CELEBRATING PLACE THROUGH LUXURY CRAFT PRODUCTION

Travesia and Ulua style marble vases

Christina Luke^a and Robert H. Tykot^b

^aBoston University, Department of Archaeology, 675 Commonwealth Avenue, Boston, MA 02215, USA ^bDepartment of Anthropology, University of South Florida, 4202 E. Fowler Avenue, SOCI07 Tampa, FL 33620, USA

Abstract

This paper explores the production of Late to Terminal Classic Ulua marble vases (ca. 600/650–800/850 A.D.), the hallmark luxury good from the lower Ulua Valley of northwestern Honduras. Unlike other areas of the greater Maya world, no one center appears to have held political sway in the valley. Yet marble-vase production at Travesia indicates that, through the patronization of this specific artifact, the site was able to celebrate its identity at home as well as abroad. Here the long-term production of the vases is investigated through a detailed analysis of stylistic groups and corresponding stable-isotope signatures from vases and potential procurement zones. The stylistic data suggest centralized production, which is confirmed through chemical signatures of vases and one specific procurement site. We argue that longstanding traditions of carving vases from marble in the Ulua Valley guided Travesian artisans in their procurement choices. The stylistic and chemical data augment settlement and ceramic data to situate vase production in its local social and political environment. In this case, luxury production corresponds not to a rise in central political authority but, rather, to a centrally located social center. The prestige granted to these luxury vases, then, stems from local histories of social and political networks that linked, rather than fragmented, communities. The results indicate that studies of material-cultural remains should consider the relationships between distinctive local social relations and the organization of craft production as integrative, not separate, processes.

Here we present results from a study of Late Classic (A.D. 600/650-800/850) marble vases from the lower Ulua River Valley in northwestern Honduras (Figure 1). Ulua marble vases have long been viewed as evidence of a local Uluan tradition (Gordon 1920, 1921; Schaffer 1992; Stone 1938), and the circulation of the vases outside the valley has been taken to indicate long-distance ties with foreign communities (Joyce 1986:324; Luke 2002). Isotopic data from marble vases and marble sources suggest that marble procurement focused on one primary local source, with two potential secondary local sources; these results suggest centralized production (Luke et al. 2006). The high-frequency distribution of vases at or near the Late Classic center of Travesia (Henderson 1992a:164; Luke 2002:104-110) and the worked marble blocks and debitage at Travesia (see Lincoln 1979a) make this the most likely area where vases were produced (Luke 2005). This paper places the vases in a regional context, exploring the Ulua marble-vase style and the stable-isotope results of 69 vases to provide a more complete understanding of how production may have been organized throughout the period circa A.D. 600/650-800/850, verified by ceramic cross-ties and stylistic analyses (Luke 2002, 2005). Over this approximately 200-year period of production, the deliberate choices made to update the style as necessary, and the apparent emphasis on one procurement source for the duration of production (Luke et al. 2006), point to the typical model of centralized

To situate the reader of this paper, we begin with an overview of craft production in Mesoamerica, moving to a discussion of the history of the lower Ulua Valley. The contextual and stylistic analyses of Ulua marble vases are then explored, setting the stage for the chemical results of the various styles of vases from specific geographic locations. What follows is a discussion of the implications of this research for our current understanding of luxury production in the lower Ulua Valley, highlighting the value of corroborating stylistic and chemical results with an understanding of local settlement histories and other forms of material culture.

PRODUCTION OF PORTABLE LUXURY GOODS IN MESOAMERICA

Of central concern is the question of how the production of luxury goods contributes to our understanding of evolving social and political networks in the context of regional development. Craft-specialization paradigms explore how portable goods are

production patronized by an elite. Our analyses of the vases in their regional context, however, suggest a more nuanced understanding of centralized production of luxury goods, with explanations beyond pure economic or political aggrandizement by an elite group. We consider the importance of perceived common history within the context of material-culture production, particularly for items that serve to symbolize identity of a place and/or people, to understand the social and ritual value of a luxury good.

E-mail correspondence to: cluke@bu.edu

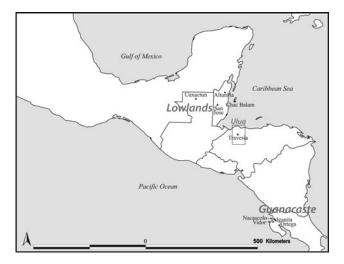


Figure 1. Map of Mesoamerica showing the Ulua Valley and the distribution of Ulua-style marble vases in the central Maya Lowlands and Guanacaste.

integral to the basic social relations of a community. Within these theoretical approaches, luxury goods are usually linked to groups vying for prestige and artisans attached to elite patrons or institutions (see Brumfiel and Earle 1987; Clark and Parry 1990; Costin 1991, 1998, 2001a, 2001b). Ulua marble vases fit the basic criteria for a luxury good: specialized skills required for fine craftsmanship, with sacred knowledge necessary to carve the imagery; limited distribution in high-status and/or ritual contexts; and limited procurement zones, requiring knowledge of procurement location(s). Luxury goods are usually objects used on occasions that underlie fundamental desires to compete in specific sociopolitical arenas, the luxury good symbolizing wealth and prestige of a specific group. Yet archaeological data from the Ulua Valley have not suggested major competition among communities, even during periods of population expansion and site development (Henderson 1992b:165; Henderson and Joyce 2000; Joyce 1991: 33-34, 117-118, 151). The production of Ulua marble vases at Travesia during the Late to Terminal Classic period, then, indicates a fundamentally different type of paradigm, with luxury-good production not necessarily indicative of (a) regional political power but, rather, indicative of a way that one community sought to exemplify its growing social prominence. Through stylistic and chemical data, we argue that the decision by one community to focus on a specific artifact-Ulua-style marble vases-began during the initial phases of sociopolitical expansion in the valley, pointing to the importance of establishing a site-specific material tag that became refined overtime to celebrate the centrality of Travesia.

Studies from Mesoamerica show that groups with access to luxury items and sacred knowledge represent the upper echelon of society, commonly referred to as "elites" (see papers in Chase and Chase 1992) and may include nobles, priests, merchants, and/or artisans, attesting to the multifaceted organization in which socially as well as politically prominent elites operate on different levels in a single community (Foias and Bishop 1997:288; Joyce 2000; McAnany 1993:69–71; Webster 1992). Artisans are part of this broad network and have access to skills and sacred knowledge expressed through aesthetic choices of objects, argued to function as cultural capital—items linked with "prestige, honor, and a reputation for competence" (Inomata 2001:324; see Bourdieu 1984).

Production of luxury craft goods demands that artisans, their patrons, and the wider community consider seriously the use and acceptance of style and imagery to convey identity and status to local and foreign groups (Joyce 1991:134-135, 1993b, 2000; Reents-Budet 1998; see also Dietler and Herbich 1998; Janusek 2002:37, 54-56; Wiessner 1990). The context of production-the local networks and history-are critical for understanding just how luxury goods come to be produced, used, and discarded in any given political, social, economic, and ritual system (Dietler and Herbich 1998; Henderson 1992a:158-160). In this way, luxury craft production plays a vital role in the development and maintenance of a community's social fabric, particularly in how this community communicates visually through the circulation of portable goods within its immediate boundaries and networks as well as with neighboring and, if applicable, distant communities.

In ancient Mesoamerica, strict adherence to a labor-intensive iconographic program on some types of polychrome ceramics points to deliberate control of imagery by a specific group or groups and may suggest the presence of tight-knit workshops attached to royal courts (Ball 1993; Becker 2003; Foias and Bishop 1997:282; Fry 2003; LeCount 1999; Reents-Budet 1994, 1998; Reents-Budet et al. 1994; Reents-Budet et al. 2000). Yet not all polychromes are indicative of high-ranking elites. In fact, the widespread occurrence of many styles in multiple, different social contexts (elite, commoner, residential trash, etc.) suggests that polychromes may not be the best indicators of elites; they may, instead, be better indicators of social groups, where artistic styles and programs would have conveyed acceptance with (or exclusion from) a specific group—certainly what we would expect in social and political arenas where competition was fierce. Competition among Late Classic Mayan sites is well documented in textual evidence, often embedded with political propaganda, even in the recasting of history; building programs and the production of elaborate monuments correlate to specific events and celebrate the rise in power of a specific ruler and/or family (see Simon and Grube 2000). Thus, in the central Maya Lowlands, differentiation in ceramic styles may refer to social and political units "within which most polity formation and expansion took place" (Ball 1993:256). Joseph Ball expands on the social implications: the existence of discrete workshops, both palace and village traditions, indicates "a highly fragmented sociopolitical landscape characterized by great need to symbolize local identities and signify formal ties of relation" (Ball 1993:263).

Yet not all fancy material culture was produced in centralized workshops in Mesoamerica, nor does it correspond to highly competitive communities. While some finewares are clearly restricted in distribution in the central Maya Lowlands, others clearly represent, as Ball writes, "the products of geographically local producercommunities consisting of multiple individuals or workshops specializing in multiform, multitype finish groups" (Ball 1993:253). Copador ceramics, diagnostic of the Copan Valley (Beaudry 1984), and Sulaco ceramics from El Cajon (Beaudry et al. 1989) indicate numerous artisans sharing generally accepted suites of icons across a broad landscape without centralized workshop organization. Data from the Petexbatun further indicate that more centralized production may have focused only on specific form classes (Foias and Bishop 1997), which confirm earlier studies from Palenque (Rands and Bishop 1980) and Tikal (Fry 1980, 2003). These conclusions indicate that fine-grained stylistic and chemical analyses are necessary to understand fully the organization of production of specific types of material-culture remains in any given region, and that by understanding how and why objects were produced, we will be able to understand more about the social and political structure of a given system.

