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The Dual Center Concept in the Southeast Maya Periphery: Evidence from the El Cafetal Monumental Core, El Paraiso Valley, Honduras

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by

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ABSTRACT OF THE THESIS

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This paper presents archaeological research from the El Cafetal group in the El Paraiso Valley, Honduras, obtained during the 2006 field season of the Proyecto Arqueologico Regional El Paraiso and the Kenyon Honduras Project. These data indicate that during the Late Classic, peoples of two distinct material cultures occupied the valley. These groups occupied two civic cores, El Paraiso and El Cafetal, only 1.2 kilometers apart on opposite banks of the Rio Ocote. The distinct dual character of the material cultures at the cores is evident in site planning, architectural style, and material remains in such a way that the two locales of this single Late Classic community form a dual center within the southeast Maya periphery.

INTRODUCTION

This paper presents archaeological research from the El Cafetal group in the El Paraiso Valley, Honduras, obtained during the 2006 field season of the Proyecto Arqueologico Regional El Paraiso and the Kenyon Honduras Project. These data indicate that during the Late Classic, peoples of two distinct material cultures occupied the valley. These groups occupied two civic cores, El Paraiso and El Cafetal, only 1.2 kilometers apart on opposite banks of the Rio Ocote (Figure 1). The distinct dual character of the material cultures at the cores is evident in site planning, architectural style, and material remains in such a way that the two locales of this single Late Classic community form a dual center within the southeast Maya periphery.

The archaeological inference of cross-cultural interactions based on similarities and differences in material culture is a major issue in anthropology today. In a sense, "an archaeological study of a cultural 'frontier' necessarily calls for the identification and evaluation of the criteria which serve to define and characterize the cultures of conjoining areas" (Dillon 1987: 142). Frontier zones create cosmopolitan communities that archaeologically present "kaleidoscopic" material remains (Henderson 1992: 163)—in this way, frontier zones necessitate comprehensive criteria to fully contextualize material correlates recovered during research. The reconstruction of interactions based on these material correlates is difficult because the meaning of these commodities and their connections, deduced by chemical sourcing and stylistic similarities, may vary among interaction partners through time and space (Schortman and Urban 1992: 237-238; Knapp 1990). That is, while data obtained from scientific and empirical inquiry identify positive

correlations between material remains, the nature of the contact and the function of the artifacts are intrinsically assumed from theoretical models. In order to address these issues, this paper uses site planning, architectural styles and technologies, and artifacts as the three principal criteria for characterizing relationships.

As a dual center within the Maya realm, it is tempting to rank the two centers hierarchically by assuming the Maya dominated the region. This paper avoids this temptation by following a peer-polity framework in order avoid the natural assumption that the polities of higher complexity dominate the polities with which they come into contact (Renfrew 1982: 6). Autonomous polities that display material similarities need not be politically unified occupy frontier zones. Renfrew's model argues:

> Peer-polity interaction designates the full range of interaction taking place (including imitation and emulation, competition, warfare, and the exchange of material goods and of information) between autonomous (i.e. self-governing and in that sense politically independent) socio-political units which are situated beside or close to each other within a single geographical region (Renfrew 1986: 1).

This approach is well suited to evaluating the similarities and differences in material culture at frontier zones because the framework is not dependent on external relations. In doing so, this model ensures that interpretations follow the assumption that material and stylistic correlates are rooted in elite integration (Sabloff 1986: 109-112; Willey and Shimkin 1973).

This elite focus provides multiple avenues to interpret archaeological evidence politically and economically from these frontier zones. Renfrew's peer polity model provides a wide range of possible peer-polity interactions: competition, competitive emulation, warfare, transfer of innovation, symbolic entertainment, exchange of

valuables, and flow of commodities. All of these potential interactions at frontier zones require monumental construction and sufficient stratification such that the scale of these operations makes freelance activity unlikely (Renfrew 1971: 554). Dual centers specifically require a focus on elite differences because, in essence, each monumental core represents a separate organizational entity that displays specific architectural forms and symbolic styles. This approach provides a method for differentiating similar artifacts—i.e. ceramic traditions—at dual centers by their contexts within their conscribed area, rather than depending on external relations (e.g. Hodder 1982: 152).

The El Paraiso Valley, in northwestern Honduras, provides an excellent opportunity to consider the character of the Late Classic Maya southeast frontier (Figure 2). The central focus of this paper is the determination of material correlates in this frontier zone by presenting data from monumental architecture at Cafetal and Paraiso. 'Monumental architecture' refers specifically to the principal pyramids of the two civic cores in the valley under the assumption that the relative size and context of these structures indicates that the individuals who used them marshaled labor in ways beyond the means of commoners (Adams 1981; Schortman 1986: 115). The focus on monumental architecture, perhaps at the expense of equally relevant data from the site, is warranted by the fact that cross-cultural interactions with strong material correlates are maintained by only a small segment of the community, namely, elites (Renfrew 1986). The presence of monumental architecture at dual centers is specifically of interest as it is associated with separate centers of administrative and economic importance.

The El Paraiso Valley's dual Late Classic monumental cores display surprisingly contrasting material patterns in this context. Previous interpretations have emphasized the

agricultural potential of the valley as well as its strategic geographic location in the southeast. Located halfway between the major Maya regional centers of Copan and Quirigua, El Paraiso is classified as a secondary center in the regional settlement hierarchy (Willey 1986: 173). Settlement research conducted by William Fash Jr. and David Vlcek in the 1980s as part of the Proyecto Arqueologico Copan noted the distinctive quality of the valley relative to other regional centers:

> Compared to the outlying sites in the Copan valley, this site [El Cafetal] is bigger in bulk and distinctive in layout; together with other group [El Paraiso] located in the vicinity of the modern village, they comprise a major organizational center. This should not come as too much of a surprise, since these sites are located in a valley which boasts alluvial bottomlands much larger than those of either the upper Rio Amarillo or Copan valleys. Elevation and precipitation factors are such that double-cropping is feasible in some parts of this valley, and a range of ecological variation can be found in the valley's immediate environs (Vlcek and Fash 1986: 110-112).

The agricultural potential of the valley led to the tentative hypothesis that an exchange system grew in response to the Late Classic demographic growth of the Copan core into agriculturally productive areas—which is also corresponds to the suggested agricultural placement of Rio Amarillo and its access to the Chamelecon River drainage (Hirth 1978: 37).

It can also be argued that the geographic location of the El Paraiso Valley was equally if not potentially of greater importance than the bountiful agricultural landscape. The El Paraiso valley and the opportunities afforded by the Rio Morja were the key and most direct routes between the trade networks and the two principal Maya cities in the region (Yde 1938: 45). Geographically the El Paraiso dual center occupies the direct corridor between the Copan River and Chamelecon River to the south of the Espiritu

Santo range, and the Rio Morja provides reliable transportation through the mountains to the Motagua drainage (Figure 3). The intense modern day use of this corridor is testament to the potential as a strategic trade nexus for the trafficking of commodities and ideas of numerous frontier cultures of the southeast periphery brought into contact during ancient times.

The burgeoning body of archaeological research from Late Classic non-Maya polities in the southeast periphery highlights the applicability and utility of the peer-polity model because virtually no evidence exists for military conquest during the Late Classic. In fact, virtually no evidence indicates that the Maya presence at Copan controlled or dominated non-Maya polities in the southeast. Instead, non-Maya sites located at strategic nexi flourished as result of Copan expanding its resource base into new networks (Schortman and Nakumura 1991; Schortman and Urban 1994; Schortman, Ashmore, and Benyo 1986). Non-state societies for the most part grew in complexity by creating new institutions to accommodate and capitalize on the increased traffic of goods and information in the region. By focusing research on individual sites in the southeast periphery, we can systematically begin to understand the interaction between the Maya and local peoples.

EXCAVATIONS AND DATA COLLECTION

The Late Classic El Cafetal civic core is composed of 13 structures of varying form and size (Figure 4). The largest of these is Structure 01, a 20x30x12 m mound that overlooks a 7000m2 public plaza area bracketed by long, low (2 m) rectangular mounds to the east (Structures 02 and 11) south (Structures 03 and 04), west (Structures 05 and 06), and square mounds of intermediate height (4 m) (Structures 07, 08, and 10). At least 12m in height, Structure 01 is not only the largest structure in the El Paraiso Valley, but also in the region outside of the Maya urban cities Copan and Quirigua. The civic core's manufactured environment and regional context highlight the potential importance of such a labor-intensive construction in three ways.

(1) The pyramidal configuration, relative size, and public nature of the space Structure 01 stands in contrast to the more efficient residential mounds that bracket the plaza. Within the civic core, these three distinguishing characteristics create a public-performance oriented space. In this respect, the public context and pyramidal form give a ceremonial quality to the mound. The segregated-public space that results from this configuration—in contrast to the segregated-private space created by sunken-court plazas at the El Paraiso core—emphasizes the ritual performance quality of the mound.

(2) Wendy Ashmore's studies of directionality in Classic Maya site planning suggest that east was comprehensively important direction to the Maya (Ashmore 1991: 200; 1998). The El Paraiso Valley's constricted location within the southeast Maya periphery between Copan and Quirigua highlights the eastern location of Structure 01 on the civic core. In this respect, the eastern location corresponds to the inferred ceremonial

potential and public spatial environment, and Structure 01 may corroborate this eastern emphasis.

(3) Located in the El Paraiso Valley, the El Cafetal civic core shares a geographical corridor with a nearby Maya-style civic core between the two Classic Maya kingdoms of Copan and Quirigua. The open configuration of the El Cafetal civic core is opposite of the closed, sunken plazas of the El Paraiso civic core. As the largest construction in the El Paraiso Valley, its ritual character may provide data relevant to reconstructing relations between these centers.

Operation 02/41 was designed to investigate El Cafetal Structure 01 in order to obtain data relevant to its form and function through its construction history to better understand its location in these contexts. My excavations removed 50.9 cubic meters of material from the mound in two phases: (1) horizontal stripping over 52 square meters over the upper 3 m of the mound; and (2) 4 m of vertical plumbing to reveal construction history.

Research Design and Methodology

(1) *Horizontal Stripping*. Horizontal excavations were designed to be comprehensive excavations of the superstructural form by clearing 100 percent of non-preserved architectural material from the upper portion of the mound. The horizontal stripping removed 29.25m3 of material from (52) 1x1 m excavation units beginning with two biaxial trenches oriented off the west-facing stair (Figure 5).

A dark organic A-soil horizon, or humus, overlaid the structure. The large amount of carbon in these layers is the result of modern swidden agriculture on the mound. The

B-horizon beneath it is a light yellow/brown silty-sand that changes to a silty-clay in the fill beneath final phase floor. The upper A horizon was stripped away from all stone in an effort to define potential architectural features.

The west-oriented axial trench is located parallel to the remnants of the central stair (Figure 6). This trench revealed no preserved architectural features between EU A and E. Stones were numbered, recorded, and removed from their tumble, slump context in silty-clay matrix. For the most part, these upper stones have one flat face and an uneven, angular cobble backing. This shape would not be conducive to constructing a wall, but would have been excellent choices for floor stones.

EU B and C demonstrated a surprisingly east inward tilt to these against the natural fall pattern. At ~.7 m below ground surface these flat faced stones began to mix with the round cobble construction fill in a silty-clay matrix. The mixing of the stone and soil strata in a depressed area that suggests this material fell inward into the structure.

