the west (S.2, see above). This stratigraphic relation, coupled with the location of the base of Str. 31-Sub3-1st construction at roughly 0.12m above that of Str. 31-Sub2-1st, imply that the former was built somewhat later than its western neighbor.

Time Span 2

Structure 31-Sub3-1st is bounded on its western side by a 0.3m-high stone-faced riser (U.1). Units 2 and 3 appear to be cobble foundations that mark the western and southern margins, respectively, of at least one earthen-floored summit room. These footings are 0.12-0.21m high, 0.2-0.39m thick, and were traced for 1.4m east and 2.25m north from their junction at the enclosure's southwest corner. A segment of U.3 extends 0.4m west of the aforementioned corner and seems to have been appended at some point late in the construction sequence. The architectural significance of this addition is unclear. As noted above, a deposit composed of densely packed cobbles set in a brown earth matrix (U.4) fills the narrow space separating Strs. 31-Sub2-1st and 31-Sub3-1st. Unit 4 is ca. 0.47m thick at maximum and buries U.1 along with Str.31-Sub2-1st's eastern basal wall (U.6); it may have risen to an elevation equal to the top of Str. 31-Sub3-1st's U.2 and Str. 31-Sub2-1st's U.7 (the latter's eastern summit margin). Though only exposed over a very limited extent, we would still argue that U.4's introduction was designed to link these two adjacent constructions into a single extensive building. All facings and footings

are built of cobbles the naturally flatter faces of which are directed outwards. A few rocks in U.3 appear to have been artificially modified to create a vertical aspect. The cobbles making up U.1 are set in two horizontal courses surrounded and underlain by chinking stones (similar to Str. 31-Sub2-1st's western basal facing, U.1). Units 2 and 3 were seriously disturbed when cleared, but seem to have contained a single cobble course packed round with a few chinking stones. All rocks are set in a brown mud mortar.

Overall, Str. 31-Sub3-1st is a 0.3m-high platform that supports at least one summit room delimited by low cobble foundations. The cubicle measures at least 1.4x2.25m, though its full limits were never identified. Neither are the structure's basal dimensions known, though it is aligned roughly 89 degrees. Near the conclusion of its use-life, Strs. 31-Sub3-1st and 31-Sub2-1st were joined by the introduction of a cobble-and-earth deposit that fills the short distance between them.

Time Span 3

After abandonment, Str. 31-Sub3-1st was covered by continued deposition of S.1. A slight change in this earth level's color (to dark brown to gray) and a greater density of small roots in its upper 0.1-0.16m led to the definition of S.2. The two strata likely represent the same soil deposit modified by recent humus formation processes. A moderately dense scattering of cobbles fallen from final-phase construction was noted atop Str. 31-Sub3-1st's summit (F.1).

Structure 31-Sub4

Structure 31-Sub4 is 2.2m west of Str. 31-Sub2-1st's western facing (U.1) and 6.1m southwest of the exposed portions of Str. 31-Sub5. Uncovered while excavating Str. 31-Sub2, only a limited portion of Str. 31-Sub4's eastern margin was cleared as part of Subop. 31J (2.5m2 uncovered in all). Digging was carried down to a maximum depth of 0.48m below current ground surface outside (east of) construction; architecture fill was not investigated. A single construction phase was revealed in the course of this work, S. Yates supervising the excavations.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	Str. 31-Sub4-1st	U.1	-	-	LCLII/III?
2	-	-	S.2, 3	-	-

Time Span 1

Structure 31-Sub4-1st is represented by a 0.18m-high cobble wall that is oriented approximately 354 degrees (U.1). Unit 1 may be a platform's eastern basal wall or a foundation

for a surface-level edifice. The unmodified cobbles comprising U.1 are set in a single course with their naturally flatter aspects facing outwards. A brown mud mortar acts as a binding agent.

Time Span 2

Strata 2 and 3 cover U.1. The former is a moderately coarse-textured, moderately hard compacted earth that is overlain by a very similar soil (S.3) distinguished by its darker color (dark brown to gray) and greater concentration of small roots.

Structure 31-Sub5

Structure 31-Sub5 is 1.8m south of Str. 115-1st and 7m northwest of Str. 31-Sub2-1st (measured from the latter's northwest corner). This surface-invisible edifice was uncovered during the course of clearing its larger northern neighbor, Str. 115, and was investigated as part of Subop. 31I. Roughly 4m2 was cleared in these excavations, digging being pursued to a maximum depth of 0.94m below modern ground surface outside construction (architectural fill was not probed). A single building phase was revealed during this work which was overseen by S. Yates.

Time Spans

Time Span	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	LCLI/II?
2	Str.31-Sub5-1st	U.1-4	-	-	LCLII
3	-	-	S.2	-	LCLII/III?
4	-	-	S.3, 4	F.1	-

Time Span 1

Stratum 1, a fine-textured, moderately soft-compacted, tan soil, underlies, and obscures the lower 0.15-0.18m of, TS.2 architecture. This soil level was uncovered to a maximum thickness of 0.24m before disappearing into the base of excavation. Most likely, S.1 represents the soil into which Str. 31-Sub5-1st architecture was set.

Time Span 2

The limited amount of Str. 31-Sub5-1st revealed in Subop. 31I frustrates efforts to reconstruct the building's form and dimensions. Based on available evidence, U.1 and 2 appear to be components of the eastern basal facings of a platform. These stone walls are preserved to heights of 0.35m above S.1 and may define an inset northeast corner. Unit 2 abuts U.1,

suggesting that the former was added on to the latter as part of a relatively late renovation. Units 3 and 4 delimit the north and east sides of a low terrace that ascends a reconstructed 0.12m above S.1 and projects 0.7m east from U.2. Structure 31-Sub5-1st, therefore, rises at least 0.35m high, has a terrace extending 0.7m to the east, and is oriented very approximately 278 degrees. All platform components are fashioned of unmodified cobbles set in one to two horizontal courses, packed round and underlain by chinking stones. The naturally flatter aspects of these rocks are oriented outwards. A tan mud mortar acts as a binding agent in all walls. Stone sizes range from 0.06x0.11m to 0.21x0.28m (exclusive of chinking stones).

The base of Str. 31-Sub5-1st architecture is at nearly the same elevation as that of Str. 115-3rd construction. It is likely, therefore, that these edifices were parts of the same building complex; at least they are likely to have been contemporary.

Time Span 3

Stratum 2, a fine-textured, soft-compacted, gray ash, buries S.1 by 0.14-0.22m and almost completely submerges Str. 31-Sub5-1st. A moderately dense concentration of small to medium-size cobbles is incorporated in S.2 and extends at least 1.16m north of U.1. The architectural significance of these stones is unclear; possibly, they were introduced to create a more substantial foundation for a pedestrian surface than ash alone could provide. The eastern terrace (U.3 and 4) is lost beneath S.2 and only 0.19-0.21m of the platform's eastern facing (U.1 and 2) still protrudes above the ash. Structure 31-Sub5-1st, reduced somewhat in scale, may well have continued in use throughout TS.3. A similar ash deposit is recorded burying construction associated with Strs. 114 and 115 to the north, suggesting that a considerable portion of the Op. 31 living surface was raised in a single effort. Preexisting edifices, such as Str. 31-Sub5-1st, were seriously modified in the process.

Time Span 4

Strata 3 and 4 completely bury Str. 31-Sub5-1st. The former is a moderately coarse-textured, hard-compacted, brown soil that accumulated to depths of 0.37-0.45m over S.2. Stratum 4, a moderately coarse-textured, moderately hard-compacted, dark brown, root-rich soil, overlies S.3 by 0.12-0.14m. A light scattering of stone fallen from Str. 31-Sub5-1st was found extending 0.97m north of U.1 and 0.4m east of U.4 to the trench margin (F.1). Feature 1 is embedded in S.3.

Structure 116

Structure 116, along with Strs. 114, 115, and 117, closes off the north side of the patio defined by Strs. 114-117, 121-123. Structure 117 is 7m to the west while Str. 115 is 2.5m to the southeast. Structure 116, like Strs. 114 and 115, sits on the northern terrace margin overlooking a steep, albeit short, drop in this direction. Otherwise, the land surrounding Str. 116 is generally level, ascending gradually from northwest to southeast and southwest to northeast up to and under the edifice. What began as the straightforward excavation of a single building eventually developed into the extensive clearing of both Str. 116 and the patio immediately to the southwest where remnants of constructions not discerned on modern ground surface were uncovered

(conducted within Subops. 31 C, E, N, P, and R). When the dust settled, approximately 160m2 had been excavated within these five suboperations, revealing an equal number of buildings (including Str. 116) in the process. Excavations conducted on and around Str. 116 itself reached maximum depths of 1.59m below modern ground surface downslope (north of) construction and 0.85m below ground level south of the building on the terrace summit. At least two occupation phases were recognized in the course of this work which was overseen by L. Aldrete and H. Henderson.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1-5	-	LCLII
2	Str. 31-Sub6-1st Str. 31-Sub7-1st	U.1-2 U.3-8	-	-	LCLII
3	Str. 116-1st	U.8-10, 12-15	-	-	LCL II/III,
4	Str. 116-1st	U.11, 16-24	S.4	-	LCL II/III, EPC?
5	-	-	S.3, 6	F.1	-

Time Span 1

Stratum 1, a mottled tan-to-brown, fine-textured, hard-compacted clay, was revealed at the bottom of a deep probe sunk near the base of the northern slope. This earth level is at least 0.96m thick (the base was not encountered), and its undulating upper surface descends 0.33m over 2.65m south-to-north. The large quantities of artifacts, especially sherds, and carbon flecks, found embedded in S.1 point to a significant human presence in the area while this earth layer was being deposited. Many of the ceramic fragments were found tilting down from south to north, suggesting that they and the enveloping matrix were introduced together from upslope. Stratum 2 is a sizable lens (0.1-0.12m thick) composed of orange-tan, soft-compacted sand mottled with gray ash that is incorporated in S.1. The sand lens lies 0.72-0.76m below S.1's upper surface and slopes down 0.14m over 0.6m south-to-north before leveling out for its remaining 1m south-north extent. Stratum 3, a moderately fine-textured, moderately hardcompacted brown soil, overlies S.1 on the north. The lower 0.45m of this layer underlies Str. 116-1st construction on that building's downslope flank while at least 0.29m of S.3 underlies architecture pertaining to this building on the west. Such stratigraphic relations indicate S.3's temporal priority in both areas. Stratum 3 contains large quantities of cultural material, primarily sherds and bajareque fragments. Once again, most of the pottery north of Str. 116-1st was found

tilting down south-to-north, indicating an uphill source for the artifacts and the earth in which they are embedded. Stratum 4 takes S.3's stratigraphic place on the south. This fine-textured, hard-compacted, tan soil runs beneath Str. 116-1st's component units by 0.11-0.2m (though S.4's base was not encountered). On the east, a limited probe revealed that minimally 0.18m of fine-textured, very soft-compacted, gray ash (S.5) was laid down prior to erection of the first edifice(s) attested to in the immediate Str. 116-1st environs. Stratum 5's base lies beyond excavation limits while its top slopes up 0.05m over the 0.32m west-to-east distance that the layer was revealed.

Excavations on and around Str. 116-1st hint at a complex history of soil deposition preceding erection of the first identified buildings. The large quantities of cultural material recovered from most of these strata, especially those on the terrace's northern slope, strongly point to both a substantial human presence in the area during TS.1 and human intervention in the deposition processes.

Time Span 2

Units 1 and 2 are low cobble walls (0.1 and 0.2m high respectively, ca. 0.4m wide) found underlying later construction pertaining to Str. 116-1st's western room (see TS.4). Unit 1 protrudes 0.08m into S.5 and was uncovered running 2.55m north-south. This element disappears beneath U.15 on the north and into the southern excavation limits. Unit 2, ca. 0.8m east and slightly upslope from U.1, extends 2.6m south from beneath U.15 before turning a corner and extending a revealed 0.3m to the east. An earth identical to S.4 fills the area between U.1 and 2. The architectural import of U.1 and 2 remains eminently murky. Given their west-to-east ascent and close proximity, they may be fragments of two low terraces ascending a single building (Str. 31-Sub6-1st) whose summit lies to the east. If so, this edifice would have stood roughly 0.4m high above S.5 and been oriented approximately 27 degrees. Both putative risers are fashioned from unmodified cobbles set in a brown mud mortar. Chinking stones are interspersed among the larger rocks in U.2 but are far rarer in U.1. Neither component of Str. 31-Sub6-1st was well preserved. It may be that they were seriously disturbed and reduced in size during TS.4 construction (U.17, for example, rests directly on top of U.2).

A second building (Str. 31-Sub7-1st) predating Str. 116-1st runs beneath that edifice's eastern rooms (see TS.3). Structure 31-Sub7-1st is defined on the east, north, and west by 0.14-0.21m-high cobble walls (U.4, 5, and 3, respectively). Units 4 and 5 seem to be relatively insubstantial, measuring approximately 0.2m across, while the western element (U.3) is 0.34m wide. The building's southern border is difficult to discern. Unit 8 defines the northeastern limit of Str. 116-1st's southeastern room (see TS.3). This entity's base runs 0.25m lower than that of the western room wall (U.11), U.8 continuing behind (north of) U.11 and extending 0.45m west of the latter foundation to join U.3. Unit 8, therefore, seems a good candidate for the southern Str. 31-Sub7-1st wall except that the putative eastern wall (U.4) clearly runs under U.8's northeastern face. This seeming anomaly can be dispelled if it is assumed that U.8's great width (measuring 1.2m across) was achieved through additions made during TS.3, augmentations that buried U.4's southern segment. Unit 8's southwestern face, the base of which is at the same level as U.4, could, therefore, be an element of Str. 31-Sub7-1st construction. The above reconstruction is fraught with uncertainties but has the advantage of making sense of observed stratigraphic relations.

Units 3-5 and U.8 west of U.11 appear to have been truncated during TS.3 construction whereas we cannot rule out the possibility that U.8's height east of U.11 was augmented during this interval (U.8 is ca. 0.6m tall; though the portion running below U.11 is only ca. 0.25m high). The only construction identified within the area delimited by U.3-5, 8 is U.7, a ca. 0.2m-high wall located 0.35m west, and rising 0.2m above the preserved top, of U.4. Unit 7 was followed from a point 0.35m south of U.5 for 0.8m south to where it disappears beneath U.8's northern face. As implied above, U.7's base is more-or-less equivalent to U.4's extant top, implying that U.4 and 7 are part of a series of risers ascending east-to-west or U.7 is part of a summit feature atop a low platform whose eastern basal facing is U.4. In either case, the relations among U.4 and 7 suggest that Str. 31-Sub7-1st was a modest platform.

Based on these hypothesized interconnections, we surmise that Str. 31-Sub7-1st is a platform that stood approximately 0.3m high, covered 2.1x4.2m, and was aligned somewhere between 285 degrees (U.5) to 301 degrees (U.8). All surviving units are built of unmodified river cobbles with their flatter aspects oriented outwards. A brown mud mortar is used as a binding agent in each case. Chinking stones are not much in evidence within U.3-5 nor is coursing clearly visible (possibly as a consequence of later disturbances). The larger stones in U. 8, on the other hand, are placed in at least three horizontal courses around and under which are packed numerous chinking stones.

Unit 6 is a 0.46m-high cobble line traced for 1.4m north-south and lying 0.34m east of U.4. The bases of U.4 and 6 are at approximately the same depths, suggesting their rough temporal equivalence. Unit 6's component cobbles are set with their naturally flatter faces oriented westward towards U.4, implying that this element is part of yet another construction that extends for an undetermined distance to the east.

Time Span 3

Structure 116-1st, during this interval, is a surface-level edifice encompassing two earthen-floored rooms arranged in a southeast-northwest line. The southeastern compartment covers 1.6x4.1m (measured across the center) and is delimited by substantial footings (U.8, 9, 10, and 12) that stand 0.4-0.6m tall and measure 0.4-1.2m across. Unit 8, at 1.2m wide, is broader than necessary to support a perishable wall, hinting that it served other functions as well. One possibility is that U. 8's inner surface was used as a bench. The only possible external doorway, a 0.15-0.3m wide gap in the south corner, seems too narrow to have provided passage for all but the most emaciated. More likely, the enclosure was entered from the northwest room through a 0.45m-wide breach in the north corner between U.3 and 12. The narrower gap, therefore, may have been built to facilitate ventilation.

The northwestern cubicle is bounded by U.3, 13, 12, and 14, cobble foundations that are 0.22-0.4m high by 0.3-0.9m wide. The enclosure's east corner was heavily modified during TS.4, obscuring the manner in which U.3 and 13, the southeastern and northeastern foundations, were articulated. A 1m-wide gap between U.12 and 14 in the west corner provides easy passage into the room. The cubicle's overall dimensions are 1x1.7m.

Overall, Str. 116-1st during TS.2 is a surface-level building that measures 3.25x6.4m (maximally) and is aligned roughly 301 degrees. A relatively small northwestern room (covering 1.7m2) is paired with a much larger southeastern enclosure (area of 6.6m2), neither of which contains obvious built-in architecture. As noted earlier, however, the southeastern compartment's northeast foundation may have doubled as a bench. All foundations are made from unmodified river cobbles set in a brown mud mortar. The larger stones used to build U.8-10 are placed in three to four clear horizontal courses packed round with chinking stones. The remaining Str. 116-1st components exhibit less care in construction, coursing being absent and chinking stones much rarer. There is a tendency to orient the naturally flatter aspects of all U.8-10 and 12-15 rocks outward.

Time Span 4

Though Str. 116-1st remained a surface-level edifice during this interval, it was considerably modified. The patio surface south of Str. 116-1st was raised now by the addition of ca. 0.3m of S.4. Stratum 4 contains sizable quantities of cultural material, including bajareque fragments and ash lenses. Though it is possible that the aforementioned soil was introduced by natural means, its cultural content makes it much more likely that S.4 was deposited as part of a general effort to elevate the Op.31 living surface (see Strs. 114, 115, 31-Sub2, and 31-Sub5 for additional evidence of this terrace summit augmentation). Contemporary with S.4's introduction, Str. 116-1st's earthen floors were raised roughly 0.3m by the addition of earthen fill (similar to S.4) and U.11 was erected atop the new surface. The latter is a 0.5m high by 0.8-1.2m wide cobble wall that runs northeast-southwest between U. 8 and 10. Unit 8 northwest of U.11 was apparently dismantled down to a point equal to the level of the new floor, essentially removing that segment of the footing from view. Unit 3 also seems to have been buried now. The net effect of these changes was to create three enclosures out of what had been two. The southeastern compartment, now defined by U.8-11, measures 1.2x2.4m, the northwestern enclosure's dimensions are unchanged, while a narrow cubicle (0.8x2.45m) is sandwiched in between the above rooms (defined by U.10, 11, 12, and 20). Units 20 and 21 were also raised at this time. These walls stand 0.2-0.3m high, are 0.25-0.35m wide, and together define a space measuring 0.9x1.5m on top of U.8. Unit 20 seems to have linked up with U.13, the northwestern room's northeast foundation, but this junction is obscured by the even later construction of U.22. The latter is a 0.2-0.35m-high by 0.25m-wide cobble wall that runs for 1.5m northwest-southeast across U.13 and 20. Unit 22 seems to be one of the latest constructions erected at Str. 116-1st and may be part of a building in use well after the rest of edifice was abandoned and already starting to fill up with debris. No other elements were found that might relate to U.22.