The ceramic evidence from the Ulua region shows a number of independent producers, indicating that the general organization of polychrome production was decentralized (Joyce 1991:131-139, 1993b:84-85, 2004). While iconographic programs of Ulua polychromes may mark specific communities and their networks, local and foreign (Henderson 1992b:165-167; Joyce 1988, 1991:117, 132-135; Sheptak 1987), the imagery demonstrates shared aesthetic templates, which would have served to unite community groups through a common use of symbolic media. Constant transfer of knowledge, particularly for objects used in public settings by prominent members of society, illustrates social connections, rather than political or economic hierarchies (Joyce 2004). Based on the current understanding of settlement and ceramic data, Late Classic communities in the lower Ulua Valley were not necessarily competing for political power with an eye toward regional control of territory (Henderson and Joyce 2000; Joyce 1991:117). This mutual identification process in Late Classic ceramic production continues into the Terminal Classic period; similarities across technologies, forms, and styles illustrate valley-wide networks (Lopiparo 2003). Yet within this broad sharing of templates, there are also signs of emerging stylistic traditions that may be specific to workshops and sites (Joyce 2004).

Rosemary Joyce's research (2004) shows that by the late seventh century, distinctive regional polychrome traditions are clear, at least between the Comayaga and Ulua regions, and that within the broad regional tradition, specific sites appear to expand on specific styles. By the eighth century, human figures reappear on cylindrical Ulua polychromes, and there is an increased distribution of Ulua polychromes in burials, perhaps an indication, as Joyce (2004) argues, for a focus on specific individuals. The appearance of figures and the shifts in distribution patterns may in fact indicate increasingly differential uses of polychromes (Joyce 2004). Furthermore, the themes present on several groups of Ulua polychromes (i.e., late) show increasingly close relationships to the central Maya area (Joyce 1993b, 2004; Robinson 1978; Sheptak 1987; Viel 1978).

Clear evidence for centralized production of Ulua marble vases in a region where centralized control of the arts appears to be limited suggests the increasing prominence of Travesia (Henderson 1992a: 164–166). If one group at Travesia used Ulua-style marble vases to mark identity and, in doing so, began to differentiate itself from other sites in the region, yet did not seek political control over territory, how do we begin to understand the reasons for production of a luxury good? The patterns of polychrome production and circulation discussed earlier indicate groups differentially identifying themselves, yet within broad regional traditions. The distinctive shift in material (i.e., marble) and imagery carved on Ulua marble vases provides evidence for distinct groups. The use of stylistic analyses of Ulua-style marble vases and chemical signatures for a subset of these vases illustrates how one artifact came to symbolize a specific community in the valley and abroad over a 200-year period.

LOWER ULUA VALLEY

The Lower Ulua Valley is located in a broad alluvial flood plain, with the Ulua River flowing more or less through the central part of the valley, emptying into the Caribbean Sea. The material correlates for the Classic period demonstrate strong ties to the central Maya lowlands (Joyce 1986, 1991, 1996; Sheptak 1987) as well as to the less complex communities in central Honduras and further south into Lower Central America (Joyce 1993b; Lange 1984, 1992; Stone 1963, 1972, 1977). Communication with both the central Maya heartland and communities to the south waxed and waned in antiquity, with ties to the region of Guanancaste in northern Costa Rica vibrant during the initial periods of the Late Classic, followed by a shift to stronger ties with the central Maya Lowlands via a Caribbean coastal network during the height of the Late Classic and into the Terminal Classic (Joyce 1986).

The typical Maya versus non-Maya criteria for defining ancient cultural areas in Mesoamerica become critical when discussing the Ulua region. Linguistic data point to a Lenca-speaking people (Campbell 1979; Chapman 1978; Henderson 1977; Joyce 1988, 1991:15–21; Stone 1948). Archaeologically, the Ulua area shares much with the greater sphere of the Maya world (see Henderson 1997), with clear localized renditions that situate settlement layout (see Joyce 1991; Joyce et al. 2008) and polychrome production (Joyce 1993b; Henderson 1992b; Henderson et al. 1979; Viel 1978) within distinctive local traditions, often with considerable history.

During the Late Classic period, the lower Ulua Valley experienced unprecedented population growth. Spaced more or less equally throughout the valley, a number of large centers functioned as regional hubs, including Curruste, Travesia, and la Gucamaya (Figure 2; Henderson 1992b:167; Joyce 1991:117). Architectural features illustrate clear public building programs at these centers. Travesia includes a monumental plaza area framed by temples and a ballcourt (Stone 1941). Research by Jeanne Lopiparo (2003: 252-269) shows that the celebration of these centers with regard to local landscape features, Travesia a focal point for other sites. While it is unclear *exactly* how large Travesia was in the Late Classic period, data indicate that it was not substantially larger than any of the other centers (Henderson and Joyce 2000; Joyce and Sheptak 1983; contra Stone 1941). Yet it did have worked-stone-faced architecture, rare at other centers, and standing sculpture, also rare at other centers. So clearly, Travesia occupied a significant location in the social networks of the valley, and its strategic location on the banks of the Ulua River afforded it access to the main north-south networks.

The celebration of place at Travesia began at least by the Late Classic period, with the central core area of the site aligned at the convergence of the axis points of the three tallest mountains surrounding the valley. The largest and most central of these mountains is Santa Barbara, located to the south (Lopiparo 2003:260; Joyce et al. 2008). Travesia functioned as an "axis-mundi" for the valley (Lopiparo 2003:262) and served as a reference point for other sites in the region, culminating in a distinctly localized sense of place and history (Joyce et al. 2008). One group at Travesia expressed importance of landscape and place making on a portable good: Ulua marble vases. The imagery carved on the exterior of the vases represents a manifestation of the centrality of the Santa Barbara Mountain in the lives of people living at Travesia. The production of these vases, then, took into consideration the importance of localized conceptions of the landscape, the material quality of the vases (i.e., white marble), and contemporary stylistic canons (see Luke, n.d.).

Archaeological work at Travesia began in the early twentieth century, and businessmen and local archaeologists prospected for Ulua marble vases (Luke 2006:36–46); Doris Stone was the first

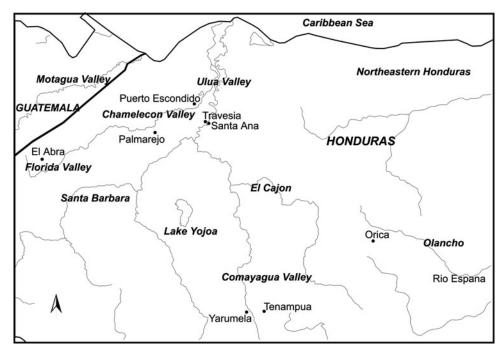


Figure 2. Map of the Ulua Valley, northwestern Honduras.

to focus specifically on mapping and excavating structures (Stone 1941), followed by others (Joyce 1991:30; Lincoln 1979a, 1979b; Sheehy 1978). Over the years, the site has been heavily plundered, most actively for Ulua marble vases (Luke and Henderson 2006). Of specific interest for our purposes is the high frequency of finds of marble vases in the core as well as in outlying areas of Travesia. Approximately 170 whole vases and fragments of marble vases are known from museum and excavation collections around the world, the vast majority excavated and/or reported prior to 1940. Of these, about 30% have at least site-level provenience. Between 1910 and 1940, Wittkugel, a German, Lincoln G. Valentine (prospecting for G. B. Gordon, then at the University of Pennsylvania Museum), and Stone all reported whole and fragmentary marble vases from Travesia (see Luke 2002:104-108; Luke and Henderson 2006:159-161). During the same period, a number of whole and fragmentary marble vases were recovered (the majority with site provenience reported by Stone) from small, wealthy hamlets in the lower Ulua Valley, often very close to Travesia. A vase was not found during professional archaeological excavations in the valley again until 1996, when a rim fragment was discovered at Puerto Escondido (Luke 2002:112).

While certain evidence of an Ulua marble vase workshop is absent in the valley (or elsewhere), the strongest evidence points to Travesia. In rubble fill in the core area, Charles Lincoln excavated both unworked and worked blocks of marble (Lincoln 1979a: 12-13). Marble vases average 13 cm in height and 13 cm in diameter; they are typically taller than they are wide. The measurements of the marble blocks and other marble fragments excavated by Lincoln strongly suggest a marble workshop at Travesia (Luke 2005). Chemical results corroborate the highfrequency distribution of marble vases at Travesia, indicating that production of Ulua-style marble vases took place in one location (Luke et al. 2006). Vases have been found also in neighboring regions (Luke 2002: 117–123), yet unlike the finds in the valley proper, vases found in neighboring regions are often associated with centers: a fragment was excavated at the regional El Cajon center of Salitron Viejo (Hirth and Hirth 1993:178); fragments were reported from illicit digging at Tenampua and Yarumela, both prominent sites in the Comayagua region (Luke 2002:119–120); an almost complete vase was recovered in Orica (eastern Honduras; Luke 2002:121–122); and a whole vase was found at the prominent site of El Abra in the La Entrada region (Nakamura 1987:8); in the summer of 2004, a whole vase was excavated at the of Palos Blancos in the Palmarejo Valley (Davis-Salazar and Wells 2007; Rivera 2005).