The north oriented axial trench between EU G and N was excavated in the same fashion by stripping away topsoil, then tumble and slumped materials (Figure 7). Unlike the west trenches gradual mixing, this trench revealed a layer of flat stones characteristic of a floor beneath ~.1 m of overburden. This overburden contained one layer of un-faced stones variable size and shape.

One of these stones smashed the only complete vessel found on Structure 01 into 281 sherds on a final phase floor stone in EU H. This smashed vessel is a ceremonial, modeled-censer with an appliquéd face on one side featuring disproportionately large elliptical eye disks and earspools (Figure 8). Although the floor context is not perfectly preserved because site formation processes, it is otherwise characteristic of an *in situ*

primary context. In the classification scheme described in full below, it originated in the El Paraiso Valley and is of the (Jicatuyo) Tesoro tradition ceremonial censer type.

The final phase floor preservation stopped where it 'broke' in EU K marking the extent of preservation of this final phase floor. The stones in EU K, L, M, and N demonstrate the mixing of the floor and fill contexts. Specifically, construction fill beneath the final phase floor slumped causing the final phase floor stones to tumble and collapse. A small amount of exposed fill from beneath the floor in EU K spilled over the slumped final phase floor in this unit, which clearly demonstrates this stratigraphic relationship.

The biaxial trenches demonstrated the need to more comprehensively remove material from the entire upper surface to search for architectural features and reveal the extent of the structure. Excavations proceeded east along the 'break' in EU K in EU T, V, and W. These excavations revealed the continuation of this 'break' to a corner in EU W. This "corner"—as with all corners of this building—marks extent of preservation, not a preserved corner to the building. Excavations then proceeded south to follow the break to its second preserved extent in EU AD by stripping away the same level in the north oriented axial trench revealing no traces of architectural features other than the floor.

The profile between EU K and W revealed a second continuous line ~.75 m beneath the final phase floor. The final phase floor was then removed to confirming that this line represents the sub-1 floor. The stones of sub-1 floor are less separated than the final phase floor although far from being a good context. The small renovation from the sub-1 phase to final phase is explained by damage to the sub-1 floor in EU E, AH, AG, G, H, and I. This area of the floor buckled into the structures creating a linear 'break'.

Flat laid fill was used to repair the slumping of this area in antiquity by leveling the depressed area and raising the floor at least .5 m. Flat laid fill characterizes most of the matrix between the sub-1 and final phase floors, which creates the impression of non-existent features in the profile. The inclusion of rounded cobbles in this fill and flat stones in this fill demonstrates the absence of architectural features on both sub-1 and final phases.

Excavations in EU F, J, BB, and AT revealed the only preserved architectural feature on Structure 01 besides floors. This feature is the precariously preserved remnants of a terrace, and perhaps a landing in EU J. The profile suggests this terrace was at least eight courses high with an additional three courses embedded into the fill. Embedding the terrace wall into the fill beneath the landing corresponds to a broad southeastern regional technology (Schortman and Nakamura 1991: Schortman 1993). The separation of the terrace face from its rear support required the placement of supporting stakes during excavation, which demonstrates the feature was not in its original place.

The inverse collapse pattern in EU C, D, and E, and the line of stones in the profile of EU A suggest this feature may have actually slid, relatively intact, down the west façade of Structure 01 by as much as a meter. If this is the case as the profile in EU F and A suggests, the height of the terrace corresponds to the level of the sub-1 floor in the most preserved units. The west tilt of this terrace is highlighted by the east tilt of the supporting fill behind it. In conjunction, these opposite forces suggest the west-spalling of the terrace face occurred because the supporting material sunk or collapsed inward allowing the feature to slide partially intact. Excavations in EU BB and AT were designed to test this slide theory and found no evidence for this terrace. Thus, the absence

of this feature in these adjacent units supports the interpretation that this feature slid during site formation.

The repair episode that represents the final phase resulted in the addition of at least 9x9.75 m box to the sub-1 phase. This repair resulted in the transformation of the sub-1 floor into a landing for the final phase repair on the west façade. The linear 'break' revealed on the north, east, and south destroyed the evidence to determine if this terrace extended concentrically around the platform, or if the platform was flush on these sides.

The west façade's adjacent inverse collapse patterns in antiquity and during site formation suggest they may share a cause. In both cases, the floor stones buckled and slumped as much as .5 m into construction fill across a number of EU's. The adjacent inward collapse patterns observed may suggest that these materials collapsed into a flaw that preceded the sub-1 phase floor. The separated terrace in EU J may suggest that this flaw relates to open space in the sub-1 construction fill, although it may be deeper still.

(2) *Vertical Plumbing*. Horizontal stripping revealed that the final and sub-1 versions of the structure were platforms not adorned with perishable or vaulted superstructures, and that both collapsed because of an internal flaw. In order to learn more about the construction history of the platform a deep cut was used in lieu of more intensive tunneling excavations. Modern trees made the central-west façade nearest the sunken areas unattractive for such a precarious strategy. In an effort to locate these excavations near the internal flaw a 2.5x2.5 meter area over EU R, Y, U, and Z was chosen for investigation.

After removing 3.6 m of construction fill, these excavations revealed the sub-2 floor marked by flat, tightly fitted stones. This fill was very wet and largely composed of

a very clayey yellow soil. The fill was variably sorted unlike the majority of flat laid fill between the sub-1 phase and final phase floors. Aside from ceramics and the odd lithic tool fragment there were veins of a calcified mineral running through this fill demonstrating an enormous degree of water transport and percolation through the matrix. The majority of the cobbles were sub-angluar boulders weighing several hundred pounds requiring a makeshift crane, myself, and seven workmen to remove. These boulders increasingly became a safety hazard with depth as they began to separate from the wet matrix and fall on us. This hazard resulted in the abbreviation of these excavations both horizontally and vertically, and reflects the need for tunneling excavations to investigate Structure 01 further.

The sub-2 floor was marked by a .05 m thick rich, dark grey organic soil horizon in a clayey matrix containing the highest relative frequency of ceramics on Structure 01, excluding the censer smash in EU H. The floor stones were tightly abutting with no evidence for disturbance due to site formation. Despite the magnificent preservation of the sub-2 floor, the ceramics excavated here are not considered in a primary context for a number of reasons. First, the calcified deposits suggest this is an A soil horizon that formed as a result of sediments being transported through the matrix, suggesting the same may have occurred with ceramics. Second, no artifacts were found between .4 m below the sub-1 floor and .4 m above the sub-2 floor—in tandem the absence of artifacts in the 3 m of intervening fill reflects transport through the matrix. Third, these sherds do not belong the same vessel and are therefore a mixed assemblage—if a primary context, we would expect at least some sherds from the same vessels even if they were intentionally scattered on this surface.

In addition .5x.5x.5 m block was cut through this floor to obtain a ceramic sample from this fill for comparison. The sealed preserved condition of this floor created a clear boundary between these fill contexts unlike the open, mixed context generated by the separation of the sub-1 and final phase floors.

Architectural Descriptions

Final Phase. At least 12.5 m in height, neither corners nor edges of the final were preserved. The only two discreet architectural features that were, partially, preserved are portions the final phase floor and 1 m of a 7 course terrace and its collapsed landing above the west stair. These features were constructed of the river-cobble material as the construction fill, although these stones were lightly modified and selectively chosen for flat edges.

The most intact portions of the final phase floor were located at the pinnacle of the mound in EU E and AH. The floor rapidly looses cohesion with the contour of the mound, displaying a overall 2 m gradation in elevation at the most extreme extent. The east, south, and north preserved extent of this floor display a fall/slump pattern indicative of gravity paralleling the contour of the mound. The west façade displays a similar pattern at the extent in the terrace, but the opposite slump pattern east of this feature suggest that the collapse of the west façade occurred for a different reason. The combined observations that the terrace slid relatively intact, and the inward slump suggest that the west facades collapse is most likely related to a deep-lying internal flaw in Structure 01.

As a minor repair, this phase reflects a desire to maintain the sub-1 function of Structure 01. The ‘break’ to the north, east, and south does not reveal the extent of the

platform or its form on these sides. The excavations on the west façade do demonstrate the transformation of the sub-1 phase platform into a terrace for the final phase. It may be that this represents the configuration of the other sides, although they could have been squarely faced as well.

Sub-1 Phase. At a height of 11.2 m, the sub-1 phase revealed no architectural features other than the floor. The final phase floor partially sealed this floor resulting in better preservation; however, both the final and sub-1 floors 'broke' along the same lines on the north, east, and south, and display the same inward slump as the final phase floor. The congruent slump and fall patterns between the two phases demonstrates that these patterns are linked to a similar cause—the edges parallel the contours of the mound with the exceptions of a depressed area on the west façade.

The slumped depression that demonstrated collapse and repair in antiquity is located 1 m east of the site formation depression that affected both final and sub-1 preservation. This slumped in section in EU E, G, AH, H, I, K, and F is very angular and forms a rectangular area. This slump is not associated with activities of this level and there is no evidence to suggest that the observed rectangular slump area is a result of sub-1 phase activities on the platform—it is related to activities deeper in time.

Sub-2 Phase. At a height of 8 m, the sub-2 phase appears to be extremely well preserved under 3.5 m of material. The limited scope of these excavations restricts the potential interpretations of this phase. Nonetheless, the change from 8 to 11.2 m is major renovation of Structure 01. This massive renovation could reflect either the increasing value of the sub-2 phase practices, the adoption of new practices, or the revaluation of the sub-2 phase practices.

Construction History Summary. El Cafetal Structure 01 was constructed in at least three phases rising to heights of 8 m, 11.6 m and at least 12.1m. At all of these phases, it was at least as twice as large as any other construction at the El Cafetal civic core. During at least the final and sub-1 phases, Structure 01 shared a west oriented platform configuration with no evidence for superstructural adornment. This blank platform form, and the final phase censer smash support a ceremonial, performance function of this Structure in the final two phases.

The sub-1 phase was the most intensive in the excavated construction history, and impacted the spatial environment of the civic core the greatest during the corresponding periods. The final phase repair of a collapse caused by an internal weakness in the structure suggests continuity in function through the final two phases. The restricted scope of the repair episode may reflect a desire to maintain the function of the platform and/or the inability to marshal labor.

Specifically, the addition of .5 m to a concentric area of the platform base presents no real change in perspective. This final alteration would not have affected access to or visibility of the structure. Plumbing excavation into the sub-1 and sub-2 fill removed 26.5 m3 of material in a 2.5x2.5 m area. In contrast, stripping of the entire final phase and its fill removed 29.3 1 m3 of material The minor nature of this repair supports the desire to maintain the function of this structure during both phases.

Carbon dating provides a tentative time frame for the sub-2. Tomas Gonyea recovered a sample from the southern base of the platform between Structure 01 and 02. The sample comes from construction fill beneath the sub-2 floor. This sample yielded a

date of 1560 to 1350 cal B.P. (390 to 600 cal A.D) (Darden Hood 2007). We conclude that the sub-2 floor—and all subsequent construction—dates to a time after this date.

ARTIFACTS

Artifacts excavated from Structure 01 are separated into four general categories: ceramic, lithic, bajareque, and shell. These artifacts were recorded at their location within each excavation unit, segregating artifacts by surface, fill, or floor context. Artifacts found in surface contexts are suggested as modern or contaminated and unassociated with activities on Structure 01 in antiquity. No relationships or differences in the frequency of artifacts between strata emerge. Because all ceramics excavated are part of Coner phase ceramic complexes identified at Copan, which all date to 600-800 A.D, they are grouped as the total distribution presented below.