Structure 116-1st was greatly enlarged on the northwest by the addition of a sizable, earthen floored room in this direction. This enclosure is defined by clear cobble foundations on the northeast, northwest, and southwest measuring 0.15-0.45m high by 0.4-0.65m across (U.15-17). The southwestern footing's base (U.17) ascends 0.4m northwest-to-southeast over its 3.6m length, suggesting that the underlying S.4 was introduced over a comparable northwest-to-southeast slope in this area. The room's southeast flank is defined by a cobble line (U.19) that runs 1.6m northeast from U.17's east corner to a point just 0.15m shy of U.14. Unit 19 projected no more than 0.08-0.12m above the earth floor and is only one stone (0.18-25m) wide. The

insubstantial nature of U.19, coupled with its marked divergence from the orientations of other Str. 116-1st components, raise questions as to what architectural functions this element served. It is unlikely to have been a load-bearing foundation, acting instead, perhaps, as a threshold to the new northwestern room. Unit 18, a roughly trapezoidal-shaped stone element built against U.15, is the only architecture found within the enclosure delimited by U.15, 16, 17, and 19. This construction projects roughly 0.2m below the compartment's floor, rises about the same distance above that surface, and covers 0.85x1.1m (measured across the center). Unit 18's architectural significance is unclear; it may have been added to narrow the entrance into the room from the southeast, the 0.55m-wide gap between it and U.17 functioning as a doorway. The northwest room's interior encompasses 1.4x3.9m (measured to U.18's southeastern margin).

Unit 15, the northeast foundation in the northwest addition, may have changed direction at that room's east corner. Though the evidence is ambiguous at best, the wall may continue for approximately 3.75m to the east/southeast, serving now as a terrace immediately below and north of Str. 116-1st's original southeastern room complex. A much more obvious cobble terrace is 0.7-1m further downslope (U.24). Unit 24 is a preserved 0.3-0.46m high by 0.5-0.75m wide and follows the contour of the terrace ascent, trending 4.3m northwest-southeast before turning to run at a shallower angle to the east/southeast below the southeastern room complex. The southeastern termini of U.15 and 24 were not encountered; they may ultimately link up with the terraces identified downslope from Strs. 114 and 115 (see above). On the northwest, however, U.24 abuts a northeast-southwest trending wall (U.23) that is eventually incorporated into the north corner of the northwest addition (this relationship strongly suggests that U.23's construction is contemporary with the erection of the northwest room defined by U.15-19). Unit 23 survives to a height of only 0.15m (1 stone level), is 0.5m wide, and apparently marks the northwestern edge of the terrace system fronting Str. 116-1st and, possibly, Strs. 114-1st and 115-1st to the southeast.

Structure 116-1st was now a complex of four rooms set on a newly elevated ground surface, covering roughly 3.5x11.1m, and generally maintaining the previous orientation of 301 degrees. That portion of Str. 116-1st built in TS.3 had its floor raised approximately 0.3m and its interior space partitioned into three compartments set in a southeast-northwest line. These enclosures cover 2.4m2, 2m2, and 1.7m2 (moving southeast to northwest). Unit 8 may have continued to serve, in part, as a bench but the addition of U.20 and 21 divided that surface into two spaces encompassing 2.3m2 (southeast of U.21) and 1.4m2 (northwest of U.21). Perhaps construction of U.11, 20, and 21 together created an L-shaped bench intervening between the southeast and central rooms, said bench's main axis measuring 2.5m long by 0.8-1.2m wide, its northeast projection being 0.6x0.9m. No obvious doors issue into the southeastern room, that space most probably being accessed by passing over U.11. The room added northwest of the original edifice covers 5.5m2 and was entered through a door on the southeast. In general, Str. 116-1st is divisible during TS.4 into two major parts, the southeastern complex of three small rooms and the northwestern enclosure. These components face each other across a central space in the building's center. A 1.85m-wide door between U.12 and 17 provides primary access to this "foyer," passage to the edifice's two wings on the northwest and southeast being possible from this point. Two cobble terraces were erected during TS.4 north of Str. 116-1st, serving to slow erosion on this downsloping flank. Very late in the occupation sequence, probably following abandonment of most of the building, an ephemeral construction was raised atop what

had been the southeastern room complex, only one of its foundations surviving (U.22). Walls dated to TS.4 are fashioned of unmodified river cobbles set in a brown mud mortar. Horizontal coursing of the larger stones is most evident in U.11 where two-to-three levels of cobbles are recorded. This construction feature is only weakly attested to in the other TS.4 constructions or is absent altogether. Chinking stones are packed in around the larger rocks in each case and, except for the northern terraces, the naturally flatter aspects of all rocks tend to be oriented outwards.

Time Span 5

Deposition of S.3 resumed following cessation of occupation at Str. 116-1st. A moderately coarse-textured, hard-compacted brown soil (S.6) covers S.3 by 0.07-0.23m. Stratum 6 most likely represents an upward continuation of S.3 modified by its proximity to modern ground surface. Embedded within the upper portions of S.3 and 6 are stones fallen from final-phase architecture (F.1). Moderately dense to light concentrations of this material were encountered off all of Str. 116-1st's flanks, extending for 2.92m south and at least 3.88m north of the building.

Structure 31-Sub8

Structure 31-Sub8 is a surface-invisible construction uncovered ca. 1.5m south of Str. 116-1st during excavation of the latter. This platform occupies the center of a patio defined by Strs. 116, 31-Sub10, Sub11, and Sub12 on the north, east, south, and west, respectively. Structure 31-Sub8's position essentially divides the patio into two segments, one north and the other south of the edifice. The land surrounding Str. 31-Sub8 is the level terrace summit. Digging was carried down to maximum depths of 0.74m below modern ground surface outside construction and 0.59m into architectural fill. Two building phases along with a small portion of yet another construction undetected on ground level were uncovered during the investigations overseen by H. Henderson and L. Aldrete.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	LCLII?
2	Str. 31-Sub8-2nd Str. 31-Sub9-1st	U.1 U.2	-	-	LCLII
3	Str. 31-Sub8-1st	U.3-16	S.1	-	LCLII/III
4	-	-	S.1-3	F.1	-

Time Span 1

Stratum 1, a fine-textured, hard-compacted, tan soil, underlies TS.2 architecture by at least 0.13m (the layer's base was not encountered). Not enough of S.1 where it runs beneath U.1 and 2 was uncovered to determine whether it contained cultural materials (objects found in the portions exposed may well have been compressed downwards from overlying deposits). Given the artifacts that were recovered at comparable and greater depths in S.1's northward continuation (glossed as S.4 in the Str. 116 excavations, see above), it is almost certain that human occupation coincides with the introduction of S.1's lower segments.

Time Span 2

Structure 31-Sub8-2nd is represented solely by U.1, a cobble wall roughly 0.12m high that was exposed immediately beneath, and projecting no more than 0.25m out from under, Str. 31-Sub8-1st's western facing (U.6). Unit 1 runs for approximately 1.95m at an orientation of roughly 217 degrees. The element steps up ca. 0.3m from north-to-south about half way along its revealed length, giving the impression that U.1 was the western basal wall of a low, stone-faced platform fronted on the north by a ca. 1m wide stone pavement. The remainder of Str. 31-Sub8-2nd lies beneath its immediate successor and was not exposed. Unit 1 was subsequently covered by roughly 0.25m of S.1.

The only recovered portion of Str. 31-Sub9-1st is a 0.4m-wide by at least 0.05m-high cobble wall, oriented roughly 310 degrees, that was traced for 1m along its northwest-southeast length (U.2). Unit 2 is 2.15m north of the northernmost exposed point of U.1 and like the latter is set in S.1 and buried by construction dating to TS.3 (0.22m beneath U.15). Too little of Str. 31-Sub9-1st was uncovered to determine its form and dimensions; we cannot even be certain whether U.2 is a platform facing or foundation defining the perimeter of a surface-level edifice.

Units 1 and 2 are built of unmodified river cobbles set in a tan mud mortar. Chinking stones are not commonly used and horizontal coursing is not clearly expressed. The last observation is not surprising given the limited portions of both units available for inspection.

The bases of U.1 and 2 share nearly identical elevations and lie at approximately the same depth as a component of Str. 31-Sub6 covered by Str. 116-1st (U.2, a scant 0.65m north of Str. 31-Sub9-1st (these depth measurements are within 0.06-0.1m of each other). Such relationships imply that Strs. 31-Sub8-2nd, 31-Sub9-1st, and 31-Sub6-1st were parts of a building complex superseded by later construction. Structure 31-Sub7-1st to the northeast may have been part of this aggregate as well.

Time Span 3

Structure 31-Sub8-1st is a low, stone-faced platform that, despite its diminutive size, experienced a number of renovations throughout its use-life. The building's core is defined by U.3-6, cobble retaining walls standing 0.33-0.6m high. The tallest components are U.6 (0.6m) and U.5 (0.52m) on the west and south, respectively. The former, as noted above, rests directly on its predecessor's western facing (U.1) and projects 0.22m down into S.1. Unit 6, therefore, would have stood approximately 0.38m above S.1. Unit 5 achieves its full height by means of

two risers, the basal element 0.12m high by 0.17m wide, the next ascending step rising 0.4m to the summit. Unit 5's lower element runs from Str. 31-Sub8-1st's southern corner for 3m to the northwest, stopping 0.5m shy of the building's western corner. Consequently, the latter corner is inset 0.17x1m; all other basal junctions appear to be direct. Some of the height discrepancies noted above may partly be accounted for by the raising of ground surface northeast and southeast of Str. 31-Sub8-1st by the addition of ca. 0.3m of soil identical to S.1. Such an augmentation was noted for the area fronting Str. 116-1st immediately to the north and it seems likely that the enhancement was carried southward to Str. 31-Sub8-1st. Said fill may not have been introduced immediately southwest and northwest of Str. 31-Sub8-1st, however, thus requiring the builders to raise higher basal walls on these flanks to compensate for the lower ground surfaces above which U.5 and 6 were erected. Structure 31-Sub8-1st's summit is featureless save for a stone pavement that covers the entire elevated area (U.13).

A 0.16-0.25m high platform projects 1.05m (on the northwest) to 1.5m (on the southeast) northeastward towards Str. 116-1st. This earthen-floored addition, delimited by cobble facings on the northwest, northeast, and southeast (U.7, 8, and 9), joins the core platform at its eastern corner and terminates 0.65m southeast of the northern corner. The fill retained by U.7-9 consists of a moderately dense packing of cobbles set in a brown earth matrix (U.14). A stone block appears to have been appended to Str. 31-Sub8-1st's southern corner in a series of two, short increments. The first (U.10) projects ca. 0.3m southeast from U.4, running 1.4m northeast from the latter's southern end. Unit 10 stands a preserved 0.18m high and may have functioned as a step-up to Str. 31-Sub8-1st's summit. Subsequently, U.11 was appended on to U.10's southeast face, covering all but 0.3m of the latter's northeastern-most extent. Unit 11 is about the same height as U.10 and extends that putative step 0.5-0.6m to the southeast. Splaying out somewhat on the southeast, U.11 is 1m across where it abuts U.10, 1.2m across at its southeastern margin. Most likely, U.11's addition was intended to augment the width, but not the height, of the preexisting step. Another step is located near U.5's axis (U.12). Measuring 0.17m high, 0.25m wide, by 1.2m long, U.12 would have created, together with U.5's lower element, a 0.42m-wide step on Str. 31-Sub8-1st's southwest flank.

Though not integral parts of Str. 31-Sub8-1st, two units lying immediately north of the platform were probably important components in activities conducted around the platform. Unit 16 is a roughly circular feature composed almost exclusively of flat-laid schist slabs. Another slab of the same material occupies the circle's center. Unit 16's diameter is 1.15-1.38m and it rests on the portion of S.1 introduced during TS.3, ca. 0.3m northeast of Str. 31-Sub8-1st's U.8. There is no sign of burning on and around U.16. Unit 15 is a rough cobble pavement, ca. 0.25m thick, that extends 3.25m northeast from Str. 31-Sub8-1st's northern corner, narrowing from 1.4m wide on the southwest to 0.75m across on the northeast. Units 16 and 15 touch and are at about the same elevation, resting on S.1. This cobble surface may have been introduced to create a relatively dry (at least less muddy) passage among Strs. 31-Sub8-1st, 31-Sub12-1st, 116-1st, and U.16.

Structure 31-Sub8-1st is, therefore, a 0.33-0.6m-high platform encompassing 2.4x3.5m and aligned roughly 297 degrees. A 0.16-0.25m-high projection extends 1.05-1.5m northeast of the platform while low steps were appended to the building's southern corner and southwest wall. The featureless summit is completely paved with cobbles. A possible cobble walkway links Strs.

31-Sub8-1st, 31-Sub12-1st, and 116-1st with each other and with an enigmatic circular feature composed of flat-laid schist slabs. Structure 31-Sub8-1st seems to have been built after the surrounding terrace surface was raised by the addition of ca. 0.3m of S.1 soil, U.8, 15, 16 and, most probably, U.3, 4, 10, and 11 being set atop this elevated living surface. If so, Str. 31-Sub8-1st's erection is contemporary with the additions made to Str. 116-1st during TS.4. Units 3-15 are all fashioned, primarily, of unmodified cobbles set in a brown mud matrix. A few cut stone blocks were found scattered among these river-rounded stones in U.5, 8 and 12. Coursing of the larger cobbles is clearly evident in U.4-6, chinking stones being used in each case to fill in the gaps between sizable rocks; a level of chinking stones also underlies U.4. The remaining walls lack obvious horizontal courses though all incorporate chinking pebbles to variable extents. The naturally flatter aspects of rocks comprising facings are oriented outwards and there is a tendency to use relatively large stones at building corners.

Time Span 4

Structure 31-Sub8-1st is buried by the upper 0.07-0.23m of S.1 and deposition of S.2 and 3. Stratum 2 is a fine-textured, moderately hard-compacted, brown soil that accumulated to depths of 0.1-0.9m over S.1. Stratum 3, in turn, is a moderately coarse-textured, hard-compacted, brown soil rich in small roots that covers S.2 by 0.12-0.2m. A light concentration of stones tumbled from final-phase architecture (F.1) was found off all of Str. 31-Sub8-1st's flanks, extending for roughly 0.5m north and 0.6m south of the edifice.

Structure 31-Sub10

Structure 31-Sub10 was uncovered as part of the southward extension of excavations originally intended to reveal Str. 116. This surface-invisible platform, 0.65m southeast of Str. 31-Sub8-1st and ca. 5m south of Str. 116-1st, occupies the east flank of a previously unrecognized patio the other sides of which are defined by Strs. 31-Sub8-1st, 31-Sub11-1st, and 31-Sub12-1st on the north, south, and west, respectively. The terrain on which the investigated building was erected is more-or-less level, though it does descend gradually from north to south. Digging here revealed the structure's north, west, and south sides along with a portion of the summit and was carried down to a maximum depth of 0.58m below modern ground surface outside construction; architectural fill was not probed. These investigations, overseen by H. Henderson and L. Aldrete, identified a single building phase.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	LCLII?
2	Str. 31-Sub10-1st	U.1-15	-	F.1	LCLII/III?
3	-	-	S.2-3	F.2	-

Time Span 1

Stratum 1, a fine-textured, hard-compacted, tan soil, underlies architecture here by at least 0.09m (the earth layer's base was not encountered). Artifacts recovered from this thin segment of S.1 may well have worked their way down from overlying deposits and cannot be used to identify human occupation contemporary with the soil's deposition. Cultural material is, however, plentiful at lower depths in S.1's northward extension near Str. 116 (designated S.4 there) and it is, therefore, likely that Str. 31-Sub10-1st's eventual construction site was an activity locus during TS.1. In fact, as argued above (Str. 116, TS.4 and Str. 31-Sub8, TS.3), the upper portions of S.1 that support Str. 31-Sub10-1st architecture were probably purposefully introduced to elevate the terrace surface in this area.

Time Span 2

Structure 31-Sub10-1st is a low platform faced on the exposed north, west, and south by cobble retaining walls (U.1, 7 and 9, and 10). Unit 1, at 0.1-0.15m high, is the lowest riser, U.7, 9, and 10 are preserved to 0.31-0.6m tall. Unit 7, the most complexly built of these facings, consists of a lower riser 0.2-0.35m high backed immediately (ca. 0.2m distance) on the east by a second ascent of 0.12-0.18m. The latter probably represents the top of an original wall onto which the lower element was appended. The tops of both U.7's lower and upper elements step up 0.11m at a point ca. 1.8m south of the platform's northwest corner and continue at this elevation to the junction with U.8. The latter is a 0.27m-high, L-shaped cobble construction that projects 0.25m west of U.7 and continues south for at least 0.55m before being obscured by later construction. Unit 7 abuts and rides over U.8, the stones comprising U.7's basal element sloping down and away for ca. 0.3m north of the latter. Unit 7 could not be clearly linked to U.9 south of U.8 and it may be that U.7 ends at this point. Unit 9 continues the line of the western basal facing south of U.8. Unit 9, like its southern counterpart U.10, ascends to the summit in a single rise. Unit 9 lines up tolerably well with U.7's interior line and it may be that these two walls are components of the same facing. All of the platform's basal corners appear to be direct save for the northwest which is indented 0.2x0.25m. This inset corner is a consequence of the apparent addition of U.7's lower element.

Roughly 0.25m back (south) of U.1 is a 0.25m-high wall (U.2) that runs for 1.25m east from the platform's northwest corner. At its eastern terminus U.2 junctions with U.3, the 0.25m-high wall that defines the western flank of an earthen-floored summit room. Said enclosure measures 1.5x2.1m, is completely open on the north, and includes a niche encompassing 0.9x1m that projects southward from the compartment's southeast corner. Unit 4, standing roughly 0.3m high, closes off the niche's south flank while U.6 is a low stone wall (ca. 0.3m high) that extends 0.5m east from the west niche wall near that indentation's northern margin. Unit 6's architectural significance is unclear and it is not certain that it ever continued across the niche's full east-west width. The room's east side is defined by a cobble-faced descent of 0.14m (U.5) to a lower earthen floor. Unit 3 is apparently backed over the 1.35m separating it from U.7 by a stone surface (U.15). It may be that U.3 is the eastern face of a 1.7m-long (north-south) bench delimited by U.7 on the west and U.2 on the north. The northern room contains a cut block, measuring 0.39x0.53m, that is set into the approximate center of its floor (F.1). Feature 1 was

fragmented into 15 jagged, but still articulated, pieces and was charred black over its southern 0.23m.

Units 11-13 define a 0.4m-high construction that extends 0.74m south from Str. 31-Sub10-1st's southwest corner. This projection measures 1.35m across (at its junction with the platform). Though U.11 is aligned with the Str. 31-Sub10-1st's western facing (U.9), the U.11/13 construction was clearly added onto the platform relatively late in the building sequence. Another renovation consists of a stone pavement (U.14) that projects as much as 0.9m north from U.1. Unit 14 is easiest to discern on the west, stone density declining to the east over the excavated 1.4m. It is not clear whether the pavement continues all the way to the building's northeast corner.

Structure 31-Sub10-1st is a 0.35-0.55m-high platform that covers 3.95x4.8m (excluding the northern pavement and southern projection) and is aligned roughly 100 degrees. The earthen floored summit supports at least one room on the north, that enclosure measuring 3.2m2 and containing a niche in its southern wall that encompasses 0.9m2. A 0.25m-high stone-faced, stone-surfaced bench occupies the cubicle's western wall while a broken cut block was purposefully set in the room's approximate center. All Str. 31-Sub10-1st constructions are built of cobbles, the vast majority of which show no signs of artificial modification. The faces of several river-rounded stones seemed to have been manipulated to create a vertical aspect while a few cut blocks were found in U.9 and 10. Three masonry blocks comprise a single horizontal course at U.9's top whereas only 1 comparable stone was observed in U.10, located at the top of the latter's southeast corner. Horizontal coursing of the larger rocks was recorded for U. 3, 7, 9, 10, and 12, chinking stones being used in variable quantities everywhere (save for U.13) to fill in the gaps among these rocks. The flatter aspects of all wall stones are directed outwards. The U.14 surface is fashioned of cobbles and schist slabs. A brown mud mortar was used as a binding agent in all walls and the aforementioned pavement.

