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# Archaeological Investigations in the Valle de Naco, Northwestern Honduras: A Preliminary Report

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*Cornell University investigations in the Valle de Naco, NW Honduras, are producing new insights into cultural relationships in the eastern Maya frontier zone. Since 1975, survey, mapping, and excavation have produced new data which modify the traditional view of the valley's culture history.*

*By the Late Preclassic period, the Valle de Naco had at least one center — Santo Domingo — with sizable public architecture. During the Late Classic period, La Sierra, a large Maya center, dominated the valley. Naco was the largest Late Postclassic settlement in the region and one of the major conquest-period centers in NW Honduras. Both La Sierra and Naco maintained extensive economic relationships with distant regions. External connections included interaction with other sectors of the Maya area as well as strong ties with non-Maya Central America.*

## Introduction

In 1975 Cornell University began a program of archaeological investigations in the Valle de Naco in NW Honduras.<sup>1</sup> Linguistic, ethnographic, and historical evidence indicate that the region was part of the eastern frontier of Mesoamerica: a zone of cultural transition

1. These investigations, funded by Cornell University, have been conducted in cooperation with the Instituto Hondureño de Antropología e Historia. Without the assistance provided by the Instituto and the participation of its personnel the work would not have been possible. Special thanks go to Dr. Adán Cueva (Gerente), Lic. Vito Véliz R. (Jefe, Departamento de Antropología e Historia), Sr. Osmín Rivera, Sr. Alexis Amaya, and Sr. Luis Nolasco. The research summarized here involved many people besides the authors. Katherine Abramovitz, Jeanne J. Henderson, John N. Miksic, Gerald W. Olsen, David Rindos, Edward Schortman, Patricia A. Urban, Ilene Sterns, and Anthony Wonderley supervised various aspects of the investigations under the direction of John S. Henderson. Much of the field and laboratory work was done by Eric Gentsch, Jeanne Hamilton, Hall Hutchison, Rosemary Joyce, Daniel Mackesey, Cynthia Mason, Annemarie Meike, Heimun Miksic, Sharon Pekrul, Douglas Richard, Suzanne Riddle, and Stephen West. The unflinching courtesy, cooperation, and good will of the people of modern Naco made the work a pleasure. Maps accompanying this article are based on surveying done mainly by Henderson, Miksic, Schortman, Sterns, Urban, and Wonderley. Sterns and Wonderley prepared preliminary drawings of some ceramics. Henderson prepared final versions of all illustrations.

from Maya to non-Maya. The long-range orientation of the research reflects a concern for the problem of cultural relationships along the eastern Maya frontier. Exchange is an obvious aspect of these relationships, for conquest-period historical documents make it plain that NW Honduras was a major center of long-distance commerce. Extensive overland and maritime exchange networks linked the region with Maya centers to the north and west and with the peoples of upper Central America to the east and south.

Though frontier status and commercial importance lend NW Honduras considerable intrinsic interest, its prehispanic culture history remains largely obscure. Archaeological work in the region has consisted mainly of scattered surveys of surface remains with occasional small-scale exploratory excavation.<sup>2</sup> More intensive investigations of Copán<sup>3</sup> and Los Naranjos<sup>4</sup> have produced a great deal of data, but here too the emphasis

2. Bibliography in J. B. Glass, "Archaeological Survey of Western Honduras," *Handbook of Middle American Indians* 4 (Austin 1966) 157-79.

3. J. M. Longyear III, *Copán Ceramics: A Study of Southeastern Maya Pottery* (Washington 1952).

4. C. F. Baudez and P. Becquelin, *Archéologie de Los Naranjos, Honduras* (Mexico 1973).

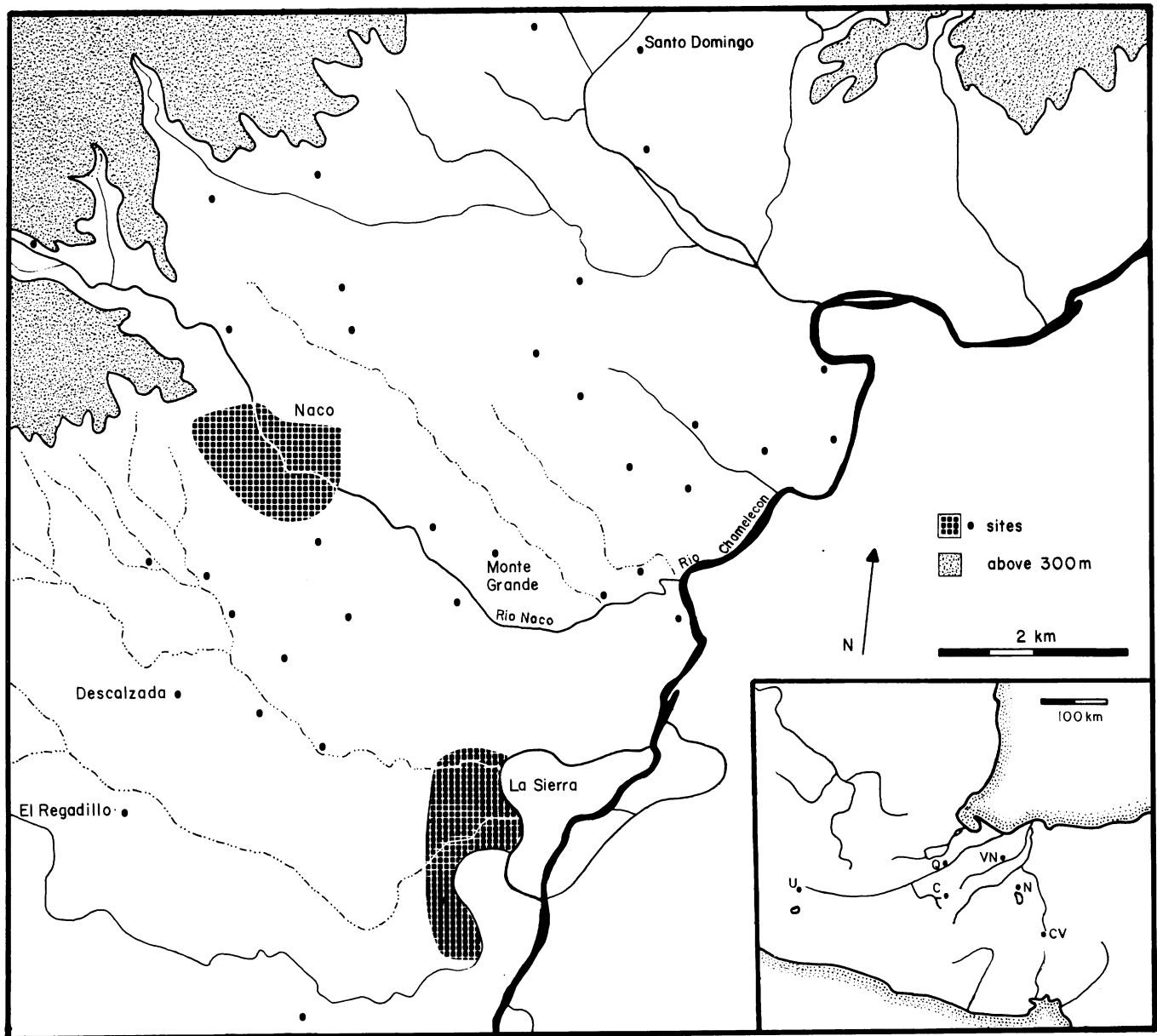


Figure 1. Archaeological sites in the Valle de Naco. Inset shows the valley in relation to the seMaya region (VN, Valle de Naco; C, Copán; Q, Quiriguá; U, Utatlán; N, Los Naranjos; CV, Comayagua valley).

has been descriptive. Available data demonstrate the richness and variety of the region's archaeological resources and provide a reflection of its prehispanic cultural complexity. There is insufficient information, however, for a proper synthesis of the area's culture history, and the archaeological record is far too sketchy for a full understanding of regional variation and cultural relationships.

In the Valle de Naco itself, the only work prior to 1975 was a three-week investigation in 1936 by a joint Smithsonian Institution-Harvard University expedition

to Honduras.<sup>5</sup> The work focussed on test excavations at Naco, a major conquest-period center. A partial reconnaissance of the surrounding region located only five additional sites. Cornell University investigations in 1975 and 1977 produced an enormous quantity of new data which substantially alters the traditional picture of

5. W. D. Strong, A. V. Kidder II, and A. J. D. Paul, Jr., *Preliminary Report on the Smithsonian Institution-Harvard University Archeological Expedition to Northwestern Honduras, 1936* (Washington 1938).

the prehistory of the Valle de Naco. The 1975 work<sup>6</sup> emphasized survey and mapping, with exploratory excavations at the large Late Classic period (600-900 A.C.) center of La Sierra and at its smaller contemporary, El Regadillo. In 1977 the project continued the valley survey and site-mapping program and undertook test excavations at two additional sites: Naco itself and Santo Domingo, a large center of Late Preclassic (300 B.C.-250 A.C.) date. At La Sierra, intensive architectural excavations were oriented toward defining architectural and functional variation within the settlement.

So far, Cornell investigations in the Valle de Naco have necessarily emphasized the acquisition of basic archaeological data, particularly for the development of a regional chronological sequence. The project's results to date are largely descriptive. Ultimately, these data will contribute to a reconstruction of the valley's culture history and to a detailed analysis of regional variation, thereby forming the essential framework for understanding changing cultural relationships along the eastern Maya frontier. Preliminary analyses already suggest that the role of NW Honduras as cultural and economic intermediary between the Maya and upper Central American cultural traditions has a long history, stretching back at least into the Classic period.

### Setting

The Valle de Naco is environmentally transitional between the hot, low, densely vegetated Sula plain and the cooler forests of the hilly zones surrounding Copán. It is squarely astride the natural route of communication between the two regions. The valley is one of the few spots where the narrow corridor of the middle Río Chamelecón widens to form a flood plain with a substantial expanse of level farmland. Remnant strips of tropical forest along small tributary streams hint at the original valley-bottom vegetation, though cultivation was extensive long before the Spanish conquest. Alteration of the vegetation has accelerated in recent years, as large landowners have taken over the fertile valley floor for intensive mechanized agriculture and large-scale stock raising. Subsistence *milpa* (slash and burn) farming has been progressively relegated to the poorer foothill zones. Still, the pine-clad hills surrounding the valley remain much as they were in prehispanic times.

Naco itself was the most important center in NW Honduras at the time of the conquest. Here the Spaniards found a large and prosperous community. Montejo reported a population of 10,000, and Cortés

counted 2,000 houses without including Naco's dependent hamlets. Ciudad Real says that the surrounding region, including at least the sector of the Sula plain around what became San Pedro Sula, comprised the "*gran provincia de Naco*." Though Naco was the initial Spanish base of operations for exploration and conquest, it slipped into oblivion before the end of the 16th century. Even today, though, the village of Naco, which covers part of the ancient settlement, retains an oral tradition reflecting events of the Spanish conquest.<sup>7</sup>

### Survey

The survey has now covered between 50% and 75% of the valley, mainly north and west of the Río Chamelecón. Even in this sector, known sites do not represent the full roster of prehispanic settlements. Stream courses have shifted frequently, and massive deposition and erosion have obliterated many traces of prehispanic occupation. San Luis, a small site found in 1936 near the mouth of the Río Naco, no longer exists. The 39<sup>8</sup> sites located so far (FIG. 1) range in size from clusters of a few low mounds to major centers with hundreds of structures. With few exceptions, ancient settlements are situated in the lower, relatively flat parts of the valley. Not surprisingly, most are within a few hundred meters of a stream course (former or active), though the instability of the valley's drainage system complicates interpretation of this situation.

Within sites, structures — typically platform mounds with or without superstructures — are seldom organized around well-defined plazas. The disposition of individual structures is determined more by topography than by over-riding principles of common orientation. Many mounds are "built into" the landscape, so that natural contours often determine structural lines and occasionally mark site limits. Adjacent structures are often linked, either by low connecting platforms or by natural contours with added stone facings. The common platform construction technique involves a facing of undressed stones, usually river cobbles, set in clay over an earth or rubble core.

Many sites produced too few distinctive surface artifacts to permit accurate dating. A detailed discussion of chronological variation in settlement pattern must await a full program of test excavation.

7. A. R. Pagden (trans. and ed.), *Hernán Cortés: Letters from Mexico* (New York 1971) 407; A. de Ciudad Real, *Relación Breve y Verdadera de Algunas Cosas de las Muchas que Sucieron al Padre Fray Alonso Ponce en las Provincias de Nueva España* (Madrid 1872) 1: 349; J. S. Henderson, "The Valle de Naco: Ethnohistory and Archaeology in Northwestern Honduras" (manuscript, Ithaca).

8. This total includes two sites reported by the Smithsonian-Harvard group which have not been re-located.

6. J. S. Henderson, "Pre-Columbian Trade Networks in Northwestern Honduras," *JFA* 3 (1976) 342-46; J. S. Henderson, "Vinculos comerciales precolombinos en el noroeste de Honduras," *Yaxkin* I (1976) 14-20.

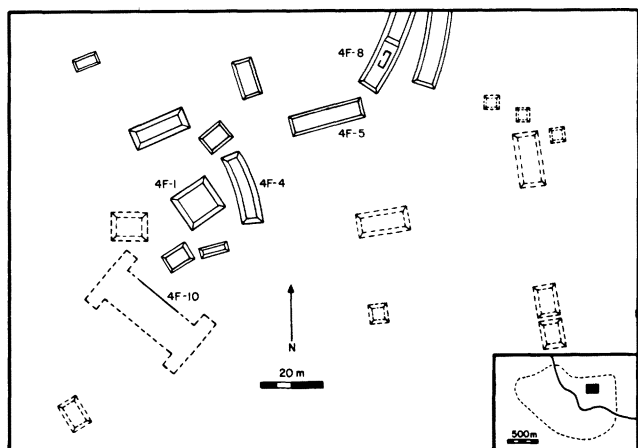


Figure 2. Naco, main group of structures. Inset shows the location of the enlarged area within the site.