Outside the valley and its neighboring regions, Ulua marble vases mark close ties between Travesia and distant communities, and the rich contexts abroad affirm the high-status afforded to these vases by foreign centers. Vases have been found in central plaza areas at Uaxactun (Kidder 1947:36-37), Altun Ha (Pendergast 1982:43, 114-115, 1990:233, 236-238), and San Jose (Thompson 1939:167) in the central Maya Lowlands and in elaborate caches at Nacascolo (Stone 1963:357, 1977:59), Iguanita (Fredrick Lange, personal communication 2002), and Ortega (Ferrero 1981:88) in Guanacaste; this pattern of distribution at high-status sites follows that known for other Late Classic white-stone-vase traditions in Mesoamerica (Luke 2008). The distribution of Ulua-style marble vases at prestigious centers in the central Maya Lowlands, as well as at prominent sites in Guanancaste, confirms that prominent groups outside the valley had access to these vases. Furthermore, in both spheres, portable, and often elaborate, stone vases were produced in local traditions (i.e., not following the Ulua style). In Guanacaste, vessels with dual lug handles that protrude from the rim and/or side of the vessel are made of local stone, often with upper borders, yet lacking detailed relief carving on the exterior (Anne-Louise Schaffer, personal communication 1998); similar vases with dual lug handles, yet lacking the exterior carving as well as the delicate, thin walls, are known from northeastern Honduras (Carrie Dennett, personal communication 2007). In the central and northern Maya Lowlands, extremely delicate vessels produced from white alabaster and travertine mark a restricted luxury good (Luke 2008). Thus, the attraction to Ulua marble vases in these foreign contexts must have resided in their link to a specific region and style. None of the other traditions portray the distinctive carved imagery on the obverse and reverse sides and the elaborate dual lug handles (see Luke 2008 n.d.). In this way, style played an important role in marking identity, particularly new styles and materials, at home and abroad. Shifts in the types of styles of Ulua marble vases circulating at local, neighboring, and regional levels offer a way to track the development over time of vase production in the Ulua Valley, specifically with regard to procurement and workshop location and innovation at Travesia.

CORPUS OF ULUA MARBLE VASES

First documented in the late nineteenth century (Gordon 1898; Hamy 1896), Ulua marble vases are best known from the work of G. B. Gordon (1920, 1921), Doris Stone (1938), and, more recently, Anne-Louise Schaffer (1992). All documented vases are carved from white marble, and a handful show remains of colorful stucco (Luke 2003b). The vases can be classified broadly into five stylistic groups that span the period from circa A.D. 600/650 to 800/850 (Luke 2002, 2005; Luke and Tykot 2001). Vases are delicate, with thin sides and bases-clearly meant to be handled with care. The majority of vases have two dual-lug zoomorphic handles that separate the obverse and reverse sides. On the exterior of the vases, a central program is framed by a geometric band border. The imagery is very regular, with a central program focused on scrolls, which usually form the building blocks of profile and/or frontal zoomorphic heads. Surrounding these figures may be an intricate pattern of winged and/or paw scrolls, often associated with vertical scale motifs. Over time, the execution of the scroll became more complex, with greater definition achieved through sculpturing of the marble in relief and incised lines, giving depth to the imagery. The refinement of the scrollwork is paralleled in the increasingly high-quality sculpturing of the handles. The final stages of vase production show zoomorphic handles almost completely in the round.

In the final phase of production, then, the Ulua carver demonstrates mastery in sculpturing marble with fluid line and even depth, creating vases that look as though they are carved from a smooth, creamy butter.

While there is certainly flexibility within groups, over time stylistic conventions were strictly followed, adhering to contemporary canons as reflected in local Ulua polychrome ceramic traditions (Luke 2005). Five main stylistic groups of Late Classic Ulua marble vases can be identified (Luke 2002:55–86). Handle treatment (or lack thereof) constitutes the primary defining characteristic of the tradition. All but one group has lug zoomorphic handles: bird, bat, and monkey; feline; or composite (feline and serpent imagery). The stylistically earlier vases typically have bird, bat, and monkey handles with scale borders and a single row featuring profile zoomorphic head(s) in the main program (Figures 3–5); the later vases typically have feline or composite handles and more complex main programs (e.g., frontal and profile zoomorphic heads) framed by voussure and interlocking key, chevron, and/or mat borders (Figures 3–8, 10–11).

Among the earliest Late Classic Ulua marble vases are those without handles that include vertical and/or horizontal mat motifs that alternate with sculptured scroll motifs around the body of the vase (Group 5), following contemporary conventions for early Ulua polychromes (Luke 2005; Rosemary A. Joyce, personal communication 2001). These marble vases are most often tall cylinders with ring bases, although a number lack base treatment.

Marble vases with bird handles are the next in the sequence (Group 1; Figures 3–5), as shown by their archaeological association with and stylistic links to Red Class Ulua Polychromes, particularly Lug Head: Paloma (Luke 2002:149–152; see Joyce 1993b, 2004). The body of the bird may be incised on and/or protrude from the body of the vessel. Scale borders frame the main program. Scrolls arranged in a grid-like pattern are carved on the body of the vase and often constitute the building blocks for profile zoomorphic heads, usually facing each other in a single row. These zoomorphs consist of a series of scrolls that form the ear, lower jaw, lips, and/or a "breath" or "mist."

There are stylistic variations within this "bird" group. The earliest stratigraphically documented vase from Lagartijo (Joyce, personal communication 2001) has a ring support (Figure 4), a local Uluan Early Classic ceramic tradition. Excavated by Gordon in the late nineteenth century, its context has been revisited by Joyce. According to her research, the associated Ulua polychromes

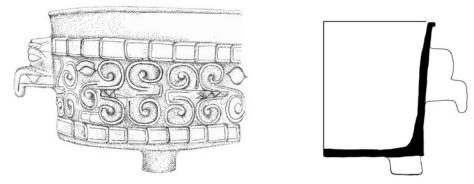


Figure 3. Ulua marble vase with bird handles (Group 1). Height: 9.2 cm; diameter: 19 cm. Middle American Research Institute, Tulane University, New Orleans. Drawing by Christina Luke.

Figure 4. Ulua marble vase with bird handles (Group 1). Height: 8.4 cm; diameter: 10.6 cm. Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, MA. Drawing by Christina Luke.

indicate that the vase dates to the period between A.D. 600 and 650. This marble vase depicts the initial stages of the style. It has relatively simple sculptural qualities. Only an upper border frames the central program, and the handles and scrolls lack sophistication and depth.

The majority of the other vases with bird handles have tripod supports, most likely an influence from Teotihuacan, as argued for contemporary Ulua polychromes with slab feet (Joyce 2004). Scale borders frame a series of scrolls and zoomorphic profile heads. A subgroup of the bird-handle vases includes vases with ring supports, which most likely represent period revivals, produced at some point later in time (Figure 5). In this group, the handles show greater depth, and the central program is much more developed, including a frontal zoomorphic head characteristic of later phases. The windows (triangles or stepped-terrace motifs) cut into the ring bases are also stylistically late.

the second secon

Figure 5. Ulua marble vase with bird handles and stucco (Group 1). Popul Vuh Museum, Guatemala City. Drawing by Christina Luke.

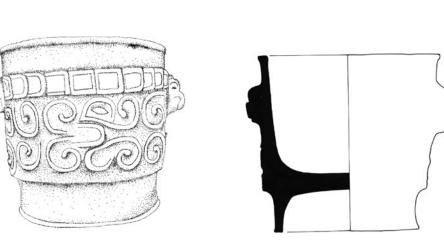
Those vases with bat and monkey handles make up the next in the sequence (Group 2) (Figure 6)—following the development of Ulua polychromes (Lug Head: Bombero; see Joyce 1993a; Viel 1978). The iconographic program remains the same, with profile images created from a series of volutes and framed by scale borders. Both tripod and ring supports are common in this group, yet the shift from tripod supports to ring supports most likely signals a decline of Teotihuacan influence, resulting in a preference for a local Ulua tradition favoring ring supports. These supports have cut-out step frets or triangle windows and additional motifs, such as scales or ropes, along the base.

Vases with feline handles mark a break in the stylistic repertoire (Groups 3 and 4; Figures 7–8, 11)—most notably, a shift in border types and greater depth in the execution of the handles. No longer is the handle reserved primarily for the creature's head. The body may be sculptured in high relief, as well. Voussures (repeating half-moon motifs, after Viel 1978) and interlocking key motifs replace scales for the upper and lower borders, which continue to frame the central program. Scrolls are rendered with greater definition and depth. In many examples, the execution of the scroll shows mastery of skill and layout. Multiple profile zoomorphic heads are represented as mirror images of each other (Figure 7). Other vases show a frontal zoomorphic head with flanking profile zoomorphs (Figure 8). Ring bases with their hallmark step-fret or triangle cut-out windows are more common than tripod supports.

Vases with a zoomorphic head superimposed over the body of the feline handle are the final group discussed here (Group 4). The feline body is fully represented on the handle, as in the preceding group, usually with a bound tail, yet now a profile of a zoomorph head covers the lower portion of the feline body (Figure 11). A frontal zoomorph head is commonly depicted in the main program, again flanked by scrolls, and the entire program is framed by voussure, interlocking key and/or mat borders. The most common support is the ring base with step-fret windows.