Time Span 3

Strata 2 and 3 completely cover Str. 31-Sub10-1st. The first is a moderately coarse-textured, hard-compacted, brown soil that buries S.1 by 0.27-0.29m. Stratum 3, a coarse-textured, moderately soft-compacted, brown earth containing numerous small roots, overlies S.2 by 0.17-0.23m. Embedded primarily in S.2 is a light to moderately dense scattering of stones displaced from final-phase architecture that extends 1.82m north and at least 0.89m south of Str. 31-Sub10-1st (F.2). Feature 2 is denser on the south than on the north.

Structure 31-Sub11

Structure 31-Sub11 closes off the southern flank of the patio delimited by Strs 31-Sub10, 31-Sub8, and 31-Sub12 on the east, north, and west, respectively. Structure 31-Sub10 is as close as 0.5m east of Str. 31-Sub11, the two being linked by construction of U.6, while Str. 31-Sub8 lies 4.65m to the north across the patio. The building was cleared before adequate records were made of the earth levels that completely covered Str. 31-Sub11. Consequently, we cannot precisely describe the nature of deposits introduced following Str. 31-Sub11-1st's abandonment. Digging was pursued to a maximum depth of 0.67m below modern ground surface outside

construction and to 0.07-0.4m below revealed construction, leading to the identification of a single construction phase. The work was overseen by L. Aldrete and H. Henderson.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	LCLI? LCLII
2	Str. 31-Sub11-1st Str. 31-Sub13-1st	U.1-8 U.9	-	-	LCLII/III
3	-	-	S.2	-	-

Time Span 1

Stratum 1, a fine-textured, hard-compacted, tan soil, underlies all exposed architecture. This earth level is at least 0.28m thick, its base lying beyond our excavation limits. There is a considerable discrepancy in the uncovered depths of S.1; its top is 0.38-0.42m higher outside (east of) construction than it is below the U.7 circular construction within the platform. These exposures are separated by no more than 1m and there is no sign that the differences result from S.1's natural slope. It may be that construction of U.7 involved removal of S.1's uppermost portions. Alternatively, S.1's height may have been augmented after Str. 31-Sub11-1st's construction, resulting in a thicker deposit of this material outside the platform's limits. As noted in the discussion of Strs. 116 and 31-Sub8 above, there is good evidence that a soil identical to that defined as S.1 here was introduced relatively late in the Op.31 occupation sequence to elevate the general terrace summit. It may well be that this earth-moving effort extended at least as far south as Str. 31-Sub11-1st, though this contention has not been established.

Time Span 2

Structure 31-Sub11-1st is a low stone-faced platform the center of which is largely taken up by a cobble-lined circular feature. Units 1-5 are basal facings that are 0.1-0.3m high and delimit the boundaries of a summit that is surfaced with a stone floor (U.8). Units 1 and 3 bound the platform's southern and eastern flanks. Units 2, 4, and 5 together demarcate the northern limit, U.2 running 2.1m west from to the point where it joins U.4. The latter heads 1m south before intersecting with U.5 which then extends at least 0.7m to the west before exiting our excavations. It is not clear why the northern facing follows such an irregular course. Unit 6 is the 0.25m-high by 0.56m-thick cobble wall that joins Strs. 31-Sub11-1st and 31-Sub10-1st. This construction abuts Str. 31-Sub10-1st's U.8 on the north and U.9 on the south, implying that the linkage occurred fairly late in this building's occupation. Structure 31-Sub11-1st's hearting consists of a tan soil containing a few rocks (U.9).

The only summit feature identified atop Str. 31-Sub11-1st is U.7, a circle lined with

cobbles to a depth of 0.1-0.24m. Unit 7's diameter is approximately 0.9m (reconstructed--most of the stones in U.7's southwest quadrant are absent). A cobble construction 0.4m wide (exterior measurement) issues from the circle's southwest side and runs at least 0.8m in that direction. This element is defined by remnants of two stone alignments, each one cobble wide (0.13-0.19m) and separated by 0.08-0.35m (the south line is largely destroyed, only a few stones surviving to mark its original course). This U.7 extension seems to have been a channel that issues directly into the circle. Both the circle and channel were filled with a moderately coarse-textured, moderately hard-compacted, tan soil when excavated. This same earth fills the 0.17-0.21m separating U.7's base and the top of S.1 within the circle. Unit 7 is higher on the east than it is on the west, its base and top being 0.04m and 0.16m above its western counterparts, respectively. The discrepancy may be due, in large part, to the poorer state of preservation on the west, upper stones having been removed from this segment in greater numbers than on the east. No comparable elevation differences were recorded on the north and south. Present evidence suggests that U.7 is an integral part of Str. 31-11-1st and was not intruded after construction was completed.

Unit 9, a 0.19m-high cobble wall that was uncovered over an east-west extent of 0.9m, is located 0.5m south of Str. 31-Sub11-1st. Stones composing this element face north and it is very likely that U.9 is a fragment of the northern perimeter wall or basal facing of yet another surface-invisible building (Str. 31-Sub13-1st). Both Strs. 31-Sub11-1st and 31-Sub-13-1st run parallel to each other (U.9 is aligned ca. 279 degrees) and are set at comparable levels. The two buildings were, therefore, probably in use at about bthe same time.

Overall, Str. 31-Sub11-1st is a 0.1-0.3m-high stone-surfaced platform that covers 2.7m east-west (minimally) by 3.7m north-south (measured across its widest point) and is oriented approximately 279 degrees. The only summit architecture aside from the cobble pavement is a stone-lined circular feature from the southwest quadrant of which extends a cobble-lined channel. The circle has a diameter of 0.9m while the channel is at least 0.8m long. This summit construction is minimally 0.1-0.24m deep and sits on the same type of tan soil that makes up Str. 31-Sub11-1st's fill. No evidence of burning was found in or near the circle and, in the absence of a clear pit line, we remain uncertain as to the feature's depth below summit level. All walls and surfaces are made primarily from unmodified river cobbles the naturally flatter aspects of which are oriented outwards. The larger rocks comprising Str. 31-Sub11-1st's basal facings are set in one-to-two rough horizontal courses, varying numbers of chinking stones scattered around the more sizable cobbles. Cut blocks are rare elements in U.1 (two examples) and 4 (one example).

Time Span 3

Following abandonment, Str. 31-Sub11-1st was completely covered by the natural deposition of S.2, a moderately coarse-textured, moderately hard-compacted, tan soil (identical to the platform's fill and the earth found between S.1 and U.7). Presumably, this layer was capped by the root-rich brown humus layer identified throughout the Op. 31 excavations, though this cannot be established. All in all, 0.25-0.43m of earth accumulated over Strs. 31-Sub11-1st and 31-Sub13-1st.

Structure 31-Sub12

Structure 31-Sub12 is ca. 1m west of Str. 31-Sub8-1st on the western edge of the patio surrounded by Strs. 31-Sub8 and 31-Sub10, 11, and 12. The west corner of the U.15 pavement (Str. 31-Sub8, see above) just touches Str. 31-Sub12-1st's east corner while Str. 116-1st lies 3.7m to the north. The land on which Str. 31-Sub12 was erected is relatively level. Unfortunately, the earth stratigraphy overlying the investigated building was not recorded in any but the most general terms, precluding detailed descriptions of the deposits introduced into this area following Str. 31-Sub12-1st's abandonment. Digging was carried down to 0.14-0.21m beneath construction, but not into architectural fill, resulting in the identification of a single building phase. All work was overseen by H. Henderson and L. Aldrete.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1, 2	-	Mprecl?, LCLI? LCLII
2	Str. 31-Sub12-1st	U.1-6	-	-	LCLII/III
3	-	-	S.3	-	-

Time Span 1

A fine-textured, hard-compacted, tan soil (S.1) buries the lower 0.3m of Str. 31-Sub12-1st's eastern basal wall (U.1) and runs at least 0.21m below that construction. Stratum 1 grades into a coarse textured, moderately soft-compacted tan sand (S.2) which underlies the building's northern face by minimally 0.19m (the bases of S.1 and 2 were not encountered). Recovery of artifacts from these levels points to a human presence on or near the future site of Str. 31-Sub12-1st before that edifice was raised.

Time Span 2

Structure 31-Sub12-1st is a substantial platform that is ascended by two stone-faced risers on the southeast (U.1 and 2). Unit 1 rises 0.57m in a single ascent, though only 0.27m of that height would have been visible above S.1. That approximately half of U.1's total height was lost to view beneath S.1 suggests that either this soil layer continued to accumulate after the basal facing's construction or there was some need to sink U.1 relatively deeply into the preexisting soil level to enhance stability. We tend to favor the latter interpretation. Unit 1 defines the southeastern margin of a 2.1m-wide terrace the northeastern 2.6m of which is paved with cobbles and schist slabs (U.5). The remaining 4.2m southwest of this point is surfaced with earth. Unit 2 marks the northwestern edge of the southeastern terrace. This construction ascends the 0.49m from terrace to summit in two segments, the basal component being 0.28m high by 0.33m wide

while the upper rises 0.21m and is backed on the northwest by a cobble pavement (U.6). As U.6 was traced for only 0.84m northwest of U.2, we cannot be certain how much of Str. 31-Sub12-1st's summit was covered by this floor.

Unit 2 turns a corner with U.4, the platform's northeastern basal wall, suggesting that these two facings are components of the original core construction onto which U.1, 3, and 5 were appended. Unit 4 maintains the bi-level construction seen in U.2 for 3m northwest of its junction with the latter entity. The remaining 1m of U.4's northwest-southeast extent lacks this feature, consisting instead of a single vertical ascent to the same height. Unit 3 corners with U.1 on the east and defines the northeast edge of a narrow (ca. 0.45m wide) earthen-floored terrace on Str. 31-Sub12-1st's northeast flank. This facing is comparable in height to U.1 and terminates 2.4m southeast of the platform's north corner.

Overall, Structure 31-Sub12-1st is a ca. 0.76m-high platform that encompasses 6.4m on a side (including U.3) and is oriented roughly 31 degrees. The building may well have originally consisted of a core platform, defined here by U.2 and 4, onto which a wide (2.1m across), partially paved terrace was added to the southeast side facing the patio; a much narrower terrace (0.45m wide) was appended on the northeast. The summit was not sufficiently investigated to determine superstructure form. All walls are fashioned almost exclusively of unmodified river cobbles, the naturally flatter aspects of which are directed outwards. A single cut block was noted at U.2's east corner with U.4. In each uncovered facing, the larger stones are set in one to two horizontal courses packed round with chinking stones. The latter pebbles are also used as a foundation in U.1 and U.4 northwest of the aforementioned construction change, underlying the larger rocks by about 0.3m in each case. A brown mud mortar is used as a binding agent in all units.

Time Span 3

Accumulation of S.3, a moderately coarse-textured, hard-compacted, brown soil, completely covered S.1 and Str. 31-Sub12-1st after the latter's abandonment. Presumably, this soil would have graded upward here into the dark brown, root-rich soil that caps all revealed Op. 31 stratigraphy, though this cannot be established at present.

Structure 120

Structure 120 was mapped as an isolated building with no elevation. It is located ca. 15m west of Str. 122 and 24m south of Str. 119 and the northern terrace edge. The land around the edifice rises gradually towards the east and north, ascending 0.4m over 14m west-to-east. Excavations here, conducted as part of Subops. 31D, F, Q, and U, were intended to ascertain the sorts of activities pursued in the Op.31 area in and around relatively simple constructions away from the patio group to the east. As was so often the case in the Op.31 investigations, we got considerably more than we bargained for. By the time we had fully cleared Str. 120 (roughly 100m2 uncovered) we were well aware that Str. 120 served as the venue for anything but a simple array of domestic tasks. Digging was pursued to maximum depths of 0.74m below modern ground surface outside construction and 1.23m below current ground level within the edifice (but not in architectural fill), revealing at least two building phases. The field research reported

herein was supervised by S. Buchmueller and K. Miller.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1-7	-	MPrecl? LCLI? LCLII
2	Str. 120-2nd	U.1, 2, 8	-	-	LCLII/ III?
3	Str. 120-1st	U.3-7, 9-12	-	F.1	LCLII/III, EPC
4	-	-	S.8, 9	F.2	-

Time Span 1

Prior to the erection of any of the uncovered units, a complex sequence of earth layers, at least one of which is largely a human creation (S.3), were deposited. Stratum 1, a moderately coarse-textured, hard-compacted, tan soil is the first of these entities recognized in our investigations. This earth layer was revealed to a maximum thickness of 0.52m (its base lies beyond excavation limits) at the base of a deep probe sunk into the hole defined by U.3. Stratum 1's undulating upper surface descends as much as 0.34m over a distance of 0.8m before rising again, the cause(s) of these variations being unknown. The comparatively few artifacts retrieved from S.1 imply a human presence somewhere in the immediate vicinity while this soil was being laid down.

Stratum 2, a moderately fine-textured, soft-compacted, brown soil, covers S.1 by 0.22-0.56m. Unlike its predecessor, S.2's top runs more-or-less even, dropping 0.14m over 2.62m north-to-south and 0.03m across 2.08m west-to-east. There is a considerable increase in the artifact load from S.1 to S.2, suggesting a comparable heightening of cultural activity in the area during the latter's deposition.

That intensifying human presence reaches a crescendo with the introduction of S.3. Stratum 3 blankets S.2 with 0.05-0.16m of fine-textured, soft-compacted, gray ash containing large quantities of artifacts, especially ceramic fragments and some pieces of <u>bajareque</u>. This layer is clearly detritus from an episode (s) of intense burning. Stratum 3 slopes down 0.13m over 2.62m north-to-south and 0.1m across 2.08m west-to-east. A 0.02-0.03m-thick lens of gray ash was found extending at least 0.5m beyond (west of) Str. 120-1st's U.3 at approximately the same level as S.3 revealed below and within that construction. These two ash deposits may pertain to S.3.

Stratum 4, running 0.07m beneath Str. 120-1st's U.3's east side, is a fine-textured, soft-

compacted, tan soil. This earth layer is sealed by S.3 on the west where it was uncovered to a maximum thickness of 0.17m (its base was not identified on either side). Stratum 4 rises ca. 0.16m over 4.16m from east to west and is probably an extension of S.2 beyond U.3's confines. Like S.2, S.4 incorporates significant quantities of artifacts.

Stratum 5, a fine-textured, hard-compacted, tan soil, covers S.4 on the east by as much as 0.3m and accumulated to a thickness of 0.08-0.1m over S.3 on the west. This layer is rich in artifacts, especially pottery sherds, and small stones. Stratum 5 buries the lower 0.08m (west) to 0.3m (east) of U.3 construction, indicating that this was the layer into which the foundations of Str. 120-1st's northern architecture were set. No comparable soil was found at this level within the hole defined by U.3, suggesting that S.5 was dug away here prior to or, more likely, at the time of that element's erection.

Stratum 6, a fine-textured, hard-compacted, brown clay, underlies Str. 120-2nd's southern construction. This layer was exposed to a maximum thickness of 0.45m and ascends 0.03m over 1.4m south-to-north; it remains level across 2.09m east-west (the layer's base was not encountered). Cultural material, especially ceramic fragments, were found scattered throughout S.6, indicating a human presence in the area while this clay was being introduced. Stratum 6 has no strictly similar analogues to the north and we are uncertain how this soil relates to the strata described above (S.6's upper surface is comparable in depth to the S.1/2 interface). Since S.6 clearly extends beneath TS.2 architecture (U.1 and 2) it must predate all later construction as well.

Stratum 7, a fine-textured, moderately hard-compacted, brown soil containing sizable quantities of cultural material (primarily pottery sherds) and small stones, fills the 0.08-0.2m vertical distance separating S.6 and Str. 120-2nd architecture (U.1 and 2). This layer may be a southern continuation of S.2 which it closely resembles in nature and artifact content (S.7 is slightly lighter in color and more compacted than S.2). If this is the case, then it may be that one of Str. 120-2nd's manifestations is the source of the ash (S.3) that covers S.2 to the north. No ash was found while clearing U.1 and 2.

Time Span 2

Remnants of two constructions predating Str. 120-1st were found protruding south from the latter's southern platform. Unit 1 is a 0.15-0.18m-tall by 0.28m-wide wall that extends 1m southeast of the southern platform's south basal wall (U.7) and runs back under that construction. The wall is aligned very roughly 331 degrees and may curve slightly, its concave side facing west. Unfortunately, so little of U.1 was exposed that it is impossible to be certain that the wall actually defines an arc.

With its base resting 0.13m above that of U.1, U.2 lies 2.2-2.8m east of the former construction. Unit 2 is 0.12-0.18m high by 0.6-0.75m across and rests on S.7. Unit 2 was exposed for 3m north-south, over which distance it can clearly be seen to curve, the concave face on the west. Unit 2 terminates abruptly on the south but the situation on the north is far from clear. Here, U.2 appears to articulate with a 0.38m-high, crudely fashioned wall (U.8). Because U.8 is so casually built, it is difficult to define the putative wall's boundaries and be certain that it and U.2 are integrated. If they are linked in this fashion, then U.2 and 8 are parts of the same

construction that postdates U.1 (U.8 overlies U.1). Unit 8 may be part of some internal feature that was later incorporated into Str. 120-1st's southern platform, U.2's northern arc now covered by that later construction (analogous to U.10 described below).

All three units are built of unmodified river cobbles the flat faces of which are oriented outwards. Horizontal coursing is not evident in the surviving portions of U.1-2 and 8, while chinking stones are variably present in these constructions; a consistent component of U.2, rare to absent in U.1 and 8. A brown mud mortar is used as a binding agent in all three constructions. It appears that U.1, 2, and, probably, 8 were partially dismantled prior to completion of Str. 120-1st. Both U.1 and 2 end abruptly on the south and U.8 is not clearly resolved on the west. It is at least plausible, therefore, that all three elements were destroyed over at least parts of their extents between TS.2 and 3, their stones probably recycled for use in Str. 120-1st. Based on the limited available evidence, it appears that the building of which U.1 is a component was the first to suffer this fate, possibly being taken apart to make way for the construction containing U.2 and 8(?). The latter building was subsequently ransacked as Str. 120-1st was raised. Structure 120-1st partially overlaps the earlier entities.

Time Span 3

Structure 120-1st is one of the few buildings excavated from any time period in the Naco valley to incorporate a significant circular element within it (U.3). Unit 3 is a massive stone construction the walls of which are 1.8-2m wide and topped with a rock pavement. The hole they define in the center has a diameter of 2.4-2.6m. Unit 3, therefore, measures a total of 5.9-6.4m across. The exterior and interior perimeters of U.3 define continuous arcs except in the southwest quadrant where a roughly trapezoidal segment of the outer wall appears to be missing. This indentation is 1.75-1.8m deep and measures 0.8-3.3m across (narrowing from southwest to northeast). U.3's surviving width over the trapezoid's 0.8m wide-apex is roughly 0.2m.