### The Postclassic Period

Ancient Naco is the only Postclassic settlement identified in the valley so far, but according to Cortés, there were once others. Because the Smithsonian-Harvard investigations revealed no depth of deposit and produced no obviously early material, it has usually been assumed that Naco was a single-period settlement of the Late Postclassic period (1200-1520 A.C.).

The Cornell investigations confirm that Naco's primary occupation was Late Postclassic. In addition, however, there are definite indications of a Late Classic settlement and traces of what seems to be a Late Preclassic component. There is no firm evidence of Early Postclassic or Early Classic occupations at Naco (or elsewhere in the valley), though excavation has not been extensive enough to rule out the possibility that they exist.

Archaeological remains are distributed over a much larger area than that investigated in 1936. Prehispanic structures occupy an area of about 90 ha. on both banks of the Río Naco, extending as far upstream as the lower slopes of the foothills. The greater portion of the archaeological zone has suffered heavy disturbance in recent years from intensive mechanized agriculture and construction of new housing. Material representing the three periods of occupation comes from different sectors of the archaeological zone rather than from vertically stratified deposits. In combination, these factors make it difficult to define the settlement precisely for any period. Since continuity of occupation is undemonstrated, the remains may represent three separate communities rather than stages in the history of a single settlement.

The archaeological remains of Late Postclassic Naco

are concentrated on the north bank. The largest surviving structures form a compact group near the river (FIG. 2). Smaller mounds, mostly residential, are relatively densely spaced near the main group, gradually thinning out to more isolated clusters. This sector of Naco is the most heavily disturbed, so that the original extent of the main group and the northern limits of the settlement cannot be determined with precision. Surface collections show that the Late Postclassic occupation extended across the river to include a series of small residential mounds along the south bank. No material identifiably earlier than the Late Postclassic period has been located on the north bank, but test excavations indicate that many of the structures south and west of the Río Naco pertain to earlier periods.

*Ollas*, *tecomates* (neckless jars), bowls, and occasional *comales* (griddles), plain or red-slipped, make up the great bulk of Naco's Late Postclassic pottery (FIG. 3). The two classes are not easily separated, for simply burnishing the clay, high in iron oxides, produced an effect comparable to a red slip. Crude incision, punctation, stamping, or fabric impression further embellishes some vessels. Many bowls have tripod legs, and the feet commonly take the form of crude effigy heads with three lateral projections. A small proportion of vessels, especially shallow tripod bowls, features linear geometric designs painted in black and/or red over a powdery white slip — the so-called Naco Polychrome style. Censers take the form of spiked bowls or ladles — flat-based pans with tubular handles. A pilot petrographic analysis indicates that locally made pottery falls into the following two classes:

- 1) Santa Bárbara ware includes the utilitarian vessels, along with polychrome (usually red on white) effigy-foot tripod dishes and plain or white-slipped ladle censers. It occurs everywhere in Late Postclassic Naco except in the main group.
- 2) Cortés ware includes few or no utilitarian vessels and no effigy feet. A variety of vessel forms bear polychrome decoration, most often red and black on white, with distinct stylistic differences from Santa Bárbara designs. Censers are plain spiked bowls and polychrome ladles. Cortés ware occurs almost exclusively in the main group.

The Smithsonian-Harvard investigations were limited to the main group (see FIG. 2). They tested a ball court, structure (hereafter Str.) 4F-10, with a stone ring and three of the larger platform mounds. In their only extensive structural exploration (of Str. 4F-5), they encountered two buildings constructed of cobbles and

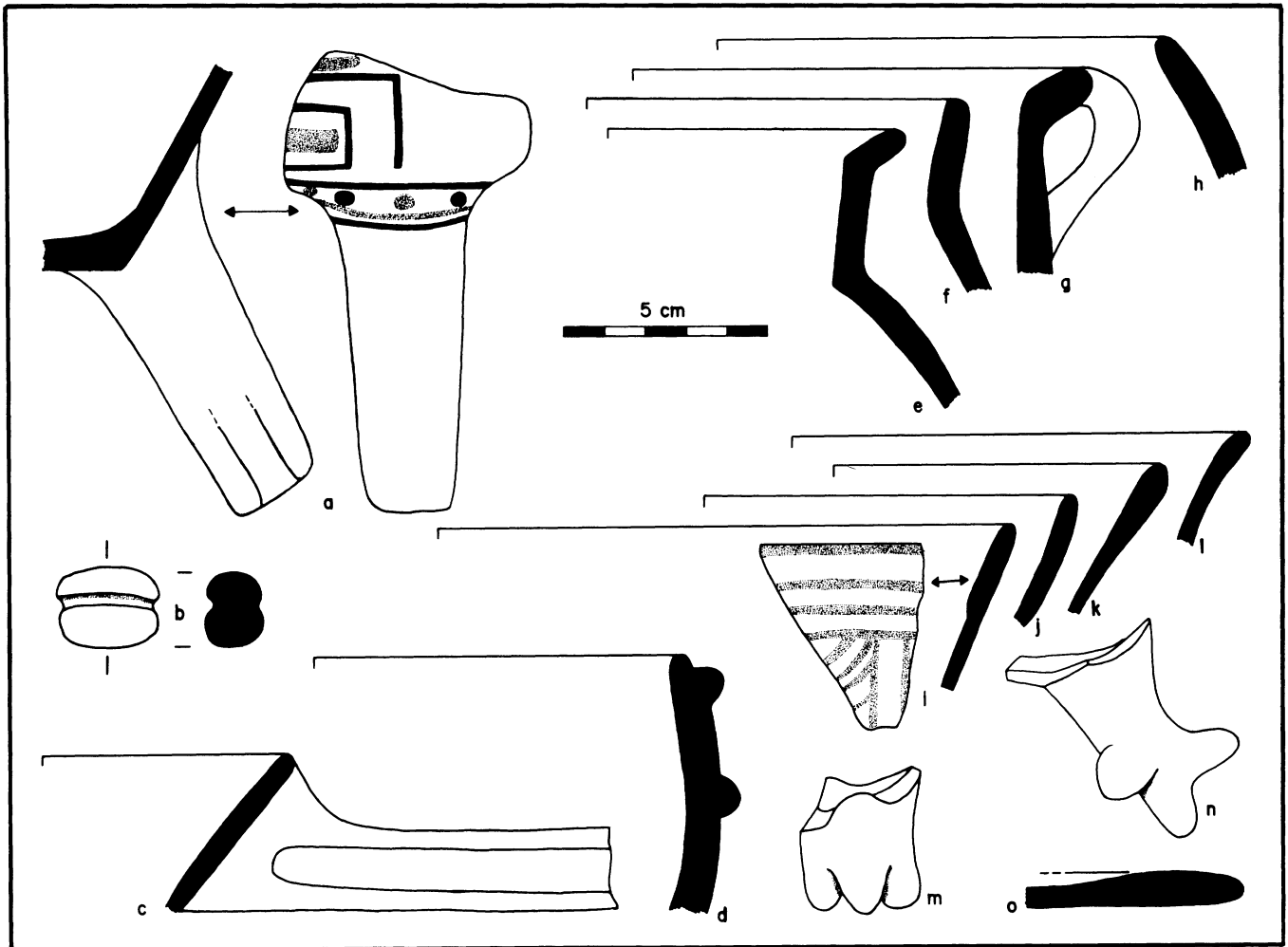


Figure 3. Late Postclassic pottery from Naco. a, b, d, k: Cortés ware; c, e-j, l-o: Santa Bárbara ware. a, red- and black-on-white tripod bowl; b, net weight; c, unslipped ladle censer; d, unslipped spiked bowl censer; i, red-on-white bowl; m, tripod cup; n, effigy foot; o, griddle.

adobe blocks, with red plaster floors and walls with superimposed coats of plaster in several colors. The other two trenches revealed only that Str. 4F-1 had a facing of dressed stones and that Str. 4F-4 had a white plaster surface and enigmatic interior features.

In 1977 building activity threatened surviving main-group structures with immediate destruction. Salvage excavations produced new information about the nature and function of Strs. 4F-4 and 4F-8. Str. 4F-4 is a long, slightly crescent-shaped mound ca. 2 m. high. An axial trench (FIG. 4) established its basic construction features which were not made clear by the published descriptions of the Smithsonian-Harvard excavations. The enigmatic features encountered in the heart of the mound in 1936 — large cobbles, hard-packed clay, and plaster surfaces — represent either a prepared core for the earliest surviving platform or possibly the remnants of an initial structure that was destroyed by

subsequent construction. The first recognizable structure is a platform with two or three terraces. A double line of cobbles limits the upper terrace and a thick white plaster layer marks the next. A layer of packed gray clay may represent the lowest step. A course of large stones resting on the upper terrace represents the foundation of a building which originally stood atop the platform. Scattered large cobbles and fragments of painted plaster incorporated into the upper fill of the subsequent structure represent the destroyed upper portions of this building. A mantle of orange clay encasing the earlier platform represents the latest construction phase of Str. 4F-4. It is surmounted by a thick white plaster surface. No traces of architectural features survive as the summit. The latest stage of Str. 4F-4 produced two imported sherds in a very sparse ceramic sample. One shows general similarities with pottery from the east coast of Yucatán. The other is a reed-

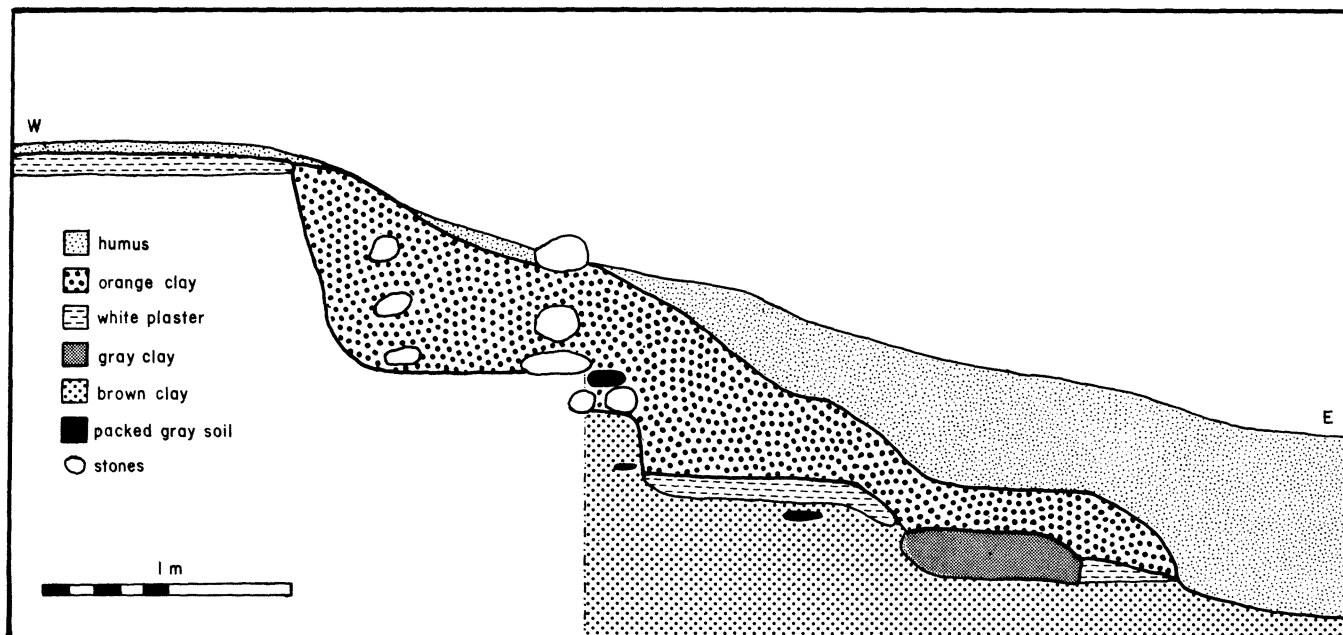


Figure 4. Naco, section of trench into east side of Str. 4F-4.

stamped sherd identical to Late Postclassic pottery from the Gulf of Fonseca region of southern Honduras.<sup>9</sup> The size, elaborate construction, and central location of Str. 4F-4, along with the absence of domestic refuse, suggest a public function. The absence of a superstructure and the foreign pottery raise the possibility that it was a storage platform for goods in transit like those at Cozumel.<sup>10</sup>

Str. 4F-8 is the southern end of what was originally a long, slightly crescent-shaped mound, or possibly a series of connected platforms forming an arc. The greater part of this and the adjacent structure has been obliterated by road-building and agriculture. Excavation of the surviving portion of the summit of Str. 4F-8 disclosed the remains of a long, narrow, rectangular building (FIG. 5). The wall foundations, small cobbles, and occasional flat slabs set in clay, are straight and relatively uniform in width, forming squared corners. A hard-packed clay surface near the center of the NW wall

represents the entrance. The interior floor was destroyed along with the upper walls, obliterating details of construction and artifact assemblages. Red plaster surfaces flank the building at each end. A concentration of artifacts and snail and mussel shells behind the building suggests domestic refuse. Obsidian artifacts include a small notched point and a core as well as several blades and flakes. Ceramics include a few Cortés ware polychromes and *incensarios* along with plain and red-slipped bowls and jars. Judging by its central location, size, and associated artifacts, Str. 4F-8 was probably a high-status residence.

