Ulúa-Style Marble Vase Project: Dissemination of Results

Research Year: 2003
Culture: Maya
Chronology: Late Classic
Location: Northwestern Honduras
Site: Ulúa Valley

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Abstract

Funds were awarded for the dissemination of a dissertation on Ulúa-style marble vases to museums and research institutions with Ulúa-style marble vases in their collections that contributed to the current study through information, photographs, and/or samples for chemical analyses. All copies were on archival paper and hardbound; pages with images, particularly the catalog, were laser-printed individually to ensure the highest possible quality of photographs and drawings.

This project marks the first comprehensive study of Ulúa-style marble vases, based on collections in the United States, Central America, and Europe, reconstructing their contexts using the latest scholarly investigations in archaeology, iconography, and scientific analyses. The dissertation will be a valuable resource for scholars of Pre-Columbian art and archaeology working with collections at these institutions and while conducting field research.

Resumen

Nos fueron otorgados fondos para la divulgación de una tesis sobre los vasos de mármol de Ulúa, entre museos e institutos de investigación que contaran con estos vasos de mármol estilo Ulúa en sus colecciones, y que contribuyeron con el presente estudio a través de información, fotografías, y/o muestras para análisis químicos. Todas las copias se hicieron en papel de archivo y se encuadernaron; las páginas con imágenes, particularmente las del catálogo, fueron impresas con láser para garantizar la máxima calidad posible para las fotografías y los dibujos.

Este proyecto marca el primer estudio amplio de los vasos de mármol estilo Ulúa, basado en colecciones que se encuentran en los Estados Unidos, Centroamérica y Europa, y que reconstruye sus contextos por medio de las más recientes investigaciones académicas en arqueología, iconografía, y análisis científicos. La disertación resultará una herramienta útil para aquellos eruditos del arte y la arqueología precolombinos que trabajen con las colecciones de estas instituciones, así como para aquellos que llevan a cabo trabajos de campo.

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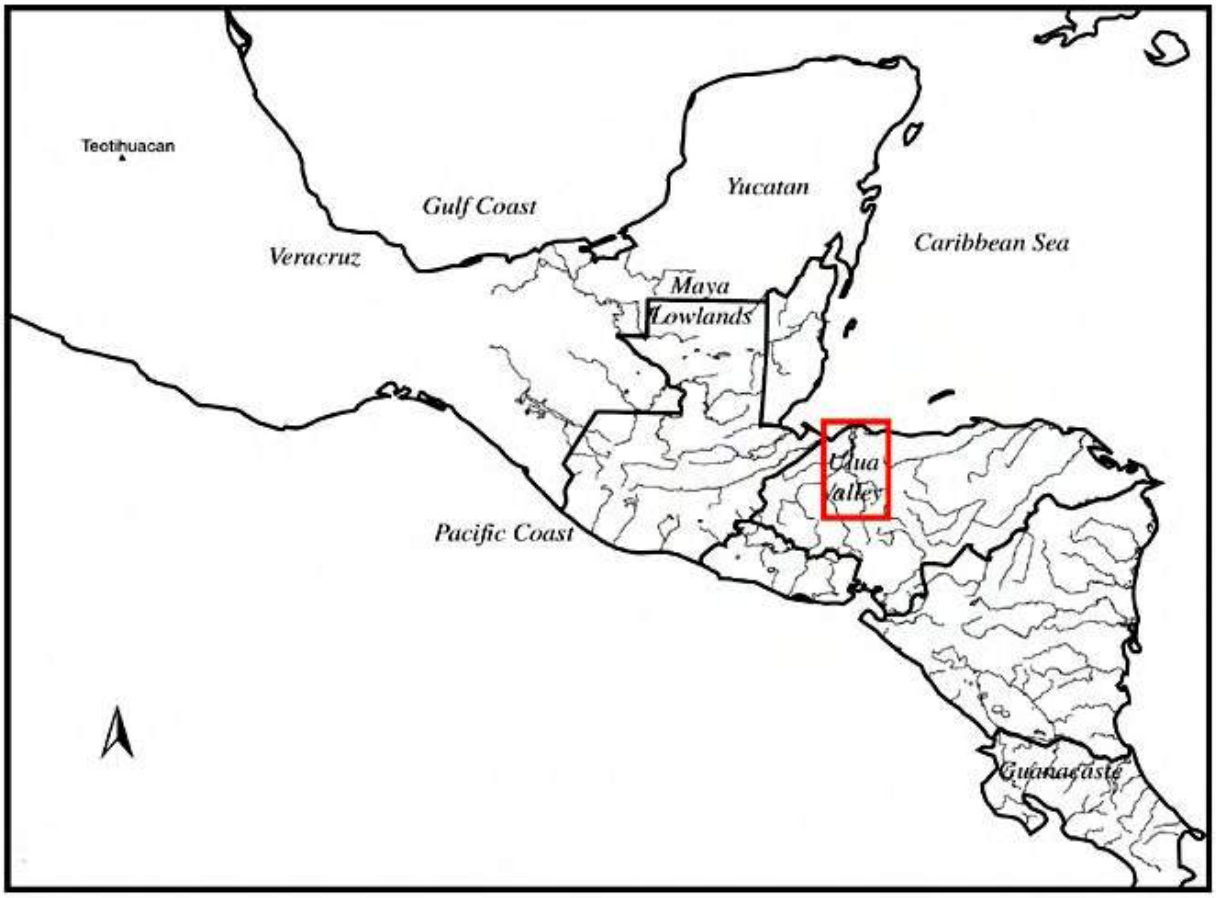
Dissertation: Ulúa-Style Marble Vases