The lack of difference between contexts is interpreted to be a result of transport or materials in the matrix rather than as discreet contexts; for example, some sherds found in the A horizon overlaying the sub-2 floor arrived as a result of post-construction geological forces, while some may represent discarded items left by the users of Structure 01 in antiquity.

Shell

Jute is a type of local river snail. In certain contexts, jute shells indicate food preparation/consumption activities. The only jute shells excavated in concentration were found in the thin humus cap overlying the mound. These shells are therefore understood to be modern, and not mark activity in antiquity.

Lithic

Basalt. Unworked and worked basalt was found on the surface of EU A, AY, AW, AT, AX, and AW. This basalt is of modern provenance. The other basalt pieces

were excavated from construction fill. These can be solidly defined as incidental inclusions in construction fill as they are all broken fragments of manos and metates.

Limestone/Toba. A small, 5cm diameter sculpted figurine was found in the same sub-2 construction fill ~.5m below the 'break' in EUT. The limestone was carved into a two-sided ball. On one side is the face of a serpent reminiscent of a 'flame-brow' motif, the other side has a hunched anthropic figure reminiscent of a 'pot belly' sculpture (Figure 9). These are widely spread throughout Mesoamerica in the Preclassic. Other examples of such sculpted figurines have been excavated at El Cafetal were recoved with Preclassic ceramics. The artifact clearly predates the construction of the mound, so is not relevant to its use.

Obsidian and Chert. Sixty-three lithic tool fragments were collected in excavation. Of the 29 pieces of obsidian, only six of these are prismatic blade fragments. The remaining 23 are small flakes. If activities on the platform frequently involved these tools there should have been a more significant number of flakes and blades. In fact these few items all come from fill or tumble contexts and probably have nothing to do with the activities of the platform. For this reason, they are not considered in analysis. Thirty-four chert flakes are excluded for similar reasons.

Bajareque

Bajareque pieces form as a result of clay being superheated or burned. Archaeologically it can indicate the presence of a perishable structure utilizing waddle-daub techniques. Structures are often built consecutively requiring the destruction of a previous phase features and the expansion of the structure. Bajareque usually appears in

the assemblage indicating this technology. The 242 Bajareque pieces found on Structure 01 do not demonstrate the existence of a perishable superstructure at any phase. A small amount (n=15) of these were found in the plumbing excavations. The absence of bajareque in a significant frequency, especially on or near the sub-2 floor, supports the interpretation that they do not mark a perishable structure. The 227 other pieces are less than .05 m in diameter and do not display the characteristics thatch markings that larger pieces indicative of a perishable structure do. These pieces are solely found in the final phase construction fill and are not distributed in any concentration indicative of a perishable structure. Thus, they are interpreted to simply be a reflection of secondary context construction fill.

Ceramics

Cassandra Bill analyzed all of the excavated ceramics from archaeological investigation in the El Paraiso Valley following the scheme she established at Copan (Bill 1997). According to the Copan chronology, all of the excavated construction phases of Structure 01 date to the Coner phase beginning around 600 A.D. and continuing for a little over two hundred years.

Ceramics were collected and recorded at their position in excavation units in order to identify potential activity areas in floor contexts. Poor preservation and post-construction transport unfortunately made specific activity areas indiscernible; moreover, I excavated fill and clean buried floors. Ceramics were classified using a Type/Variety system. 1129 sherds were collected, 100 percent of which were analyzed: 64.8 percent (n=731) originated in the El Paraiso Valley, 31.9 percent (n=360) from Copan, and 3.3

percent (n=37) are undetermined. Origin refers to where the type/variety was identified, and not the results of chemical sourcing.

The one whole vessel found on the final phase floor was smashed in 281 sherds in EU H. As the only whole vessel it comprises 24.9 percent of the ceramic sample. The other sherds collected are fragmentary samples of multiple vessels. The censer distorts the ceramic frequency and distribution. Thus, the following presentation of data is constrained to the 891 other sherds.

These 891 sherds were excavated from mixed slump and fill contexts. Combined with the evidence for post-construction transport, these 891 cannot be used to identify specific activity areas. As they all belong to Coner phase ceramic complexes and maintain similar frequencies through the excavated construction history, they are grouped to total numbers in the following presentation.

Jicatuyo Honduran Tradition. This tradition is not defined by paste, form or surface treatment, but by decorative style. The El Cafetal (n=113) and Tesoro (n=333) sherds that comprise the 54 percent of the total assemblage belong to this regional tradition. The majority of these sherds are utilitarian jars and is characterized by a course paste, some of which are striated. A small number (n=38) of these sherds are from the Tesoro tradition as censers with the same course paste. Additionally, at least 22 of the Jicatuyo sherds display the characteristics of the Cemetario group identified at Copan. These include punctuation with deep geometric incision characteristic of Acbi and Coner phase regional style (Bill 1997: 211; Viel 1993: 77-78; Willey et al 1994: 41).

Antonio Tradition. Antonio sherds from Structure 01 represent 5.7 percent (n=53) of the assemblage as Sepultura group ceremonial censers and urns (Bill 1997: 84; Viel

1993: 113-115). These sherds are characterized by: course paste with natural quartz inclusions, crushed tuff/pumice temper, pebble burnished surface treatment, square shape, and by the absence of a slip (Bill 1997: 35-85; Viel 1993: 113-115). They are the only type of censer or urn used at Copan during the Late Classic (Bill 1997: 33).

Zico Utilitarian Tradition. Zico sherds from Structure 01 represent 20.9 percent (n=186) of the assemblage. At Copan, the forms of this tradition changed significantly over time (Bill 1997: 104). In addition, many Zico tradition sherds cannot be defined beyond the tradition level the lack of defining characteristics. Generally, Zico sherds are characterized by: course paste, red slip, are plain or striated jars, and have smoothed interiors.

The 186 Zico sherds from Strucure 01 fall largely into undetermined types. Twenty-one were identified as belonging to the Zico tradition, Zico Group, which developed early in the Coner sequence (Bill 1997: 112; Viel 1993: 115-116). Interestingly, 59 were identified as belonging to the Zico tradition, Raul Red group. Relative to other Zico groups, these vessels have a finer paste, a lighter color, a reduced size, and are known only from very late Coner deposits at Copan (Bill 1997: 170). In contrast to the pattern established at Copan, Zico and Raul Red groups are found mixed at all levels of El Cafetal Structure 01. These sherds suggest a late, rapid construction sequence for all excavated phases of Structure 01.

Polished Black and Brown Tradition (PBB). Thirty-nine PBB sherds represent 4.4 percent of the Structure 01 assemblage. Of the 39 sherds, nine are from cylinders, three from plates, and 27 from bowls. This tradition appears throughout the Maya lowlands, and is the longest and most enduring tradition identified at Copan beginning with the

dynastic founding and ending with the collapse of dynastic kingship (Bill 1997: 225-226; Viel 1993: 129; Willey et al 1994: 36-39). All PBB sherds from Structure 01 were identified as belonging to the Coner phase Surlo group by a course paste and white slip or wash (Bill 1997: 256; Viel 1993: 106-113).

Cream Paste Tradition. Sixty-nine Cream Paste sherds were recovered representing 7.7 percent of the assemblage. Cream paste sherds excavated from structure 01 belong to four groups: Izalco (25); Chilanga (n=7); Copador (n=7); and Gualpopa (n=1). This tradition is identified at Copan by a fine, buff-coloered paste, negative painting, or polychrome painting, and may have its origin in El Salvador. Identified at Chalchuapa, El Salvador, the Chilanga group dates to the Acbi phase at Copan (Sharer 1978: 47). Gualpopa and Copador date to the Coner phase at Copan (Sharer 1978: 51-52). Izalco dates the Chabij phase at Copan (Sharer 1978: 55-56). Like the Zico tradition, in contrast to the stratigraphic pattern observed at Copan, these sherds are mixed in all levels of Structure 01.

Maya Polychrome Tradition. Fourteen sherds of this tradition representing 1.6 % of the assemblage were excavated from Structure 01 and all belong to the Coner phase Caterpillar group. Neutron activation analysis demonstrated this tradition to be an imported tradition by the calcite inclusions in the paste (Bill 1997: 351; Bishop and Beaudry 1994: 426; Bishop et al 1986; Viel 1993: 99-101; Willey et al 1994: 69-71). At Copan these fine plates are found in ritual, burial, and cache contexts.

Ceramic Summary. The presence of Raul Red at El Cafetal Structure 01 in the earliest excavated context—the sub-2 fill—and throughout the later phases suggests that the upper four meters of the structure were added in a very short period of time near the

end of the Coner sequence. In this context, the early carbon date likely reflects a burning incident predating its arrival in the sub-2 fill. The other ceramics agree with this late regional sequence as well.

The Zico, Antonio, and PBB traditions share similar paste characteristics. Bill (1997: 216) tentatively suggests they also are stylistic variants of the Honduran Jicatuyo tradition. The Tesoro and Cafetal traditions share decorative style with the Zico and Antonio traditions suggesting they may be related. The crossing of local and imported utilitarian traditions at El Cafetal Structure 01 highlights the importance of the contents of the jars and limits the analytical potential of the sherds. Although a low frequency, in this sense the dual censer frequencies are especially peculiar.

DISCUSSION: EL CAFETAL/ EL PARAISO AS A DUAL CENTER

The data obtained in these excavations indicates that El Cafetal and El Paraiso represent two civic loci of a dual center site during the Late Classic. I will show this dual character by examining the significant differences in site planning, architecture, and artifact types between the two civic cores.

Site Chronology. Although data obtained from the El Cafetal civic core demonstrates occupation during the Preclassic, the core reached its peak level during the Late Classic. During this period, the dual center is relatively confirmed by the exclusive presence Coner phase ceramics at both the El Paraiso and El Cafetal civic cores (A.D. 600-800). This relative chronology agrees with carbon dating from both civic cores that suggests both the creation of the El Paraiso core and the renovation of the El Cafetal core occurred in the seventh century A.D. Additionally, the presence of Raul Red and Surlo ceramic groups in the construction fill of Structure 01 suggests the major renovations of Structure 01 at El Cafetal occurred late in this sequence.

Site Planning. The civic cores are arranged so that they create two different types of plaza environments—one in a characteristically Maya pattern, and one in a characteristically Lenca pattern. The El Paraiso civic core arrangement creates a private, secluded area (Figure 10). This area is dominated by a large twelve-meter pyramid located on the west of the main plaza. The discovery of a drainage system beneath this structure demonstrates that the small spring that runs west out of this structure in modern times was also present during the Late Classic. The Quebrada Rosario and modern town have encroached on the civic core—unfortunately this limits the contrast to the main plaza area (Figure 11). Nevertheless, the plazas of the El Paraiso core form closed,

quadrangular spaces of the same orientation and restricted access points.

In contrast, the plaza overlooked by El Cafetal Structure 01 is a large open area with multiple points of entry and no consistent orientation. Excavations by Ereland Johnson in the north quadrant of the civic core suggest that this area served as a large gateway for activities in the main plaza (Johnson 2007). Structure 01 dominates this open area from its location on the east of the plaza. Structure 10, a small off-axis platform adjacent to Structure 01, highlights the lack of uniformity and orientation at the El Cafetal core and the two different modes of organization employed at the two monumental cores.