This interpretation of Str. 4F-8 is bolstered by comparison with two structures of an unprepossessing domestic complex some 250 m. east of the main group. Trenching revealed that the principal structure here was a small (5 m. x 7 m.) platform, 0.50 m. high, with two terraces faced with a thin layer of small cobbles. The smaller subsidiary structure survives only as a concentration of tumbled stones. Fragments of adobe may represent the remnants of small superstructures. Associated ceramics are mainly plain and red-slipped bowls and jars, though a midden deposit behind the main structure produced a few sherds of Santa Bárbara polychrome. Obsidian was almost entirely absent.

#### The Late Classic Period

Excavation has established definite Late Classic occupations at La Sierra, El Regadillo, and Naco. Surface remains indicate that Monte Grande and Descalzada

9. W. T. Sanders, *Prehistoric Ceramics and Settlement Patterns in Quintana Roo, Mexico* (Washington 1960) 241-42; J. C. Gifford, *Prehistoric Pottery Analysis and the Ceramics of Barton Ramie in the Belize Valley* (Cambridge 1976) 291; R. E. Smith, *The Pottery of Mayapan* (Cambridge 1971) 68, 241; C. F. Baudez, "Niveaux céramiques au Honduras: une reconsidération de l'évolution culturelle," *Journal de la Société des Américanistes* 55 (1966) 320, Fig. 12D; D. Z. Stone, *The Archaeology of Central and Southern Honduras* (Cambridge 1957) fig. 74A.

10. J. A. Sabloff and D. A. Freidel, "A Model of a Pre-Columbian Trading Center," in J. A. Sabloff and C. C. Lamberg-Karlovsky, eds., *Ancient Civilization and Trade* (Albuquerque 1975) 369-408.

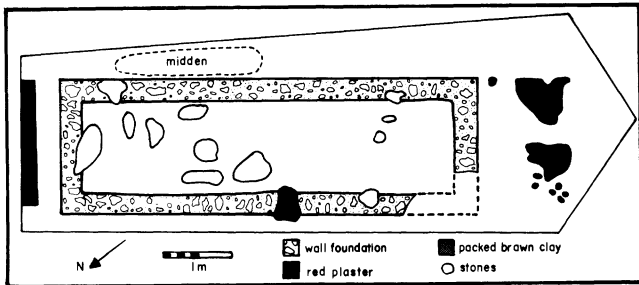


Figure 5. Naco, plan of building on Str. 4F-8.

were also occupied during this period. Projected exploratory excavations at other sites that have produced few distinctive surface artifacts will surely extend the list.

*La Sierra*

La Sierra is the largest and most intensively investigated site in the Valle de Naco. Located on the

west bank of a large branch channel of the Río Chamelecón, the occupation area is extensive, occupying more than 100 ha. Heavy vegetation covers the fringes of the occupation zone, so that the limits of the settlement are difficult to define with precision. In addition, the Chamelecón, which is now encroaching on the eastern flank of the archaeological zone, has probably washed away many structures. The area demarcated in Figure 6, though, certainly encompasses the bulk of prehistoric construction activity at La Sierra.

The plan of La Sierra reflects plain functional differences within the settlement. More than 400 structures exhibit considerable variation in size, form, construction technique, and arrangement. There is, however, no consistent directional orientation, and formal plaza groups are rare. The principles governing settlement layout are not obvious, except that natural contours do influence the disposition of structures.

Still, a central sector does stand apart as a natural unit. Here are the largest and most elaborate structures,

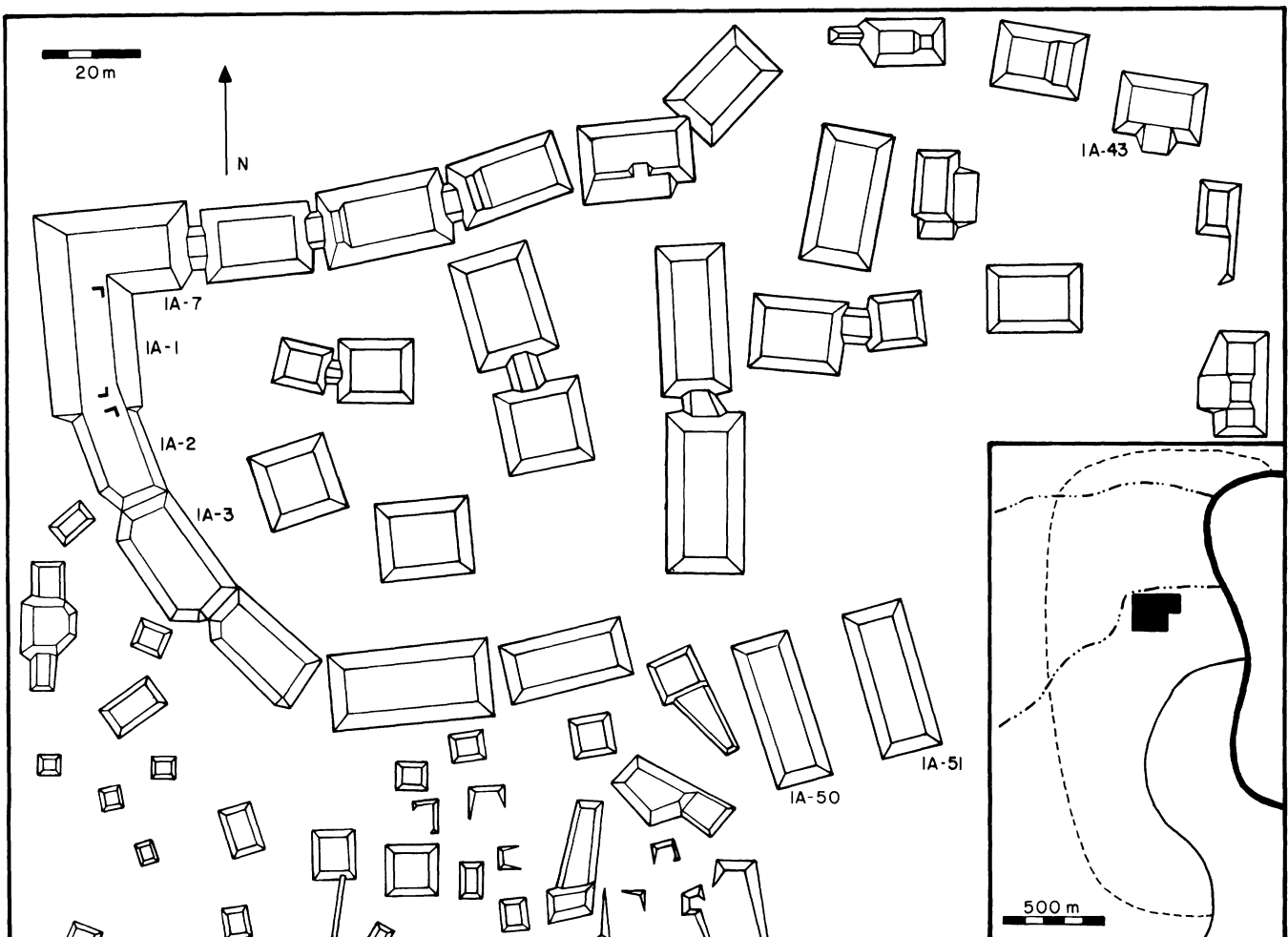


Figure 6. La Sierra, central sector. Inset shows the location of the enlarged area within the site.



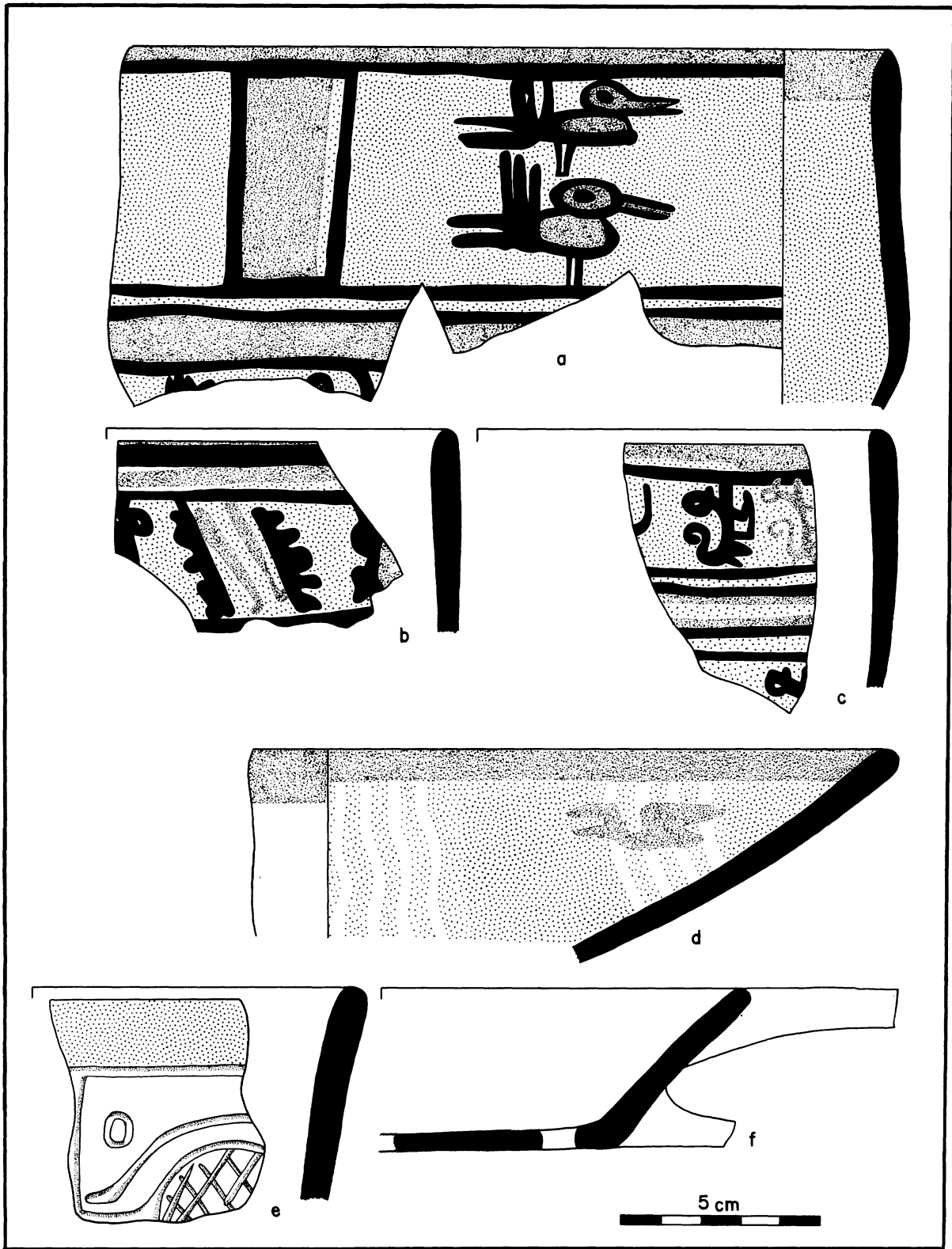


Figure 7. Late Classic pottery from La Sierra. a-c, red and black on orange; d, red on orange with Usulután decoration; e, orange on unslipped black with excision; f, perforated pan censer.

including public buildings with dressed stone architecture. The main group is not a neat, rectangular, open plaza, but an irregular D-shaped space defined by a series of large platform mounds, several of which are linked by lower connecting platforms. The central area is occupied by six substantial mounds. Excavations here indicate that construction was not simultaneous, but sequential, proceeding in a counterclockwise direction around the perimeter. Part of the explanation for the disconcerting absence of easily recognized principles of settlement design is simply that La Sierra, even more than most Maya centers, grew by accretion. It shows little or no overall planning and certainly nothing approaching an over-riding civic plan. The large mounds east of the main group comprise a second irregular D-shaped cluster with smaller mounds in the central space. Just southeast of the main group is a ball court.

South of the central sector, smaller mounds and terrace-like constructions form a complex cluster, making extensive use of the natural contours as the land surface slopes up from north to south. Beyond, small mounds are scattered over a considerable area to the south. Here, as in other out-lying sectors of the site, few structures are large or elaborate. In most cases, small size and apparent simplicity of construction suggest ordinary, non-elite residences.

North of the central sector, across a dry wash, is an extensive zone of closely spaced mounds, most of which are considerably smaller than the structures to the south. Here again, the overall arrangement of the mounds follows no discernible pattern, though there are a few plaza-like clusters. The density of mound construction thins out rapidly to the west, north, and east, though there are two compact groups of small mounds near the NE periphery of the site.

The first excavations at La Sierra, in 1975, were stratigraphic explorations in the NE sector.<sup>11</sup> Here, a branch of the Río Chamelecón, eroding a small mound cluster, exposed a deep section of occupation refuse and structural debris. Three pits in this area were meant to take advantage of this exposure to provide clues to the chronological span of La Sierra's occupation. The excavations, intended as stratigraphic exploration, were located to avoid structures, so that they did not produce detailed data on the construction and function of the buildings in this sector of the site. Judging by the nature and quantity of structural debris, and by the surface indications associated with surviving mounds, this was a fairly dense cluster of small cobble-faced platforms, no higher than 2 m., which supported simple structures of

wattle-and-daub and/or adobe construction. There is no reason to suppose that their function was other than domestic.

Together, the exploratory excavations produced a composite stratigraphic profile of some 4 m. of deposits, along with a large sample of ceramics, chipped and ground stone, and quantities of structural debris. Though stratigraphic changes are apparent in the section, the ceramic analysis revealed no clear-cut evidence of corresponding chronological differences. The entire sequence of deposits apparently falls within the Classic period, and all indications are that it represents exclusively the Late Classic. Excavations in other sectors of the site have produced comparable ceramics, lending further support to the conclusion that La Sierra's primary occupation is Late Classic.