DISTRIBUTION OF STYLES IN MESOAMERICA

As discussed earlier, among the most salient points regarding the distribution of Ulua marble vases is their wide geographic area. Vases are found to the south of the Ulua Valley in the broad region of Guanacaste and, in equal numbers, to the north in the



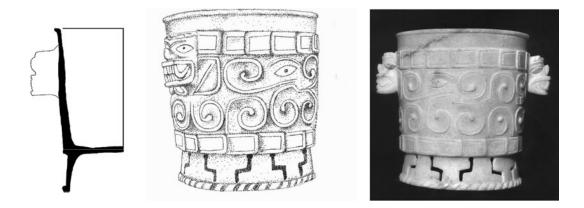


Figure 6. Ulua marble vase with bat handles (Group 2). Height: 13 cm; diameter: 12.1 cm. Middle American Research Institute, Tulane University, New Orleans. Drawing by Christine Luke. Photograph courtesy of Middle America Research Institute.

central Maya Lowlands (Luke 2002; Luke and Tykot 2002). While other artifact classes illustrate the exchange of ideas across this broad landscape—most notably, jade and ceramic traditions (see Joyce 1993b, 1996)—Ulua marble vases demonstrate the physical transfer of artifacts.

The known distribution pattern of vases in the valley shows that only the center of Travesia and those sites affiliated with it appear to have had access to Ulua-style marble vases. Thus, communication with sites in the immediate area focused on a small network of sites, with Travesia acting as their center node, perhaps reflective of shared social and ritual occasions among these communities. Furthermore, all stylistic groups are represented in the known corpus from the valley itself, pointing to a long period of community-based identification and a deliberate shift in style over time by a small group of artisans and their patrons. In the central valley, approximately 30% of the known corpus is from the Travesia area, including the sites of Travesia, Santa Ana, and La Mora. Additional vases are from smaller hamlets, presumably part of the greater Travesian network. These include the elaborate assemblage from Peor es Nada (Stone 1938:39, 55–56, 1972:141) with two marble vases, several polychromes, and a number of exquisitely carved jades. The corpus from Santa Ana is similar, with two marble vases, a delicately carved jade hand, and an imported gold figure (Luke 2002, 2005).

To the west of the valley, the vases from El Abra in La Entrada (Nakamura 1987) and Palos Blancos in the Palmarejo Valley, a smaller valley within the greater Naco region (Davis-Salazar and Wells 2007; Rivera 2005), which are both local centers, span a long time period. The Palos Blancos vase with bat handles, scale borders, and profile zoomorphs in the main program is stylistically earlier than the vase from El Abra with feline handles, voussure borders, and frontal and profile zoomorphs in the main program. Vases that lack site-specific contexts from this area include one fragment from Stone's work along the Chamelecon River (Luke 2002:118), as well as two vases attributed to the

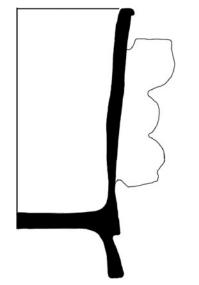


Figure 7. Ulua marble vase with feline handles (Group 3). Height: 18.8 cm; diameter: 16.7 cm. Middle American Research Institute, Tulane University, New Orleans.



Figure 8. Ulua marble vase with feline handles (Group 4). Height: 25.08 cm; diameter: 16.193 cm. Museum of Archaeology and Anthropology, University of Pennsylvania.

Motagua Valley (Gary Walters, personal communication 2003; archives from the Popol Vuh Museum, Guatemala City). Like the vase from Palos Blancos, the Chamelecon fragment is stylistically early, with the telltale scale border. The vases attributed to the Motagua stylistically date to the middle of the production period, with subtle variation in their programs (see later). The wide range of vase styles to the west indicates a long period of interaction between these regions and the Ulua Valley, which is not surprising given other material markers typical of the Ulua Valley in the region.¹

To the east of the Ulua Valley, the vases reported from Salitron Veijo (Hirth and Hirth 1993:178), Tenampua, Yarumela—all significant centers—as well as farther east in Olancho from the Rio España and Orica areas (Luke 2002:121–122) span the entire stylistic range. The vases from Rio España and Tenampua (Luke 2002:119–121) have voussure borders, elaborate volutes, and front-facing zoomorphic heads in the main program—stylistically late markers. The vase from Orica is earlier, with its tripod supports, scale borders, and bat handles (Luke 2002:337). The range in stylistic variability documents ongoing regional alliances from the seventh century through the ninth century A.D.

When we look closely at the styles of vases found outside the neighboring regions, a different pattern emerges. Vase styles are period-sensitive, following established shifts in long-distance net-works—specifically, an early focus on lower Central America and a later focus toward the central Maya Lowlands.

Lower Central America

To the south of the Ulua Valley, those vases from the prominent coastal hub of Nacascolo (Stone 1977:59, 1963:357), Vidor (Lange, personal communication 2000), Ortega (Ferrero 1981:88), and, reportedly, Iguanita (Lange, personal communication 2002) are diagnostic of the earlier phases of production. Vases with bird handles and scale borders have tripod supports, and those with feline handles lack the depth and fine-line sculpturing found on the larger cylindrical vases, particularly those with frontal zoo-morphic heads in the main program and ring supports—completely undocumented in Guacanaste. What is more, most of those known from the region have subtle stylistic variations, such as unique handle placement and/or peculiar ways of portraying imagery in the main program.

Central Maya Lowlands

To the north, those Ulua vases that have been excavated in the central Maya Lowlands from the sites of Uaxactun (Kidder 1947: 36-37), Altun Ha (Pendergast 1982:43, 114–115, 1990:233, 236–238;), San Jose (Thompson 1939:167), and Chac Balam (Guderjan 1995) are stylistically late. The fragment from Uaxactun, one fragment from Altun Ha with voussure borders, and a feline handle fragment from Chac Balam on Ambergris Caye all date stylistically to the later period of production; this

later date is confirmed by the very Late or early Terminal Classic contexts for these vases (Luke 2002:125–128).

Discussion

Similarities in aesthetic choices, particularly for polychromes and jades, between the Ulua Valley and lower Central America and the central Maya Lowlands point to a shift in social networks during the later phases of the Late Classic period (Hirth and Hirth 1993; Joyce 1986, 1996). Both marble-vase and polychrome distributions indicate an exchange network, circa A.D. 600/650-700/750, operating between the Ulua Valley and communities to the south (see Joyce 1986, 1993b). The marble vases from these regions are marked by motifs that are found in the initial period of production and less sophisticated carving, as well as other stylistic peculiarities. By the later phases of Ulua marble-vase production, circa A.D. 700/750-850, a northern Caribbean route linking the Ulua Valley to the central Maya Lowlands overshadows the southern route, following the changes and routes of other artifact classes and ideas (see Joyce 1986). Ulua-style marble vases found to the north are stylistically late. The long period of marble-vase production and the relatively standardized forms and iconography over time suggest that the artisans responsible for producing the vases were located in one location and adapted their stylistic choices to contemporary period canons, which is confirmed through chemical analyses.

STABLE-ISOTOPE RESULTS

A number of marble sources are found in Honduras, many now depleted, leaving only the parent limestone. With petrographic and stable-isotope analyses, we have been able to determine three potential sources for ancient procurement zones, yet there is overlap among these sources (Luke et al. 2006). The tight cluster of the chemical signatures of the vases is the strongest evidence for limited sources (Luke et al. 2006:25). To date, we have stable-isotope data for 69 marble vases in the Late Classic Ulua style. The sampled vases include examples from all stylistic groups and most geographic regions. This broad sample allows us to test whether differences in style and circulation patterns are apparent in the procurement of marble; that is, did sources shift as styles and/or communication routes changed?

Stable-isotope analyses indicate that vases do have similar isotopic ratios (Figure 9a). The majority of vases sampled (58, or 84% of the sample size) form a tight group, referred to as Cluster A. Cluster B includes eight vases (12% of the sample size). Finally, three fragments (4% of the sample size) fall outside these two cluster groups into Cluster C (Luke et al. 2006).

The concentration of 58 vases in Cluster A suggests that a single marble source was used to produce this corpus of Ulua-style marble vases: an ancient quarry. The two other clusters may indicate a secondary procurement location and/or an expanded procurement zone in the main source, probably the Santa Rita quarry (Luke et al. 2006). Overlap of the chemical results of the majority of the vases sampled with a single procurement zone indicates that artisans most likely procured marble primarily from one known source (Luke et al. 2006). With a firm understanding of the various styles and the significance of their distribution over time (discussed earlier), we now turn to an analysis of their chemical signatures.

¹ Note that Ulua-style marble vases have not been found at Copan; other white stone vase styles are present there (see Luke 2008). Ulua polychromes have been found throughout Naco and Chamelecon, including the Palmarejo Valley (Karla Davis-Salazar, personal communication 2007). The earlier styles are also documented at Copan. For discussion of polychromes see Joyce 1993b, 2004; Robinson 1978; Viel 1978, 1993.

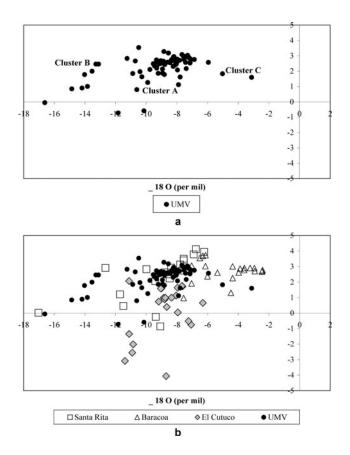


Figure 9. (a) Stable-isotope data for Ulua marble vases; (b) stable-isotope data for Ulua marble vases and sources.