Architecture. In addition to the opposite location of the principal structures on the civic cores, different methods were used in their construction. The builders of El Cafetal Structure 01 used locally available cobble and wet-fill during the Late Classic. These locally available cobble-stones were selectively chosen for their flat faces or were lightly modified. The courses of terrace faces were built into the fill for added support to the haphazard loose construction fill. Additionally, there is no evidence for superstructural adornment at any of the excavated phases, which suggests Structure 01 was a public ceremonial platform. These characteristics are not Maya in style; they are, however, similar to other non-Maya sites in the region.

In contrast, all of structures and sunken plazas of the El Paraiso civic core are faced with imported cut-stone blocks. These blocks were plastered with stucco. Photographs taken in the early 20th century by Jens Yde record the impressive Copan style façade of this civic core including its sculptural adornments (Figure 12). Additionally, the builders of El Paraiso Structure 01 used two distinct construction

techniques. The foundation is supported by large, dry fill bins. The interior construction fill, like El Cafetal Structure 01 consists of locally available cobble. Finally, El Cafetal Structure 01 was adorned by a residential superstructure during all of its construction phases. El Paraiso follows a distinctly Maya pattern—specifically a Copan Maya pattern. In contrast, El Cafetal Structure 01 displays no architecture characteristic of Maya patterns.

Ceramics. Ninety-five percent of ceramics excavated at the El Cafetal civic core are assigned to the Tesoro and Cafetal traditions produced in the El Paraiso Valley. The opposite pattern emerged at the El Paraiso civic core; 95 percent of the assemblage is assigned to traditions identified at Copan and imported Maya traditions. The ceramic consumption of the two cores demonstrates a fundamentally different pattern at the two cores during the Late Classic.

Of the ceramics excavated from El Cafetal Structure 01, 56 percent are assigned to El Paraiso Valley traditions of utilitarian bowls and jars. The remaining 44 % are predominantly imported, non-Maya traditions identified at Copan, which include the Antonio ceremonial censers and the Zico utilitarian jars. The fine imported Maya ceramics of the Maya Polychrome Tradition, Caterpillar group and PBB, Surlo group represent a meager 5.8 percent of the assemblage and the fine imported Salvadoran Cream Paste tradition represents an additional 7.8 percent of the total assemblage.

Summary of Dual Qualities. The minor ceramic sample from El Cafetal Structure 01 should not be interpreted as specific evidence for any particular function or relation beyond chronological implications. Nevertheless, the paucity of ceramics on this structure stands in contrast to the substantial assemblage recovered from El Paraiso

Structure 01. The presence/absence of ceramics between the principal ceremonial architecture at the two cores parallels the contrasting architectural styles and site planning discussed above. The holistic application of the three criteria used to define dual centers in this paper—site planning, architecture, and material remains—ensure that the dual characteristics observed represent real cultural differences.

Other Dual Centers. Dual centers have been known to exist since Morley's reconnaissance of the southeast Maya periphery in the early twentieth century. Morley speculated that Santa Rita, Rio Amarillo, Paraiso, Los Higos, and Quirigua were all colonized by Copan during the Classic (Morley 1920: 381). The El Paraiso Valley dual center provides an example of two distinct cultural patterns occupying the same valley to the northeast of Copan. In order to contextualize this data I will provide a brief summary of two other dual centers to the northeast of Copan.

Data obtained at El Abra and El Puente as part of The Proyecto Arqueologico La Entrada between 1983 and 1991 provide a second thoroughly investigated example of two monumental cores in close proximity (Nakamura, Aoyama, and Uratsuji 1991). El Abra and El Puente are two civic cores separated by 1.2 km in the La Entrada region roughly 30 km east of Copan. This rich alluvial valley setting is located on the southern foothills of the Espiritu Santo Mountains nearby and provides access to the Chamelcon River. Using the three criteria above (site panning, architectural style, and material remains), El Abra displays the characteristics of a Late Classic Copan Maya site. These characteristics are sunken plazas; plastered, cut-stone masonry; sculptural ornamentation in the Late Classic Copan style; and vaulted structures (Figure 13). Finally, an alabaster vase bears an inscription that says it was a gift from Yax Pasaj, the sixteenth and final

ruler of Copan, to the lord of El Abra. This gift is thought to reinforce loyalty to Copan (Nakamura and Schele 1991: 208-212). The inferred implication is that by this time Copan had lost its control over the region—rulers do not give gifts to their subjects.

In contrast, El Puente displays the characteristics of a local Lenca site. These characteristics include: an open, public plaza area; non-Maya sculpture; and an occupation history that began before the arrival of the Maya in the region (Figure 14). During its final occupation phase, however, El Puente displays a more eclectic mix of local and Maya traits than observed at El Cafetal. Structure 1 at El Puente and the residential range structures that form the main plaza break from the earlier cobble construction during its final phase. Structure 1 rises to 12 m and is crowned by a vaulted superstructure faced by cut-stone blocks (Nakamura, Aoyama, and Uratsuji 1991: 87).

Rio Amararillo and La Canteada provide an example of two civic cores separated by only two kilometers 20 km east of Copan (Figure 15). Gary Pahl argues these cores are a "twin-city" complex with agricultural tribute obligation to Copan during the Late Classic (Pahl 1987: 250). These two cores display similar material patterns, architectural styles, and site planning to the Copan Maya pattern. Rio Amarillo has be known since at Morley's time to be a Maya secondary center that displays elaborate Copan style ornamentation including carved monuments dating to the reign of Ruler 13 of Copan (Figure 16). Ceramics and radiocarbon data demonstrate that La Canteada was established during the early Classic as small Maya town. Additionally, there is no evidence to indicate a pre-Maya occupation at this location (Pahl 1987: 239-240).

The onset of the Late Classic at La Canteada marks a fluorescence of Maya style architecture that eventually was outstripped by the growth and development of the nearby

Rio Amarillo core (Pahl 1987: 240). In addition to the similarities in layout and ceramics, La Canteada Structure 3 has inset corners typical of structures at Copan. Furthermore, all of the Classic period structures at both Rio Amarillo and La Canteada display dressed and tapered veneer construction that employed cut-stone blocks. "Their uniform appearance suggests that the stones were mass-produced under the order of a skilled mason" (Pahl 1987: 249). Thus, the criteria employed in this paper suggest these two cores were both occupied by a Maya population. Therefore, Rio Amarillo and La Canteada are not a dual center as a dual center is defined in this paper.

Specifically Pahl notes, "the sudden flamboyant changes which alter the settlement in the Late Classic may reflect an investment of Copan's interests, if not management, at the site and the elevated status for those directing the new construction" (Pahl 1987: 243). The secluded position of these cores on against hilltops leads Pahl to further suggest that these are "defensive" locations, which functionally serve to provide security to both Copan and Canteada/Rio Amarillo elite (Pahl 1987: 246). These suggestions also imply a higher degree of control by and a closer relationship to the southeastern regional state capital, Copan, than the patterns observed at the dual center locations.

CONCLUSION

In a recent volume devoted to Aztec imperial strategies (Berdan et al 1996), the authors evaluate the growth define the boundaries of the Aztec Empire by focusing on its provincial areas. The authors identify what they believe are two distinct forms of administration and control in the outer provinces—that is, outside the core of the empire—which they term tributary and political strategies:

> Tributary control is indicative of an economic strategy for obtaining regular supplies of specific resources and products, while poltical control points to a frontier strategy directed at both expansion of the area of tributary control and containment of external enemies (Berdan et al 1996: 111).

The principle for expansion that follows is that there are definable areas of an expanding entity, the outermost areas insulate already secured tributary locations, and expansion results in the creation of a new frontier, wherein the former frontier becomes a new tributary entity.

This principle is also observed within the provincial frontier states the empire. "The pattern of strategic provinces serving as buffers for the tributary provinces is replicated on a smaller within individual frontier states" (Smith 1996: 141). In the case of the southeast periphery of the Maya area, I suggest dual centers mark the extent of the southeastern regional state. My hypothesis is that the Copan, like the Aztec Triple Alliance, employed two strategies for establishing control and providing tribute outside of the core urban area: (1) direct hierarchical control; and, (2) indirect heterarchical control.

Rio Amarillo and La Canteada provide an example of direct control. They are closely tied to the capital of the state, Copan. The rich alluvial bottomlands in the vicinity

of these two cores would have provided the potential for substantial agricultural tribute to the demographically expanding urban core during the Late Classic. Furthermore, the geographical location 20 km northeast of Copan makes the twin city a natural forking point for travel between Copan, the El Paraiso Valley, and La Entrada Region. The cultural homogeneity of these sites in terms of site planning, architecture, and materials supports strong connections to Copan, and appear unrelated to local Honduran styles.

The early parts of the Late Classic at El Abra and El Puente correspond to period of indirect heterarchical control. This strategy is represented by the El Abra/El Puente dual center. During the reign of the last divine king of Copan, Yax Pasaj, this relationship underwent serious modification. Los Higos, a fully Maya center four kilometers east of El Abra and El Puente indicates the collapse of indirect control by Copan (Figure 17). Los Higos Stela 1 bears the inscription 9.17.10.7.0.9 (April 21 781), and although eroded clearly records the lord of Los Higos as *ahau*, a lord of the highest rank who is depicted wearing Copan style-turbans and pectorals (Morley 1920: 384-385; Nakamura and Schele 1991: 209-210). This data suggests that during the reign of Yax Pasaj, Copan lost its indirect control of the valley, and the new lord of Los Higos established direct control over the valley.

El Paraiso and El Cafetal provide a second example of indirect control. The data obtained in my excavations of the civic ceremonial architecture at El Cafetal support this proposed model for the Late Classic boundary of the Copan state because of the continuity of dual center relationship. The location of the El Paraiso Valley at the extreme strategic geographic boundary between Copan and the Peten is similar to the

outer provinces of the Aztec Empire. In this model, El Paraiso represents a colonizing population, perhaps even analogous the garrisons discussed by Berdan et al (1996). Through time this valley marks the northern extent of the Copan state, and the evidence form the public ceremonial architecture at El Cafetal suggests that at no time was it under direct hierarchical control.

In this paper I have argued that the distinct site planning, architecture, and material patterns observed at the principal, civic-ceremonial structure of El Cafetal demonstrate a convincing cultural difference between its inhabitants and the Copanec Maya. This finding is surprising as the El Paraiso Valley is located within the confines of what is considered the Maya area. It is even more surprising because the valley is located in a geographical corridor that directly connects the Copan regional state to the Maya lowlands. The model adopted in this paper argues that this discontinuity marks the northern boundary of the political control Copan state. In this model, the existence of a similar dual center in the La Entrada region at the same distance east of Copan is evidence for a specific pattern of indirect control by the Copan state. Rio Amarillo and La Canteada do not display any of the dual characteristics of these dual centers, and therefore, this model suggests a more direct, hierarchical model of control by Copan. In sum, the data recovered from these sites support the existence of two distinct methods Copan elites used to achieve control over the southeastern periphery.

The preliminary suggestion in this paper is that these dual centers mark different zones of control within the Copan state. This hypothesis is arrived at by data from only the northeast boundary of the Copan state. Future research directed at sites to the south and west of Copan may reflect the two proposed strategies for control by the presence of

dual centers. In this respect, it should also be noted this northeastern boundary is a boundary shared with other Maya states. In contrast, the boundaries to the south and west are shared with less complex polities, and thus may reflect different material patterns and hegemonic strategies than discussed in this paper.