La Sierra's Late Classic pottery (FIGS. 7-9) includes a wide range of forms, surface finishes, and types of decoration. Most common are plain vessels, especially *ollas*, along with large basins, *candeleros* (thick objects with single or multiple tubular holes), and censers in the form of long-handled perforated pans or shallow plates crudely scored on the base. Some *ollas* and basins have smoothed surfaces, occasionally decorated by modeling or punctation. Unslipped, dimple-based *ollas* commonly have horizontal bands of geometric designs, occasionally interspersed with stylized birds, painted around the rim, neck, and shoulder in deep red. Basins and hemispherical bowls sometimes have similar decoration, with stylized crabs replacing the birds. Orange-slipped hemispherical bowls, sometimes with ring bases, are common; some bear geometric designs and stylized birds and crabs in red paint. Similar decoration occurs on jars and plates with tripod feet. Red-on-orange bowls and plates often have Usulután decoration as well: parallel wavy lines done in a resist technique. Black paint may be added to the red on these shapes to produce a simple, wide-line polychrome style featuring the same motifs along with stylized monkeys and others. A second class of polychromes — mainly cylinders and bowls with fine-line motifs such as glyph-like heads, "counters," mat patterns, stepped frets, and processional figures — falls within the style of the Ulúa valley region. Other polychromes, notably a large cylinder with glyphic motifs, more closely resemble the styles of the central Maya lowlands, as do a few carved vessels. A variety of jars, bowls, and plates with polished buff, orange, or black slips occur in low frequencies.

Excavation at La Sierra in 1977 emphasized architectural explorations in the central sector to achieve a rapid overview of the range of variation in size, form, and construction technique represented in buildings in

11. Henderson, op. cit. (in note 6).

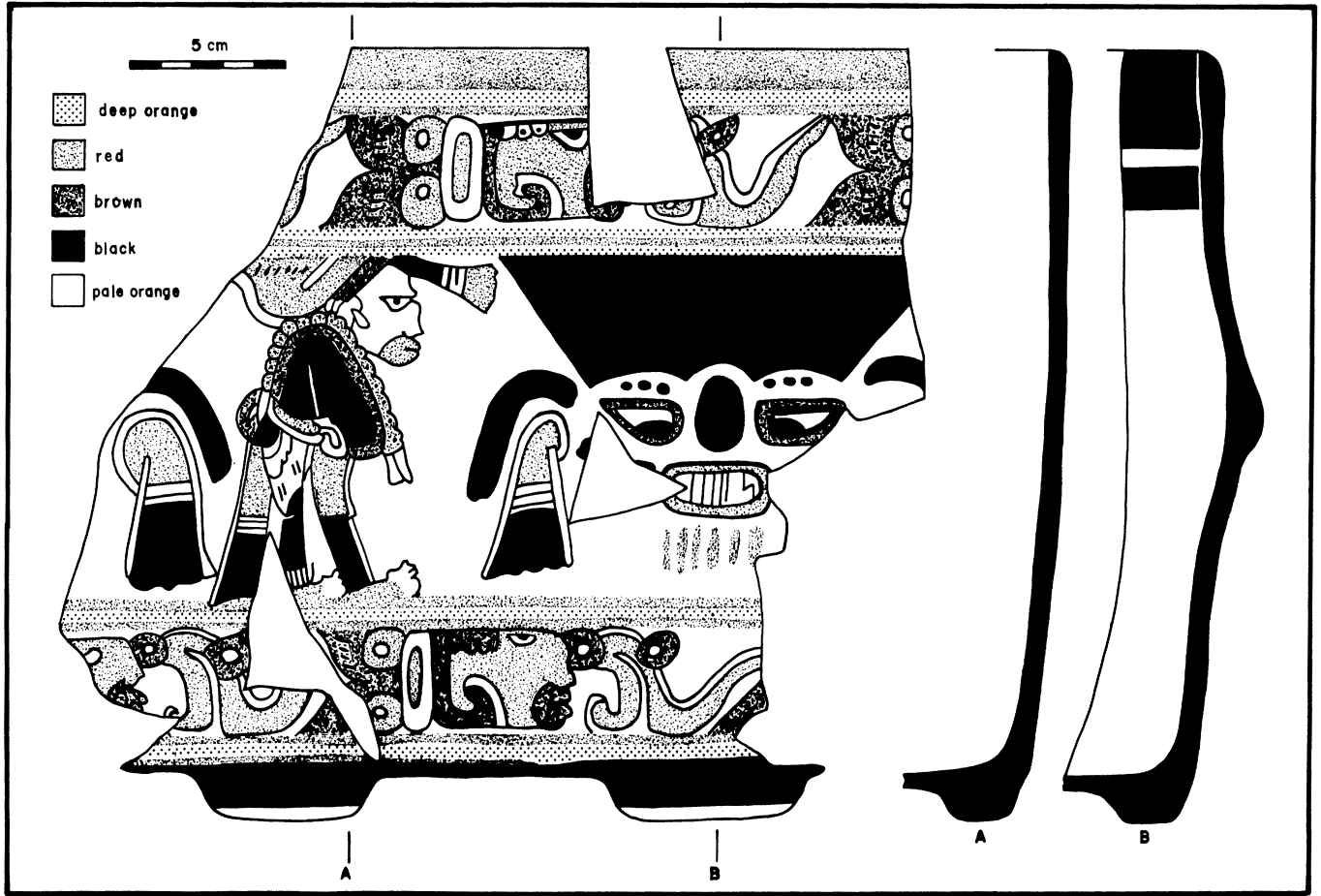


Figure 8. Ulúa style polychrome cylinder from La Sierra (D. 14 cm.).

this most impressive part of the site. This was the first stage of an intensive investigation of functional variation within the settlement.

#### Excavations in the East Group

Structure 1A-43, located at the north edge of the east group, appeared before excavation to be a mound of moderate size with a central ramp or stairway descending into the "plaza." Though the excavations were initially intended to determine only the final plan of the structure, interesting structural features within the mound and buried deeply beneath it led to an intensive exploration.

The basic form of Str. 1A-43 (FIG. 10) is a terraced platform some 16.5 m. x 12 m. The upper terraces are poorly preserved, and whatever superstructure originally occupied the summit was entirely destroyed. The lower terrace, constructed entirely of cobbles, has its lower portion outset one row along the front of the platform. The construction technique, involving the careful placement of small filler pebbles in the clay

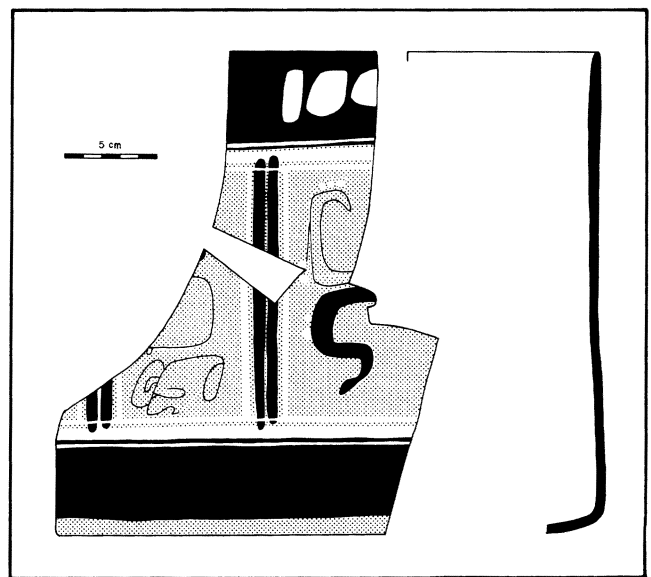


Figure 9. Deep orange and white on unslipped polished buff cylinder from La Sierra.

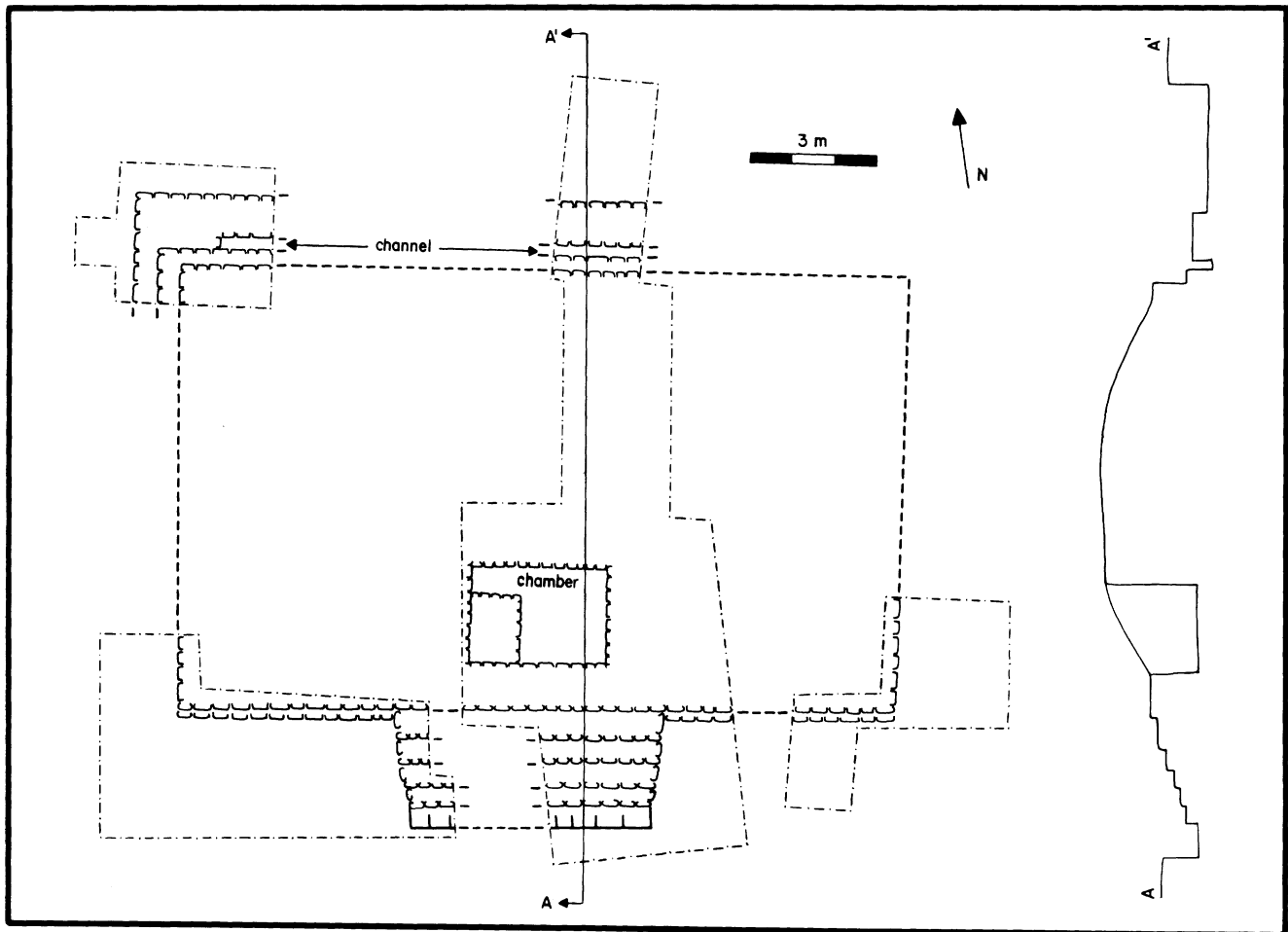


Figure 10. La Sierra, plan of Str. 1A-43.

matrix between the larger cobbles which form the main courses, produced an effect of care and uniformity comparable to dressed stone construction.

The construction of the rear of the mound was apparently designed to facilitate drainage. An apron-like platform borders the outset base of the lower terrace wall on the north side of the building. Both outset and apron extend around the NW corner, though they do not continue to the front of the platform. A narrow trench separates the apron from the base of the terrace wall along most of the north side of the building. At its west end, near the NW corner, the trench is filled with very fine sand, which grades into the coarse sand that underlies the apron and the terrace wall. Near the center of the north wall, a hard clay caps the sand in the trench. This feature may be a drainage channel or gutter, with the clay creating a westward run-off into a permeable sand sump. The surface of the cobble apron also has an east to west slope, dropping more than 50 cm. from the center of the building to the NW corner. There

is no apparent reason for drainage to be a special concern on the north side of the building.

The stairway that ascends the center of the south side of Str. 1A-43 was constructed as a separate operation after the completion of the lower terrace, for the finished face of the terrace wall continues behind the stair. The original stairway construction involved a sequence of deep steps rising from the plaza on the south at least to the level of the top of the lower terrace. Above this, the original stair was destroyed by subsequent construction activity. The lowest step has slightly dressed schist slab treads resting on a foundation of cobbles set in clay. The higher steps consist of large flat cobbles set in clay over a similar footing.

Among the enigmatic features of Str. 1A-43 is a large rectangular chamber within the mound itself. The chamber walls consist of small cobbles interspersed with a few larger stones, all set in a clay matrix to form rough courses. On three sides of the chamber, this clay matrix is continuous with the cobble and clay fill that

composes the terraces of the mound itself. The stones of the chamber's south wall, however, are set in a thin clay facing laid against the interior face of the main lower terrace wall. None of its walls seems ever to have been free-standing. This circumstance suggests that the chamber was dug into the pre-existing structure, with the small cobble walls serving as retaining walls to prevent the collapse of the exposed mound fill into the chamber. The missing steps of the original stairway were presumably destroyed by construction of the chamber. The chamber was floored with an irregular level of cobbles set in hard-packed clay. A deposit of nearly sterile sand was introduced, covering the floor and filling the chamber to a depth of more than 1 m., and the SW corner was set off by interior walls. The surface of the sand in the main part of the chamber was partly compacted as though it had been used as a walking surface, or at least exposed to the elements for a time. Subsequently, the chamber — including the SW enclosure — was completely filled with a similar sand deposit. The final stage of the remodelling was the construction of a new stairway covering the now-filled chamber. At least one step consisted of flat blocks neatly dressed at the front. Removal of dressed blocks for re-use in later construction may account for the remarkably poor preservation of this second stair. The dearth of artifacts from the chamber's fill makes interpretation difficult. Analogy with other Maya centers would suggest a mortuary function, but there is no direct confirming evidence.