Doctoral Dissertation, Anthropology, Cornell University, Ithaca (Luke 2002a).

Table of Contents of Dissertation

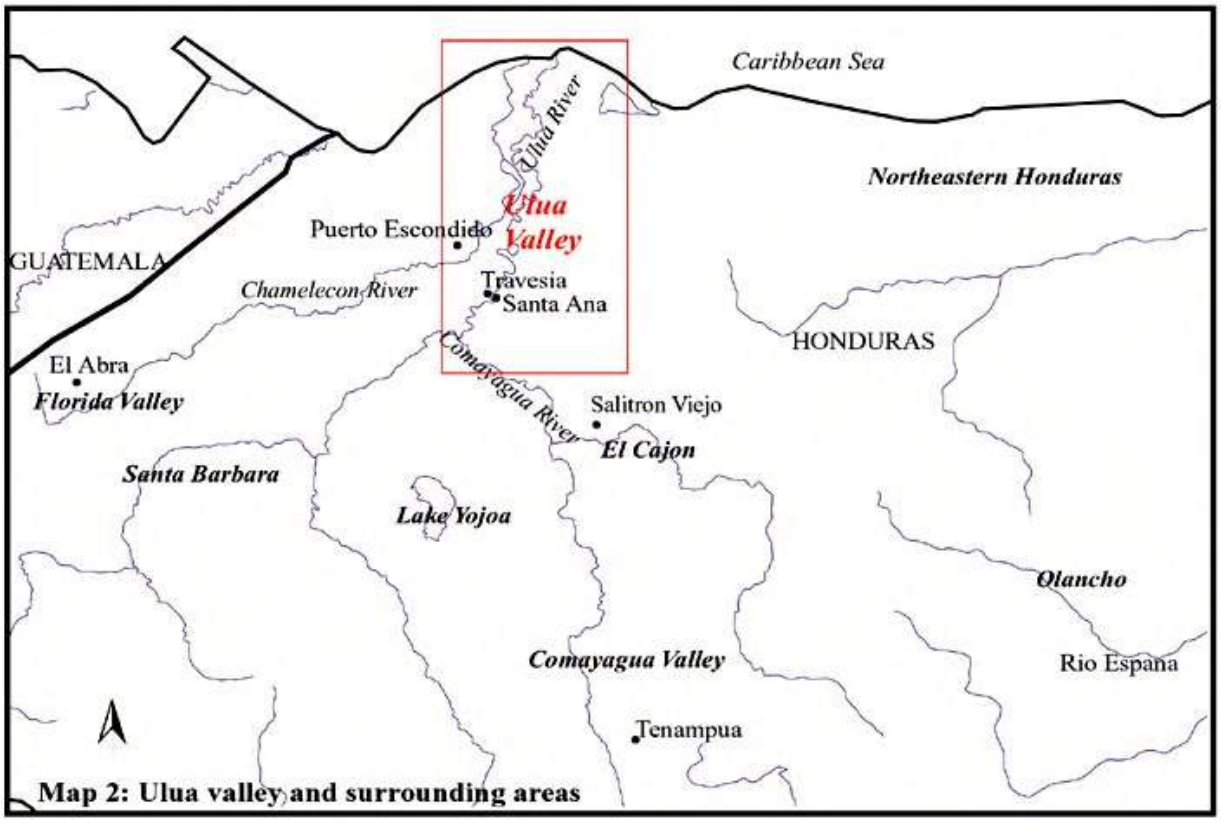


Map 1. Ulúa Valley in a regional context.