Cluster A includes vases from all major stylistic groups with provenience from multiple sites, including vases excavated from the Ulua Valley, lower Central America, and Chac Balam on Ambergris Caye. Of note is the vase in Figure 10. Attributed to Costa Rica, this vase is stylistically very odd: it is the only vase documented with handles that protrude from the rim itself rather than from the side of the vase. Furthermore, while two rows of scrolls wrap around the exterior, the scrolls do not form zoomorphs. This is not the only stylistically odd vase in this main cluster. Chemical results from a vase in the shape of

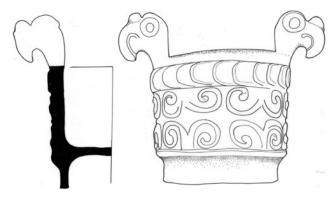


Figure IO. Ulua marble vase with bird handles (Group I). Height: 7.2 cm; diameter: 7.30 cm. Chrysler Museum of Art, Norfolk, VA. Drawing by Christina Luke.

a jar (the only known example) with spider handles (see Luke 2002:341), which is attributed to the Ulua Valley (archives, Middle American Research Institute H.17.1-38.57), fall firmly in this main group. Finally, worthy of mention here is the earliest documented vase (Figure 4, discussed earlier). Its chemical signature falls securely within the main cluster. The range of styles represented in the other vases within this main cluster span the entire chronological period, including vases in Figures 7-8. The implication is that the same marble source was used throughout the entire period of production. It provides strong evidence for local vase production, with subsequent gift giving to foreign and neighboring communities, rather than the production of Ulua-style marble vases in other regions using foreign stone, particularly given that those regions to the north and south had local stone-vase traditions of their own, using local stone.

Stylistic and distributional data from those vases with chemical results in Clusters B and C indicate that over time procurement choices may have expanded to accommodate workshop demands. Cluster C includes two fragments from Altun Ha. One of the Altun Ha fragments includes a voussure border, which points to a late, rather than early, date. It is tempting to suggest a shift in procurement zones, particularly a preference for the northern Baracoa source, during the period in which relationships strengthened with the central lowlands; yet the vase from Chac Balam (discussed earlier), also stylistically late with its feline handle, is clearly from the main source, and without the corresponding data for the Uaxactun or San Jose fragments, we cannot determine the significance of the Baracoa source or whether the later shift in exchange networks may have had a significant impact on marble procurement.

Here our analysis turns specifically to Cluster B. The eight vessels forming Cluster B include vases from all stylistic groups, yet about half have subtle aesthetic nuances, examined here in detail. In a recent article, we suggested that this Cluster B may represent either a secondary zone in the main procurement source (i.e., Cluster A) or a separate source, perhaps used to supplement the main source (Luke et al. 2006:24–25). On further analysis, we suggest here that Cluster B most likely represents an additional procurement area within the procurement zone represented by Cluster A.

Vases with bird handles are part of Cluster B. One vase (Figure 3) represents the quintessential tripod, bird-handle vase with profile zoomorphs in the main program and scale borders. The other bird-handle vase (Figure 5), however, belongs to the subgroup of period-revival vases with front-facing zoomorph heads in the main program (discussed earlier); only three vases are documented in this style (Luke 2002:72, 74, 92), and unfortunately, we were given permission to sample only one vase in this style for chemical study (Figure 5). What is interesting about this specific vase are the triangle cut-outs, rare on most vases, as well as the vertical-profile zoomorphic heads flanking the frontal zoomorph head rather than the characteristic horizontal zoomorphic profile heads. Furthermore, this vase is one of the few vessels with stucco remains (see Luke 2003b). Thus, the data from these two birdhandled vases from Cluster B span the initial period of production through the later phases, indicating that the source was used over a long period.

Vases with bat handles are also represented in Cluster B. One vase (Figure 6) is typical of this stylistic group. The bat handles frame the main program of a single row of profile zoomorphic heads between two scale borders and a ring base with cut-out

step frets. Chemical results from one vase from Orica (a considerable distance east of the Ulua Valley) fall within Cluster B, as well, but unlike the previous vase, this vase is stylistically odd: tripod supports on a vase that is taller than it is wide are not the norm (see Luke 2002:337). In addition, the central program is more grid-like (less fluid) than other vase programs, and the profile figures are vertical rather than horizontal. The matching isotope values with the other Ulua-style marble vases, as well as Ulua sources, point to marble procurement in the Ulua Valley rather than from local sources, which is particularly interesting given that marble sources near Orica are abundant, and Formative-period marble and other stone-vase traditions are known from the region (Luke 2002; Luke and Tykot 2002; Luke et al. 2003).

Vases from Cluster B with feline handles are also unusual. On one vase (Luke 2002:361), the handle forms are characteristic of this group (felines with up-turned and bound tails), yet the central program does not fit well within the typology. The zoomorphic heads are missing, and the scrolls form S shapes rather than single scrolls that either form the zoomorphic head or surround it. Furthermore, the scale borders on this vase are not typically associated with feline handles. On the other feline-handle vase from Cluster B (Figure 11), the composite handles follow stylistic convention, yet the front arms/paws on the frontal zoomorphic head are unique. Most frontal heads lack arms, which are present on this vase, and have a forehead cleft, which is missing on this specific vase (Luke 2005, in press b). Furthermore, the mat motif used for the upper and lower borders is larger than the typical Ulua marble-vase border. Finally, in mere size, this vase is larger than most.

DISCUSSION

The results presented here indicate that, stylistically, Ulua-style marble vases form a cohesive corpus, suggesting a focused workshop area. The chemical data from the vases confirm that there is most likely one major source for them. How, then, do we make sense of Clusters B and C, which fall outside the tight main cluster (Cluster A)? The variation in vases from Cluster B suggests a secondary source and/or workshop. As Dorie Reents-Budet suggests for Maya polychromes, the height of production should correspond to the most variation in styles and the expansion of workshops to meet demand. In our original analysis, we suggested that a similar scenario could explain what we see in Cluster B (Luke

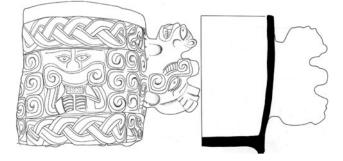


Figure 11. Ulua marble vase with composite feline-serpent handles (Group 4). Height: 15.4+ cm; diameter: 16 cm. Museo Etnografico Castello D' Albertis, Genoa, Italy. Drawing by Christina Luke.

2002; Luke et al. 2006:25)—an additional source used to supplement the primary source, perhaps even a different workshop, during an up-tick in production. While certainly a viable analysis, the detailed look at the vases in Cluster B suggests that this source was most likely used over the entire period of production, not just during the height of production, and hence weakens the argument for procurement expansion during a period of intensification. One would not expect the full range of styles to be produced from a source used to supplement production during high demand periods; rather, we should see stylistic variation. While we certainly do see stylistic variation in this group, we see also stylistic variation in Cluster A. Furthermore, Ulua-type vases from *all* periods are found in Cluster B, including styles that do not show variation, arguing for procurement over a long period, not just during a flurry of production.

The long-standing tradition of carving vases from marble in the valley set the stage for the expansion of the Late Classic tradition (Luke et al. 2003). The Formative and Early Classic traditions draw on a variety of different sources of white stone, including sources other than marble. Over time, local knowledge of the most preferred stone sources would have passed through artisan communities, particularly knowledge of the best marble. Artisans and their patrons seeking to expand on a regional tradition used the highest-quality sources. Furthermore, it cannot be coincidence that these sources were that ones that have been, and continue to be, most preferred by the large marble companies (1930 to present). This analysis also explains why artisans located at Travesia would have relied on sources some distance away rather than closer sources.

Knowledge of local resources may have been shared, particularly among communities that were not necessarily vying for political control, the case in the Ulua Valley. Under this model, knowledge of clay and temper sources, as well as links to networks for securing other resources, would have been transmitted among communities, particularly during the Late Classic period. Recall that centers and hamlets appear to have shared similar approaches to iconography (Joyce 1991:132–134) and settlement layout (Joyce 1991:117; Joyce et al. 2008; Lopiparo 2003). Thus, it seems reasonable to suggest that knowledge of local resources, including marble, would have been shared.

Archaeological data indicate that the various centers located in the valley had their own, distinctive communication networks. Specific networks linking sites in the valley to neighboring regions and/or more distant areas suggest that no one center had control over internal or external relationships, which suggests very fluid and open systems of communication. We can thus imagine merchants and other officials coming and going relatively freely; artisans or those responsible for procuring specific types of resources would have been allowed to do so unrestricted.

The centrality of Travesia in the valley does, however, suggest that it may have held sway over certain types of social networks, resources, and production of specific types of material culture. Certainly, its location in the heart of the most densely populated part of the valley, on the banks of the largest river in the area, points to this specific site as a natural node. As Lopiparo (2003) suggests, the centrality of Travesia indicates its status as a sacred hub. Travesian artisans capitalized on earlier stone-vase traditions, specifically marble-vase production, for a variety of different reasons, most likely linked to the symbolism of white stone. In producing an artifact from a known material, yet now embedding highly charged imagery in the stone, Travesia visually identified itself from other centers in the valley (Luke 2005, n.d.). Marble procurement from the best source(s) enabled artisans to produce high-quality vases. The long-standing traditions of carving white stone vases suggest that artisans at Travesia expanded on known practices of carving white stone, working out the fine details of iconographic programs over time. A relatively small, part-time workshop would have relied on a master carver and a few apprentices. A large, full-time workshop does not appear to be viable, given that over a 200-year period, relatively few vases were produced. Recall that approximately 170 vases (fragments and whole vases) are known in museum and excavation collections. Thus, we can imagine only a limited number of vases produced each generation.