Excavations on the summit of Str. 1A-43 revealed several cobble lines (possibly walls) and fragments of stick-impressed clay (remnants of wattle-and-daub construction), but the poor state of preservation precludes any conclusions about the nature of the superstructure. A deep test pit from the summit into the heart of the mound encountered several types of fill, suggesting a complex constructional sequence.

A thin plaza floor level of hard clay with pebbles, small pieces of schist, and small sherds packed into its surface abuts the footing level of the stair and of the lower terrace wall. Beneath this floor is a similar hard-packed surface representing the plaza floor in use at the time Str. 1A-43 was constructed: the wall footings of the lowest terrace and the stair rest directly upon it. Two more similar floors below this represent still earlier plaza surfaces.

Near the SW corner of Str. 1A-43 is a massive N-S wall or platform more than 1 m. wide. Neatly constructed of cobbles set in clay, the wall stands ca. 0.75 m. high, with its carefully finished upper surface some 0.20 m. below the lowest plaza floor. The base of the wall rests on a thick water-laid deposit of nearly sterile clay mixed with

sand. Four more packed surfaces lie beneath, and excavation terminated at a level of very large cobbles. Massive constructions at corresponding depths beneath the floor of the chamber and beneath the SE corner of the structure represent a similar E-W wall. The function of these constructions is not clear, though they might have served as walkways.

Debris representing a small, destroyed wattle-and-daub structure overlaps the apron at the NW corner of Str. 1A-43. Poorly preserved cobble wall stubs adjacent to the southwest corner represent a second small building post-dating Str. 1A-43. These remnants suggest that occupation of the east group continued after use of Str. 1A-43 ceased, but they are too fragmentary to permit a proper assessment of the date or nature of this later occupation.

The size of Str. 1A-43 and the care devoted to its construction, along with its unusual architectural features and the absence of domestic refuse, suggest that it was a public structure, probably a temple.

#### **Excavations in the Main Group**

Structure 1A-1, at the NW corner of the main group, is the largest surviving structure at La Sierra. The west side of the main group has suffered heavy erosion, so that excavation here seemed futile. Instead, explorations were located along the east side of Str. 1A-1 to test its presumed eastward orientation toward the "plaza," and on the platform summit in an attempt to determine the nature of any superstructures. On the north, Str. 1A-1 joins Str. 1A-7, which is oriented E-W. On the south, it is connected to Str. 1A-2, which begins the progressive shift away from a N-S orientation as the mounds along the west edge of the main group bend east.

An extremely complex constructional sequence, involving extensive modification of Str. 1A-1, particularly at its junctions with the adjacent platforms, makes interpretation difficult. In addition, stone was repeatedly taken from the structure in order to provide ready construction material for remodelling.

The basic structure (FIG. 11) is a terraced platform more than 20 m. long. The original eastern terrace wall, nearly 2 m. high, is composed of river cobbles set in a hard clay matrix; the lower portion is outset as in Str. 1A-43. This wall abuts the southern cobble and clay terraces of Str. 1A-7, which was built first. Virtually all of the dressed stone occurs in later additions to the original platforms. The original height of Str. 1A-1 is difficult to determine, but the highest surviving constructions, probably superstructure foundations, stand ca. 5 m. above the floor of the plaza to the east. The interior corner of the plaza, where Str. 1A-1 joins Str. 1A-

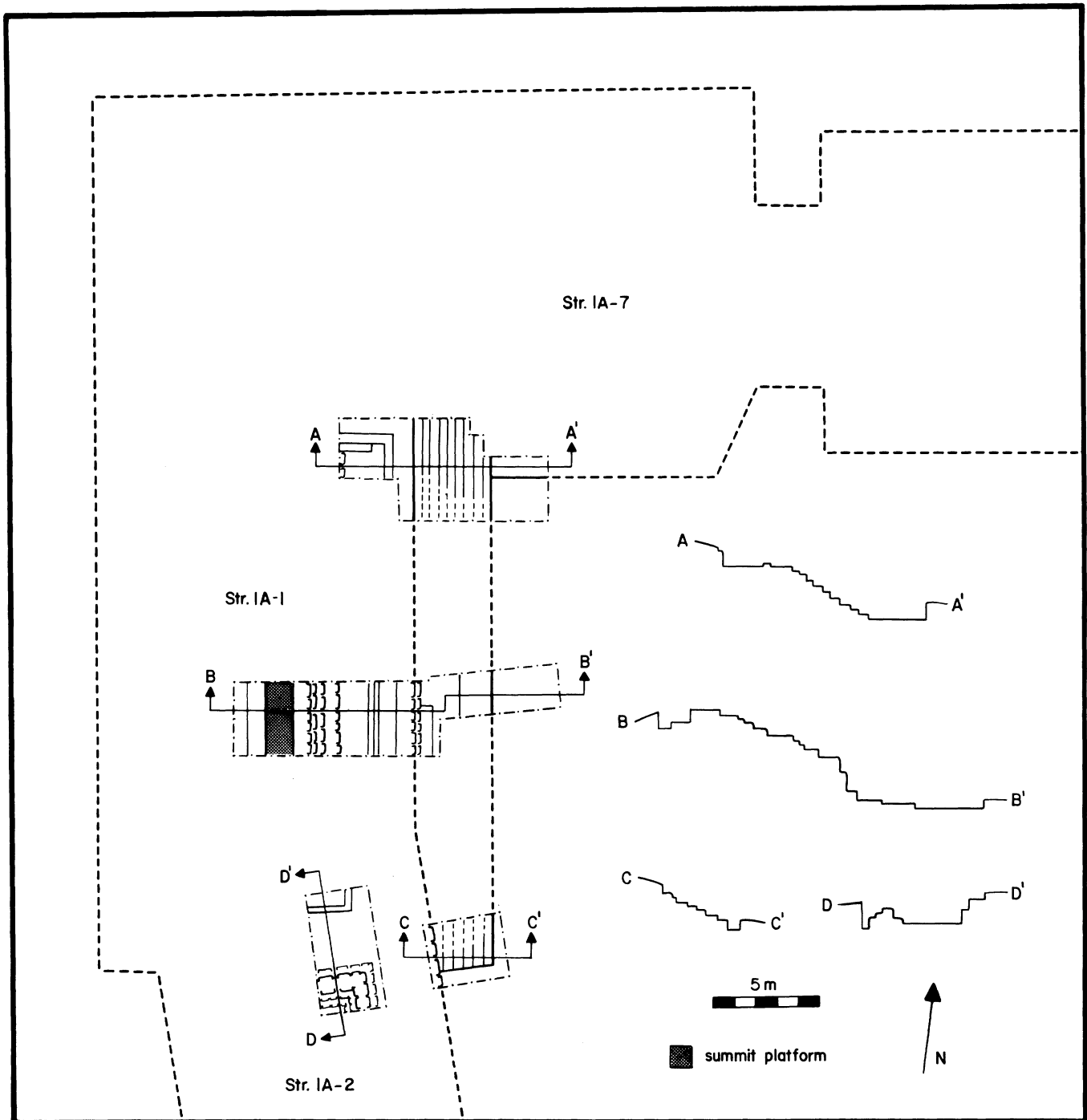


Figure 11. La Sierra, plan of Str. 1A-1 (latest construction stage).

7, was repeatedly remodelled as elaborate stairways were added.

The first addition was a dressed stone stair (FIG. 12) ascending Str. 1A-1 at its north end in seven steps, which abut the terraces of Str. 1A-7. The stair survives only near the juncture with Str. 1A-7, so that its

southern extent is unknown. The lowest step rests on a prepared surface of carefully selected red sand. This sand, probably never used as a walking surface, was covered with hard-packed clay which did serve as a floor. It is at the same level as an irregular pavement of large cobbles that forms the plaza floor to the east.

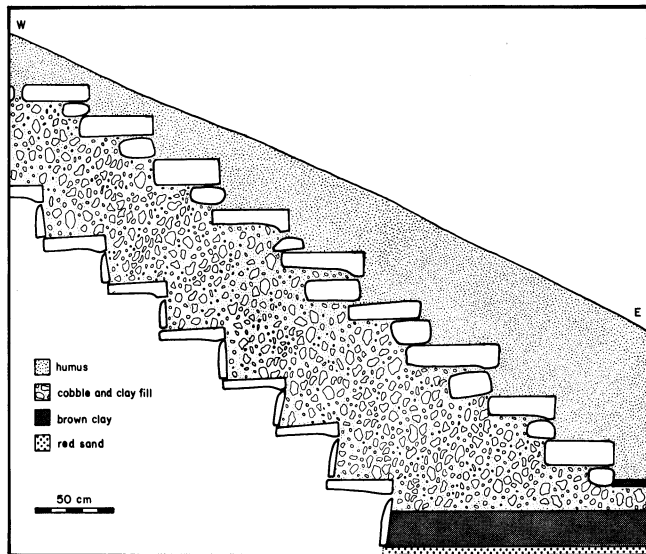


Figure 12. La Sierra, Str. 1A-1, section showing superimposed stairs.

The construction of this stair illustrates the care devoted to major architecture at La Sierra as well as the skill of the local masons. Well dressed treads and risers are carefully set over a cobble and clay core. The risers are thin blocks with carefully bevelled upper edges. The treads have thick front edges, producing a hook-shaped section. The functional advantage of this configuration of treads and risers, if any, is not clear. It does minimize the volume of dressed stone, and the thick front edges of the treads may serve to minimize stress, since a climber exerts maximum pressure precisely at this point.

Carefully squared blocks face the two cobble-surfaced terraces that widened Str. 1A-1 on the east. Two large dressed blocks set flush with the original terrace wall near its center may be all that remains of a third terrace. The outer dressed stone terrace lengthened the platform, for it extends the line of Str. 1A-1 well beyond the original juncture with Str. 1A-2. At its south end, this outer terrace served as the lowest step of a stair or buttress rising to meet the cobble wall of the lower terrace of Str. 1A-2. The upper steps are preserved only at the stair's south end.

At the north end of Str. 1A-1, the outer terrace abuts the similar dressed stone facing of a final outer terrace added to the south side of Str. 1A-7. Segments of two additional E-W dressed block walls represent terrace-like outsets added to the bases of the original cobble terraces of Str. 1A-7. A thick layer of hard white plaster extending east and south from Strs. 1A-1 and 1A-7 represents a new plaza floor, another facet of the general remodelling program.

The outermost terrace of Str. 1A-1 serves as the lowest step of a new stair at the platform's north end. This stair is neither as carefully constructed nor as well preserved as the original. Segments of nine steps survive, set over a cobble and clay fill covering the surviving portion of the original stair, which was evidently robbed for its construction. Several hook-shaped treads were probably taken from the earlier stair; the rest are plain tabular slabs and the risers are all roughly squared blocks. This stair was robbed in turn for some later construction project: the upper steps survive only near the juncture of Strs. 1A-1 and 1A-7.

The construction atop Str. 1A-1 is difficult to interpret. In the center of the structure, a series of N-S wall lines — some of dressed stone, some of cobbles — ascends to the summit, which is occupied by an irregular "platform" of cut blocks. At least some of these wall lines surely represent higher terraces; the "platform" may be the remains of the foundations of a central superstructure. Too little survives to permit a more definitive conclusion. None of these structural remnants correlates with the buildings encountered at either end of Str. 1A-1.

At the north end, excavation revealed wall stubs forming the corner of a dressed stone superstructure. At the corner, the north wall, like the east, consists of a single row of cut blocks, but 50 cm. to the west it becomes double. A cobble cross wall represents an interior partition wall. The interior of the building has a clay floor with bits of white plaster embedded in its hard-packed surface. Excavation beneath the building revealed a thick wall of large cobbles, whose top lies ca. 1 m. below the superstructure's wall footing. Presumably it belongs to an earlier construction phase.

At the south end of the summit of Str. 1A-1 is the corner of a different building. Since this corner lies south of the original juncture with Str. 1A-2, its construction evidently post-dates the remodelling that extended the line of Str. 1A-1. The construction of this southern building is also of dressed stone blocks, though it involves a different technique using an outset basal row of blocks. To the south, a single large cut block serves as a step down to a clay floor extending to the south and east. This step and floor seem to represent a remodelling of an earlier construction stage in which a hard white plaster floor abutted the cobble footing of a two-block dressed stone step set against the south wall of the building. A third floor, also surfaced with white plaster, pre-dates the building's construction.

All three floors abut the walls of the earlier building atop Str. 1A-2. Its thick walls, which have the orientation of Str. 1A-2, are constructed entirely of cobbles set

in clay. The lowest courses are outset, forming a "step" along the exterior face. The interior of the building has a double outset, forming two "steps" down to a clay floor with white plaster-like material packed into its surface. The construction of this building pre-dates that of the building to the north on Str. 1A-1, though they may well have been in use at the same time.

Excavation at the SE corner of Str. 1A-2 revealed that it was constructed before Str. 1A-3. The south end of the cobble lower terrace of Str. 1A-2 has fewer courses than the north, compensating for the rising ground surface. A low outer step or terrace surfaced along the front edge with dressed blocks is also unmatched in the north. It is presumably a later addition which never extended the full length of Str. 1A-2. The step extends around the SE corner of Str. 1A-2, indicating that its south wall must once have been free-standing.