Introduction

The fertile alluvium of the Ulúa valley in northwestern Honduras covers ca. 2,400 kilometers and includes a vast range of environmental conditions and a rich and varied flora and fauna including deer, tapir, monkeys, quetzals, and felines. Shell and other

marine resources are available in the north where the Ulúa River meets the Caribbean. A local obsidian source can be found on the southwestern flank of the valley and jade from the Motagua valley is located west just over the Honduran-Guatemalan border. The region was particularly known for cacao, among the richest in Mesoamerica according to conquest documents. The Chamelecón, Ulúa, and Comayagua rivers that flow into the valley provide natural routes of communication to Yucatán and the central and southern Maya Lowlands as well as to central, southern, and eastern Honduras and onto lower Central America. This lush valley and its unique geographic position–typically described as the "Maya Frontier"–places the valley in a key location with interaction between the cultures of lower Central America and those of the Maya lowlands. The goal of this project is to understand how one specific object, Ulúa marble vases, functioned in this diverse region during the Late Classic period.



Map 2. Ulúa Valley and surrounding areas.

Ulúa marble vases represent a luxury good produced in the valley and exchanged to neighboring regions as well as distant communities in Guanacaste, Costa Rica and the central Maya Lowlands. During the mid-1920s and the 1930s two archaeologists–E.G. Gordon (1920, 1921) and Doris Stone (1938)–turned their attention to these exquisite vases (also see Stone 1972, 1977). Yet, it wasn't until Anne-Louise Schaffer's 1992

MFA Houston exhibition–*On the Edge of the Maya World*–that a more up-to-date investigation was completed. My study builds on these art historical approaches and combines data on settlement patterns, archaeological contexts, stylistic analyses and chemical analyses to explore vessel use and production. The basic theoretical framework is that artifacts representing a high level of skill with a shared iconography, limited distribution, and similar chemical signatures represent luxury items most likely produced in centralized locations by artisans for wealthy patrons (see Ball 1993; Beaudry 19984; Clark 1995; Clark and Perry 1990; Clark and Houston 1998; Costin 1991, 1998; Inomata 2001; Reents-Budet 1994, 1998; Reents-Budet *et al*. 1994; Reents-Budet *et al*. 2000).

My preliminary results of the vases indicated that the standardized forms, elaborately carved iconography, limited distribution in putative high-status contexts in the valley and outside of the region and the concentration of vases in the central valley at Travesía strongly pointed to centralized production. Petrographic and stable isotope analyses of vases and potential sources were conducted in hopes that the results would confirm decentralized or centralized production and provide a working hypothesis of which sources may have been used for procurement (see Luke and Tykot 2002). These results confirm centralized production.

Late Classic Research in the Lower Ulúa Valley of Honduras

Like other lowland Maya regions, the lower Ulúa valley experienced a period of unprecedented growth during the Late Classic period (ca. A.D. 600-800) (Henderson 1997a, 1997b; Joyce 1991). A number of regional centers, located more or less equidistant from each other, were surrounded by smaller centers and hamlets, perhaps wealthy farmsteads. Artifact distribution points to close contact with the neighboring regions of Yojoa and Comayagua to the south and east, with limited direct contact to the west with the Copán valley. The exchange of raw materials, finished products, and stylistic imagery demonstrate foreign ties with communities to the south in regions of El Salvador, Nicaragua, and Nicoya-Guanancaste, Costa Rica and to the north with the central and northern Maya Lowlands (see Henderson 1992a, 1992b, 1988, 1984; Henderson *et al*. 1982; Hirth 1988; Joyce 1996, 1993b, 1991, 1986, 1985).

Late Classic Ulúan communities operated in relatively independent, but clearly overlapping spheres of interaction. Although not united under one political center, communities shared general notions of style, most notably the designs on locally produced painted polychrome pottery (see Joyce 1993b, 1991, 1985). Polychrome iconography drew from local traditions as well as those of greater Mesoamerica (Joyce 1993, 1991; Robinson 1978; Stone 1957; Strong, Kidder and Paul 1938; Viel 1978). Found in all types of contexts, the distribution and access to polychrome pottery does not appear to have been restricted in the region. In fact, production may have been at the household level. Researchers have argued that specific polychrome styles appear to have been used as visual markers for community identity (Joyce 1993b, 1991; Sheptak 1987).

Figure 1. Santa Ana corpus: two marble vases, one gold figure, and one jade hand (Courtesy of the Middle American Research Institute).

Exotic imports include worked jades, gold objects, Spondylus, green obsidian, and fancy ceramics (Hirth 1988; Joyce 1991). Jade was most likely imported as finished objects and as a raw material subsequently worked in a local style (see Hirth and Hirth 1993).

Shown in Figure 2a- Figure 2c: Peor es Nada corpus: seven jades, two marble vases and two polychromes (not shown) (Courtesy of the Middle American Research Institute; see Stone 1972: 141).