Facing each other across U.3's central aperture on the north and south are two rectangular depression sunk 0.18-0.26m below U.3's preserved top. The northern example encompasses 0.35-0.6m across (narrowing from south to north away from the central hole) while its southern counterpart is a consistent 0.4m wide. The former is bordered and floored with cut blocks save over its northern-most 0.5m where unmodified cobbles replace masonry. The southern depression is bounded and surfaced with river-worn stones. The northern entity's floor declines approximately 0.1m from south to north while the floor of the southern depression is more-or-less even. Large quantities of fire-altered pottery sherds were found lying flat in the northern declivity while numerous bajareque fragments littered the southern example. Both depressions were purposefully constructed and are not products of post-abandonment processes such as erosion and stone robbing. Immediately south of the northern depression, within the circle bounded by U.3, two faced blocks were found tilting down towards each other from the east and west. These stones are separated by 0.13m and were underlain by 0.24m of bajareque fragments, some of the latter being quite large and dipping at the same angles as the overlying blocks. Both rocks and bajareque rested at about the level of the northern declivity and seemed to be part of a construction associated with the latter that had settled out close to the place where it had originally stood. The area covered by this concentration is 0.52x0.8m.

Construction also changes markedly at these channels. East of the declivities, U.3 is 0.46-0.6m high, the foundation set well within S.5, resting on S.4. To the west, U.3 is 0.26-0.32m tall, the base set 0.12-0.24m above that of the eastern element, within S.5 above S.4. The eastern U.3 component also seems to be better built, composed of three to four courses of cobbles packed round and underlain with numerous chinking stones. The western element contains no more than two such courses and few chinking pebbles. Part of the discrepancy in depths is probably due to the general east-to-west rise of the land beneath U.3. Further, U.3-west is raised atop the S.3 ash within the U.3 orifice while its eastern analogue extends through that deposit down to S.2 (S.3 was not found east of U.3). The change in construction might, therefore, be an adaptation to the need for taller, more substantial walls on the eastern, downsloping flank than is the case on the west where relatively short, less carefully built facings would suffice. There is no good evidence that U.3's two halves were fashioned at different times, as parts of separate constructions. The distinctions noted in U.3' architecture, therefore, are better seen as adjustments made to an uneven landscape than evidence of sequential construction.

Appended to U.3's northeast exterior face is a circle with an interior diameter of 1.06-1.08m defined by a 0.21-0.41m-wide rock construction (U.12). Unit 12 sits up near U.3's top and seems to have been added to the principal circle relatively late in the construction sequence.

A 0.2-0.3m-high platform abuts U.3's southern exterior face. This construction is bounded on all sides by single cobble risers (U.4-7) that ascend directly to the featureless stone-paved summit (U.9). Unit 5, the northern basal wall, is built around U.3's southern arc, the southern channel issuing directly south onto the platform. The latter's southeast corner is not formed, like the other three, by the near right-angle intersection of the basal facings. Instead, U.8 cuts at a southwest-northeast angle between U.7 and 4, overriding earlier U.1 and interdigitating with U.2 (see TS.2, above). The last two entities extend south, away from the platform. Unit 8's architectural significance continues to successfully elude our grasp. It appears, as discussed above, to be part of an earlier construction that was largely buried by the erection of the southern platform. It may well be that U.8 was preserved and incorporated into the new construction as such conservation represented a saving in the energy needed to erect the platform. Units 4 and 7 would then have been added on to U.8 during TS. 3. Unfortunately, poor preservation of U.8's

original construction preclude evaluating the ways in which U.4, 7, and 8 were related. A large faced block (0.34x0.52x0.1m) underlies the northeast corner formed by the junction of U.4 and 5. No comparable corner supports were recorded elsewhere on Str. 120-1st and it may be that the block is part of an earlier construction that was fortuitously used to stabilize a portion of the southern platform.

Structure 120-1st, therefore, covers a total of approximately 7x11m and consists of two very distinct elements. The northern component is a circle (U.3) defined by massive stone walls 1.8-2m wide by 0.26-0.6m tall. The central aperture measures 2.4-2.6m across and was apparently floored over at least part of its extent with a pavement fashioned of small cobbles. Subsequently, this surface was covered with an artifact-rich fill, possibly including wall collapse from an early version of Str. 120-1st (represented by the numerous <u>bajareque</u> fragments included in F.1), and replaced with an earthen floor above which rose a relatively insubstantial stone line. Two stone-lined and -floored channels, 0.35-0.6m wide, breach the upper 0.18-0.26m of the circle's stone walls, one each on the north and south. Added later on the south is a stone-faced and -surfaced platform that stands 0.2-0.3m high, measures 5x6.2m and is oriented approximately 357 degrees. A stone-lined circle with an interior diameter of 1.06-1.08m was appended to U.3's northeast exterior late in the construction sequence.

All Str. 120-1st units are fashioned, for the most part, using unmodified river cobbles the naturally flatter aspects of which are oriented outwards and, in the case of the U.3 circle, into the aperture this element defines. Unit 3, despite the variation noted earlier, generally evinces great care in its construction. Larger stones are set in clear, horizontal courses and, on the east in particular, chinking stones are extensively used to fill in the gaps between these rows. Horizontal coursing is less pronounced in the facings that define the southern platform though chinking stones are common. Cut blocks are incorporated in U.3, 10, and at the U.4/5 junction, intermixed with the far more numerous cobbles. A brown mud mortar is used everywhere as a binding agent.

Time Span 4

Following abandonment, Str. 120-1st was buried by S.8 and 9. The first is a coarse-textured, moderately hard-compacted, brown soil that contains large quantities of artifacts, especially ceramic sherds. The latter are particularly plentiful west of Str. 120-1st where they extend for at least 5.17m in that direction from U.3. Bajareque fragments, on the other hand, are very common constituents of S.8 within the confines of U.3. Stratum 8 accumulated to depths of 0.13-0.21m over S.5 and was, in turn, covered by 0.06-0.18m of S.9. The latter is a moderately coarse-textured, moderately soft-compacted, dark brown soil containing numerous small roots. Most likely, S.8 and 9 are parts of the same level the upper segment of which has been modified by ongoing edaphic processes operating at and near ground level. A moderately dense concentration of stones tumbled from final-phase architecture is embedded in S.8 and 9 (F.2). Feature 2 is found overlying Str. 120-1st (though it is fairly light above the U.3 circle) and extends for 3.67m west and ca. 1.3m east of U.3 (F.2's extent was not recorded to the north and south).

Structure 31-Sub19

Structure 31-Sub19 is a surface-invisible edifice lying roughly 2m east of Str. 120-1st's northern circle (U.3), between that element and Str. 122-1st on the east. The land above which Str.31-Sub19 was raised is very level, exhibiting little noticeable change over 3.9m east-west. Excavations here were limited to a single east-west oriented trench which was a 1m-wide by 4.3m-long eastward extension of Subop. 31F (4.3m2 cleared here altogether). Digging was carried down to a maximum depth of 0.82m below modern ground surface outside construction (architectural fill was not probed). The revealed construction sequence is relatively complex for such a diminutive edifice, suggesting that the area occupied by Str. 31-Sub19 was the scene of numerous buildings and re-buildings. Investigations were overseen by K. Miller and S. Buchmueller.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	LCLII?
2	Str. 31-Sub20-1st Str. 31-Sub19-1st	U.1 U.2, 4	- S.3	- -	LCLII/ III?
3	Str. 31-Sub19-1st	U.3	S.2, 4	-	LCLII/ III, EPC?
4	-	-	S.4, 5	F.1	-

Time Span 1

Stratum 1, a fine-textured, soft-compacted, tan soil was revealed running for at least 0.1m below Str. 31-Sub19-1st's western basal wall (U.2; digging was not pursued to sufficient depths on the east to encounter this soil). This earth layer was exposed to a maximum thickness of 0.2m and represents an eastern continuation of S.4 defined for Str. 120. Stratum 4/1 has an undulating upper surface but generally rises 0.06m over 2.09m west-to-east. The artifacts retrieved from S.1 indicate a human presence somewhere in the immediate vicinity while that soil was being deposited.

Time Span 2

Structure 31-Sub19-1st's western basal facing (U.2) and the stone summit pavement backing it for 2.26m to the east (U.4) were apparently built during this interval. The former stands a preserved 0.43m high, protruding 0.1m into S.1. Unit 2 may have been raised in two segments. The northern 0.5m of the entity's western face exposed in Subop. 31F is 0.17m higher than the southern portion, the latter's base resting 0.07m above that of the northern segment. In addition, there is a break in construction at the interface between the two elements. The above

evidence suggests that U.2 is composed of at least two distinct, possibly sequentially constructed, components. The northern, elevated portion of U.2 continues for 0.76m to the east before dropping down to the platform's surface (U.4). A 0.04-0.17m-thick lens composed of fine-textured, soft-compacted, gray ash (S.3) abuts U.2 and on the west continues for 1.66m in that direction. Stratum 3 rests directly on S.1 and appears to be detritus generated by the activities pursued on and around Str. 31-Sub19-1st. No evidence of superstructure architecture was detected within the area uncovered in Subop. 31F, though such construction may well lie beyond the restricted swath cut by this trench.

The upper segment of a cobble wall (U.1) was exposed solely in the south trench face running the 1.1m separating Str. 31-Sub19-1st from construction associated with Str. 122-1st on the east. Unit 1's top is at nearly the same depth as the uppermost preserved stone in U.2 (0.02m separate them) but is 0.01m below the base of Str. 31-Sub19-1st's eastern basal facing (U.3). These relations tentatively imply that the construction of which U.1 was a part (Str. 31-Sub20-1st) is contemporary with Str. 31-Sub19-1st's U.2 but predates the erection of that edifice's eastern facing (U.3). One scenario that would allow for such a sequence posits that U.3 is a late addition to Str. 31-Sub19-1st, added as part of an effort to extend the platform eastward from a still-unlocated, original eastern basal wall. Unfortunately, Strs. 31-Sub19-1st and 31-Sub20-1st were recognized too late in the excavation season to permit investigating these possibilities.

Structure 31-Sub19-1st, therefore, probably stood 0.33m high on the west (above S.1), had a stone-paved summit, and was aligned roughly 2 degrees. Structure 31-Sub20-1st, in the form of U.1, lies east of Str. 31-Sub19-1st, rises 0.21m above the base of excavation, its full height not being revealed, and is oriented very approximately 285 degrees. How these two buildings were related remains unclear. All stones used in construction are unmodified river cobbles not placed in clear horizontal courses. Chinking stones were extensively used in U.2 to fill in the gaps among the larger rocks and as a foundation underlying these stones. Such small pebbles are virtually absent from the exposed portion of U.1. The naturally flatter aspects of the U.1 and 2 cobbles are oriented outwards and a brown to tan mud mortar is used in all three units assigned to TS.2.

Time Span 3

Stratum 2, a fine-textured, hard-compacted, tan soil rich in artifacts, especially pottery sherds, overlies S.1 and 3 along with all but 0.03-0.07m of U.1. This earth level accumulated to depths of 0.14-0.29m above S.1 and 3 on the west while on the east S.2 was exposed to a maximum thickness of 0.14m (its base not having been found here). Stratum 2 is an eastward extension of S.5 define for Str. 120 to the west, that level dropping a scant 0.03m over 1.95m west-to-east. Subsequently, 0.06m of S.4, a coarse-textured, moderately hard-compacted, brown soil, was laid down over S.2 on the east (but it is not clear that this material accumulated off Str. 31-Sub19-1st's western flank until TS.4). It is on this earth that U.3, Str. 31-Sub19-1st's eastern basal wall, was erected. This element is 0.15-0.21m high and diverges considerably from U.2 in its orientation (being aligned ca. 195 degrees). Unit 3 was very poorly preserved when encountered and we cannot be certain whether the discrepancies in orientation are a product of the original builders' plans or of post-abandonment disturbances.

Structure 31-Sub20-1st had apparently disappeared from view by TS.3 while Str. 31-Sub19-1st underwent significant renovations. If the above reconstruction approximates reality, the platform now stood only ca. 0.2m high and measured approximately 2.7m across. The stone pavement topping the building in TS.2 (U.4) was still present, covering the space between U.2 and 3. Unit 3 was very roughly constructed of unmodified cobbles not set in horizontal courses and having very few chinking stones. A brown mud mortar was used to bond the rocks composing U.3 together.

Time Span 4

After Str. 31-Sub19-1st's abandonment, deposition of S.4 resumed. Eventually, this level blanketed S.2 by 0.16-0.24m and was, in turn, covered by 0.08-0.19m of S.5, a moderately coarse-textured, moderately soft-compacted, dark brown soil containing large numbers of small roots. Strata 4 and 5 are eastward extensions of S.8 and 9 defined for Str. 120. A moderately dense concentration of rocks displaced from final-phase architecture was found within S.4 and, to a lesser extent, S.5 (F.1). Feature 1 extends over Str. 31-Sub19-1st's summit and for 0.98m west and 0.73m east of that building.

Structure 122

Structure 122 appeared on the surface to be a single, extensive platform that defined the western margin of the patio surrounded by Strs. 114-117, 121/123. Structure 117 is 8.5m to the north while Str. 122 seemed to be linked to Str. 123, 6m to the southeast, by a low saddle. The terrain above which Str. 122 was erected is nearly level, ascending only 0.16m over 24.6m eastto-west. Uncovering approximately 100m2 within Subops. 31A, K, L, and M revealed a far more complex situation than we had originally anticipated. What had been mapped as a single edifice turned out to be a complex of interconnected platforms, rooms, and free-standing walls enclosing a central patio (all included here under the rubric of Str. 122). Immediately north of this aggregation are remnants of at least three surface-invisible edifices that were also partially uncovered (Strs. 31-Sub14, 15, and16, revealed within and investigated as parts of Subop. 31A, K, L, and M). Digging on and around Str. 122 proper was carried down to maximum depths of 1.25m below modern ground surface outside construction, 0.8m below ground level into architectural fill, and 1.1m beneath the surface into and below the patio. A single major building phase was identified, preceded by the erection of an unknown number of more modest, seemingly unconnected, constructions. The investigations were supervised by K. Miller, S. Buchmueller, E. Bell, and S. Yates.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1,2	-	LCLII
2	-	-	-	F.1,2	LCLII

3	-	-	S.2-4	-	LCLII
4	Str. 31-Sub14-1st Str. 31-Sub15-1st Str. 31-Sub16-1st	U.1 U.2 U.3	-	F.4	LCLII/III?
5	Str. 122-1st	U.4-34	-	F.3,5	LCLII/III
6	-	-	S.4(?),5,6	F.6	-

Time Span 1

The earliest activity recorded in the Str. 122 excavations is the deposition of S.1, a fine-textured, soft-compacted, brown-gray ash containing cultural material. Stratum 1 was recorded only in an area 3.34-4.4m east of Str. 122-1st construction (U.9). Here, the soil level was exposed to a maximum thickness of 0.17m (its base not having been identified) and slopes down 0.16m over 1.06m east-to-west. Immediately overlying S.1 is a fine-textured, hard-compacted, tan soil (S.2) containing considerable quantities of cultural remains including sherds, <u>bajareque</u>, and carbon flecks. At least 0.15m of S.2 was laid down now, deposition continuing after a hiatus in TS.3. Stratum 2 was only uncovered east of Str. 122-1st, beginning 1m beyond that building's eastern basal facing (U.9) and continuing 3.6m to the limits of excavation. This spatial limitation is almost certainly due, in part, to the relatively shallow nature of the digging conducted elsewhere on and around Str. 122, probes not being carried deep enough to encounter this layer.

The large amounts of cultural debris included in S.1 and 2, including the ash of which S.1 is composed, strongly implies that both layers represent trash deposited prior to Str. 122-1st's erection.

Time Span 2

Features 1 and 2 are components of a dense rock concentration located 0.74-2.14m east of Str. 122-1st's U.9. Examination of the trench profile cut through this area revealed a subtle patterning among these stones that was not evident during excavation. Specifically, F.1 and 2 may be the poorly preserved remnants of two low, narrow terraces raised early in the local occupation sequence. Feature 1, the apparent earlier of the two, consists of a column of flat-laid stones 0.25m wide that projects 0.22m into S.2 and ascends 0.35m above that level. Feature 2 rests at the same elevation as, and is 0.56m east of, F.1 and rises to a total height of 0.43m; F.1 projects 0.15m above F.2. The area between F.1 and 2 is filled with a dense packing of rocks set in a tan soil matrix; similar stones are found extending 0.59m east of F.2 at a depth comparable to the latter's base (all included within F.2). The eastward continuation may represent fallen architectural debris, though the flat-laid appearance of the rocks hints at the existence of yet another, lower terrace fronting F.2. If the latter is the case, then F.1-2 consist of three stonefaced ascents rising a total of ca. 0.6m in increments of 0.2m, 0.24m, and 0.15m from east-towest. Putative terrace treads are 0.59m and 0.56m wide leading up to what may have been an earthen-floored summit. Unfortunately, as noted above, F.1 and 2 only showed up in the trench section and were not traced laterally. Lacking such additional confirmation of their reality, we

are uncomfortable assigning a structure designation to the rock concentration. The horizontal orientations of the F.1 and 2 rocks, their location well below the nearest clear architecture, suggest that they do not represent debris tumbled from later construction. At the same time the overall configuration of the features do imply that the rock concentration may be the remnants of a fairly substantial platform erected atop that segment of S.2 laid down in TS.1. Unmodified cobbles make up most of F.1 and 2 though a few cut blocks were noted here as well

Time Span 3

Deposition of S.2 resumes in TS.3, completely burying F.2's lower, eastern extension. Stratum 2's top parallels the general contours of underlying S.1, dipping down 0.09m east-to-west over the 1.06m it was revealed above its predecessor. Stratum 2 then rises 0.15m over 1.8m eastto-west where it terminates against F.2. Strata 3 and 4 are laid down at a later date, each underlying different segments of later architecture. Stratum 3, found for up to 0.19m beneath Str. 122-1st's western platform and patio, is a fine-textured, hard-compacted, reddish-brown soil the base of which was not encountered. Despite the fact that this layer is exposed in two discontinuous segments separated by 1.9m, it appears that S.3 maintains a fairly level upper surface over 5m east-west. Stratum 4, identified off Str. 122-1st's other flanks, is a moderately coarse-textured, hard-compacted, tan soil containing variable quantities of cultural material. This level ascends towards the bulk of Str.122-1st from the north, east and, possibly, south at a rate of .03m/1m to .13m/1m, rising most rapidly on the east where it completely obscures the exposed portions of F.1 and 2 and covers S.2 by 0.25-0.31m. As mentioned earlier, however, in the few places where probes were dug to sufficient depths beneath Str. 122-1st's central patio and western platform we encountered S.3, not S.4. It may be that S.4 grades into S.3 or the former was replaced by the latter in those areas underlying the approximate center of the edifice. South of Str. 122-1st, S.4 not only underlies but buries both TS.4 and 5 architecture. Such a stratigraphic relationship implies that S.4's deposition persisted on the south longer than it did elsewhere, possibly continuing into TS.6. In general, however, S.4 appears to be the earth layer above which most of the exposed architecture was erected.

Recovery of cultural material from S.3 and 4 points to a significant human occupation in the immediate area while these soils were being laid down.

Time Span 4

Units 1-3 and F.3-4 are variably clear remnants of what was probably a complex of relatively modest constructions that were superseded when Str. 122-1st was erected in TS.5. There is no reason to believe that any two of these entities were ever parts of the same building, though their isolation from each other by differing expanses of unexcavated deposits precludes definitive establishment of this contention.

Unit 1 appears to be the northeast corner of a building (Str. 31-Sub14-1st) formed by the intersection of two cobble walls each of which is ca. 0.25m high. This entity is aligned very approximately 268 degrees, rests on S.3, and is buried by 0.43m of cobble-and-earth fill pertaining to Str. 122-1st's western platform (U.26). No more than 0.6m of U.1's north wall and 0.35m of its eastern counterpart were exposed, certainly not enough to determine whether Str. 31-

Sub14-1st was a platform or surface-level building. Unit 1's small size, however, seems more appropriate for a foundation than a basal facing.