Str. 1A-3, with a slightly different orientation, is primarily composed of dressed stone. The lowest terrace, which abuts Str. 1A-2, overlapping its basal step, is faced with two courses of dressed blocks. Str. 1A-3, too, has a basal step, composed entirely of large, carefully squared blocks.

Aside from a few fragments of ground stone, the artifact inventory of these three structures includes nothing to indicate a domestic function. The ceramics include an unusually high proportion of censer fragments, and two beautifully modelled masks — probably portraying deities — were found at the base of Str. 1A-1. Along with the size of the structures and the extensive use of dressed stone, the evidence indicates a public, probably ceremonial, function. A better understanding of the functions and constructional histories of these structures will require full clearing and interior exploration of the superstructures. This work must await another field season.

#### **Excavations in the Ball Court**

Structures 1A-50 and 1A-51, parallel mounds some 30 m. x 12 m. (FIG. 6), are range structures enclosing the playing alley of a ball court. The reconstructed building sequence is based chiefly on excavations in the west range (Str. 1A-50) where preservation is best (FIG. 13).

The original construction was entirely of cobbles set in clay. Apparently the earliest version of the ball court had a playing alley approximately 12 m. wide defined by benches with low vertical faces (FIG. 13-1a). Bench surfaces (1b) coated with white plaster slope up to cobble playing walls (1c). A floor of packed brown clay (1d) formed the surface of the playing alley. A later modification, still of cobble construction, evidently widened the benches slightly (IIa), with the original playing walls

remaining in use. A new layer of brown clay (IIb) raised the playing surface slightly.

The final version of the ball court boasted sloping benches surfaced almost entirely with dressed stone blocks (IIIa) set over a cobble and clay fill which covered the earlier benches. New vertical faces (IIIb), also of dressed stone, widened the benches again. The new, narrower playing alley had a white plaster surface (IIIc). The construction of the bench faces involved two tiers of vertical blocks, each capped by a double course of horizontal blocks. In a few sections, the upper blocks have the "hook-and-bevel" fitting technique found in the original stair of Str. 1A-1. A few tumbled blocks were dressed at an oblique angle, evidently to form a smoother transition from sloping surface to vertical face.

The highest definite playing surface, a thick white plaster floor (IIId), abuts the bench faces at a high level, so that the lower vertical blocks and the first horizontal courses would have been below ground. The dressed stone, thus, may represent two remodelling stages. The eclectic construction, along with the use of a broken sculptured stone as a construction block, may also point to a final remodelling with simpler, less careful construction, comparable to the rebuilding of Str. 1A-1's stair.

The upper portions of the range structures are poorly preserved, and there are no indications of playing walls associated with the dressed stone construction stages. Both plaster floors extend south of the range structures, presumably forming an end zone. Additional excavation will be required to determine the overall form of the ball court.

In general, the form of La Sierra's ball court is similar to that of Copán, though neither superstructures nor markers remained. A large tenoned, stone ball-court ring, painted red, did turn up among the tumbled blocks associated with Str. 1A-1. Presumably it had been removed from the ball court.

#### **Excavations in the North-Central Sector**

Structure 1B-8 is located 125 m. north of the main group, across a dry wash. This structure was selected for excavation because its small size and low height (1.5 m.), along with the absence of surface indications of elaborate architecture, suggested an ordinary house mound. Excavation revealed otherwise.

The low cobble-faced platform (FIG. 14) forms an apron-like terrace on the south side of the building, with a two-step stair down to the surface of a small plaza. Adjacent to the bottom step, the plaza has a white plaster floor which extends nearly 2 m. to the



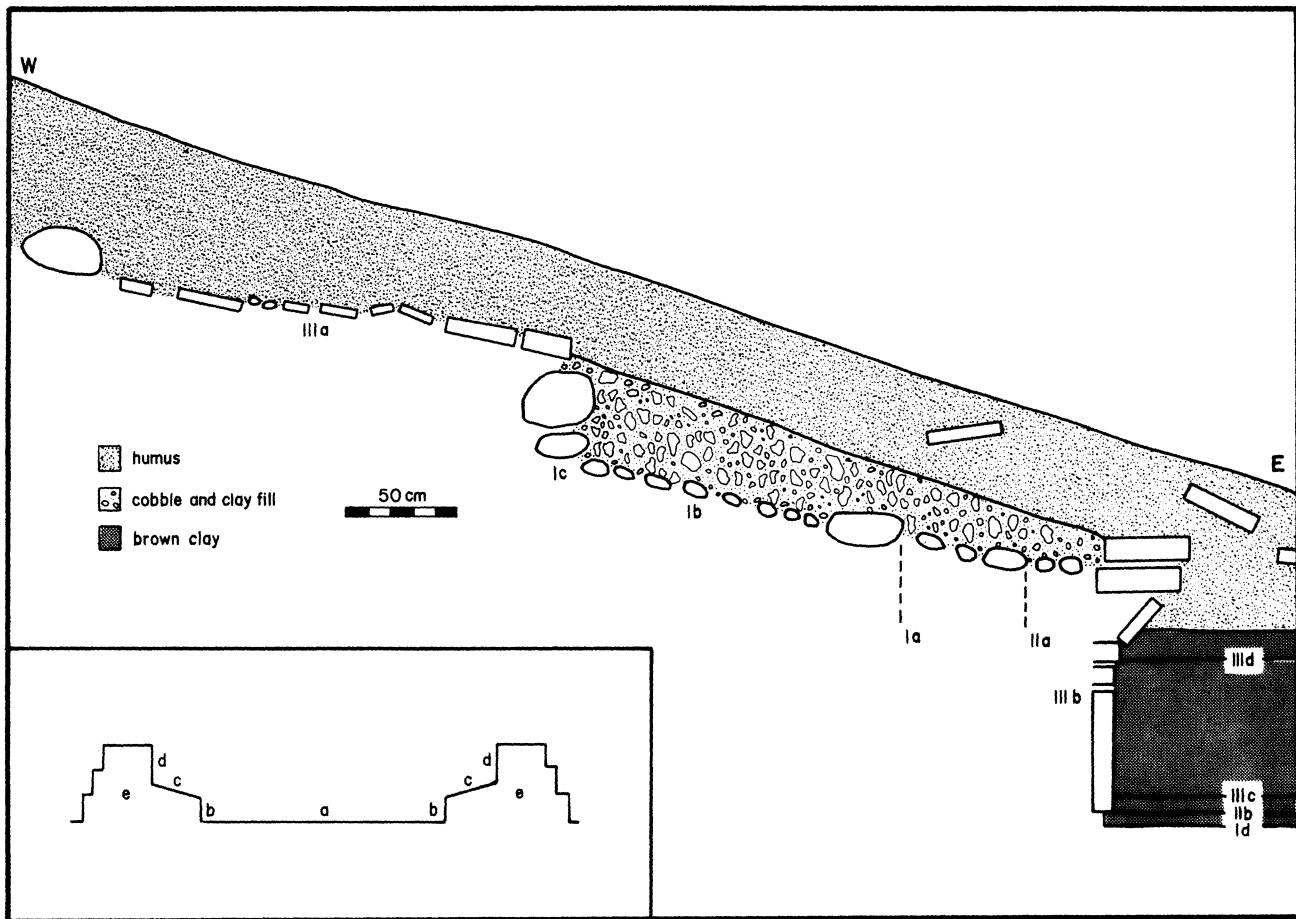


Figure 13. La Sierra, section through center of west range of ball court (Str. 1A-50). Roman numerals refer to construction stages. Stage I: cobble bench (Ia, Ib) and playing wall (Ic), with clay playing surface (Id). Stage II: widened cobble bench (IIa) and new clay floor (IIb). Stage III: dressed stone bench (IIIa, IIIb) with white plaster playing surfaces (IIIc, IIId). The lower portion of the dressed stone bench surface (IIIa) has been destroyed by blocks sliding along the surface of the fill covering the earlier benches, and the top of the latest bench face (IIIb) has slumped eastward. The uppermost clay layer may once have supported a fifth playing surface. Inset: schematic section through ball court illustrating terminology: a, playing alley; b, bench faces; c, bench surfaces; d, playing walls; e, range structures.

south before giving way to a packed clay surface. The building atop the platform is a two-roomed structure with massive cobble walls more than a meter thick. The low bench along the north wall of the west room continues into the east room, forming a low doorway between the two. Both rooms have floors paved with small flat slabs set in clay.

An enormous quantity of pottery — more than 15,000 sherds, with a high frequency of polychromes — dominates the artifacts associated with Str. 1B-8. Domestic refuse includes *mano* and *metate* fragments and a few scraps of animal bone. Judging by this material and by the elaborate construction, the structure must have been a high-status residence, possibly of a family of potters.

#### A Hypothetical Architectural Sequence

The architectural variation at La Sierra may reflect chronological differences as well as functional variation. The identification of tentative architectural stages, at least for public/ceremonial structures, provides hypotheses for future investigation.

Str. 1A-43 belongs almost entirely to the initial stage, which involves careful construction using cobbles set in clay. In the main group, the original terraced cobble platforms of Strs. 1A-7 and 1A-1 are the earliest construction activity represented in excavated material. Judging by the outset base of the lower terrace of Str. 1A-1, it would be roughly contemporary with Str. 1A-43. Str. 1A-2 and its superstructure fit in this stage as well, along with the two earliest versions of the ball

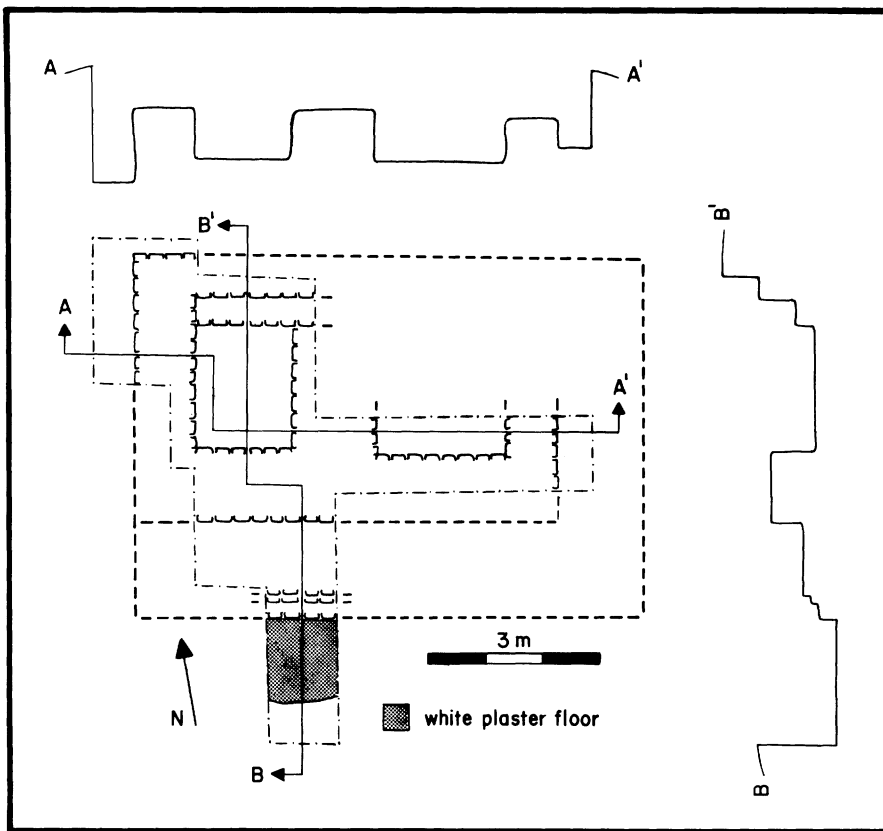


Figure 14. La Sierra, plan of Str. 1B-8.

court. Str. 1B-8 may also belong here, though its domestic function alone might account for the absence of dressed stone.

The second architectural phase is marked by the use of dressed stone laid over a rubble core and by thick white plaster floors. Construction is typically extremely careful and sometimes involves the "hook and bevel" technique of block fitting. The original stair at the north end of Str. 1A-1 represents the architecture of this phase at its best. In the main group, the dressed stone outer terraces of Strs. 1A-1 and 1A-7, the buildings atop Str. 1A-1, the low step at the south end of Str. 1A-2, and Str. 1A-3 in its entirety all belong to this phase. The dressed stone remodelling of the ball court also represents the second stage. Str. 1A-43 was essentially completed during the preceding phase, though the minor use of dressed stone in the rebuilt stairway may indicate that remodelling continued into the next stage.

The second stairway at the north end of Str. 1A-1 employs re-used dressed stone for a remodelling project which seemingly lacks the careful construction of earlier building activity. The "hook and bevel" technique of block fitting is no longer used. The putative final remodelling of the ball court would represent a comparable phenomenon. Perhaps dressed stone construc-

tion represents two distinguishable architectural phases in central La Sierra.

The latest excavated constructions were themselves robbed for building stone, so that there may well be later architectural phases at La Sierra so far not represented by excavated structures. The remnants of small buildings adjacent to Str. 1A-43 seem to indicate a later occupation when parts of the center may have fallen into decline.

Much additional excavation will be required to confirm or modify this outline and to clarify the absolute chronology of La Sierra's architecture. The associated ceramics suggest that the entire sequence falls within the Late Classic period, and there are no obvious indications of corresponding ceramic subphases.