FIGURES

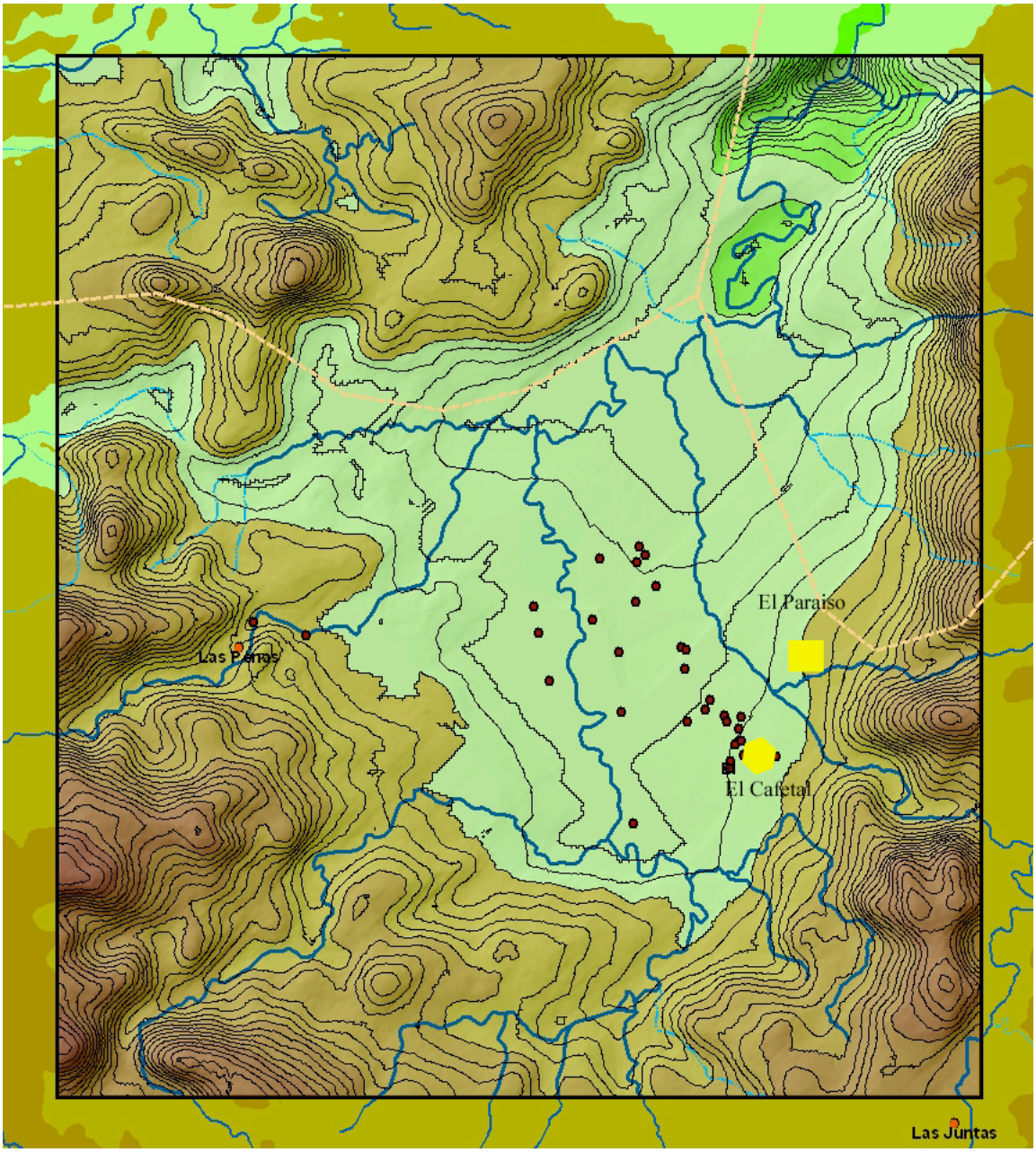

Figure 1. The El Paraiso Valley, Honduras (Canuto et al 2006).

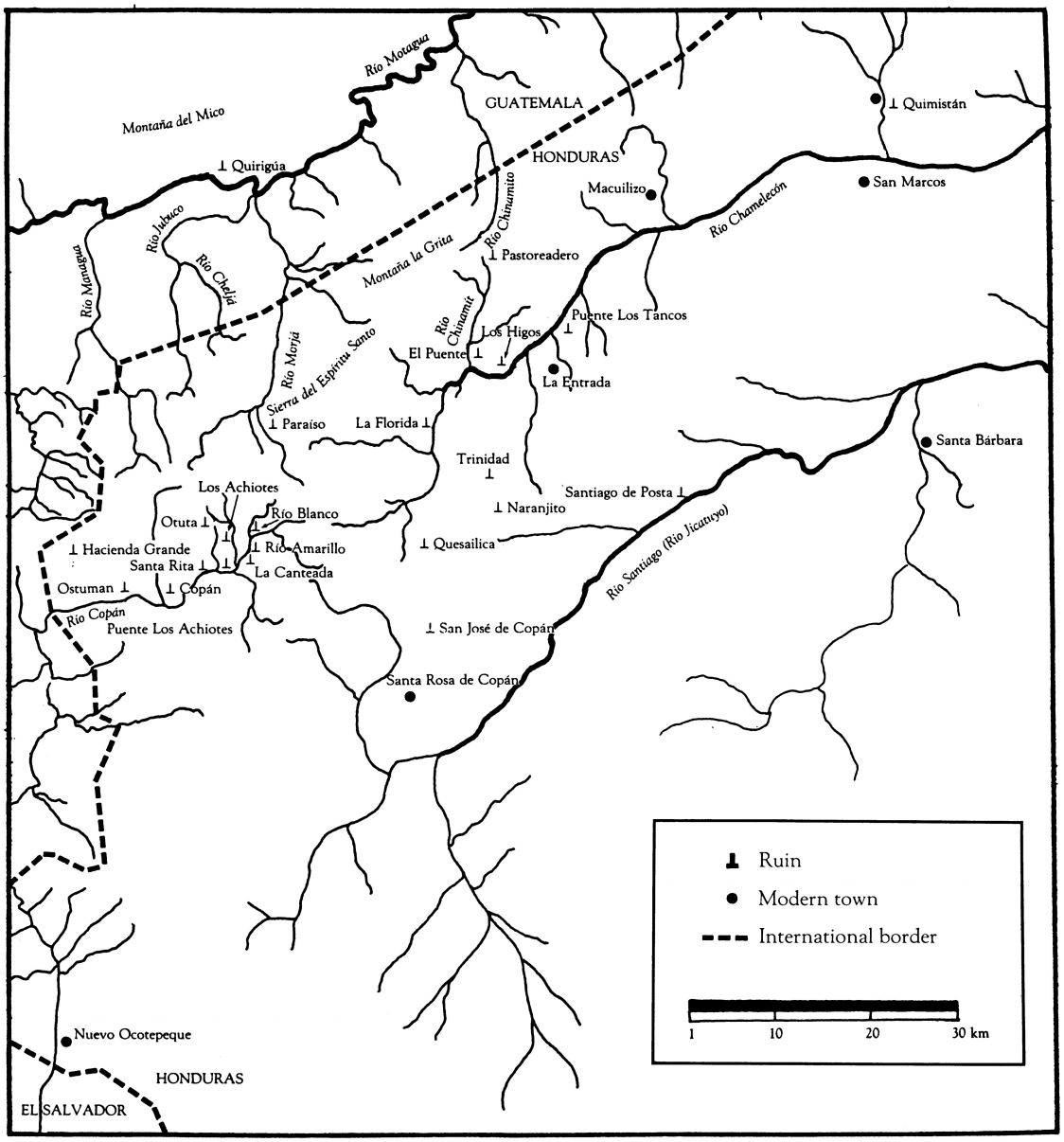

Figure 2. The Southeast Maya Periphery (Pahl 1987: 252).

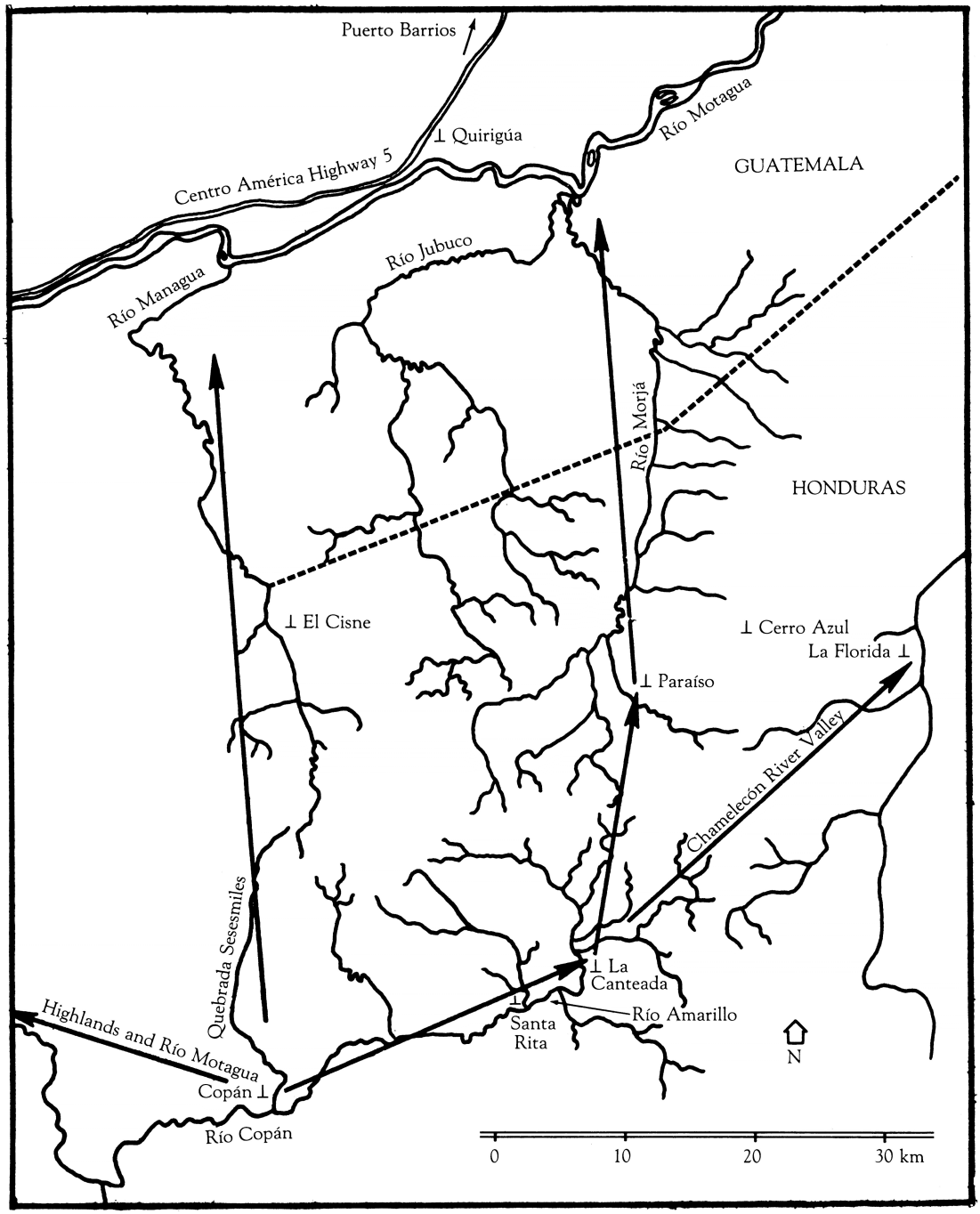

Figure 3. Routes of Contact between Copán and Quirigúa (Pahl 1987: 230).