The procurement of marble most likely focused on one primary area in the main quarry. New artisans or others responsible for quarrying the stone-presumably relatively small, easily portable blocks-may have focused on a secondary area within the main quarry. The subtle stylistic variations in those vases from Clusters B and A suggest a number of different interpretations. Perhaps the vases with stylistic oddities were "mistakes." Those vases missing key parts of the imagery may have been given as gifts to counterparts some distance away, presuming those counterparts would not fully understand what was "missing." Alternatively, vases may have been produced with specific patrons or areas in mind (e.g., the argument for Plumbate styles and circulation; O'Shepard 1948:144-146), perhaps functioning as gifts to strategic allies. The role of the royal gift is to solidify relations with prominent members in neighboring and distant regions. The adoption of only certain parts of Ulua polychrome imagery on locally produced Guanacaste Galo polychromes (Lange 1992:121-122) indicates specific and deliberate preferences (Joyce 1993b:90; Lange 1992:121-122). Thus, it seems likely that artisans at Travesia may have produced vases with a foreign clientele in mind.

Anticipating the power of a gift to a foreign counterpart, a patron may have commissioned a marble vase for a specific person or site, perhaps following distance canons. The result would have been Ulua marble vases produced in styles more suited to the areas of destination rather than the styles preferred at home. Most likely, we are seeing the archaeological and stylistic evidence of a developing tradition of elaborate marble vases. When production of marble vases began, ties to the south were stronger; thus, vases may have been produced to please clients in Olancho and farther south in Guanacaste. The increasingly sophisticated carving style corresponds to a shift in exchange networks, favoring connections to the north (with the central and northern Maya Lowlands), and changes in the iconography indicate greater influence from this sphere during the later periods of production (Luke, n.d.). The development of the craft, then, corresponds to changing social relationships.

This process of involvement with foreign regions argues for Travesia as an established center interacting closely with distant communities, similar to other centers in the valley, particularly Curruste's relationship with sites in Belize (Sheptak 1987). The development and enhancement of the Ulua marble style argues for Travesia focusing closely on production of a specific type of material culture that would clearly set it apart from other centers. While site identity may have been marked through specific polychrome styles, a general suite of images appears to have been shared, at least until the close of the Late Classic period (Sheptak 1987:298). By the end of the Late Classic, Travesia's focus shifted to the northern sphere, as shown by those marble vases found at Uaxactun, San Jose, and Altun Ha. The high-quality craftsmanship and strict framework on marble vases argues for increasing oversight and decisions regarding the patronage of these vases.

Based on the evidence, marble-vase production took place at one location over a period of approximately 200 years: Travesia. The stylistic and chemical data alone would point to a restricted, centralized workshop that controlled the procurement of marble, the imagery carved on the exterior of the vase, and the circulation of the vases, typical criteria of a palace workshop of a very wealthy and powerful site. When considered in the context of the dynamic Late Classic Uluan landscape, though, there is no evidence that Travesia held valley-wide economic or political power. Rather, the production of the vases began during the period of population expansion in the valley, with Travesia acting as a centering node. The continued, yet limited, production of vases over time at the site, with variations made to suit current aesthetic choices, indicates that the vases functioned as identity markers of this cosmic center, the associated iconography and white marble linking the vases to the sacred natural and created landscapes (Luke, n.d.). Given that other sites in the valley did have strong contacts with one another, as well as with communities in distant locations, it is difficult to argue that Travesia held political control over the region. Yet Travesia, unlike other centers, does appear to have had more extensive networks with foreign counterparts. The localized circulation in the valley suggests a closed network that may slowly have gained prominence abroad and in turn contributed to at least an increasingly powerful social position in the valley. Thus, the role of Travesia as a social and ritual hub, what Lopiparo (2003:264) argues is a "privileged place at the center of coordinate networks," appears to be confirmed through this analysis of marble vases. The long period of marble-vase production provides one example of a material correlate of this cosmological place. Whether distant communities understood the local significance of Travesia or local and neighboring communities encouraged the celebrated status of Travesia abroad, Ulua marble vases made it possible for the site to be "seen" in distant regions.

CONCLUSION

This study confirms that combining stylistic, distributional, and chemical data for a specific artifact type can help us understand the social and political networks of a region as well as the organization of production. In this case, we have evidence for a luxury good used by one community to affirm social prominence in a valley. At this point, all data suggest that Travesia was not a region-wide political center. The centralized production of a clear luxury good, then, indicates patronage by a social group that sought to affirm the identity of a sacred center by producing a portable luxury good that drew from long-standing traditions of material transformed through iconography. The extensive ties of Travesia abroad, marked through the circulation of marble vases, confirm its social prominence in the valley. Over the period of production, standardized and deliberate shifts in Ulua marble-vase programs demonstrate increasing skill and attention to specific types of imagery by the artisan. During these shifts in styles, the procurement zones remained stable, corroborating the stylistic data with the chemical data and affirming centralized production from the initial to final periods of production.

RESUMEN

Las vasijas de mármol del estilo Ulua representan uno de los bienes de lujo más destacados de la Mesoamérica antigua. Producidas durante el período clásico tardío (ca. 600/650–800/850 d.C.), estas vasijas funcionaban como objetos de valor con alto significado social en el valle inferior del río Ulua de Honduras, tanto como en regiones aledañas como el valle del Chamelecon, La Entrada y Palmarejo al oeste, y Comayagua, El Cajón y Olancho al este. Los nexos de larga distancia para el intercambio y la adquisición de estas vasijas extendieron hacia el sur hasta Guanacaste, Costa Rica, en el extremo sureste de Mesoamérica y hacia el oeste a las tierras bajas mayas centrales. Los contextos conocidos de estas vasijas en el valle del Ulua y más allá confirman que la élite ponía alto valor social y político en ellas por medio de una circulación restringida y, presuntamente, el uso limitado.

Aquí presentamos un estudio de los canones estilísticos de las vasijas y la distribución de los estilos distintos. Por medio de una comparación de los patrones de distribución de estilos específicos de vasijas de mármol estilo Ulua con las cronologías conocidas de vasijas policromas estilo Ulua, podemos comenzar a entender el largo periodo de producción de las vasijas de mármol. Una comparación de estos datos con los resultados de análisis químico de un grupo seleccionado de vasijas indica la producción especia-lizada en el sitio de Travesía, ubicado en el corazón del valle inferior del Ulua, en las riberas del río, la ruta de comunicación principal de la región.

La época de la producción de las vasijas corresponde a un período intensivo de crecimiento demográfico en el valle. La decisión tomada por la élite de Travesía de producir un bien de lujo portátil distinto en material e iconografía a otros bienes indica un intento a declarar su identidad cultural regional. La distribución restringida de las vasijas, tomando en cuenta especialmente su ausencia completa de otros centros del valle del Ulua, indica más aún que los artesanos y sus patrones imponían fronteras simbólicas por medio de la saturación de la cultura material con formas específicas de significado. Además, los nexos de larga distancia indican que estos objetos simbólicos de valor de Travesía fueron cotizados en el extranjero, aún en las cortes reales de los mayas.

Los datos estilísticos, químicos y de distributión de las vasijas de mármol estilo Ulua parecen apoyar una interpretatión de una corte real patrocinando un grupo de artesanos en Travesía. Sin embargo, considerando los patrones de asentamiento del valle, no parece que Travesía buscaba el control político de la región. Mas bien, parece que este sitio celebraba su centralidad por medio de una variedad de distintas expresiones, incluyendo la producción de vasijas finas de mármol. El prestigio que fue otorgado a estas vasijas de lujo, entonces, resulta de historias locales de nexos sociales y políticos que vinculaban distintas comunidades en vez de dividirlas. Estos resultados indican que los estudios de la cultura material en la arqueología deben considerar las relaciones entre distintos nexos sociales y la organización de la producción de artesanías como fuerzas de integración y no como procesos de división.

ACKNOWLEDGMENTS

This study could not have been completed without support, guidance, and friendship of many institutions and colleagues. The Honduran Institute of Archaeology and Anthropology has supported the project over the years, providing access to sources and collections. Marlyin Beaudry-Corbett, Carrie Dennett, John S. Henderson, Rosemary A. Joyce, and two anonymous reviewers provided critical feedback on the research presented here. The research has been funded by the Geological Society of America; the National Science Foundation; the Foundation for the Advancement of Mesoamerican Studies, Inc.; Sigma Xi; and various internal grants from Cornell University.

We thank also the many museums that allowed access to their collections to study the stylistic characteristics of each vase and, in many cases, to take samples for chemical analyses. The curators, conservators and research staff who gave their time to locate vases as well as corresponding paperwork were instrumental. First we extend special thanks to Anne-Louise Schaffer, former curator at the Museum of Fine Arts, Houston, TX, and Dr. E. Wyllys Andrews, director of the Middle American Research Institute, Tulane University, New Orleans, LA. They offered great support at the initial stages of the research. From this initial work we were then able to gain support from museums in the United States, Canada, Costa Rica, England, France, Honduras, Italy, Germany, and Guatemala: American Museum of Natural History, New York, NY; Baltimore Museum of Art, Baltimore,

REFERENCES

Ball, Joseph W.