### *El Regadillo*

El Regadillo is located near the western edge of the valley at the point where the first range of foothills begins. The occupation originally extended from the lower slopes onto the valley floor, but mechanized farming has destroyed nearly all of the original mound constructions. On the slope, 12 mounds have survived erosion of the thin soil exacerbated by *milpa* farming. The

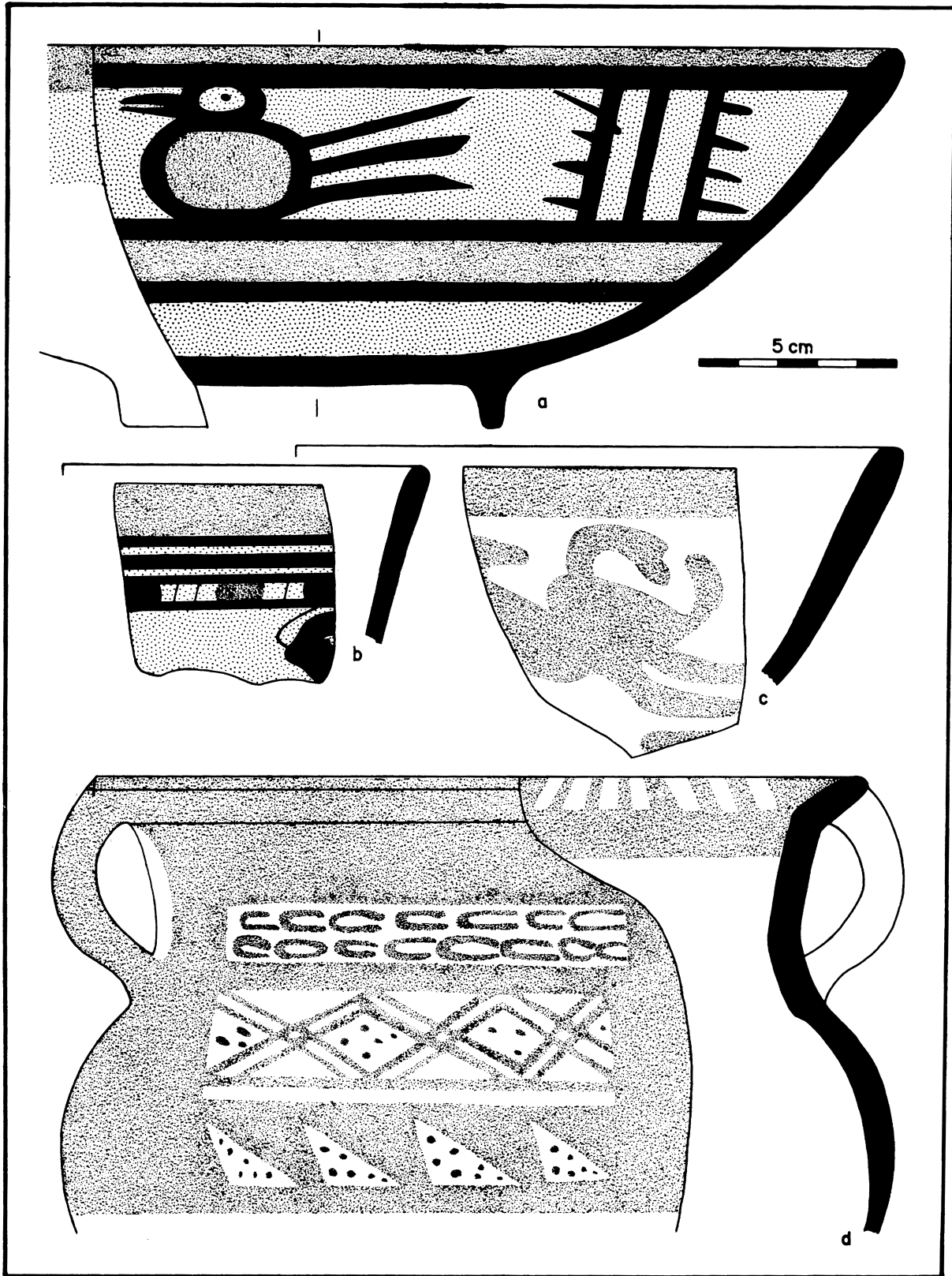


Figure 15. Late Classic pottery from El Regadillo. a, b, red and black on orange; c, d, red on unslipped buff.

mounds are built into the slope, taking advantage of the natural contours to minimize construction material requirements. The mounds are quite small; none exceeds 5 m. in length or 1.5 m. in height. In one spot, the slope has been modified to form a larger mound-like terrace.

Two test pits at the lower edge of one of the mounds revealed a basic terraced platform construction with rough cobble retaining walls. Excavation below the mound resulted in the discovery of a remarkably dense deposit of Late Classic ceramics. The pottery (FIG. 15) is closely related to the contemporary material from La Sierra, but there are interesting differences, particularly in decoration. Polychromes are less common and have a narrower range of shapes and designs. El Regadillo polychromes are mainly in the simple wide-line local style. Hemispherical ring-base bowls with horizontal bands and stylized birds are especially common. Ulúa style fine-line polychromes are quite rare.

#### Naco

Exploratory excavations in two mound groups west of the Río Naco indicate a Late Classic period occupation of this zone. Ceramics associated with these groups, including polychromes, are quite similar to the La Sierra assemblage. Both groups have a large principal structure, with two lower flanking platforms, facing a pair of smaller mounds across an open plaza (FIG. 16). Excavations in a third similar mound complex in the same sector produced even earlier pottery, comparable to the material from Santo Domingo.

#### The Late Preclassic Period

Ceramic complexes from Santo Domingo and Naco indicate occupations falling in the Late Preclassic time range. This is the earliest material encountered so far in the Valle de Naco.

Santo Domingo is unusual in its location on a steep terrace above the Río Manchaguala at the base of the hills which limit the valley on the north. The 39 structures (FIG. 17) range from small platforms only a few centimeters high to imposing structures 6 m. tall. The layout of the settlement illustrates the influence of natural contours on the orientation of structures, and faced contours link several platforms. Other architectural features include platforms connecting adjacent structures, staircases, inset frontal terraces, and wall foundations of summit buildings. Construction seems to be entirely of cobbles: no dressed stone is visible on the surface.

Exploratory excavations undertaken to increase the size of the ceramic sample suggest that, unlike La

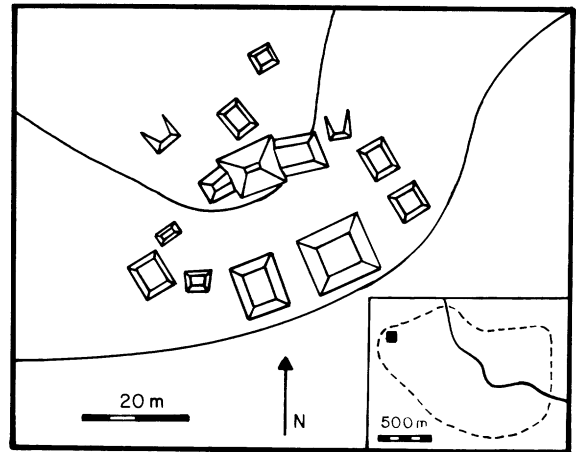


Figure 16. Naco, Late Classic mound group. Inset shows the location of the enlarged area within the site.

Sierra, Santo Domingo has little depth of deposit. The ancient ground surface on which the structures were built is within 60 cm. of the present surface. Underlying deposits appear to be sterile. A trench through Str. 8 revealed a basic platform construction with cobble facing over a core of packed earth containing pottery and other artifacts. A trench through Str. 6 disclosed a small section of a cobble building with an interior floor paved with large flat slabs.

The pottery of Santo Domingo (FIG. 18) features *tecomates* and a wide variety of bowl and *olla* shapes. They may have plain surfaces, red-painted designs, or polished red, orange, or buff slips, often with incision, punctuation, or appliqué decoration as well. Bowls with thickened rims or flanges are common, as is an orange slip with Usulután style parallel line decoration.

Similar material turned up at Naco in exploratory excavations in two locations west of the Río Naco. One of these was a mound cluster of the same form as the two that produced Late Classic pottery. Surface finds in this sector of the site include a number of basal flange bowl sherds. Presumably Naco had a Late Preclassic or initial Classic occupation as well as Late Classic and Late Postclassic components.

#### Discussion

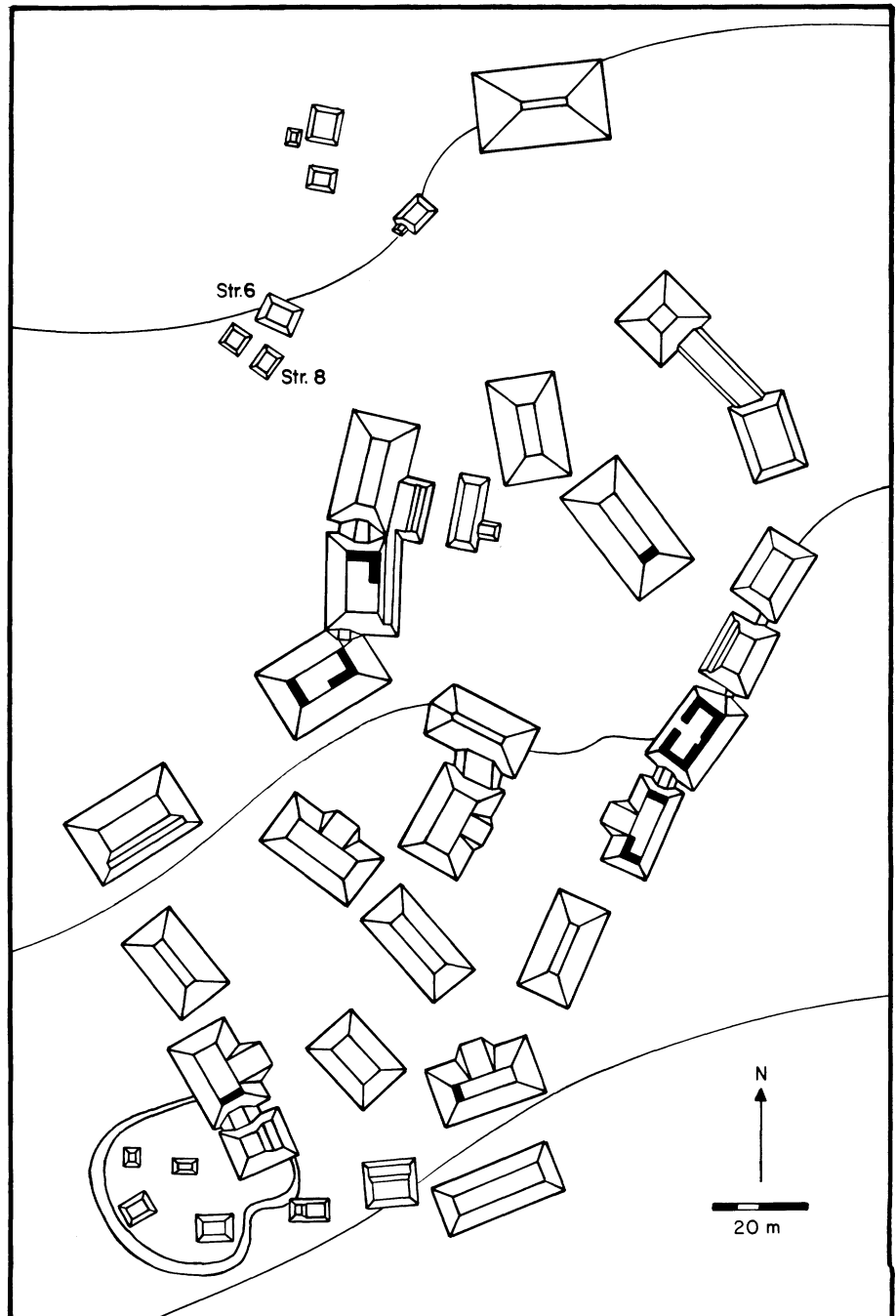
On-going investigations in the Valle de Naco have four principal facets: completion of the survey, and the exploration of the internal organization and inter-relationships of the valley's three major centers. The survey goal is total coverage of the Valle de Naco, including the surrounding foothill zones, along with a program of exploratory excavation for chronological placement. This work is essential for culture-historical

reconstruction and will provide a better framework for interpreting data from Naco, La Sierra, and Santo Domingo. Filling the Early Classic (250-600 A.C.) and Early Postclassic (950-1200 A.C.) gaps in the sequence should clarify the relationships among the occupations at the three large centers. A particularly interesting issue is the degree of continuity maintained from the Late Classic period, with its extensive external connections, to Naco's emergence as a major commercial cen-

ter. In addition, the valley sequence may be extended forward into the Colonial period and perhaps backward into the earlier Preclassic time range.

At Santo Domingo, La Sierra, and Naco, excavations will be designed to define more precisely the periods of occupation, and the extent of the settlement during each. Excavation of architectural units will be undertaken to explore functional variation within the settlements. At Naco, this should indicate whether the early

Figure 17. Santo Domingo, map.