Structure 31-Sub15-1st is represented by a 0.22m-high stone wall (U.2) that lies 2.3m east of U.1 and intrudes 0.12m into S.3. Unit 2 is oriented roughly 182 degrees and is backed for an undetermined distance on the west by a cobble pavement (included in the same unit; the western portion is buried by Str. 122-1st architecture [U.10]). No clear northern terminus for U.2 was noted and this construction may have been partially dismantled when its successor was raised. Unit 2 was traced for 0.4m north of Str. 122-1st's U.11 and for an equal distance back to the west. Structure 31-Sub15-1st is, most likely, a low platform.

Situated 9.5m southeast of U.2 is a cobble wall (U.3) that stands a preserved 0.12m high and is completely covered by S.4 (the latter rides over U.3's top by 0.03-0.14m). Unit 3, at 0.21m wide, is the only revealed segment of Str. 31-Sub16-1st. The wall was exposed over 0.55m east-west, is oriented ca. 264 degrees, and apparently faces north, that being the direction in which the naturally flatter faces of U.3's rocks are oriented. Unit 3, therefore, probably represents the northern facing or foundation of a building that continues for an unknown distance further south. Given U.3's diminutive dimensions, we are inclined to see it as a footing that defined the northern limits of a surface-level building.

Feature 4 consists of a moderately dense concentration of cobbles embedded in the tan soil matrix of S.4 directly beneath Str. 122-1st's southwestern and southeastern sunken rooms (between U.13, 14, 15, and 17, showing up ca. 1.5m south of U.2's southernmost exposed point and a comparable distance north of U.3). The deposit may be more extensive, but excavations on Str. 122-1st's southern flank were only carried deep enough to encounter these stones. The F.4 rocks are jumbled and do not form clear lines, suggesting that they are not parts of surviving foundations, pavements, or facings. Stratum 4, however, does not usually contain large amounts of stone and the aforemetioned aggregate may well be an outcome of human activity. What behaviors produced F.4, however, are unclear. The F.4 rocks might be debris tumbled from nearby, unexposed architecture or a fill unit introduced to stabilize Str. 122-1st's southern flank. In the latter case, pressure from above would have intruded F.4 stones into underlying S.4. There is simply not enough data on hand to decide among these alternatives.

Units 1-3 and F.4 are all at approximately the same level, buried by Str. 122-1st architecture, and embedded in S.3 and 4. These relations imply that the constructions of which they are components are roughly contemporary. If F.4 was fill used in shoring up Str. 122-1st architecture, then, despite its stratigraphic position, introduction of these cobbles would date to TS.5. As noted above, however, not much about F.4 is obvious and its creation is assigned to TS.4 because of its similar position vis a vis U.1-3 and elements of Str. 122-1st. All units assigned to TS.4 are fashioned of unmodified river cobbles the naturally flatter aspects of which, in U.1-3, are directed outwards. Stone sizes range from 0.04x0.1m to 0.15x0.26m. There is no clear coursing of the larger rocks and chinking stones are variably present. These small pebbles are fairly common in U.1 and 2, in the latter case serving as a foundation for the more sizable cobbles, but are rarely attested to in U.3. A tan mud mortar was employed as a binding agent in each wall and floor.

Time Span 5

Structure 122-1st is a complex of related constructions. Its western and northeastern elements are stone-faced platforms joined on the north by a substantial free-standing wall. The southern flank is defined by two rooms set in an east-west line and enclosed by substantial cobble walls. At the complex's center is an earthen-floored patio completely sealed off by architecture. Structure 122-1st has no parallel within Op.31 or the Naco valley in general. Rather than being a result of growth by accretion, much of this edifice seems to have been raised within a relatively short period according to a preconceived plan.

The western platform is ascended on the west by three low cobble-faced risers (U. 4-6) each of which is preserved to 0.12-0.27m high. The terrace surfaces backing the basal and first ascending risers (U.4 and 5) are 0.5 and 0.85m wide, U.6 being a step-up to the summit. Units 7 and 8 delimit the platform's southern and northern sides, the former standing ca. 0.5m high, the latter rising ca. 0.25m. Nothing is known of construction above U.8, though the height of this unit implies that at least one additional ascent intervenes between it and the summit. Unit 7, on the other hand, is backed by a ca. 0.65m-wide tread above which the much disturbed remains of U.33 rise roughly 0.25m. Unit 33 may have cornered with U.5 to the west, though this junction was not established through excavation. The southern summit step-up may be represented by U.34, a 0.17m-high riser located 2.8m north of U.33. Though severely disrupted, traces of U.34 were followed over 3.37m east-west, enough distance to at least tentatively support the unit's validity. Unit 34 changes direction slightly over its easternmost 0.65m. Coincident with this shift is a subtle construction change, i.e., cobbles comprising U.34 face north to the east of this point and south to the west of it. Finally, U.34-east rests on U.13 (see below) while its western counterpart is integrated within western platform architecture. Though far from certain, it appears that U.34 consists of two joined elements built to serve different purposes: U.34-west probably junctions with U.6 on the west and functions as a summit step-up; U.34-east looks north and may have been the foundation for a baffle which blocked passage from the central patio into the southern rooms. The western platform's eastern, patio-facing margin is ascended by a single basal facing (U.10) standing a preserved 0.5m high. Unit 10 abuts U.8, the latter continuing at least 4.7m east of this junction before joining, presumably, the northeast platform's northern wall. Unit 8, over this 4.7m distance, is a free-standing wall 0.5m high by 0.9-1.1m wide that seals off the northern side of the central patio.

The narrow (1m wide) swath cut across the western platform's summit did not reveal any superstructure construction save for the remains of what was probably a cobble pavement (U.33) that extends from U.6 to U.10. Excavation below this surface revealed a fill of densely packed cobbles set in a brown earth matrix that is at least 0.6m deep (U.26; U.1, raised in TS.4, was found embedded in the base of this fill). The western platform rises above earthen surfaces on all sides.

Built off the platform's east face, set into the southwest and northwest patio corners, are two low cobble-faced blocks. Unit 11 on the south is ca. 0.47m high, abuts U.10 and 13, and covers 0.5x1.2m (maximum east-west length). Both U.10 and 11 rest on the surface backing U.2, suggesting that this TS.4 construction was used as a foundation for later architecture and that not much time had elapsed between U.2's abandonment and erection of U.10 and 11. On the

east, where U.11 extends beyond U.2, the former's base drops ca. 0.1m, implying that U.2 stood about this height above the TS.5 patio floor (the top of S.3). Unit 12, 2.4m north of U.11, rises approximately 0.2m, abuts U.8 and 10, and encompasses 0.9x1.25m (measured across the center). Unit 12's base rides 0.06m above that of U.8 and 10 while its summit is paved with cobbles (included in U.12). Units 11 and 12 are relatively late additions to Str. 122-1st, U.12 possibly being the more recent of the two, built atop a 0.06m-thick accumulation of dirt above the patio. Their functions are unclear, though they certainly would have facilitated passage from the patio to the western platform's summit and may have doubled as sitting/working areas facing that central space.

The southern rooms are separated from the patio on the north by a long (ca. 7.8m), wide (1-1.2m) cobble wall (U.13) that is ca. 0.7m tall. The enclosures' southern flanks are bordered by U.15, a 0.57-0.7m-high stone wall that is sunk as much as 0.2m into underlying S.4. Unit 13 rests at a depth comparable to that of U.15 though, unlike the latter, it sits on, not in, S.4. Apparently, S.4 drops ca. 0.2m from south-to-north in the area separating U.15 and 13. Unit 15's base also descends ca. 0.12m on the east, resting 0.16m below the bottom of U.13 at the eastern ends of both walls. Unit 15's southern face is the eastern continuation of the western platform's southern basal wall (U.7). Though less obvious, U.7 seems to be analogous to U.8 on the north in that both are transformed from platform facings to free-standing walls over their eastern extents. Units 10 and 13 are roughly contemporary. Units 14 and 16, however, postdate U.13 and 15, and were added to close off the west side of the southwest enclosure and to divide the southwestern and southeastern rooms from each other, respectively. Unit 16 is 0.64m high by 0.7m wide, Unit 14 rising a preserved 0.78m (the latter's width is unknown). Both U.14 and 16 abut U.13 and 15 on the north and south. Unit 17 closes off the east side of the southeastern compartment. This 0.36m-high construction is set 0.28m into S.4 and its base is even with that of U.15 but roughly 0.16m below the bottom of U.13. The top of U.17 is 0.38m below that of U.13 while U.15 steps down ca.0.34m over its easternmost 0.34m to intersect U.17's summit at the same level. Units 15 and 17 are integrated, suggesting their contemporaneity, while U.17's temporal priority vis a vis U.13 is suggested by the above depth measurements and the observation that the former runs back behind (east of) the latter. The rooms delimited by the above constructions cover 2.3x2.35m (southwest) and 2.2x4.3m (southeast; both measured across their centers) and lack built-in furniture such as benches or shelves. The southeastern compartment's floor, presumed to be the top of S.4, is only 0.11m below the preserved top of U.17 while the southwestern room was reached by stepping down 0.37m from the tops of the surrounding walls. As noted above, the eastern portion of U.34 may have blocked access to the southern rooms from the central patio.

The above remarks point to complex temporal relations among elements comprising the southern rooms. The southern and eastern walls of the southeastern enclosure would be the earliest elements in this scenario, the northern wall (U.13) being added at a later date (along, possibly, with a westward extension of U.15). The last additions the southern construction were U.14 and 16. No sign of how these putatively earlier entities, especially U.17 and U.15-east, were articulated within coherent buildings was recognized, however. Alternatively, all of the above entities, save U.14 and 16, may be contemporary. Stratum 4 rises ca. 0.1m from east to west where it underlies U.15, suggesting that some of the discrepancies in that wall's basal depths represent efforts by the builders to compensate for this ascent. The presence of earlier

construction (F.4) beneath U.15 may also have encouraged modifications in U.15's construction, the builders sinking the wall to variable depths to use the fluctuating level of F.4 rocks as a foundation (as U.2 supports U.8 and 11, see above). Unit 13's elevated base vis a vis U.15 and 17 may indicate that the southeast room's earthen floor buried these walls to different depths, 0.25-0.28m for U.15 and 17, only 0.08m for U.13. Unit 17's relatively low height may also have been intentional, affording a modest step-down of approximately 0.11m into the southeastern compartment, as opposed to the more formidable descent of 0.51m from the top of U.13. The 0.34m-wide space at U.15's eastern end where that wall's summit drops to the level of U.17 may have also have been intended to facilitate access into the southeast room. Though the data are far from clear, we support the second interpretation of rough contemporaneity for U.13, 15, and 17, if only for the sake of simplicity. At the very least, all the elements comprising the southern room complex would have been in use during the final occupation phase, even if they were added at different times.

Unit 9 is the poorly preserved construction that bounds Str. 122-1st on the east. This element may be the east face of U.17 noted on the south, though north of U.13 it becomes the eastern basal wall of Str. 122-1st's northeast platform. In this area, U.9 intrudes 0.07m into S.4 and ascends 0.8m above that earth level to the building's summit. A 0.04m-high (above S.4) step-out projects 0.33m east of U.9's vertical facing, no other break interfering with the rise to the summit. Unit 9 may have been superseded by another vertical ascent the surviving remnants of which are glossed as F.5. Feature 5 is a very dense concentration of displaced building stones extending 1.18m east of U.9. A stack of medium to large cobbles tilting back to the west is clearly discernible within this aggregate. Though hardly conclusive, the regularity of stone alignments seen here coupled with the flat-laid orientations of the rocks west of the aforementioned stone stack tentatively suggests the former existence of a vertical wall backed by cobble fill (all included in F.5). If this interpretation is correct, the late eastern wall would have rested on S.4, risen 1m high, and been located 1.03m east of U.9. The latter would have been completely buried by F.5's fill. Though likely, we cannot substantiate the eastern wall's existence and it thus retains a "feature" designation.

The platform's northern basal wall was not uncovered, though we presume that it consists of an eastward continuation of U.8. The northeast platform's southern flank is defined by U.13, described above, while the western, patio-facing side is ascended by three cobble-faced steps (U.22-24, the last being a step-up to the summit). These risers are each 0.1-0.33m high, backed by earthen treads measuring 0.7-1m across. The stairs abut U.13 on the south and extend for 3.4m north of that wall (maximum). Altogether, U.22-24 project 1.65m westward into the patio. At some point late in the occupation sequence, the basal step (U.22) was replaced by the addition of U.25 ca. 1m to the west. Unit 25 rises 0.23m high and is backed by a fill composed of a few cobbles set in a brown soil matrix (U.27). Unit 27 buries U.22, the basal tread now measuring 1.7m across.

A single room was identified on the northeast platform's summit. The enclosure measures 1.5x2.9m (across its center) and has an earthen floor depressed 0.24-0.37m below the summit. Low cobble foundations roughly 0.35m wide delimit the compartment on the north, east, and west (U.20, 19, and 24), while U.13 bounds the cubicle on the south. A 0.85m-wide gap in U.19's top at its northeast corner with U.20 possibly marks a doorway. The summit for at

least 1.2m north of the aforementioned room is surfaced with a cobble pavement (U.35). How extensive this flooring is, and what other elements of superstructure architecture may have existed beyond this point, remain unknown.

Unit 31, rising 0.29m above U.8 at the point where that construction intersects the northeast platform, is one of the latest constructions identified in the Str. 122-1st excavations. This cobble wall is 0.5m wide and was followed for 1.5m west from the eastern excavation limits. Unit 31's architectural significance is uncertain. It is similar to foundations identified elsewhere and may be part of a surface-level building raised atop the decaying ruins of Str. 122-1st (U.8's south face in the immediate vicinity of U.31 is largely destroyed, possibly pointing to reuse of the earlier stones in later construction). No other components of the proposed late building were found south, east, and west of U.31. It may be that the late wall was part of constructions lying immediately to the north, a point returned to in the discussion of Str. 31-Sub18, below.

In addition to the above elements that are integral components of Str. 122-1st, several other constructions were noted that may have been parts of buildings appended on to, or located very close by, the principal edifice. Unit 18, for example, is a 0.1-0.13m-high cobble wall that extends 1m south of its abutment with Str. 122-1st's southeast corner (the U.15/9 junction). This entity rests on S.4, its base ca. 0.1m above that of U.15. Too little of U.18 was revealed to determine its architectural significance, though its low height and relatively high stratigraphic position suggest that this unit is part of a foundation for a surface-level edifice erected late in the Op. 31 occupation sequence.

Unit 32, on the other hand, is a 0.2m-high (minimally) by 0.35m-wide cobble wall that abuts U.8 about midway along the western platform's northern face and projects roughly 1.75m northward. The 1.3m of U.28 that is north of the western platform's northwest corner runs parallel to U.32, 3.2m separating these two constructions. Unit 28-north rises to its inferred height of 0.3m in two increments each ca. 0.15m high. The lower element projects roughly 0.15m (1 stone's width) west of the upper portion. Units 28-north and 32 may be the western and eastern basal facings of a 0.2-0.3m-high platform, bounded on the south (in part) by U.8, and covering 1.75x3.2m. Equally likely, these entities may be foundations delimiting the perimeter of a surface-level edifice. Excavations exposing U.28-north and 32 were never linked, however, and the above interpretations remains highly speculative.

The 1.15m of U.28 uncovered south of the western platform's northwest corner seems to serve a different function. Unit 28-south appears to be the western facing of a 0.22m-high terrace that extends ca. 0.5m back to the east where it is succeeded by U.4. It may be that U.28-south fronts a low outset appended onto the western platform, comparable, but not in line with, the putative outset faced by U.29 further south.

Unit 30, 0.5m west of Str. 122-1st's southwest corner, is a 0.3m-high by 0.53m-wide cobble wall that was traced for 1.6m north-south. This entity is quite probably a foundation for a surface-level building. A 0.07-m high wall corners with U.30's west face and extends at least 0.5m to the northwest (included in U.30). This junction may mark the edifice's southern boundary, though excavations were not carried far enough to establish the point.

Unit 29, lying ca. 1.2m west of Str. 122-1st's western basal facing (U.4), protrudes 0.09m into S.4 and rises 0.28m above that level on the west (U.29 has no clear eastern face). In profile, U.29 looks like a basal terrace fronting Str. 122-1st's western platform but extensive clearing indicated that U.4 fulfilled that function. Excavations south and north along U.29's putative line failed to encounter the construction, though they did reveal U.28 and 30, leading us to suspect that whatever U.29 had faced ends shy of the aforementioned two units. It may well be, therefore, that U.29 is the western face of a low outset that projects 1.2m west of Str. 122-1st, running back to join that building at points that are short of the building's northwest and southwest corners.

Feature 3 is a ca. 0.05m-thick cobble floor situated 0.51m south of the western platform's southern basal wall (U.7). The surface measures 0.78m north-south by 1.1m east-west and is embedded in S.4 (S.4 overlies F.3 by 0.17m; U.7 is also covered by S.4). Sizable quantities of ceramics, many of which occur as large fragments, are associated with F.3. The pavement was not apparently integrated into a larger structure and its architectural significance remains murky.

Structure 122-1st covers 9.25x15m (measured across the center, excluding U.29) and is aligned roughly 7 by 102 degrees. The western platform is 0.5-0.67m tall, covers 6.2x9.1m, and its summit is at least partially paved with cobbles. Three stone-faced risers ascend the building's western and southern flanks, a single vertical ascent faces eastward into the patio, while the nature of construction on the north is unknown apart from the substantial basal wall. Two quadrilateral cobble blocks set into the patio's southwestern and northwestern corners may have provided access to the platform's summit on this side; the former might also have been a step-up that afforded passage to the two southern rooms. The latter are set in an east-west line that bounds the Str. 122-1st patio on the south. Built on ground level, these enclosures are completely surrounded by massive walls and lack both built-in furniture and clear entryways. Our best guess at present is that the compartments' interiors were reached by stepping down from the surrounding foundations. The rooms encompass 5.4m2 (southwestern enclosure) and 9.5m2 (southeastern compartment). The north side of the earthen-floored patio is sealed by a substantial free-standing wall while a 0.5-0.8m-high platform measuring 4x4.7m closes off the east flank. Three stone-faced steps projecting 1.65m westward into the patio provide access to the latter's summit which contains at least one room (encompassing 4.4m2) whose earthen floor is sunk 0.24-0.37m below the superstructure's paved summit surface. The enclosure does not contain built-in furniture and was probably entered through a 0.85m-wide gap in its northeast corner. The patio itself measures 3.9x4.7m (18.3m2, including the area covered by the stairs and cobble blocks) and is not elevated above ground surface. Fragments of relatively humble constructions were found adjoining Str. 122-1st and there is a slight hint that the building was fronted on the west by two low, stone-faced outsets. Continued use of Str. 122-1st after at least part of the edifice had fallen into decay is suggested by the recovery of a cobble footing built on top of the northern patio wall. This construction may be part of a relatively late building lying immediately north of Str. 122-1st (see Str. 31-Sub18, below).

All units are built primarily of unmodified river cobbles positioned so that their naturally flatter aspects face outwards (the walls bounding the three rooms identified in Str. 122-1st face into those enclosures). A few cut blocks were incorporated in U.29 (one of the putative western outsets) but were otherwise not part of uncovered construction. The larger wall rocks tend to be

set in horizontal courses, variable numbers of chinking stones being used to fill in the gaps between the more sizable rocks and, in some cases, are laid in as a foundation. A brown mud mortar is used as a binding agent everywhere. In general, the later in the construction sequence a wall is built the less care is evidenced in its construction (i.e., coursing is not as pronounced and chinking stones are rarer). Stone sizes (excluding chinking pebbles) range from 0.06x0.11m to 0.24x0.42m, with most falling towards the middle of that range.