- 1993 Pottery, Potters, Palaces, and Polities: Some Socioeconomic and Political Implications of Late Classic Maya Ceramic Industries. In *Lowland Maya Civilization in the Eighth Century A.D.* edited by Jeremy A. Sabloff and John S. Henderson, pp. 243–272. Dumbarton Oaks, Washington, DC.
- Beaudry, Marilyn P.
 - 1984 Ceramic Production and Distribution in the Southeastern Maya Periphery: Late Classic Painted Serving Vessels. BAR International Series 203. British Archaeological Reports, Oxford.
- Beaudry, Marilyn P., Ronald L. Bishop, John S. Henderson, and Kenneth L. Hirth
 - 1989 Determining Ceramic Production: A View from Honduras. In *Ceramic Ecology: Current Research on Ceramic Materials*, edited by

MD; British Museum, London, England; Chrysler Museum of Art, Norfolk, VA; Cleveland Museum of Art, Cleveland, OH; Cornell University, Ithaca, NY; Dallas Museum of Art, Dallas, TX; Denver Art Museum, Denver, CO; Denver Museum of Natural History, Denver, CO; Dumbarton Oaks, Washington, D.C.; Instituto Hondureño de Antropologia e Historia, Tegucigalpa, Honduras; Lowe Art Museum, University of Miami, FL; Michael Carlos Museum, Emory University, Atlanta, GA; Museum of Ethnology, Genoa, Italy; Museum of Mankind, Paris, France; Museum of Metropolitan Art, New York, NY; Museum of Fine Arts, Houston, TX; Museum für Völkerkunde, Berlin, Germany; Mint Museum, Charlotte, NC; Museo de Antropologia e Historia, San Pedro Sula, Honduras; Museo Nacional de Costa Rica, San Jose, Costa Rica; Museo Popol Vuh, Universidad Francisco Maroquin, Guatemala City, Guatemala; National Museum of the American Indian, Smithsonian Institution, Washington, D.C.; New Orleans Museum of Art, New Orleans, LA; Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, MA; Princeton University Art Museum, Princeton University, Princeton, NJ; Royal Ontario Museum, Toronto, Canada; Sainsbury Centre for Visual Arts, University of East Anglia, Norwich, England; Smithsonian, Washington D.C; The Saint Louis Art Museum, St. Louis, MO; University Museum of Manchester, England; University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, PA.

Charles C. Kolb, pp. 97–115. BAR International Series 513. British Archaeological Reports, Oxford.

Becker, Marshall Joseph

2003 A Classic-Period Barrio Producing Fine Polychrome Ceramics at Tikal, Guatemala: Notes on Ancient Maya Firing Technology. Ancient Mesoamerica 14:95–112.

Bourdieu, Pierre

1984 *Distinction: A Social Critique of the Judgment of Taste.* Translated by Richard Nice. Harvard University Press, Cambridge, MA.

Brumfiel, Elizabeth M., and Earle Timothy K.

1987 Specialization, Exchange and Complex Societies: An Introduction. In *Specialization, Exchange, and Complex Societies*, edited by Elizabeth M. Brumfield and Timothy K. Earle, pp. 1–9. Cambridge University Press, Cambridge.

1979 Middle American Languages. In The Languages of Native America, edited by Lyle Campbell and Marianne Mithun, pp. 902-1000. University of Texas Press, Austin.

- 1978 Los Lencas de Honduras en el siglo XVI. Estudios Antropologicos e Historicos No. 2. Instituto Hondureño de Antropología e Historia, Tegucigalpa.
- Chase, Diane Z., and Arlen F. Chase (editors)
- 1992 Mesoamerican Elites: An Archaeological Assessment. University of Oklahoma Press, Norman,
- Clark, John E. and William J. Parry
- 1990 Craft Specialization and Cultural Complexity. Research in Economic Anthropology 12:289-346.
- Costin, Cathy L.
 - 1991 Craft Specialization: Issues in Defining, Documenting, and Explaining the Organization of Production. Archaeological Method and Theory 3:1-56.
 - 1998 Introduction: Craft and Social Identity. In Craft and Social Identity, edited by Cathy L. Costin and Rita P. Wright, pp. 3-16. Archaeological Papers of the American Anthropological Association 8. American Anthropological Association, Arlington, VA

Davis-Salazar, Karla L., and E. Christian Wells

- 2007 Balancing Archaeological Responsibilities and Community Commitments: A Case from Honduras. Journal of Field Archaeology 32:196-205.
- Dietler, Michael, and Ingrid Herbich
- 1998 Habits, Techniques, Style: An Integrated Approach to the Social Understanding of Material Culture and Boundaries. In The Archaeology of Social Boundaries, edited by Miriam Stark, pp. 232-263. Smithsonian Institution Press, Washington, DC. Ferrero, Luis
- 1981 Costa Rica PreColumbina. Editorial Costa Rica, San Jose.
- Foias, Antonia E., and Ronald L. Bishop
 - 1997 Changing Ceramic Production and Exchange in the Petexbatun Region, Guatemala: Reconsidering the Classic Maya Collapse. Ancient Mesoamerica 8:275-291.

Fry, Robert E.

- 1980 Models of Exchange for Major Shape Classes of Lowland Maya Pottery. In Models and Methods in Regional Exchange, edited by Robert E. Fry, pp. 3-18. SAA Papers no. 1. Society for American Archaeology Papers, Washington, DC.
- 2003 Social Dimensions in Ceramic Analysis: A Case Study from Peripheral Tikal. Ancient Mesoamerica 14(1):85-94.

Gordon, George B.

- 1898 Researches in the Uloa Valley, Honduras. Memoirs of the Peabody Museum of American Archaeology and Ethnology, vol. 1, no. 4. Harvard University, Cambridge, MA.
- 1920 A Marble Vase from the Ulua River, Honduras. Art and Archaeology 9:141-145.

1921 The Ulua Marble Vases. Museum Journal 12:53-74.

Guderjan, Thomas H.

1995 Maya Settlement and Trade on Ambergris Caye, Belize. Ancient Mesoamerica 6(2):147-159.

Hamy, J.T.E.

1896 Etude sur les collections Américaines. Journal de la Societe de Américanistes de Paris 1(1):1-31.

- 1977 The Valle de Naco: Ethnohistory and Archaeology in Northwestern Honduras. Ethnohistory 24:363-377.
- 1992a Elites and Ethnicity along the Southeastern Fringe of Mesoamerica. In Mesoamerican Elites: An Archaeological Assessment, edited by Diane Z. Chase and Arlen F. Chase, pp. 155-168. University of Oklahoma Press, Norman.
- 1992b Variations on a Theme: A Frontier View of Maya Civilization. In New Theories on the Ancient Maya, edited by Elin C. Danien and Robert J. Sharer, pp. 161-171. University of Pennsylvania Press, Philadelphia.

1997 World of the Ancient Maya. Cornell University Press, Ithaca, NY. Henderson, John S., and Rosemary A. Joyce

2000 Space and Society in the Lower Ulua Valley, Honduras. Paper presented at the 65th Annual Meeting of the Society for American Archaeology, Philadelphia.

Henderson, John S., Irene Sterns, Anthony Wonderley, and Patricia A. Urban 1979 Archaeological Investigations in the Valle de Naco, Northwestern Hounduras: A Preliminary Report. Journal of Field Archaeology 6: 169 - 192

Hirth, Kenneth G., and Susan Grant Hirth

1993 Ancient Currency: The Style and Use of Jade and Marble Carvings in Central Hondura. In Precolumbian Jade, edited by Frederick W. Lange, pp. 173-190. University of Utah Press, Salt Lake City. Inomata, Takeshi

2001 The Power and Ideology of Artistic Creation: Elite Craft Specialists in Classic Maya Society. Current Anthropology 42(3):321-349.

Janusek, John W.

2002 Out of Many, One: Style and Social Boundaries in Tiwanaku. American Antiquity 13(1):35-61.

Joyce, Rosemary A.

- 1986 Terminal Classic Interaction on the Southeast Maya Periphery. American Antiquity 51(2):313-329.
- 1988 Ceramic Traditions and Language Groups of Prehispanic Honduras. Journal of the Steward Anthropological Society 15(1-2):158-186.
- 1991 Cerro Palenque: Power and Identity on the Maya Periphery. University of Texas Press, Austin.
- 1993a Appendix A: A Key to Ulua Polychromes. In Pottery of Prehistoric Honduras, edited by John S. Henderson and Marilyn P. Beaudry-Corbett, pp. 257-279. Institute of Archaeology Monograph 35. University of California, Los Angeles.
- 1993b The Construction of the Mesoamerican Frontier and the Mayoid Image of Honduran Polychromes. In Reinterpreting Prehistory of Central America, edited by Mark Miller Graham, pp. 51-101. University Press of Colorado, Niwot.
- 1996 Social Dynamics of Exchange: Changing Patterns in the Honduran Archaeological Record. In Chieftains, Power and Trade: Regional Interaction in the Intermediate Area of the Americas, edited by Carl Henrik Langeback and Felipe Cardenas-Arroyo, pp. 31-46. Departmento de Antropologia, Universidad de los Andes, Bogota, Colombia.
- 2000 High Culture, Mesoamerican Civilization, and the Classic Maya Tradition. In Order, Legitimacy and Wealth in Ancient States. edited by Janet Richards and Mary Van Buren, pp. 64-76. Cambridge University Press, Cambridge.
- 2004 El estudio de los polícromos Uluas: Honduras en el mundo Maya. Paper presented at the VIII Seminario de Antropologia Hondureña, Tegucigalpa.

Joyce, Rosemary A. and Russell, N. Sheptak

1983 Settlement in the Southwest Hills and Central Alluvium, Valle de Ulua. Report submitted to Proyecto Arqueologico Sula, Instituto Hondureno de Antropologia e Historia, Tegucigalpa.

Joyce, Rosemary A., Julia A. Hendon, and Jeanne Lopiparo

2008 Being in Place: Intersection of Identity and Experience on the Honduran Landscape. In Archaeologies of Place, edited by Brenda Bowser and Nieves Zedeño. University of Utah Press, in press.