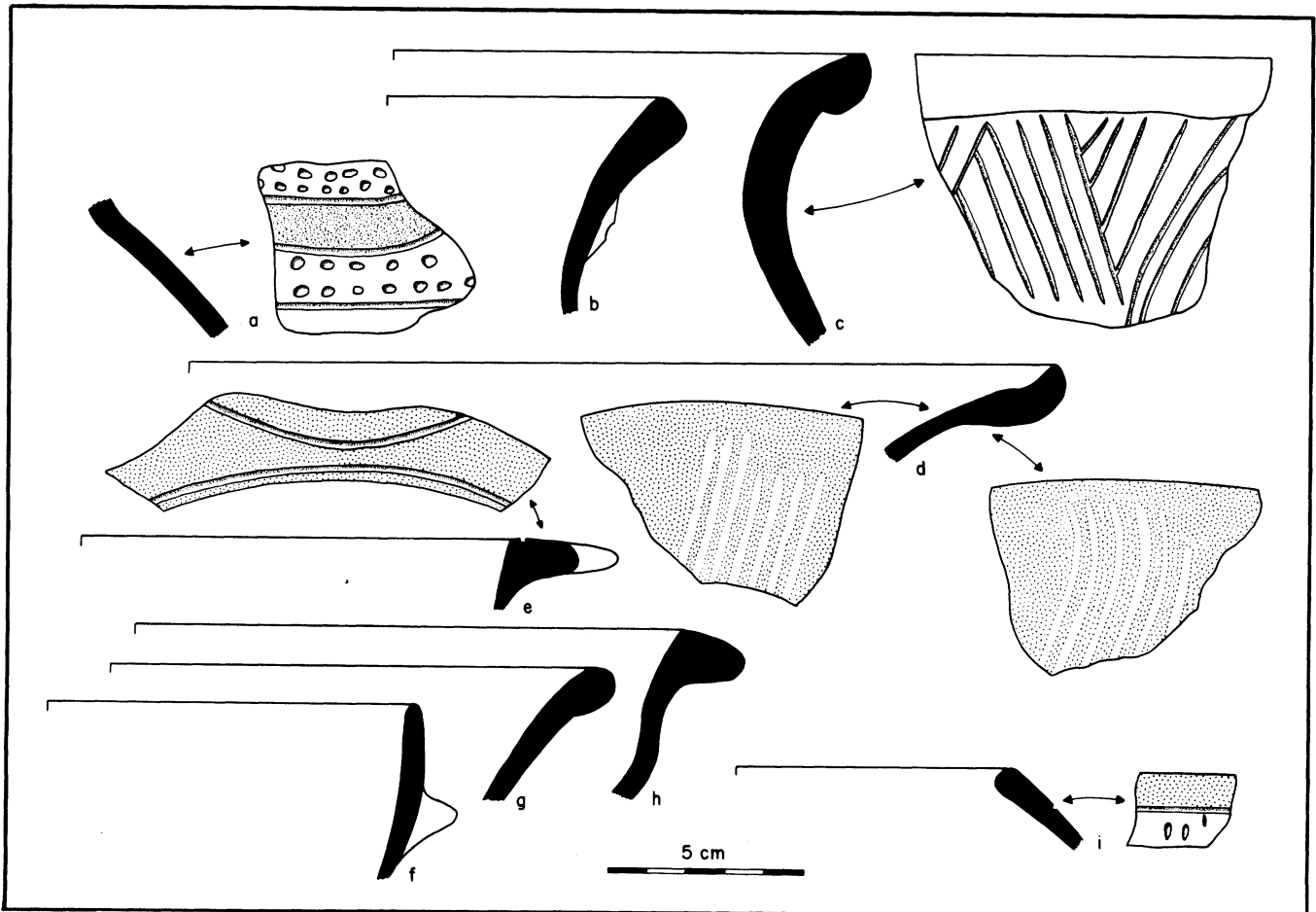
occupations represent independent communities or stages in the evolution of the conquest-period center. A particular goal at La Sierra is defining relationships among outlying zones and the central public sector. A fuller understanding of functional differences should permit more definitive conclusions about the chronology of La Sierra's occupation, including refinement of the tentative Late Classic architectural sequence and perhaps identification of corresponding ceramic sub-phases. Though La Sierra has so far produced no good indications of occupation during other periods, the possibility of Early Classic or Early Postclassic occupations cannot be ruled out altogether. More extensive excavations and absolute dates should resolve the issue.

These investigations will provide the data for a basic culture history of the Valle de Naco, which is the first step toward a larger aim: placing the valley in the wider context of the culture history of the eastern Maya fron-

tier region. The data already provide intriguing insights into the problems of exchange and cultural relationships, though a full understanding of the complexities of the situation is by no means at hand. Archaeological evidence from the Valle de Naco is congruent with historical, linguistic, and ethnographic indications that it was part of a zone of cultural transition between the Maya area and upper Central America. Most obvious are the indications of wide-ranging external connections, including exchange relationships which mark an intermediate economic status.

Santo Domingo's ceramics show general similarities with Late Preclassic pottery throughout the Maya area and close relationships with complexes from western and central Honduras. Most of the features of Eden phase pottery at Los Naranjos appear at Santo Domingo. Santo Domingo pottery also shares many features with the early ceramics of Copán and with the

Figure 18. Late Preclassic pottery from Santo Domingo. a, red on white with incision and punctation; b, unslipped with indented relief band; c, unslipped with incision; d, orange slip with Usulután decoration; e, orange slip with incision; f, h, orange slip; g, unslipped; i, partial orange slip with incision and punctation.



Yarumela II and III and Lo de Vaca II complexes of the Comayagua valley.<sup>12</sup>

The Late Classic pottery of La Sierra shows strong ties with the Yojoa complex of Los Naranjos. Polychromes are closely related to the Babilonia polychrome types of Los Naranjos, which are also common at Travesía-Santa Ana and a series of contemporary sites in the Ulúa valley.<sup>13</sup> Some may be imports, but most were manufactured locally. La Sierra was a substantial participant in the Ulúa polychrome tradition of the Sula plain. At the same time, La Sierra's ceramic assemblage shares a variety of features of shape, surface finish, and decoration with Copán's Full Classic pottery.<sup>14</sup> Similarities in polychrome design are particularly striking, but the relationship involves utilitarian types as well. La Sierra imported small quantities of Copador polychrome, but the similarity between the two assemblages reflects shared traditions of production; it cannot be attributed to occasional exchange. A sherd from a La Sierra style polychrome jar was recently found at Playitas, near Quiriguá. Ties with the central Maya lowlands also exist, but they are less marked. La Sierra pottery is outside the Petén tradition, but it belongs to a SE Maya ceramic sphere centered at Copán.

The major public architecture at La Sierra points to the same close connections with Copán. Settlement pattern data, incomplete as they are, also seem to place the Valle de Naco in the Classic Maya world. The valley apparently enjoyed a Late Classic florescence, with occupations at Naco, Descalzada, Monte Grande, and El Regadillo as well as at La Sierra. The Early Postclassic period is unrepresented (or unrecognized), hinting that, along with Copán and the rest of the southern Maya lowlands, the Valle de Naco underwent a drastic cultural decline at the end of the Late Classic period.

In the Late Postclassic period, the valley's external relations focussed on the Maya highlands. At the same time, there are ceramic similarities with Yucatán, notably ladle censers and small tripod cups, and im-

ports from Yucatán and southern Honduras.<sup>15</sup> Santa Bárbara polychromes are closely related to those of the eastern highlands of Guatemala, an area which was the source of at least some of Naco's obsidian. Cortés polychromes, net weights, and spiked censers point to connections with Chiapas and the western and central Guatemala highlands. Design similarities with the polychromes of Utatlán, the Quiché capital, are particularly striking. The layout of Naco's main group, with an I-shaped ball court just sw of the principal platform, also recalls the Quiché pattern. Some Cortés polychromes also indicate connections with Late Postclassic ceramics from the Cihuatán zone of El Salvador and the Managua area of Nicaragua. This Salvadorean and Nicaraguan pottery may represent Náhua-speaking Pipil groups of central Mexican ancestry.<sup>16</sup> Taken together, these factors suggest that Naco's elite — at least those persons associated with activities in the main group — may have been culturally as well as socially distinct from the populace at large. The associations of Cortés polychrome point to a Mexican-influenced elite, like that of the Quiché, if not to the more direct Pipil or central Mexican connections often suggested for Naco.<sup>17</sup>

The question of cultural identity itself is thorny. As a working hypothesis, Late Classic La Sierra and Late Postclassic Naco are best regarded as basically Maya communities with strong ties to non-Maya Central America. A proper analysis of cultural relationships will require much fuller data from the Valle de Naco and from neighboring regions. It would be naive to expect the distribution of typical Petén-type civic-ceremonial centers to reflect the Classic period limits of people of Maya cultural identity. In a sense, these centers are typical of Classic Maya culture, but it is misleading to suppose that they represent it fully. They also reflect a constellation of functions dependent on partic-

12. Baudez and Becquelin, op. cit. (in note 4) e.g., 159-84, 194-219, 223-27, Figs. 76-78, 83-93; Longyear, op. cit. (in note 3) e.g., 89-95, Figs. 30-33, 36, 45-46, 48-51; J. S. Canby, "Possible Chronological Implications of the Long Ceramic Sequence Recovered at Yarumela, Spanish Honduras," in S. Tax (ed.), *The Civilizations of Ancient America* (Chicago 1951) 80-82; Baudez, op. cit. (in note 9) 305-12, Figs. 4-5.

13. Baudez and Becquelin, op. cit. (in note 4) 256-82, Figs. 100-109; D. Z. Stone, *Archaeology of the North Coast of Honduras* (Cambridge 1941) 55-86; Strong, Kidder, and Paul, op. cit. (in note 5) 39-125, Pls. 5-8, 12-14.

14. Longyear, op. cit. (in note 3) e.g., Figs. 38, 40, 58-60, 73, 78, 81.

15. Strong, Kidder, and Paul, op. cit. (in note 5) 34; Smith, op. cit. (in note 9) 215; Sanders, op. cit. (in note 9) 229; Baudez, loc. cit. (in note 9).

16. R. Wauchope, "Protohistoric Pottery of the Guatemalan highlands," in W. R. Bullard (ed.), *Monographs and Papers on Maya Archaeology* (Cambridge 1970) 101-20, 235-36; C. Navarrete, *The Chiapanec History and Culture* (Provo 1966) 63-64, 93; J. W. Fox, "Quiché expansion processes: differential ecological growth bases within an archaic state," in D. T. Wallace and R. M. Carmack (eds.), *Archaeology and Ethnohistory of the Central Quiché* (Albany 1977) 82-97; J. M. Weeks, "Evidence for Metalworking on the Periphery of Utatlán," in Wallace and Carmack, op. cit., 55-67; W. Haberland, "Marihua Red-on-buff and the Pipil Question," *Ethnos* 29 (1964) 73-86; W. Haberland, "Further archaeological evidence for the Nicarao and Pipil migrations in Central America," *Actas del XLI Congreso Internacional de Americanistas, México, 1974* (Mexico 1975) 1: 554-57.

17. Strong, Kidder, and Paul, op. cit. (in note 5) 9-10, 123.

ular local political, social, economic, and religious systems. The study of functional variation among Maya centers is in its infancy, even in the core of Classic Maya territory. We must approach frontier zones with the expectation that different functional constellations will produce centers which look very different.

At first glance, the presence of hieroglyphic inscriptions, a prominent and important feature in many Classic Maya centers, seems to be a reasonable marker trait. It has often been used as such. However, inscriptions have definite political and religious functions. Their presence in a center reflects more than an understanding of the Maya writing system. Their absence presumably reflects a difference in political systems, but it need not imply an inability to produce hieroglyphic texts or incomplete participation in Maya culture. It is not reasonable to expect that sophisticated economic functions or an integral role in the economy of the Maya area would necessarily be reflected in monumental hieroglyphic inscriptions. In the same way, a ceramic complex including typical Petén polychromes may indicate Maya cultural identity, but their absence does not imply the reverse. Functional context — mortuary or ordinary domestic use, for example — is only the most obvious of many intervening variables that obscure the relationships between pottery styles and cultural identity. Throughout the eastern Maya frontier zone and into upper Central America, polychrome ceramics include design elements and combinations that appear on the polychromes of typical Maya centers. An impressionistic decision that these designs were “misused,” and that they must therefore have been produced by non-Mayas, is not informative. Analysis of design motifs and their combinations on polychromes from the frontier zone shows that in many cases the relationship with typical Maya polychromes is closer than was initially apparent. Ceramic ties may reflect many kinds of relationships, from indirect trade to shared belief systems. Similarities and differences cannot be assessed properly without a full understanding of variation in ceramic design within the Maya area, as well as in and beyond the frontier zone. Only when a center is understood in functional terms within its region can its cultural affiliation be assessed. This understanding will arise from a more subtle and comprehensive analysis than a simple tabulation of putative diagnostic traits of material culture.

Along with fuller data, the eastern Maya frontier requires a more sophisticated conceptual formulation.<sup>18</sup>

18. J. E. S. Thompson, “The eastern boundary of the Maya area: placements and displacements,” in *Maya History and Religion* (Norman 1970) 84-102.

The cultural frontier concept has received more attention from social and cultural anthropologists than from archaeologists. Though several Mayanists have directed their attention to the eastern frontier of the Maya area,<sup>19</sup> none has achieved a satisfactory synthesis that balances archaeological evidence with historical, linguistic, and ethnographic information. In the first place, understanding this frontier is not a matter of drawing a boundary line between distinctive homogeneous groups. The transition from Maya to non-Maya surely involved a complex intermingling of peoples at many levels, from individual households to entire communities. The shift must have been gradual, and not uniform. The frontier would have comprised many complex mosaics involving a variety of groups of contrasting cultural affiliation, and probably groups of indeterminate or hybrid cultural identity as well. The pattern of transition, dependent on a melange of local economic, political, and social factors, could not have been identical in any two areas, nor in the same area at different periods. Moreover, there is no reason to suppose that the Maya frontier was particularly stable through time. Ethnographic and ethnohistorical evidence is only the starting point for an investigation of the frontier in prehispanic times.

The general point should be clear: cultural relationships, particularly in a frontier zone, are complex and multi-faceted. The extent to which they are recognizable in material traits is proportional to the clarity of regional and functional variation. Cornell investigations in the Valle de Naco have only begun to produce the data for a sound reconstruction of its culture history. Eventually they should contribute to analyses of cultural variation and interaction that will produce a deeper understanding of the complex cultural phenomena of the eastern Maya frontier.

19. Thompson, *op. cit.* (in note 18); R. J. Sharer, “The Prehistory of the Southeastern Maya Periphery,” *Current Anthropology* 15 (1974) 165-87.

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