Time Span 6

Continued deposition of S.4 on Str. 122-1st's south side buried TS.5 construction (F.3 and U.7). Elsewhere, this earth layer runs beneath Str. 122-1st architecture and the stratigraphic reversal on the south is an anomaly for which we have no answer (though S.4 is found beneath TS.5 architecture here as well). Apparently, whatever conditions gave rise to S.4 persisted on the south longer than they did in other areas surrounding Str. 122-1st. Strata 5 and 6 completely bury S.4 and blanket all but the highest portions of Str. 122-1st. The first is a moderately coarsetextured, hard-compacted brown soil that accumulated to depths of 0.18-0.45m above S.4. Stratum 5, in turn, is obscured by S.6, a moderately coarse-textured, moderately hard-compacted, root-rich, dark brown soil that is 0.11-0.19m thick. Strata 5 and 6 are most likely components of the same soil deposit differentially affected by modern processes acting at and near ground surface. Embedded within the last two layers are stones fallen from final-phase architecture (F.6). Feature 6 rocks are found on top of and off all of Str. 122-1st's flanks, being especially dense on the south. At least two cut blocks were found among the tumble apparently issuing from U.7 near the southwest corner of the southwest room, implying that stones of this sort were formerly incorporated into the building's southern perimeter/basal wall. Feature 6 extends at least 4.68m east (measured from U.9), 4.6m west (measured from U.4), and 1.95m south of Str. 122-1st (on the north F.6 mixes almost immediately with the remains of Strs. 31-Sub17 and 31-Sub18 lying within 1m of the building).

Structure 31-Sub17

Structure 31-Sub17 is a surface-invisible edifice that was revealed during the clearing of Str. 122-1st's U.8. The building lies a scant 0.4-0.6m north of Str. 122-1st and is partially overlain by Str. 31-Sub18-1st immediately to the east. Excavations here were carried down to a maximum depth of 0.1m below the base of final-phase architecture (construction fill was not investigated) revealing a single building phase. All of this work was overseen by K. Miller and S. Buchmueller.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	LCLII?
2	Str. 31-Sub17-1st	U.1-5	-	-	LCLII?

3 - U.5? S.1 - LCLII 4 - - S.2-3 - -

Time Span 1

Stratum 1, a moderately fine-textured, moderately soft-compacted, tan soil containing gray ash lenses, underlies TS.2 construction by at least 0.1m (S.1's base was not found). Recovery of cultural material, especially the ash deposits, from portions of S.1 predating Str. 31-Sub17-1st's erection strongly indicates a substantial human presence in the immediate vicinity while this soil was being laid down.

Time Span 2

Structure 31-Sub17-1st is a platform ascended on all sides by single, low (ca. 0.4m tall) ascents (U.1-4) to its cobble paved summit (U.5). The building measures 2.75x3.1m (taken across the center) and is oriented very approximately 292 degrees. Clearing of about two-thirds of the summit (all but the northwestern one-third) did not reveal any traces of superstructure architecture. All facings and the pavement are made of unmodified river cobbles set in a brown mud mortar. The larger rocks are laid in horizontal courses, chinking stones used to fill in the gaps among these rows. Wall stones were chosen for their naturally flat faces which were directed outwards.

Time Span 3

Roughly 0.4m of S.1 was deposited during this interval, burying all but Str. 31-Sub17-1st's summit (the LCLII date given above refers to the deposition of S.1). The latter was then overlapped on the east by construction associated with Str. 31-Sub18-1st. It may be that U.5 was still exposed at this time, functioning now as a pavement enclosed by a surface-level edifice (Str. 31-Sub18-1st). This also seems to have been the period in which Str. 122-1st's U.8 was raised, implying that erection of Str. 31-Sub17-1st predates construction of its southern neighbor (U.8's base is 0.32m above that of U.1). In fact, Str. 31-Sub17-1st may have been part of the complex of relatively humble edifices whose remnants were identified underlying Str. 122-1st (TS. 4 in that building's construction sequence).

Time Span 4

Structure 31-Sub17-1st was eventually completely obscured by the deposition of S.2 and 3, moderately fine-textured, hard-compacted soils distinguished by the latter's higher root content and darker brown color. Stratum 3 overlies S.2, the two probably being components of the same layer differentially affected by ongoing soil formation processes.

Structure 31-Sub18

Structure 31-Sub18 was not discerned from the surface but, instead, came to light during the clearing of Str. 122-1st's north flank. The latter edifice is 0.85m to the south while Str. 31-

Sub18-1st is built immediately adjacent to, and slightly overlaps with, Str. 31-Sub17-1st on the west. Excavations here were pursued to a maximum depth of 0.85m below modern ground surface north (downslope from) construction, revealing a single building phase in the process. All investigations were supervised by K. Miller and S. Buchmueller.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	LCLII?
2	Str. 31-Sub18-1st	U.1-5	-	-	LCLII/III
3	-	-	S.2,3	F.1	-

Time Span 1

Stratum 1 is a moderately fine-textured, moderately soft-compacted, tan soil that increases in rock content (small, rounded stones) from south to north. This soil layer was exposed to a maximum thickness of 0.38m, its base lying beyond excavation limits. Stratum 1's undulating upper surface runs more-or-less level over the 2.86m it was exposed from north to south. Artifacts unearthed from S.1 point to human occupation in the immediate vicinity of Str. 31-Sub18-1st's eventual construction site during TS.1.

Time Span 2

Structure 31-Sub18-1st is a surface-level building erected on a north-to-south ascent of approximately 0.2m over 2.5m horizontal distance. The northern, downslope flank is defined by U.1, a set of two low cobble risers apparently raised to slow erosion on the flank must vulnerable to that process. The basal riser, standing ca. 0.4m above S.4 on whose surface it rests, is succeeded 0.3m to the south by the second ascending ascent which is approximately 0.2m high. Unit 1's upper segment seems to have doubled as the northern foundation for a room delimited on the east by U.3, a ca. 0.4m-high by 0.24m-wide cobble footing that extends 1.3m between its abutments with U.1 on the north and U.2 and 4 on the south. The floor delimited by U.1 and 3 is surfaced with cobbles (U.5) that extend south to the summit pavement of Str. 31-Sub17-1st (U.5, probably still exposed at this time). Located cattycorner (and southeast) from the aforementioned enclosure is another room, this time bounded by cobble constructions on the west and north (U.2 and 4). Unit 2 is 0.35-0.4m high, 1.5m long north-south, and 0.65m wide. This is an unusually substantial architectural element for Str. 31-Sub18-1st and may have functioned as more than a support for perishable upper walls. Instead, U.2 may be a bench facing both west towards the room described above and east into the enclosure defined by U.4 on the north. The latter is a 0.23m-high by ca. 0.25m-thick footing that was followed for 0.75m east of its junction with U.2 before disappearing beyond excavation limits. The space delimited by U.2 and 4 is surfaced over the exposed portion with a cobble pavement (U.6). The projected northwest basal facing of Str. 31-Sub12-1st is only 1-1.2m east of U.2, suggesting that the southeast room covers

no more than 1.2x1.5m. The northwestern compartment is at least 1.3m north-south, possibly measuring as much as 2.7m in that direction (if U.2 is part of the enclosure), by an undetermined distance east-west. The 0.88m separating U.2 from Str. 122-1st's northern wall (U.8) probably was a doorway providing access to the southeastern cubicle. Structure 122-1st's U.31, built atop U.8, lies roughly 3m due south of U.4 and may have been part of Str. 31-Sub18-1st, possibly serving as a baffle to block passage into, and/or viewing the contents of, the southeastern room.

Structure 31-Sub18-1st is as surface-level building that measures ca. 3.6m north-south by an unknown distance east-west and is aligned very roughly 202 degrees. The northwestern room encompasses 1.3-2.7m north- south while the southeastern enclosure covers approximately 1.8m2. A 1.5m-long stone-faced and stone-surfaced bench may face into both compartments. All exposed floor portions are surfaced with cobbles, the northwest room probably incorporating portions of Str. 31-Sub17-1st's former summit into its pavement (see above). Structure 31-Sub-18-1st is clearly a late addition to the Op. 31 complex, sandwiched between two earlier edifices (Strs. 122-1st and 31-Sub12-1st) and resting high up in the local stratigraphy (U.2's base is roughly 0.3m above that of adjacent Str. 31-Sub17-1st's U.1 and 0.14m above Str. 122-1st's U.8's base). In fact, this building seems to have been planned with the intention of taking advantage of preexisting constructions to create its rooms. As such. Str. 31-Sub18-1st is probably part of the late building complex found adjoining Str. 122-1st (e.g., Str. 122-1st's U.28 and 32). used in the construction of Str. 31-Sub18-1st's foundations, risers, and floors were fashioned of unmodified river cobbles whose naturally flatter aspects are oriented outwards (2 schist slabs are included in the exposed portion of the U.6 floor). Chinking stones are packed around the larger rocks and are used to create a foundation for U.4 and U.2's east side. Cobbles are set in horizontal courses in all foundations and terraces, though such regular placement of stones is not evident on U.2's west face. A brown mud mortar is used everywhere as a binding agent. Rock sizes (excluding chinking stones) range from 0.07x0.12m to 0.16x0.6m, with most falling towards the middle of that continuum.

Time Span 3

Strata 2 and 3 completely cover S.1 and Str. 31-Sub18-1st. The former is a moderately coarse-textured, hard-compacted, brown soil that accumulated to a depth of 0.33-0.58m over S.1. Stratum 3, a moderately fine-textured, moderately hard-compacted, dark brown-to-gray, root-rich soil, in turn, covers S.2 by 0.14-0.17m. Embedded in S.2 and, to a lesser extent, S.3 are stones apparently displaced from final-phase architecture (F.1). Feature 1's components are found scattered over all of Str. 31-Sub18-1st and spread north of U.1 for at least 1.8m (southward, rocks tumbled from Str. 31-Sub18-1st intermingle with those derived from Str. 122-1st). One cut block and one schist slab were found lying atop the U.5 surface, suggesting that a few of these stones were intermixed with the primarily cobble architecture. The concentration of stones in F.1's northward extension is moderate to very dense, there being a particularly marked aggregation within 1.04m of U.1's lower terrace. These rocks sit directly on S.1 and the basal stones look to be flat-laid (rising 0.12m above S.1; overlying stones are more jumbled in their orientations). The lower cobbles might, therefore, be part of a poorly preserved basal terrace that projects 1.04m north of U.1 and stands 0.12m high. Preservation here was so poor, however, that we had very little confidence in the reality of this putative construction while we were in the field and it is not given a unit designation here.

Structures 31-Sub21 and 31-Sub22

Structure 31-Sub21 [originally designated Str.119] is a platform that went undetected during mapping but whose existence was suggested by the presence of surface sherd scatter ca. 17.5m northwest of Str. 120 and 42m east of Str. 127. The north terrace margin lies approximately 20m to the northeast, the terrain around Str. 31-Sub21 descending from west to east and south to north. Along the former line, modern ground surface drops 0.22m over 10.96m west-to-east until a point 4.4m east of Str. 31-Sub21 is reached. Subsequently, the descent becomes more precipitous as the northern terrace margin is approached, the slope now declining 0.22m/1m west-to-east for the next 3m. The drop to the north is only about 0.05m over 2.5m south-to-north. Excavations designed to investigate the aforementioned artifact concentration in 1995 (Subops. 31BC and BD) uncovered roughly 40m2 in the process of completely revealing a low platform and associated constructions (Str. 31-Sub21) as well as remnants of what appears to have been a low terrace erected to slow erosion on the building's down-sloping eastern flank (Str. 31-Sub22 [formerly Str.118], ca. 5.7m east of Str. 31-Sub21). Digging was pursued to maximum depths of 0.49m below modern ground surface outside architecture and 0.48m beneath ground level into construction fill, revealing at least two building phases for Str. 31-Sub21. All of this fieldwork was supervised by J. Dietler.

Time Spans

Time Span	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	Str. 31-Sub21-2nd	U.1-4	-	-	LCLIII/II?
2	Str. 31-Sub21-1st Str. 31-Sub22-1st	U.5-17 U.1,2	-	F.1,2	LCLIII/II
3	-	-	S.1,2	F.3	-

Time Span 1

Units 1-4 are remnants of a surface-level construction (Str.31-Sub21-2nd) that was later built over and incorporated within Str. 31-Sub21-1st. Unit 1 is an east-west running cobble foundation that stands at least 0.13m high, is 0.25m wide, and has a preserved length of 2.15m. Construction during TS.2 seems to have involved modification of this footing, augmenting its width on the east and reducing its height on the west where it is overlain by Str. 31-Sub21-1st's platform. Structure 31-Sub21-2nd's west wall is a relatively massive construction measuring 0.69m across and ascending a reconstructed 0.45m (U.2). This substantial wall runs 3.6m north-south, extending 1.5m south of its abutment by U.1. Most likely, the T-shaped junction of U.1 and 2 demarcated at least two earthen-floored rooms, one north and the other south of U.1. The northern enclosure contains a 0.24m-high by 0.24m-wide stone-faced and -surfaced shelf (U.4) that runs at least 1.5m along the compartment's western wall (set against U.2). Unit 3, a 0.05m-high stone construction that projects 0.08m east of U.4, may have been a footing for the latter.

Additional segments of Str. 31-Sub21-2nd may lie buried by TS.2 architecture but were not encountered in our excavations which focused on clearing final-phase construction.

By TS.1's conclusion, the revealed portion of Str. 31-Sub21-2nd measured 2.8x3.6m, contained, minimally, two earthen-floored rooms both of which were apparently open to the east, and was aligned roughly due north-south. The reconstructed northern enclosure covers approximately 1.9x2.15m, its southern counterpart measuring 1.5x2.15m. A 1.5m-long by 0.24m-high shelf fronts most of the northern room's western wall while no comparable built-in furniture was recorded in the southern compartment. The western wall (U.2) is so substantial, however, that it may have doubled as foundation and a bench facing into both enclosures. All Str. 31-Sub21-2nd units are built of unmodified river cobbles set in a brown mud mortar. The naturally flatter aspects of the rocks are oriented outwards.

Time Span 2

Structure 31-Sub21-1st's builders took advantage of U.1 and 2 from Str. 31-Sub21-2nd in constructing their edifice. This version of the building consists of a cobble-faced rectangular platform running north-south against the eastern face of which was raised a surface-level room. The platform is bounded on all sides by basal retaining walls that rise directly to the summit (U.5-8, the western 2.7m of U.9, 11, and 12). These elements stand to preserved heights of 0.25-0.4m and cover a total area of 2.75x5.3m (measured across the center). The building's eastern perimeter line is irregularly shaped, stepping back in to the west as it proceeds north-to-south, first for 0.65m and, further south, for 0.2m. The remaining flanks are faced by walls that show no such inclination to change direction.

The platform's summit supports two rooms. The northern example measures 2.2x2.35m and is delimited by low stone foundations on all sides (U.10-12, each ca. 0.25m high) save the west which was apparently left completely open. The upper surface of Str. 31-Sub21-2nd's western wall (U.2) was incorporated into the stone pavement that covers this compartment (U.13). That portion of the preceding building's northern room that is now bounded by U.9, 11, and 12 was filled, first with a 0.17m-thick layer of fine-textured, hard-compacted, tan clay (U.16) that was, in turn, surmounted by a 0.32m-thick dense packing of small to medium-size cobbles set in a brown soil matrix (U.17). Units 3 and 4 were completely covered by the addition of U.16 and 17. The southern summit enclosure is delimited by low footings on the north and over most of its east extent, being open to the west and south. This compartment encompasses 1.55x2.05m and, like its northern neighbor, is paved with a cobble floor (U.14). Unit 14 is 0.09m lower than U.13, a step filling the 0.4m-wide gap between U.12 and 8 that probably served as a doorway between the two compartments. Unit 2 is also incorporated into the U.14 pavement, the former having been partially dismantled so that it does not project above the lower southern floor. No built-in architecture was recorded anywhere on the summit.

The eastern room is set directly on ground surface and is defined by an eastern continuation of U.9, that portion of U.1 projecting eastward from U.11, U.15, and the platform's eastern facing (U.11 in this area). The footings demarcating the eastern room are 0.21-0.31m high by 0.4-0.55m across. Entrance was from the east where there is a 1.3m gap between U.1-east and U.15. Covering 1.46x1.55m, this earthen-floored enclosure lacks built-in furniture.

Within 0.2m of Str. 31-Sub21-1st's western face is a dense concentration of cobbles encompassing 1.3m east-west by at least 2.6m north-south (F.1; this entity apparently continues south beyond our excavation limits). Though F.1's stones are jumbled, many were found to be standing on end, trending north-south. Such regularity in the disposition of its component stones indicates that F.1 was not composed simply of displaced architectural debris. Instead, the rocks in question may be part of a purposeful construction associated with, but not directly linked to, Str. 31-Sub21-1st. Feature 1's base rests 0.07m above that of U.8, the platform's western basal wall, suggesting near contemporaneity for these two elements.

Lying 0.65-0.75m north of Str. 31-Sub21-1st is an irregularly shaped scatter of cobbles that may be the remains of foundations bordering an earthen-floored room (F.2). The putative footings, together with Str. 31-Sub21-1st's U.9, enclose a space measuring 1.45x2.2m on all sides. Gaps between F.2 and U.9 on the west and east (0.65m and 0.8m wide, respectively) may mark doorways into the interior. Feature 2's elements are 0.25-0.32m high, 0.5-1m wide, and the whole is oriented roughly 259 degrees. A 0.3m-wide stone block extends a scant 0.2m north of F.2 as well. No built-in furniture was noted within the confines of the putative compartment. Though the above interpretation is plausible, rocks comprising F.2 were so jumbled that we remain uncertain as to the construction's validity and form.

Structure 31-Sub22-1st is represented solely by U.1 and 2. The former is a 0.17m-high by 0.6m-wide cobble facing that is backed on the west by a fill composed of cobbles set in a brown earth matrix (U.2). Unit 1 is ca. 5.7m east of Str. 31-Sub21-1st, oriented approximately 335 degrees, and appears to be part of a terrace designed to retard erosion down the increasingly steeply sloping terrain to the east.

Overall, Str.31-Sub21-1st resembles an inverted "L", the 0.2-0.3m-high platform forming the main element and the eastern room making up the projecting leg. The building encompasses 4.5x5.3m (the width including the eastern, surface-level room), the platform covering ca. 14.6m2, and the whole oriented approximately 4 degrees. Two stone-paved rooms are set in a north-south line along the platform's summit, the northern example covering 5.2m2 while its southern counterpart measures 3.2m2. Access to both enclosures was not seriously restricted. The eastern room built on ground level adjoining the platform's east face is demarcated by low cobble foundations that bound an earthen floored area of 2.3m2. Once again, passage into the enclosure's interior was quite easy, this time through an ample doorway on the east. None of the investigated rooms contains built-in furniture. A possible construction composed of a dense packing of cobbles set on end is immediately west of the platform while poorly preserved traces of a room built against Str. 31-Sub21-1st's north wall were also noted. This enclosure, if it existed, has an interior area of roughly 3.2m2. Structure 31-Sub22-1st, ca. 5.7m east of the aforementioned complex, appears to have been a terrace raised at least 0.17m high to combat downslope erosion. Unmodified river cobbles were used almost exclusively to fashion the walls, footings, and surfaces described above, only one cut block having been observed in U.8 (at the latter's northwest corner). The naturally flatter aspects of these rocks are directed outwards in platform facings and foundations. Chinking stones are packed around the larger cobbles and serve as a foundation layer in U.8. All rocks are set in a brown mud mortar.