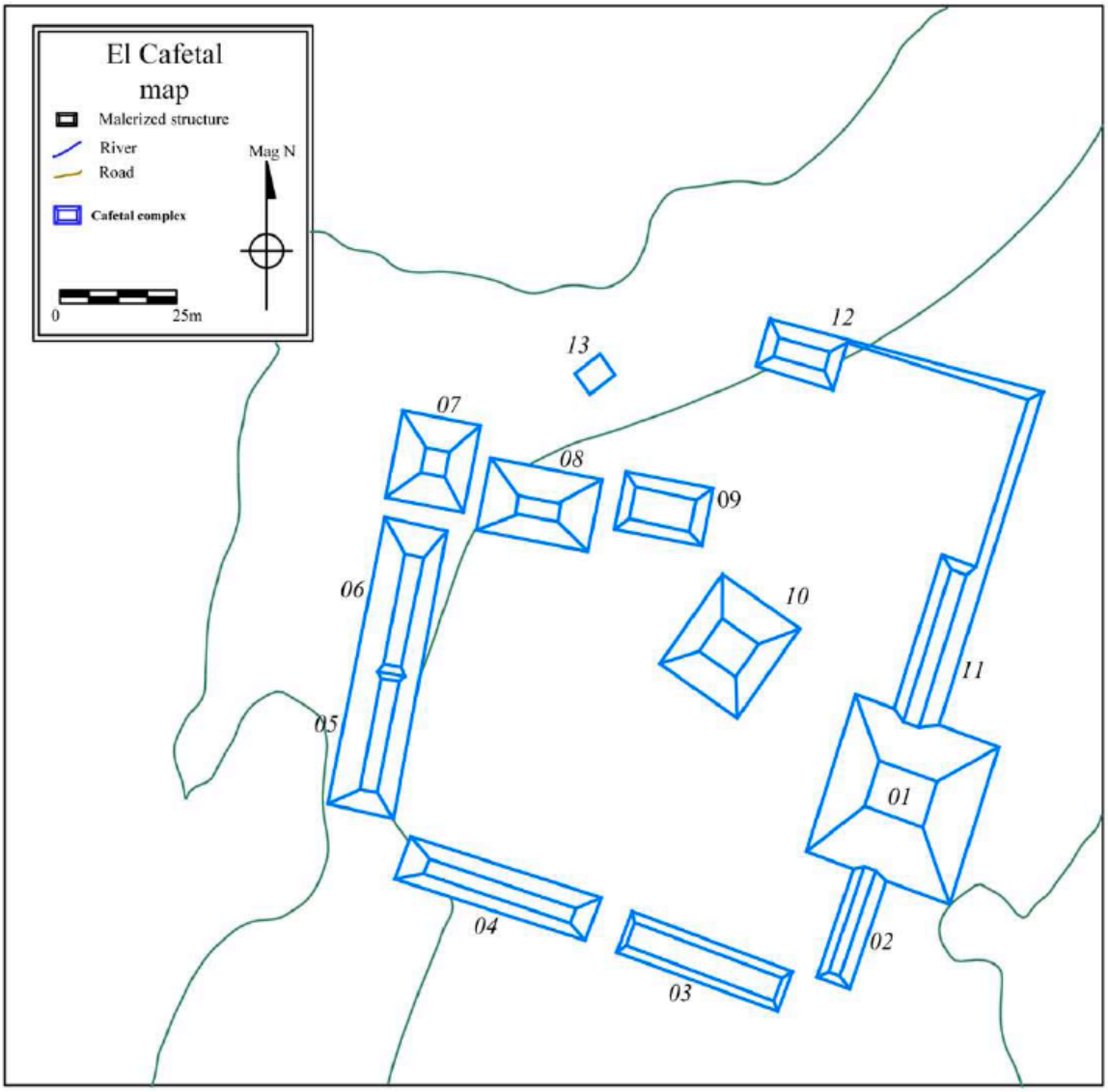

Figure 4. El Cafetal Monumental Core (Canuto and Bell 2003: 34)

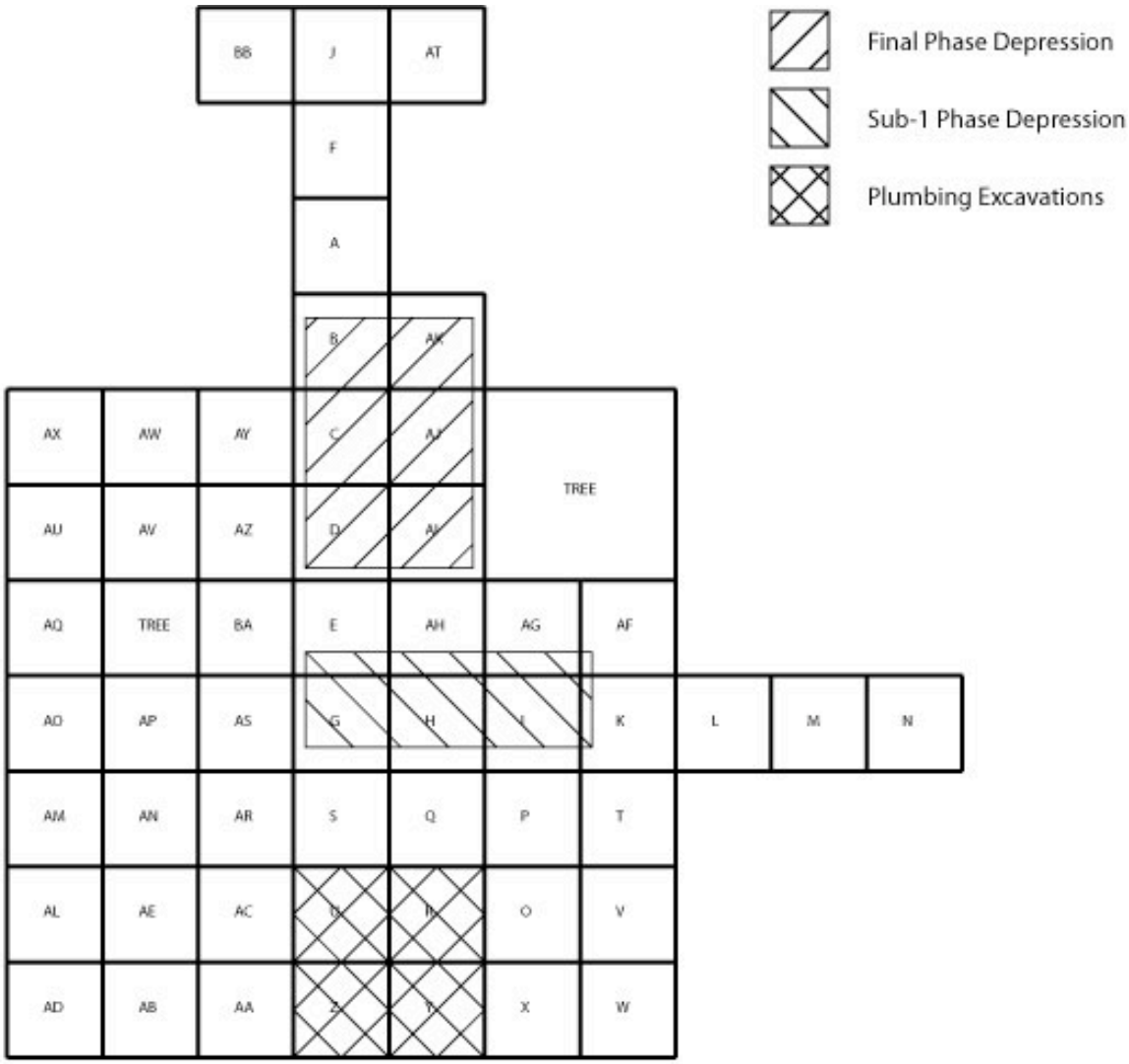

Figure 5. Operation 02/41 El Cafetal, Excavation Plan.

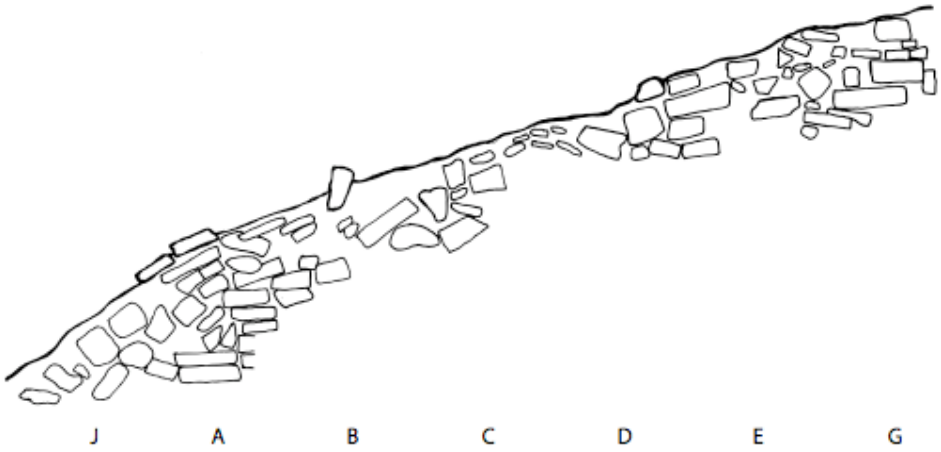

Figure 6. Profile showing West oriented axial trench and partially preserved terrace in Excavation Units A and B.

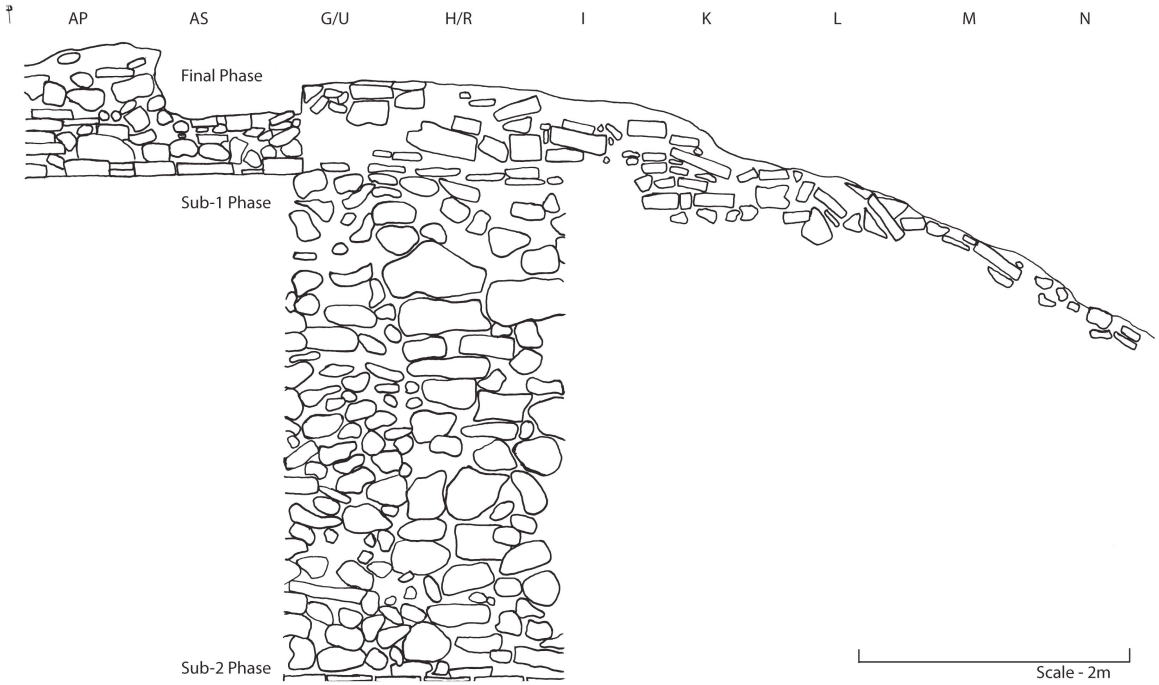

Figure 7. Profile showing north oriented axial trench and plumbing excavations.