Kidder, Alfred V.

1947 Artifacts of Uaxactun. Publication 576. Carnegie Institution of Washington, DC.

- 1984 The Greater Nicoya Archaeological Subarea. In The Archaeology of Lower Central America, edited by Fredrick W. Lange and Doris Z. Stone, pp. 165–194. University of New Mexico Press, Albuquerque.
- 1992 The Search for Elite Personages and Site Hierarchies in Greater Nicoya. In Wealth and Hierarchy in the Intermediate Area, edited by Fredrick, W. Lange, pp. 109-140. Dumbarton Oaks, Washington, DC. LeCount, Lisa
- 1999 Polychrome Pottery and Political Strategies among the Late and Terminal Classic Lowland Maya. Latin American Antiquity 10: 239-58.

Lincoln, Charles E.

- 1979a Architectural Test Excavations at Travesia, Honduras, 3-14 July 1978. Final report prepared for the Instituto Hondureño de Antropología e Historia, Tegucigalpa.
- 1979b Architectural Test Excavations at Travesia, Honduras. Human Mosaic 13:15-25.

Lopiparo, Jeanne

2003 Household Ceramic Production and the Crafting of Society in the Terminal Classic Ulua Valley Honduras. Ph.D. dissertation, Department of Anthropology, University of California, Berkeley.

Campbell, Lyle

Chapman, Anne

Henderson, John S.

Lange, Fredrick W

Luke, Christina

- 2002 Ulua Style Marble Vases. Ph.D. dissertation. Department of Anthropology, Cornell University, Ithaca, NY.
- 2003b Mesoamerican White Stone Vase Traditions and the Yse of Color. In ASMOSIA VI, Interdisciplinary Studies on Ancient Stone— Proceedings of the Sixth International Conference of the Association for the Study of Marble and Other Stones in Antiquity, Venice, June 15–18, 2000, edited by L. Lazzarini, pp. 507–516. Bottega d'Erasmo, Padova, Italy.
- 2005 Travesia and the Patronage of Production of Classic Period Ulua Marble Vases. Paper presented at the 63rd Annual Meeting of the Society for American Archaeology, Salt Lake City.
- 2006 Diplomats, Banana Cowboys, and Archaeologists in Western Honduras: A History of the Trade in Pre-Columbian Materials. *International Journal of Cultural Property* 13(1):25–57.
- 2008 Crafting Luxury: Late Classic White Stone Vase Traditions in Mesoamerica. In New Approaches to Old Stones: Recent Studies of Ground Stone Artifacts, edited by Yorke M. Rowan and Jennie R. Ebeling. Equinox Books, London.
- n.d. Memorializing the Landscape on Ulua-Style Marble Vases. *Anthropology and Aesthetics*, in review.

Luke, Christina, and John S. Henderson

- 2006 The Plunder of the Ulua Valley, Honduras, and a Market Analysis for Its Antiquities. In *Archaeology, Cultural Heritage and the Antiquities Trade*, edited by Neil Brodie, Morag M. Kersel, Christina Luke, Kathryn Walker Tubb, pp. 147–172. University Press of Florida, Gainesville.
- Luke, Christina, and Robert H. Tykot
- 2001 Craft Specialization in Late Classic Uluan Communities: Ulua Style Marble Vases. Paper presented at the 66th Annual Meeting of the Society for American Archaeology, San Francisco.
- 2002 Marble Sources and Artifacts from the Ulua Valley, Honduras. In ASMOSIA V, Interdisciplinary Studies on Ancient Stone—Proceedings of the Fifth International Conference of the Association for the Study of Marble and Other Stones in Antiquity, Museum of Fine Arts, Boston, June 11–15, 1998, edited by J. Herrmann, N. Herz, and R. Newman, pp. 394–406. Archetype Publications, London.

Luke, Christina, Robert H. Tykot, and Robert Scott

- 2006 Petrographic and Stable Isotope Analyses of Late Classic Ulua Marble Vases and Potential Sources. *Archaeometry* 48(1): 13–29.
- Luke, Christina, Rosemary A. Joyce, John S. Henderson, and Robert H. Tykot 2003 Marble Carving Traditions in Honduras: Formative through Terminal Classic. In ASMOSIA VI, Interdisciplinary Studies on Ancient Stone—Proceedings of the Sixth International Conference of the Association for the Study of Marble and Other Stones in Antiquity, Venice, June 15–18, 2000, edited by L. Lazzarini, pp. 485–496. Bottega d'Erasmo, Padova, Italy.

Martin, Simon and Nikolai Grube

2000 *The Chronicle of Maya Kings and Queens*. Thames and Hudson, London.

McAnany, Patricia A.

1993 The Economics of Wealth among Eighth-Century Maya Households. In *Lowland Maya Civilization in the Eighth Century A.D.*, edited by Jeremy A. Sabloff and John S. Henderson, pp. 65–89. Dumbarton Oaks, Washington, DC.

Nakamura, Seiichi

1987 Reconocimiento arqueologico de los Valles de La Venta y de Florida. *Yaxkin* 10(1):1–37.

O'Shepard, Anna

1948 *Plumbate, a Mesoamerican Trade Ware.* Publication 573. Carnegie Institution of Washington, DC.

Pendergast, David M.

- 1982 *Excavations at Altun Ha, Belize, 1964–1970.* Vol. 2. Royal Ontario Museum, Toronto, Canada.
- 1990 Excavations at Altun Ha, Belize, 1964–1970, vol. 3. Royal Ontario Museum, Toronto.

Rands, Robert L., and Ronald K. Bishop

1980 Resource Procurement Zones and Patterns of Ceramic Exchange in

the Palenque Region, Mexico. In *Models in Regional Exchange*, edited by Robert E. Fry, pp. 19–46. SAR Papers no 1. Society for American Archaeology, Washington, DC.

- Reents-Budet, Dorie
 - 1994 Painting the Maya Universe: Royal Ceramics of the Classic period. Duke University Press, Durham, NC
 - 1998 Elite Maya Pottery and Artisans as Social Indicators. In *Craft and Social Identity*, Edited by Cathy L. Costin and Rita P. Wright, pp. 71–89. Archaeological Papers of the American Anthropological Association 8. American Anthropological Association, Arlington, VA.

Reents-Budet, Dorie, Ronald L. Bishop, and Barbara MacLeod

1994 Painting Styles, Workshop Locations and Pottery Production. In *Painting the Maya Universe: Royal Ceramics of the Classic Period*, by Dorie Reents-Budet, pp. 164–233. Duke University Press, Durham, NC.

Reents-Budet, Dorie, Ronald Bishop, Jennifer T. Taschek, and Joseph Ball 2000 Out of the Palace Dumps: Ceramic Production and Use at Buenavista del Cayo. Ancient Mesoamerica 11:99–121.

Rivera, Juan Carlos

2005 Arqueólogos descubren pieza de mármol trabajada por los lencas hace mil anos. *Tiempo*, July 31, San Pedro Sula, Honduras.

Robinson, Eugenia J.

- 1978 Maya Design Features of Mayoid Vessels of the Ulua-Yojoa Polychromes. Master's thesis, Department of Anthropology, Tulane University, New Orleans.
- Schaffer, Anne-Louise
- 1992 On the Edge of the Maya World. *Archaeology* 45(2):50–52. Sheehy, James

1978 Informe preliminar sobre las excavaciones en Travesia en 1976. Yaxkin 5(2):89–94.

Russell N. Sheptak

1987 Interaction between Belize and the Ulua Valley. In Interaction on the Southeast Mesoamerican Frontier: Prehistoric and Historic Honduras and El Salvador, vol. 2 edited by Eugenia J. Robinson, pp. 247–266. BAR International Series 327. British Archaeological Reports, Oxford.

- 1938 *Masters in Marble*. Middle American Research Series 8(1). New Orleans.
- 1941 Archaeology of the North Coast of Honduras. *Peabody Museum Memoirs 9(I)*. Cambridge.
- 1948 The Northern Highland Tribes: The Lenca. In *The Handbook* of South American Indians, Volume 4, Bulletin 142: The Circum-Caribbean Tribes, edited by Julian H. StewardSmithsonian Institution, Washington, DC.
- 1963 Cult Traits in Southeastern Costa Rica and Their Significance. *American Antiquity* 28(3):339–359.
- 1972 Pre-Columbian Man Finds Central America. Peabody Museum Press, Cambridge, MA.
- 1977 Pre-Columbian Man in Costa Rica. Peabody Museum Press, Cambridge, MA.

1939 *Excavations at San Jose, British Honduras.* Publication 506. Carnegie Institution of Washington, DC.

Viel, Rene

1978 Etude de la céramique Ulua-Yojoa Polychrome (Nord-Ouest de Honduras): Essai d' analyse stylistique du Babilonia. Ph.D. dissertation, Université René Descartes, Paris.

1993 Evolución de la Cerámica de Copán, Honduras. Instituto Hondureño de Antropologia e Historia, Tegucigalpa.

Webster, David

1992 Maya Elites: A Perspective from Copan, In *Mesoamerican Elites*, edited by Diane Z. Chase and Arlen F. Chase, pp. 135–156. University of Oklahoma Press, Norman.

Wiessner, Polly

1990 Is There Unity to Style? In *The Uses of Style in Archaeology*, edited by Margaret Conkey and Christien Hastorf, pp. 105–112. Cambridge University Press, Cambridge.

Stone, Doris Z.

Thompson, J. Eric S.