Time Span 3

Following abandonment, Strs. 31-Sub21-1st and 31-Sub22-1st were buried by the deposition of Strata 1 and 2. They are both moderately coarse-textured, moderately hard-compacted soils that differ solely in overlying S.2's darker hue (dark brown as opposed to the brown of S.1) and the greater number of small roots in S.2. Together, these strata accumulated to maximum depths of 0.49m near Str. 31-Sub21-1st and 0.28m around Str. 31-Sub22-1st (S.1's base was not discovered). Embedded within S.1 and, to a lesser extent, S.2 are stones fallen from final-phase architecture (F.3 for both buildings). Feature 3 is moderately dense on all sides and across Str. 31-Sub21-1st, extending for 1.34m west and 1m east of the edifice (on the north, rocks derived from Str. 31-Sub21-1st and F.2 are intermingled). Displaced rocks were found for 0.55m east of Str. 31-Sub22-1st, extending beyond excavation limits.

Structure 127

Structure 127 was mapped as an extensive but low construction lying within a scatter of similar unprepossessing edifices on the northwest margin of La Sierra. Structure 120 is ca. 60m to the southeast while Str.31-Sub21 lies 42m in the same direction. The north terrace margin is roughly 35m distant in that direction and the terrain on which Str. 127 was raised does ascend very gradually from south-to-north (rising 0.07m over 17.12m). Investigation of Str. 127 in 1995 was intended to enhance our understanding of architectural and behavioral variation within this portion of La Sierra that had already yielded one of the most unusual building forms identified in The Naco corpus (Str. 120, see above). Clearing of approximately 108m2 in Subops. 31BA and BB gave us more than we ever could have hoped for. Instead of one building, we uncovered the moderately well-preserved remains of four closely spaced, but not interconnected, edifices (Strs. 127-Sub1-4). Together, the buildings form an inverted and reversed "L", three constructions lined up southwest-northeast making the staff (Strs. 127-Sub1-3) while the fourth (Str. 127-Sub4) projects northwest off the northeast end to form the leg. Each of the above constructions will be described separately below.

Structure 127-Sub1 (Dietler's Str. 127A) is the southernmost of the entities exposed in Subops 31BA and BB, lying 1.75m southwest of its immediate neighbor, Str. 127-Sub2. Excavations on and around Str. 127-Sub1 were carried down to maximum depths of 0.47m below modern ground surface outside construction and 0.4m beneath ground level within and below architecture (but not within fill contexts). A single building phase was recognized in the course of this work which was overseen by J. Dietler.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	-
2	Str. 127-Sub1-1st	U.1-18	_	F.1	LCLIII/II

Time Span 1

Stratum 1, a fine-textured, very hard-compacted, tan clay, underlies exposed architecture to a maximum depth of 0.16m (its base was not encountered). This earth layer ascends 0.09m over 4.72m south-to-north before dropping 0.18m across an additional 3.6m in the same direction. Structure 127-Sub1-1st was, therefore, erected on top of a very low natural eminence the "peak" of which is beneath the building's approximate center. Little cultural material was recovered from S.1, the few artifacts found possibly having worked their way down from upper deposits. It may well be, therefore, that there was at most a very sparse human presence in Str. 127-Sub1-1st's vicinity when S.1 was being laid down.

Time Span 2

Structure 127-Sub1-1st is a surface-level construction bounded by cobble foundations that are 0.15-0.4m high by 0.4-0.5m wide (U.1-5) that rest on S.1. The perimeter is breached in two places, an 0.85m-wide gap between U.4 and 5 in the east wall and a 0.13m-wide fissure in the western footing (U.2). The former issues directly into Room 1 and almost certainly functioned as the building's principal doorway. The latter extends from Room 4's west corner completely through U.2 and is far too narrow to have served as a means of access. More likely, this narrow gap was integral to the performance of activities pursued in Room 4, possibly serving to help ventilate the compartment's interior. Units 1 and 2, the southwestern and northwestern foundations, are lower where they border Room 5 than they are elsewhere along their lengths. This discrepancy is sufficiently systematic to suggest that the elevation change was purposeful, implying that Room 5 was open on these flanks.

The space bounded by U.1-5 is divided into five rooms, each of which is separated from the others by footings that stand 0.19-0.36m high (U.6-11). Most of these units are 0.2-0.4m wide, though U.8, which separates Rooms 1 and 4, measures 0.8m across. Structure 127-Sub1-1st's enclosures exhibit variable sizes and forms. Room 1, in the south quadrant, is the largest. This compartment's L-shape, with the leg projecting to the northwest from the room's northeast end, encompasses 4.8m2. Room 2 in the east quadrant covers 2.3m2 and is connected to Room 3 on the northwest by a 0.75m-wide door formed by the gap between U.3 and 10. Both Rooms 1 and 2 have earthen floors. Room 3, on the other hand, has a floor of schist slabs (primarily) and pebbles covering most of its 2.5m2 (U.12). An area of 0.6m2 fronting the door connecting Rooms 2 and 3 was left unpaved. Room 4, between Rooms 3 and 5, is the smallest of the enclosures. This cubicle encompasses 1m2 and is surfaced with a flooring composed of densely packed pebbles (U.14). Room 4 was subject to at least one episode of intensive burning, the earth surround the U.14 pebbles having been transformed by the conflagration(s) to bright orange. Numerous carbon flecks were also found scattered across the floor surface embedded in the orange soil. Unit 8, which separates Rooms 1 and 4, appears to be a relatively late addition. This observation implies that Room 1 was originally more extensive before being subdivided by the construction of U.8. The 1.8m2 of Room 5 in the west quadrant is completely paved with schist (U.13). As noted above, Room 5 may have been open to the exterior on the northwest and southwest. How individuals moved between compartments is not always clear. Rooms 2 and 3

are connected by a doorway but no other gaps in foundations that indicate where former entryways were located were noted. Presumably, in most cases passage among compartments was achieved by stepping up and over low footings and through doors set into the perishable upper walls erected above these units.

Structure 127-Sub1-1st is fronted on the southeast by a pavement composed, for the most part, of cut blocks among which are interspersed a few schist slabs and cobbles (U.15). Unit 15 runs almost the full length of the building's southeast flank, stopping 0.2m and 0.45m shy of its east and south corners, respectively, and extends 0.9-0.95m out from the edifice. The stones comprising U.15 are generally well-preserved, though those found near the pavement's approximate center (in line with, and slightly northeast of, the southeastern door) were disrupted across U.15's entire northwest-southeast width. The disturbed segment measures 1.35m northeast-southwest and its architectural significance, if any, remains unknown. An irregularly shaped stone projection protrudes roughly 0.55m southeast of U.15, approximately in line with Str. 127-Sub1-1st's southeastern door (F.1). Feature 1 measures 0.9m across and may be the disturbed remnants of a step-up onto U.15.

A ca. 0.2m-high by 0.4-0.55m-wide cobble wall extends 2.2m southwest from Str. 127-Sub1-1st's south corner (U.16). This construction may be part of a surface-level building erected adjacent to Str. 127-Sub1-1st, though no other portions of said edifice were uncovered. Unit 16 may also have been raised as a baffle to obstruct passage and/or lines of sight from the southeast towards U.17 and 18 on the northwest. Unit 17 is a stone pavement with a very irregular outline. It covers, maximally, 3.55m north-south by 2.55m east-west and is 0.5m west of Str. 127-Sub1-1st's western corner. Unit 18 appears to be the remnants of a low cobble wall erected on U.17. Said wall is 0.3m wide and runs 1.45m south from U.17's northern margin. The architectural significance of U.17 and 18 is profoundly uncertain.

In sum, Str. 127-Sub1-1st is a surface-level edifice covering 5.15x5.5m (including U.15), oriented roughly 28 degrees, and fronted on the southeast by a formal porch fashioned primarily of masonry blocks. The five rooms located within the building range in size from 1m2 to 4.8m2 and are surfaced with earth (two cases), schist slabs (two cases), and pebbles (1 case). No builtin furniture was recorded in any of these compartments. There were clear signs of burning in Room 4, no comparable evidence of a conflagration was noted in the other enclosures. The edifice was apparently entered from the southeast over the porch and through an ample doorway that leads directly into the largest room. The western enclosure (Room 5) may also have been accessible from outside the edifice. A wall extending southwestward from Str. 127-Sub1-1st's south corner hints at the existence of another surface-level construction in this area, while an irregularly shaped stone pavement, possibly supporting a low wall, lies immediately west of Str. 127-Sub1-1st's west corner. Structure 127-Sub1-1st's foundations are fashioned, for the most part, from unmodified cobbles the naturally flatter aspects of which are oriented outwards. A few cut blocks and schist slabs were noted intermixed with these river-rounded stones, the former usually appearing at structure corners. Unit 8 also contains two masonry blocks Chinking stones are packed around the larger rocks in all footings and are laid as a foundation for U.8 and 10. A brown mud mortar serves as a binding agent in all cases.

Time Span 3

Natural deposition of S.1 and 2 eventually covered Str. 127-Sub1-1st almost entirely. The two levels are nearly identical, being moderately fine-textured, moderately hard-compacted soils. They are distinguished by overlying S.2's darker color (dark brown as vs. brown) and greater concentration of small roots. Together, S.1 and 2 accumulated to depths of 0.25-0.33m over S.1. Stones displaced from final phase architecture were found scattered in dense to moderately dense concentrations within and on all sides of Str. 127-Sub1-1st (F.2). Feature 2 rocks extend for at least 2.1m southwest and 1m northeast of Str. 127-Sub1-1st.

Structure 127-Sub2

Structure 127-Sub2 is 1.6m northeast of Str.127-Sub1, 0.9-1.05m southwest of Str. 127-Sub3, and 0.55m southeast of Str. 127-Sub4. Excavations here were pursued to maximum depths of 0.34m below modern ground surface outside architecture and 0.36m beneath ground level within and below architecture (but not into fill contexts), revealing a single building phase. All of the work was overseen by J. Dietler.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1	-	-
2	Str. 127-Sub2-1st	U.1-10	-	F.1	LCLIII/II
3	-	-	S.2,3	F.2	-

Time Span 1

Stratum 1, a fine-textured, very hard-compacted, tan clay, underlies Str. 127-Sub2-1st architecture by at least 0.08m (its base was not revealed). This earth level ascends 0.05m over 4.55m south-to-north and contains no cultural material that was likely incorporated within it during deposition. The very small sliver of S.1 revealed underneath Str. 127-Sub2-1st, however, precludes definitive assessments of its cultural associations. Stratum 1 is a northeastward continuation of the S.1 defined for Str. 127-Sub1-1st, above.

Time Span 2

Structure 127-Sub2-1st is a surface-level edifice raised above S.1 and delimited by stone foundations standing 0.12-0.35m tall and measuring 0.3-0.5m across (U.1-4). A 0.35m-wide gap in the building's east corner (between U.3 and 4) may have served as a doorway providing access to Str. 127-Sub2-1st's interior. The aperture seems excessively narrow for such a purpose, however, and the breach may result from poor preservation at this juncture. Structure 127-Sub2-1st contains four rooms bounded by footings 0.17-0.33m high and 0.25-0.5m wide (U.5-7). Unit 5 abuts U.1 and 3 on the southwest and northeast, bisecting the interior space. Room 1,

encompassing 4.5m2, lies northwest of this foundation. The area southeast of U.5 is subdivided into three cubicles (Rooms 2-4) by construction of U.6 and 7, both of which abut U.5 and 4, the latter being the southeast perimeter footing. Rooms 2-4 are set in a southwest-northeast trending line and measure 1.4m2, 1.3m2, and 1.8m2 from southwest to northeast. All of the above enclosures are surfaced with earth save Room 3, the central of the southeastern rooms. At least the southern half of this compartment was paved with schist slabs (U.8), the floor possibly extending over the entirety of the room's 1.3m2 (U.8 was, unfortunately, not well preserved). No built-in furniture was identified in Rooms 1-4. Doorways between rooms were not clearly marked. Unit 7 drops to nearly floor level over a 0.35m-wide expanse near its center. This breach may signal a means of passage between Rooms 2 and 3 though it appears too narrow to allow all but the thinnest to move through it.

Two low projections (equivalent in height to the foundations they abut) extend 0.4 and 0.65m southwest and southeast from Str. 127-Sub2-1st (U.10 and 9, respectively). Unit 10 consists of a single cut block and is 0.55m wide while U.9 is fashioned of two large cobbles that, together, measure 1.05m across. These entities are probably step-ups that led into doorways in the perishable walls supported by U.1 and 4. Unit 10 gives access to Room2, U.9 facilitating passage into Room 3. A dense concentration of stones (F.1; mostly schist slabs) lies immediately northeast of Str. 127-Sub2-1st's north corner, filling in the 0.9-1.05m separating the building from Str. 127-Sub3-1st. Though the rocks are jumbled, they may be the remains of a pavement linking these two edifices. Feature 1 is found throughout the area between Strs. 127-Sub2-1st and 127-Sub3-1st.

By the end of TS. 2 Str. 127-Sub2-1st was a surface-level building that encompassed 4m on a side (excluding the two step-outs and F.1) and was oriented roughly 36 degrees. The edifice contains four rooms, a large northwestern enclosure (4.5m2) and three much smaller cubicles (1.3-1.8m2) on the southeast, the latter trio being set in a southwest-northeast line. Only the central of the southeastern compartments was at least partially paved with stone, the remainder having earth floors. No built-in furniture was recorded in any of the four rooms. Access to Str. 127-Sub2-1st's interior was apparently achieved through doors set into the building's upper, perishable walls. Two informal stone steps, one on the southwest, the other on the southeast sides of the building, facilitated movement through these putative apertures. A schist pavement may have extended between Str. 127-Sub2-1st and its northeastern neighbor, Str. 127-Sub3-1st. All footings are made primarily of cobbles the naturally flatter faces of which are directed outwards and into the rooms. One cut tuff block was noted in U.1, 3, and 4, in each case situated at the base of the foundation's approximate center. Two masonry tuff blocks were also recorded in U.5, one each at the base of the wall's northeast and southwest ends. As noted above, U.10, the southwestern step, consists of a single cut tuff block. A brown mud mortar is used as a binding agent in all Str. 127-Sub2-1st units.

Time Span 3

Following Str. 127-Sub2-1st's abandonment, the edifice was almost completely blanketed by S.2 and 3. These layers are northeast-ward continuations of the S.2 and 3 defined for Str. 127-Sub1-1st. Stratum 2 is a moderately fine-textured, moderately hard-compacted brown soil that is succeeded by a nearly identical deposit (S.3). Stratum 3 is distinguished from its

predecessor by its darker brown color and greater concentration of small roots. Together, S.2 and 3 cover S.1 by 0.27-0.31m and contain stones fallen from final-phase architecture (F.2). Feature 2 consists of moderately dense to light concentrations of displaced rocks that are found within Str. 127-Sub2-1st's confines and for up to 0.84m south and 0.72m north of the edifice. Tumbled debris appears to be densest on the south, considerably lighter off the other flanks.

Structure 127-Sub3

Structure 127-Sub3 is 0.9-1.05m northeast of Str. 127-Sub2 and 0.65m southeast of Str. 127-Sub4. Excavations here were pursued to a maximum depth of 0.37m below modern ground surface outside construction, revealing a single building phase. All work was directed by J. Dietler.

Time Spans

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	-	-	S.1,2	-	-
2	Str. 127-Sub3-1st	U.1	-	-	LCLIII/II, EPC?
3	-	-	S.2,3	F.1	-

Time Span 1

Stratum 1, a fine-textured, very hard-compacted, tan clay, was revealed to a maximum thickness of 0.02m (its base was not identified). Approximately 0.06m of S.2, a moderately fine-textured, moderately hard-compacted, brown soil, accumulated above S.1 before Str. 127-Sub3-1st's erection. Retrieval of pottery sherds and other cultural material from portions of S.2 below the level of TS.2 architecture may imply a human presence in the immediate area prior to Str. 127-Sub3-1st's construction. These objects, however, may have worked their way down from later deposits, there being no impermeable barrier to such passage.

Time Span 2

Structure 127-Sub3-1st is a pavement composed, primarily, of cut tuff blocks among which are intermixed some cobbles and a schist slab (U.1). The stones are laid in five northwest-southeast trending rows; cobbles are restricted to the middle element. Unit 1's perimeter is irregularly shaped. The east and north corners are inset, measuring 0.5x0.6m and 0.4x0.7m, respectively, while there is a 0.25-0.55m by 0.5m indentation in the floor's northwest side. It is not clear whether these deviations from straight lines were part of the original plan or represent the variable effects of erosion. Overall, U.1 covers 2.3x2.9m, is oriented approximately 307 degrees, rises gradually 0.16m south-to-north, and shows no sign of ever having supported any construction higher than that observed during excavation. The aforementioned ascent suggests

that Str. 127-Sub3-1st was raised atop a gentle rise, no significant effort having been made to level the terrain prior to construction. Structure 127-Sub3-1st may have stood 0.1m tall, though on the south its top is equivalent to that of Str. 127-Sub2-1st's F.1 (see above; TS.2). Unit 1, therefore, may not have protruded appreciably above ancient ground surface. A brown mud mortar is used to bind the U.1 stones together.

Time Span 3

Deposition of S.2 resumed after Str. 127-Sub3-1st was abandoned, eventually giving way after 0.1-0.12m had accumulated to S.3, a moderately fine-textured, moderately hard-compacted, dark brown soil containing many small roots. Strata 2 and 3 completely cover Str. 127-Sub3-1st and contain light concentrations of stones displaced from final-phase architecture (F.1). Feature 1 is found for 0.2-0.29m off Str. 127-Sub3-1st's flanks.

Structure 127-Sub4

Structure 127-Sub4 is 0.55m northwest of Str. 127-Sub2 and 0.65m in the same direction from Str. 127-Sub3. Excavations here, supervised by J. Dietler, revealed a single occupation phase.

Time Spans

Time Span	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	Str. 127-Sub4-1st	U.1-5	-	-	LCLIII/II
2	-	-	S.2,3	F.1	-

Time Span 1

Structure 127-Sub4-1st is a surface-level building the perimeter of which consists of stone foundations 0.15-0.2m high by 0.25-0.35m wide (U.1-4). The southwest and northwest footings (U.1 and 2, respectively) seem to be more-or-less complete, the former extending 0.25m beyond (northwest of) the latter. The northeast and southeast foundations (U.3 and 4) are indicated by short wall segments, the former extending 0.3m southeast from U.2, while the latter is unconnected to any other footing, lying 0.65m northeast of U.1 (U.4 is 0.8m long). Unit 2 projects 0.2m northeast of its junction with U.3. Unit 4 is fronted on the southeast by a pavement made up of schist slabs and one piece of basalt (U.5). Unit 5 measures 0.4x0.75m and abuts U.4. The space delimited by U.1-4 encompasses 1.5x1.95m and is surfaced with earth. No built-in furniture was recorded within Str. 127-Sub4-1st. The significant gaps in the southeast and northeast walls may mark entrances into Str. 127-Sub4-1st. The 0.65m separating U.1 and 4 comprises a reasonable width for a doorway whereas the 1.6m between U.3 and 4 on the northeast seems rather too ample for this purpose. In fact, the building's northeast flank seems to consist of more gap than foundations. Alternatively, most of U.3 and 4 may have been dismantled in

antiquity, their stones being recycled into units pertaining to other edifices. In this case, we would imagine that Str. 127-Sub4-1st was a surface-level edifice sealed on all sides by cobble foundations and entered by stepping up and over these footings through a door(s) set into its perishable upper walls. Unit 5 may then signify a formal threshold fronting the putative doorway. In any case, Str. 127-Sub4-1st measures 2.2x2.65m (excluding the U.1 and 2 extensions and U.5), contains a single earthen-floored room covering 2.9m2, and is aligned roughly 307 degrees. All foundations are made of cobbles set in single lines with their naturally flatter aspects directed outwards. A brown mud mortar is used as a binding agent in all walls.