Figure 8. Censer Smash on buckled final phase floor and elliptical eye.

Figure 9. Preclassic Limestone Sculpture.

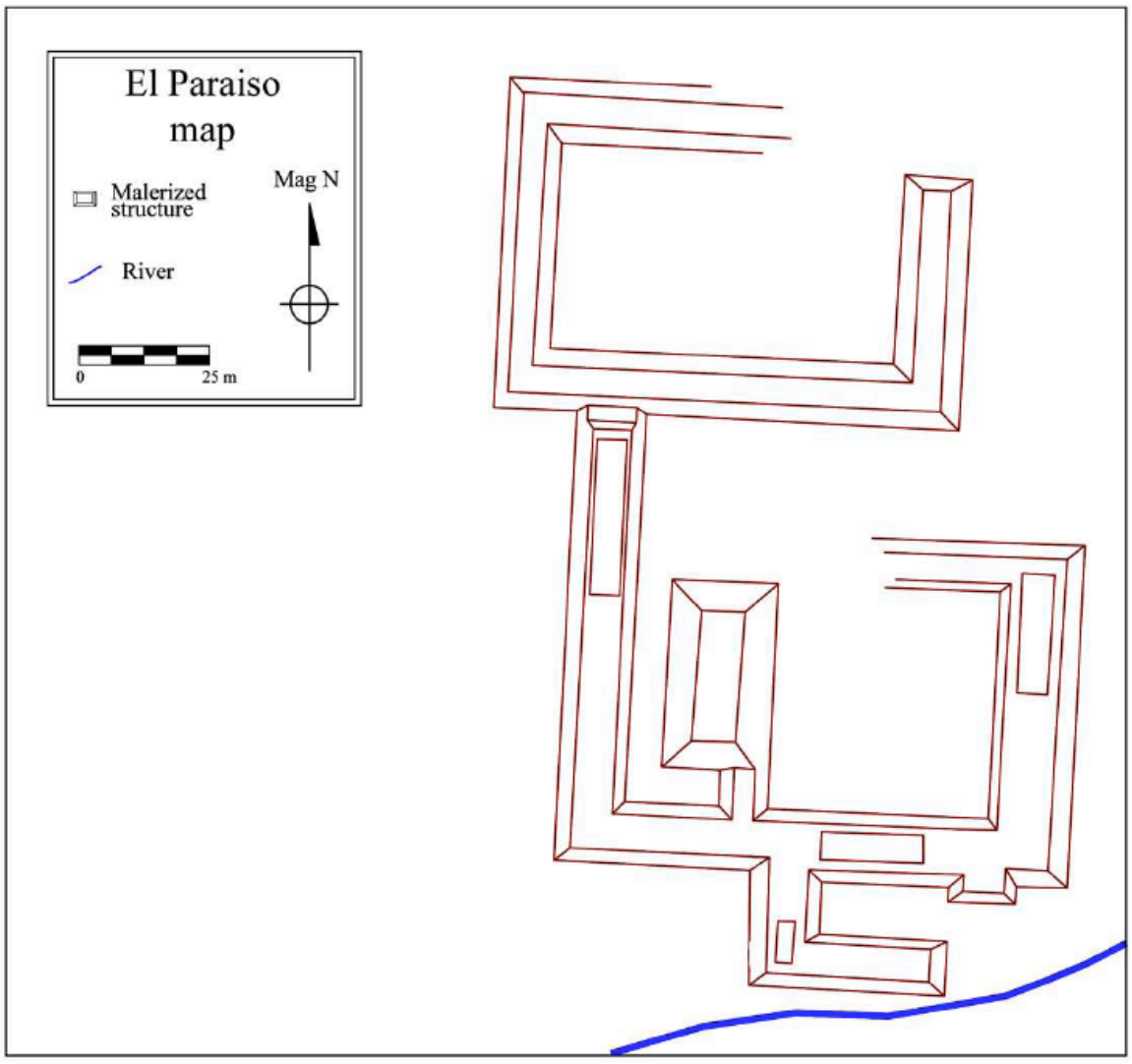

Figure 10. El Paraiso Monumental Core (Canuto and Bell 2003: 33).

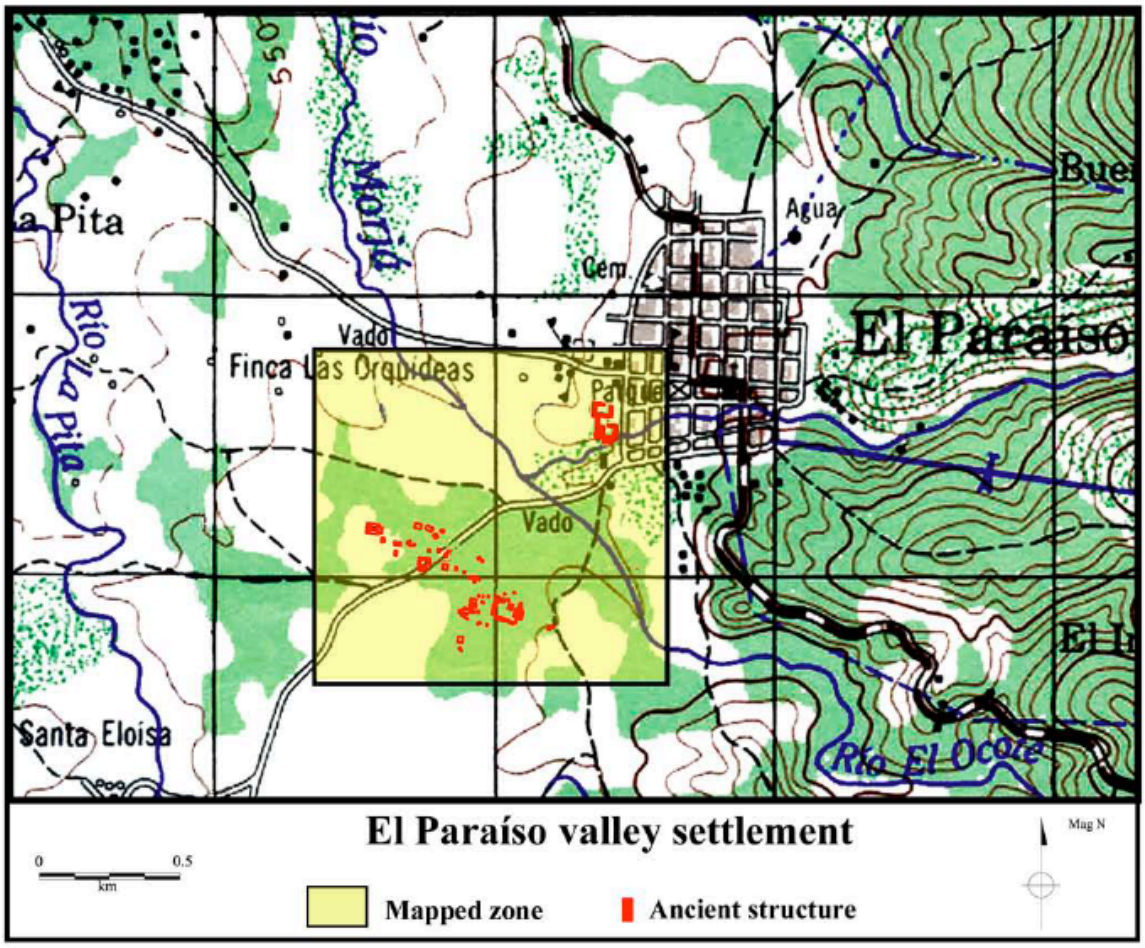

Figure 11. El Paraiso Valley in modern times (Canuto and Bell 2003: 32).

Figure 12. Remnants of Copan style sculpture (Yde 1938).

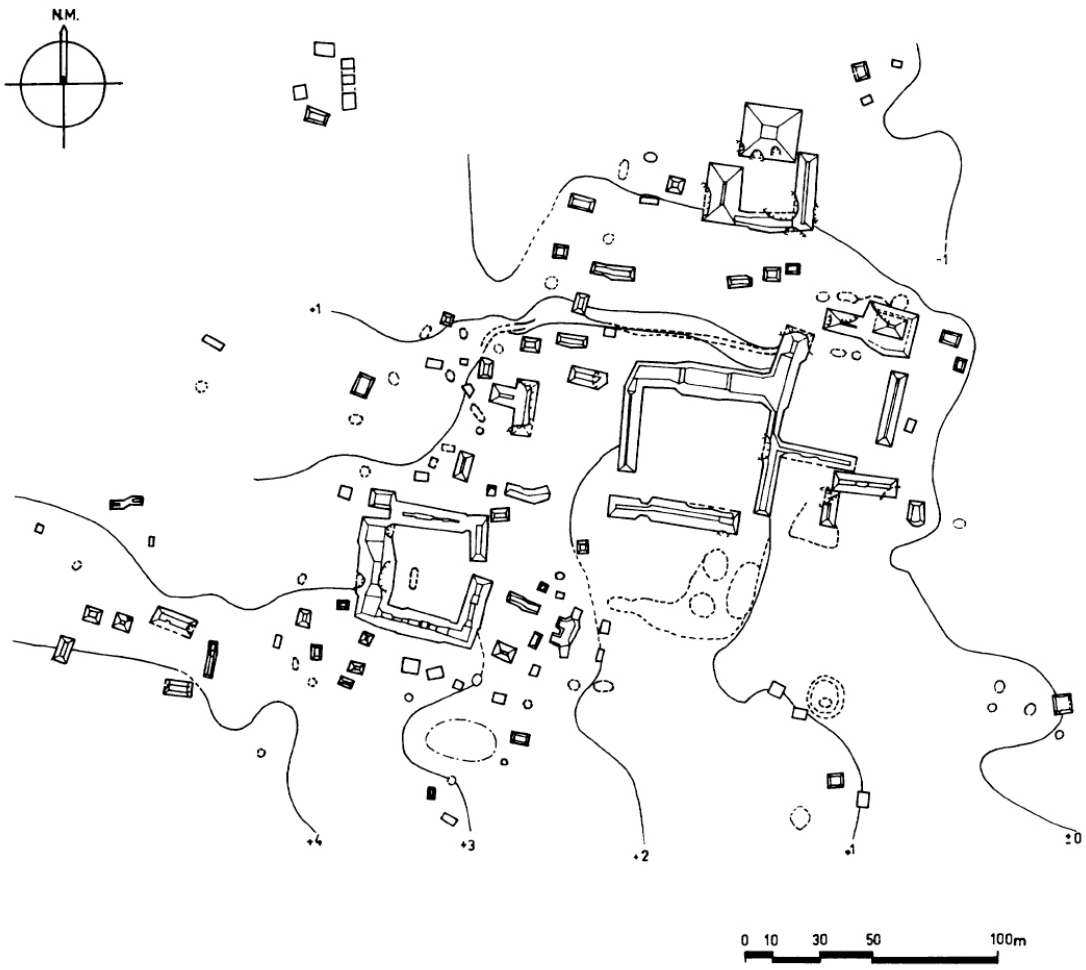

Figure 13. El Abra (Nakamura, Aoyama, Uratsuji 1991).

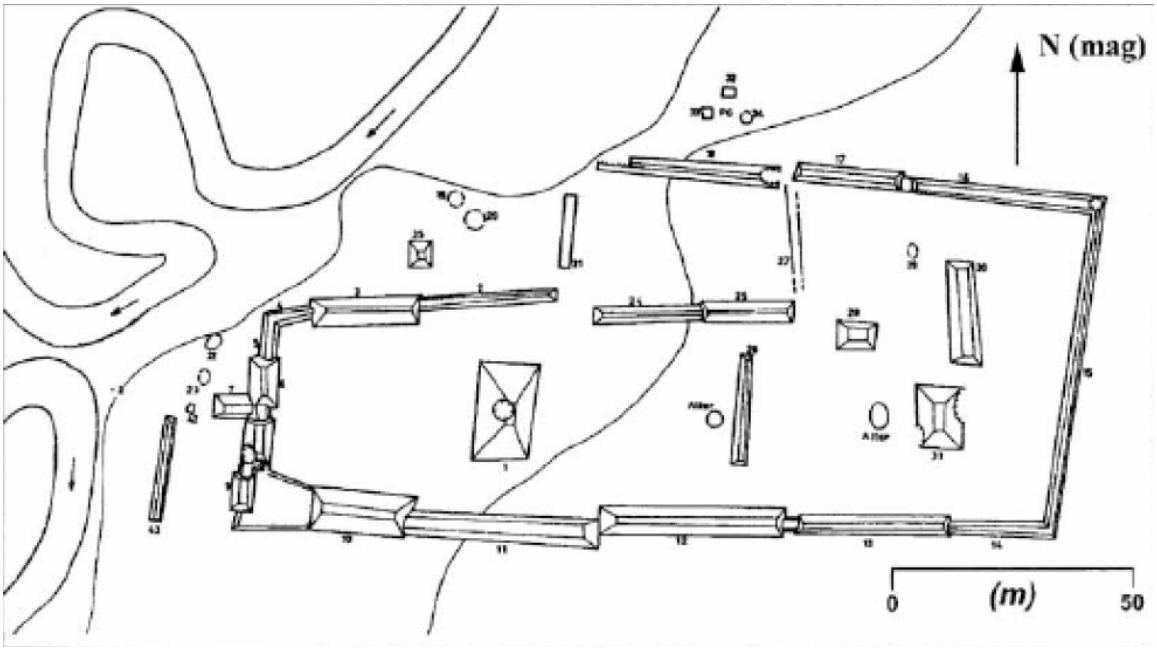

Figure 14. El Puente (Nakamura, Aoyama, Uratsuji 1991).

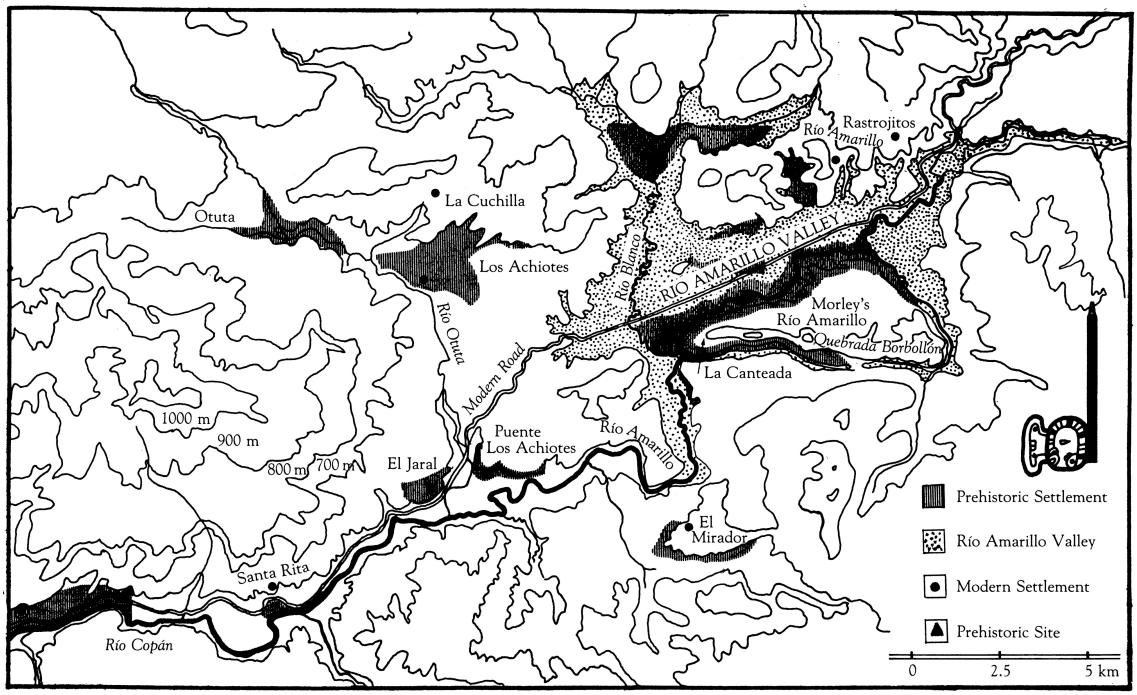

Figure 15. Rio Amarillo and La Canteada (Pahl 1987).

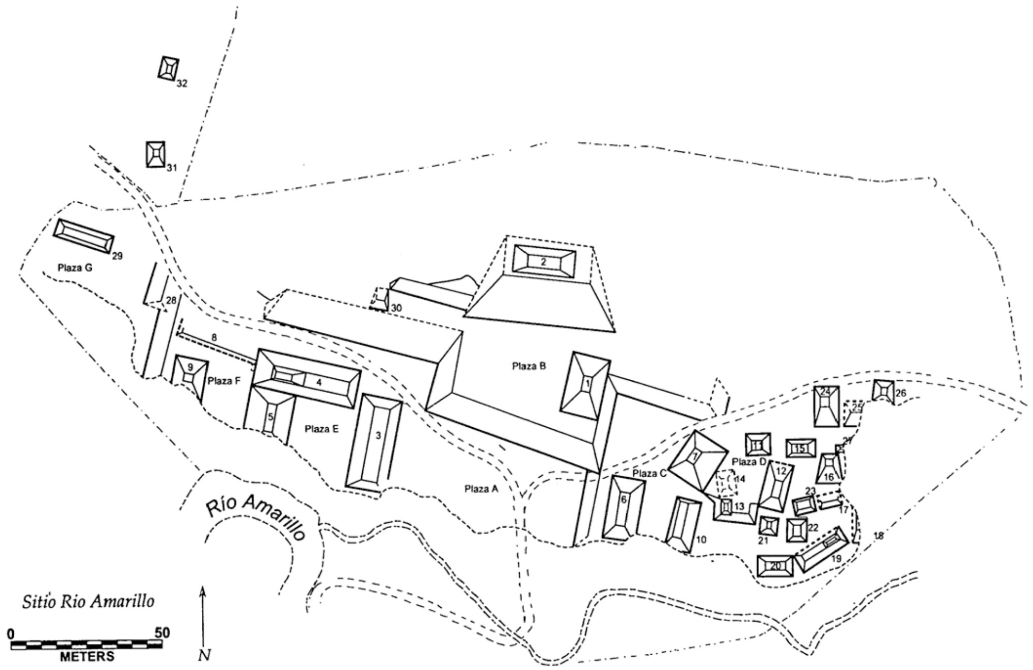

Figure 16. Rio Amarillo (Saturno 2000: 83).

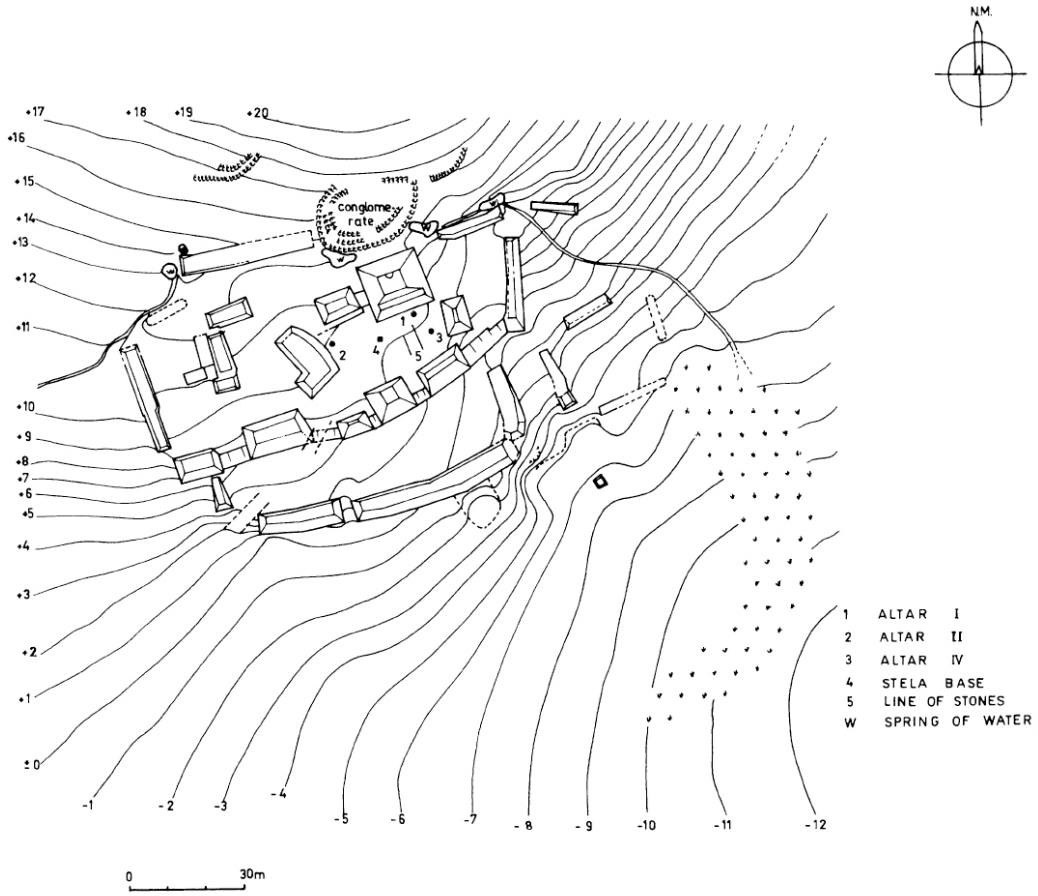

Figure 17. Los Higos (Nakamura, Aoyama, Uratsuji 1991).

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