Time Span 2

Strata 2 and 3, identical to the levels given these designations on and around Strs. 127-Sub1 through 127-Sub3, entirely cover Str. 127-Sub4-1st (the S.1 soil identified underlying the other Str. 127 edifices was not clearly recognized here). These moderately fine-textured, moderately hard-compacted soils are distinguished by overlying S.3's darker color (dark brown as opposed to brown) and greater concentration of fine, small roots. Embedded in S.2 and 3 is a light scattering of stones fallen from final-phase constructions (F.1).

Structure 56-1

Structure 56-1, ca. 21m northeast of Str. 127, appeared, on the surface, to be a cobble facing set into the northeast side of a northeast projection from the northern terrace slope. This deviation from the terrace's south-to-north descent was sufficiently great to suggest that much of the projection was an artificial construction. Clearing of ca. 70m2 here within Subops. 56B and 56C suggested that we were correct, though not in ways we had anticipated. Digging here reached maximum depths of 1.07m below modern ground surface down to and outside construction, revealing two building phases. All work was in Subops. 56B and 56C was conducted during 1995 under the direction of J. Dietler.

Time Span

Time <u>Span</u>	Construction Phase	<u>Units</u>	<u>Strata</u>	<u>Features</u>	<u>Date</u>
1	Str. 56-1-2nd	U.1	-	-	?
2	Str. 56-1-1st	U.2-21	-	F.1?	LCLII/III LCLIII,LPC?
3	-	-	S.1,2	-	LCLII/III
4 Time Span 1	-	-	S.2,3	F.2	-

Structure 56-1-2nd is represented in our excavations solely by U.1, a cobble riser standing a maximum of 0.21m high, oriented 69 degrees 30 minutes, and projecting 0.15-0.3m northeast

out from under U.2. Unit 1 was exposed over a length of 1.7m northeast-southwest and appears to be the basal step of a staircase that preceded Str. 56-1-1st. River-rounded cobbles were used exclusively in U.1's construction. The naturally flatter aspects of these rocks are directed outwards, their level tops forming the exposed portion of U.1's tread. A brown mud mortar is used as a binding agent in U.1.

Time Span 2

Structure 56-1-1st was erected soon after its predecessor was abandoned, the former's basal element (U.2) resting directly on U.1. What had seemed to be a terrace prior to excavation turned out to be a complex of surface-level rooms and at least one platform fronted by a formal staircase. Six variably preserved steps (U.2-7) were identified ascending 1.4m over 2.45m from what was most likely original ground surface on the northwest upslope to the southeast. The lowest four risers (U.2-5) are fashioned of L-shaped cut tuff blocks resting on cobble foundations. The L's leg forms the 0.2-0.26m-high ascent of each step while the stem is used as the tread. Treads on the lowest two steps (U.2 and 3) show considerable wear; one-to-three rounded depression are sunk 0.03-0.09m deep into the upper surface of each U.2 block while U.3's surface exhibits comparable, but less marked, signs of attrition (0.04-0.05m deep). These declivities measure 0.05-0.3m across, are usually located towards the fronts and centers of blocks, and never overlap blocks. The northeastern-most masonry block in U.3 has four parallel, rounded-bottom grooves inscribed across its full width, a feature not repeated elsewhere in the revealed portions of Str. 56-1-1st. Units 4 and 5 are more thoroughly disturbed than their lower counterparts, only a few of their component blocks surviving in situ though the cobble supports are still generally in place. Considerable quantities of fallen L-shaped tuff blocks were noted immediately northwest of U.4, tentatively supporting the notion that these two steps were originally faced with such stones. Interestingly, blocks found on or likely derived from U.4 and 5 evidence considerably less wear than do those composing U.2-3. Unit 6 (0.12-0.14m high) is composed of rounded tuff blocks without a capping of L-shaped masonry. It is succeeded on the southeast by a cobblefaced ascent 0.24-0.31m high (U.7) that gives way to a cobble-paved surface rising ca. 0.4m over 8m north-to-south (U.20). The riser of each step rests on the tread of its predecessor.

Only U.2 and 3 were exposed to their full lengths, each measuring 8.4m northeast-southwest. Units 2 and 3 are bounded on the southwest by a line of cobbles (U.21) running more-or-less perpendicular to, but set flush with, the steps. On the northeast, U.2-5 do not have clear, formally constructed terminii. Units 6 and 7, however, abut U.8, a 0.26m-high cobble-and-tuff-block construction faced by vertically set tuff masonry on the southwest. Unit 8 extends back ca. 2.25m to the southeast where it bounds the U.20 floor, though it is not well preserved over its final 0.3m. Unit 8 may have continued northwestward to delimit U.2-5 though no sign of the latter projection was identified. A cobble pavement (U.18) adjoins U.21 on the southwest staircase margin, the elevation of its upper surface is equivalent in height to the top of Str. 56-1-1st's basal step (U.2). Unit 18 is most likely the top of a cobble-faced and -floored platform that is as high as U.2 (0.26m), runs parallel to the latter, and measures at least 0.6x1.7m (U.18 extends beyond excavation limits). Units 2-8, 18, and 21 are aligned roughly 241 degrees 30 minutes.

Above U.8 on the south, Str. 56-1-1st architecture changes orientation to almost due north-south (359-0 degrees). Here, U.8 is succeeded by U.9, a ca. 0.25m-high by 1.55m-wide

stone wall that faces west towards U.20 and east over the projection's steep descent. The west side is faced primarily with cobbles while the east is retained by cut tuff blocks. Three flat-laid tuff slabs cap U.9 near its junction with U.10, hinting that much of this substantial construction was originally covered in such a manner. Unit 9 is at least 5.9m long north-south but may have enveloped most of the east flank of the U.10-13 platform, making for a north-south dimension of 7.5m. The southern 1.6m of U.9 has been heavily disturbed and it is not possible at this point to ascertain its precise relation with the aforementioned platform.

The latter construction stands 0.28-0.44m high and is faced by single vertical ascents on all exposed flanks (U.10, 11, and 12 on the north, west, and south, respectively; the location of the eastern basal wall is inferred but is not clear because of poor architectural preservation in this area. Units 11 and 12 are fashioned primarily of cobbles while U.10 is faced with a line of vertically set cut blocks capped by similar stones that extend south from U.10's north face 0.48-0.51m. The platform encompasses 2.7x3.6m and is surfaced with a stone pavement (U.13). No other signs of superstructure construction were apparent. Blocks of stone equivalent in height to the platform project 0.6m south of U.12 (U.15) and 0.8m west of U.11 (U.14). Unit 14 measures 0.85m across while U.15 is 0.55m wide.

Units 16 and 17 are low stone walls (ca. 0.25m high) that may have been foundations delimiting surface-level edifices raised directly south of the U.10-13 platform. Unit 16 is an L-shaped element the leg of which covers 0.3x0.35m while the stem is 1.8m long north-south by at least 0.5m wide. The leg is set against the platform's south face (U.12) and ends 0.9m east of U.15. Unit 17 extends 0.75m south from U.16's southwest corner and measures 0.4m across. Both elements are fashioned primarily of cobbles though the west face of U.16's leg is faced with masonry blocks.

Unit 9 is intersected on its eastern, down-sloping, side by U.19, a very casually constructed wall that is ca. 0.5m high, 0.75m wide, oriented roughly 321 degrees, and at least 1.9m long northwest-southeast (its southeastern terminus lies beyond excavation limits). Unit 19 was fabricated using roughly shaped, small tuff blocks. Numerous cut stones were found tilting down in the V-shaped space defined by U.9 and 19 and a dense midden deposit (F.1) composed primarily of pottery sherds suspended in a gray clay matrix extends to a depths of at least 1m immediately east of these two constructions. The gray color of the above clay may derive, in part, from ash inclusions. Unit 19's architectural significance is uncertain; it may have been laid in relatively late to buttress the east side of U.9 where it was most susceptible to erosion over the eastern slope. The blocks filling the space between U.9 and 19 might, then, have been fill retained by U.19 on the east.

By the conclusion of TS.2, Str. 56-1-1st was a staircase surmounted on the south/southeast by a cobble pavement above which rose a 0.28-0.44m-high platform encompassing 9.7m2. The latter is paved with stones but showed no other evidence of superstructure construction. The stairs are fashioned, primarily, of L-shaped tuff blocks and are bordered on the southwest and northeast, for the most part, by low constructions made from cobbles (on the southwest) and a mix of cobbles and tuff masonry (on the northeast). The steps are 8.4m long northeast-southwest, rise 1.4m over 2.45m northwest-southeast, and are aligned approximately 241 degrees 30 minutes. What is likely a 0.26- high cobble platform adjoins the stair's southwestern flank.

Construction above (south of) the steps is generally oriented to the cardinal directions, a shift that may reflect a change in the orientation of the underlying projection on which Str. 56-1-1st was built. The large size of the wall bounding the southern components on Str. 56-1-1st on the east (U.9) may be partially due to the need to halt erosion over the eastern, steep slope of this projection. Unit 19's later addition on the east, possibly as a buttress to U.9, tentatively hints at the ongoing threat such erosion posed. Surface-level constructions may have continued southward of the U.10-13 platform in areas largely untouched by our investigations. No signs of comparable construction were detected in the paved area intervening between the steps and platform, suggesting that much of this area was left open. It is difficult to say how long TS.2 persisted, though the amount of attrition suffered by the U.2 and 3 treads suggests that the interval was considerable or the amount of traffic up and across Str. 56-1-1st was intense.

Most construction details have been discussed above. In general, L-shaped tuff blocks are the principal elements used to face the stairs, though the uppermost two risers may have been fashion exclusively of cobbles; comparable river-worn stones underlie masonry on the lower four risers. The U.10-13 platform's northern face is made from a combination of vertically set tuff blocks capped by similar masonry, this time laid horizontally. Vertically set tuff slabs appear to have faced U.8's west side and tuff blocks are used along with cobbles in the construction of the substantial U.9 wall and U.16. Cobbles predominate elsewhere, their naturally flatter faces generally oriented outwards. The putative eastern buttress (U.19) is made from very crudely shaped tuff blocks, an architectural choice not repeated in the revealed segments of Str. 56-1-1st. Masonry used in the steps averages 49cm long (range of 0.36-0.64m) by 45cm wide (range of 0.33-0.61m) by 25.5cm high (range of 0.18-0.36m) by 11cm thick (range of 0/08-0.17m). A brown mud mortar was used as a binding agent in all units.

Time Span 3

A 0.23-0.27m-thick deposit (S.1) of coarse-textured, very hard-compacted, light tan soil containing numerous sherds buries the U.2-3 steps along with the adjacent western platform (U.18). Immediately overlying this layer is approximately 0.15m of a fine-textured, softcompacted, light gray clay containing both pockets of sand and a considerable number of sherds (S.2). This lower portion of S.2 extends upslope beyond S.1, covering U.4. The significance of these strata is unclear. They were certainly deposited after Str. 56-1-1st's steps were no longer being used, though the upper, southern construction may still have been exposed and functioning. In fact, the complete burial of U.2 and 3 may help explain why these elements were so much better preserved than those steps that were located further upslope and which were still visible at this time. Not only would U.4-7 have remained vulnerable to erosion during TS.3 but their cut blocks would have made tempting targets for those in search of building materials (note the sporadic use of masonry in final-phase construction throughout Op.31). High sherd densities in S.1 and lower S.2 may point to an interval contemporary with S.1 and lower S.2's deposition when the Str. 56-1-1st stairs were transformed into a destination for trash generated by activities occurring on the terrace summit to the south. Most of the ceramics are not heavily eroded, their breaks still relatively clean and their surfaces well preserved. These observations point to a relatively short interval of exposure prior to the artifact's burial, commensurate with their purposeful disposal as trash rather than their gradual accumulation after being washed down from the terrace summit. Stratum 2 may also derive its gray color from the inclusion of ash within its matrix, another finding indicative of a midden deposit. The trash dump located immediately east of Str. 56-1-1st (F.1) may have been introduced at this time. There is no clear relationship between F.1 and the stairs, however, and we cannot be certain where within the sequence this deposit belongs. In any event, deposition of S.1 and lower S.2 in TS.3 strongly suggests that the Str. 56-1-1st stairs were falling out of use now.

Time Span 4

Continued deposition of S.2, now containing only a few artifacts, and the laying down of S.3 combined to bury all but the uppermost stones associated with Str. 56-1-1st. Stratum 3 is a moderately coarse-textured, hard-compacted, brown soil containing numerous small roots that covers S.2 by 0.07-0.67m. Stratum 3 is thickest downslope at the base of the projection, becoming thinner to the south. Embedded within upper S.2 and S.1 is moderately dense concentration of stones fallen from final-phase construction (F.2). Feature 2 covers the entirety of Str. 56-1-1st and extends to the limits of excavation on all sides.

Structure 56-2

Structure 56-2 is a low (ca. 0.5m high) roughly rectangular platform (6.5x11m basal dimensions) that lies ca. 35m northeast of Str. 56-1 on relatively level terrain approximately 40m north of the base of the terrace ascent that borders Op.31 and most of Op.56. This building is in an unusual location, situated in a low-lying area that was prone to shallow flooding during the heights of the 1995 and 1996 rainy seasons. Though this did not appear to be a hospitable location for human settlement, Str. 56-2 still seemed to have the form of a prehispanic platform and was one of four low constructions (Strs. 56-2-5) within 40m of each other occupying similar topography. In fact, we could even perceive a pattern to the arrangement of these edifices, surrounding a patio open to the north (Str. 56-2 is on the patio's northeast corner). Excavations here, restricted to a 1x8m trench that bisected the building northwest to southeast (Subop. 56A), were designed to evaluate what temporal and/or functional variables might account for Str. 56-2's anomalous position. Digging reached a maximum depth of 0.5m below modern ground surface at the building's summit. All work was directed by J. Dietler.

Work in Subop. 56A revealed no clear signs of architecture. A few cobbles and artifacts (mostly pottery sherds dating to LCLIII) were found scattered throughout a dark gray soil mottled with orange but there was no definitive evidence that Str. 56-2 had been fashioned by human hands in antiquity. Bovine skeletal fragments were found at depths as great as 0.25m beneath ground level, suggesting at least some mixing of prehistoric and relatively recent materials in the uppermost layers. The work conducted in 1995 succeeded in raising grave doubts concerning the prehistoric origin of Str. 56-2 but without providing a plausible explanation for its current form and location. It may be spoil from land-moving operations conducted in the last century, though there are no likely sources of this detritus. Further, Str. 56-2 supports a fairly luxuriant plant life and does not have the "raw" appearance of recently dumped earth. Nevertheless, we are inclined to cast a jaundiced eye on Str. 56-2 and some of its immediate neighbors (Strs. 56-3-5), questioning whether any of them were created by La Sierra's prehistoric inhabitants.

Chronological Summary

The earliest occupation of the Op.31/56 area dates to the Middle Preclassic. A few ceramics diagnostic of this span were found on and around Strs. 114, 31-Sub12, and 120, invariably mixed with later materials. Most likely, these scattered sherds were dislodged in antiquity from Middle Preclassic deposits in the vicinity of the above buildings. We did not identify any architecture dating to this interval.

Ceramics diagnostic of Late Classic I occupation derive from strata predating observed construction in the environs of Strs. 114, 31-Sub5, 31-Sub11, 31-Sub-13, 31-Sub12, and 120. Items dating to this span are somewhat more prevalent in the analyzed sample than those assigned to the Middle Preclassic. Nevertheless, the low numbers of artifacts assigned to these periods suggest equally small populations. It is quite possible, however, that deeper excavations would have encountered deposits dating to both spans, thereby greatly increasing the artifact sample size and our appreciation of population numbers and longevity. It is of some interest to note that Middle Preclassic and Late Classic I diagnostics were recovered solely from Str. 120 eastward to Str. 114, very tentatively implying that whatever early settlement existed in Op.31-56, it was located within these bounds.

Late Classic II represents a major period of human activity in Op.31 and 56, especially in its eastern segment (once again, from Strs. 114 to 120). Deep midden deposits accumulated during this span on the northern terrace slope below Strs. 114, 115, and 116 prior to the raising of Several edifices were apparently erected now (Strs. 115-3rd, the earliest identified buildings. 115-2nd, 114-1st; 31-Sub5-1st; 31-Sub6-1st; 31-Sub7-1st, and 31-Sub17-1st are likely candidates) and considerable modification of the eastern terrace summit, especially in the vicinity of Strs. 114-116, most likely occurred near the end of this span. The latter effort involved raising the living surface by the addition of 0.2-0.6m of earth containing sizable quantities of cultural material, including ash. This deposit varies somewhat in composition, including far more ash on the east (especially around Strs. 114 and 115) than on the west where a tan soil containing ash lenses is more prevalent (especially in the environs of Str. 116 but possibly represented by that portion of S.1 that buries most of Str. 31-Sub17-1st). It is far from clear that all of this earth was introduced simultaneously, as part of a single concerted effort. Nevertheless, over some span of years near the Late Classic II/III divide approximately 400 cubic meters of fill was introduced to eastern Op.31/56. Assuming that most of this material came from close-by, the wealth of occupation debris incorporated within the deposit strongly suggests that the Late Classic II witnessed a substantial increase in human settlement across eastern Op.31 and 56.

Though it is difficult to pinpoint when the final version of a building was fashioned, it appears that Strs. 31-Sub2-1st, 115-1st; 116-1st, 31-Sub8-1st; 31-Sub10-1st; 31-Sub11-1st; 31-Sub12-1st; 31-Sub13-1st; 120-2nd; 120-1st; 31-Sub19-1st; 31-Sub20-1st; 31-Sub14-1st; 31-Sub15-1st; 31-Sub16-1st; 122-1st; and 31-Sub18-1st were all erected near the beginning of Late Classic III and continued in use through some portion of this interval. Structure 114-1st also underwent considerable renovations at this time. The extensive, monumental northern steps (Strs. 56-1-2nd and 56-1-1st) may have been built during the first part of Late Classic III, though they were seemingly buried by large quantities of artifacts soon thereafter. The upper portion of Str. 56-1-1st (including the stone pavement and platform) continued in use into Late Classic III.

The excavated western Op.31 and 56 edifices, Strs. 31-Sub21-2nd, 31-Sub21-1st, 31-Sub22-1st, 127-Sub1-1st, 127-Sub2-1st, 127-Sub3-1st, and 127-Sub4-1st, were apparently raised and used towards the middle to the end of Late Classic III. The general impression we now have of settlement during Late Classic II and III is of a general east-to-west movement of occupation foci. During Late Classic II and early Late Classic III, most structures and cultural activity centered on the east, the monumental Str. 56-1 steps issuing into a largely open space on the terrace summit. Somewhat later in Late Classic III, new buildings were erected in the west while occupation of preexisting constructions endured in the east. The formerly architecturally empty space into which the steps issued was now filled with relatively humble surface-level buildings and at least one low platform, the steps themselves covered, at least in part, by a dense concentration of debris.

Early Postclassic occupation of Op.31 and 56 is attested to on and around Strs. 114, 115, 116, 120 and 127-Sub3. The evidence consists of a few ceramics diagnostic of the period mixed with numerically dominant pottery fragments dating, for the most part, to Late Classic III. Signs of Late Postclassic use of this portion of La Sierra are even scantier, being represented by a handful of sherds retrieved during the excavation of Strs. 115 and 56-1. No architecture raised in either period was identified. Settlement during the Postclassic in Op.31 and 56 seems to have consisted of a dwindling encampment among the ruins. Occupation dating to the historic (pre-20th century) interval was not identified.