Figure 2a. Peor es Nada corpus: five of seven jades (Courtesy of the Middle American Research Institute; see Stone 1972: 141).

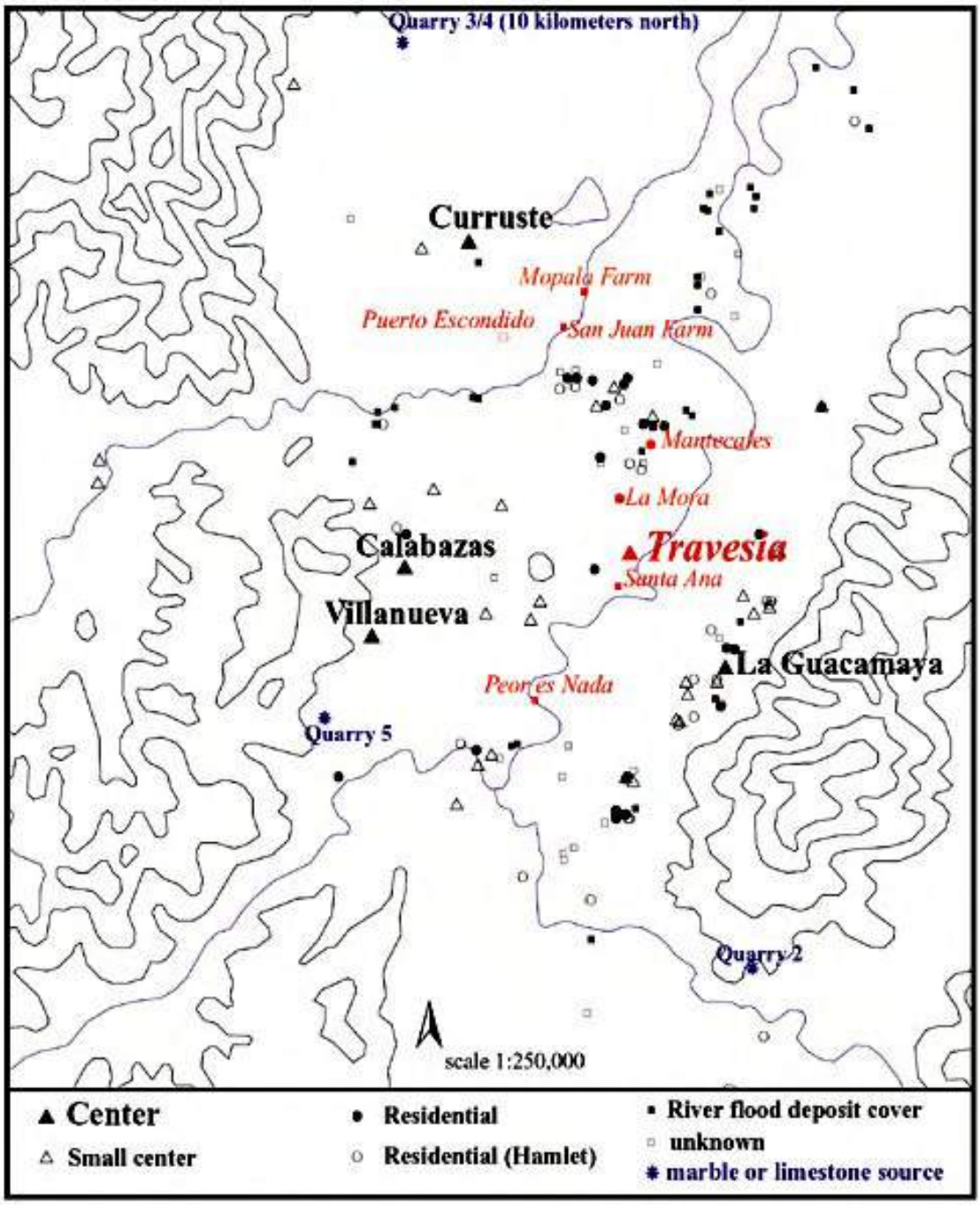
Figure 2b. Peor es Nada corpus: two of seven jades (Courtesy of the Middle American Research Institute; see Stone 1972: 141).

Figure 2c. Peor es Nada corpus: two marble vases (Courtesy of the Middle American Research Institute; see Stone 1972: 141).

Ulúa marble vases are among the locally produced luxury objects and have been found associated with other fancy items including polychromes, jades, and gold objects (Henderson 1992a; Stone 1972, 1977; Schaffer 1992). Unlike polychromes, current data for marble vases indicates that they are found only in special purpose and/or high-status contexts in the valley. And, these marble vases most likely marked one specific community at the site of Travesía, much the way polychrome ceramics functioned as identity tags.

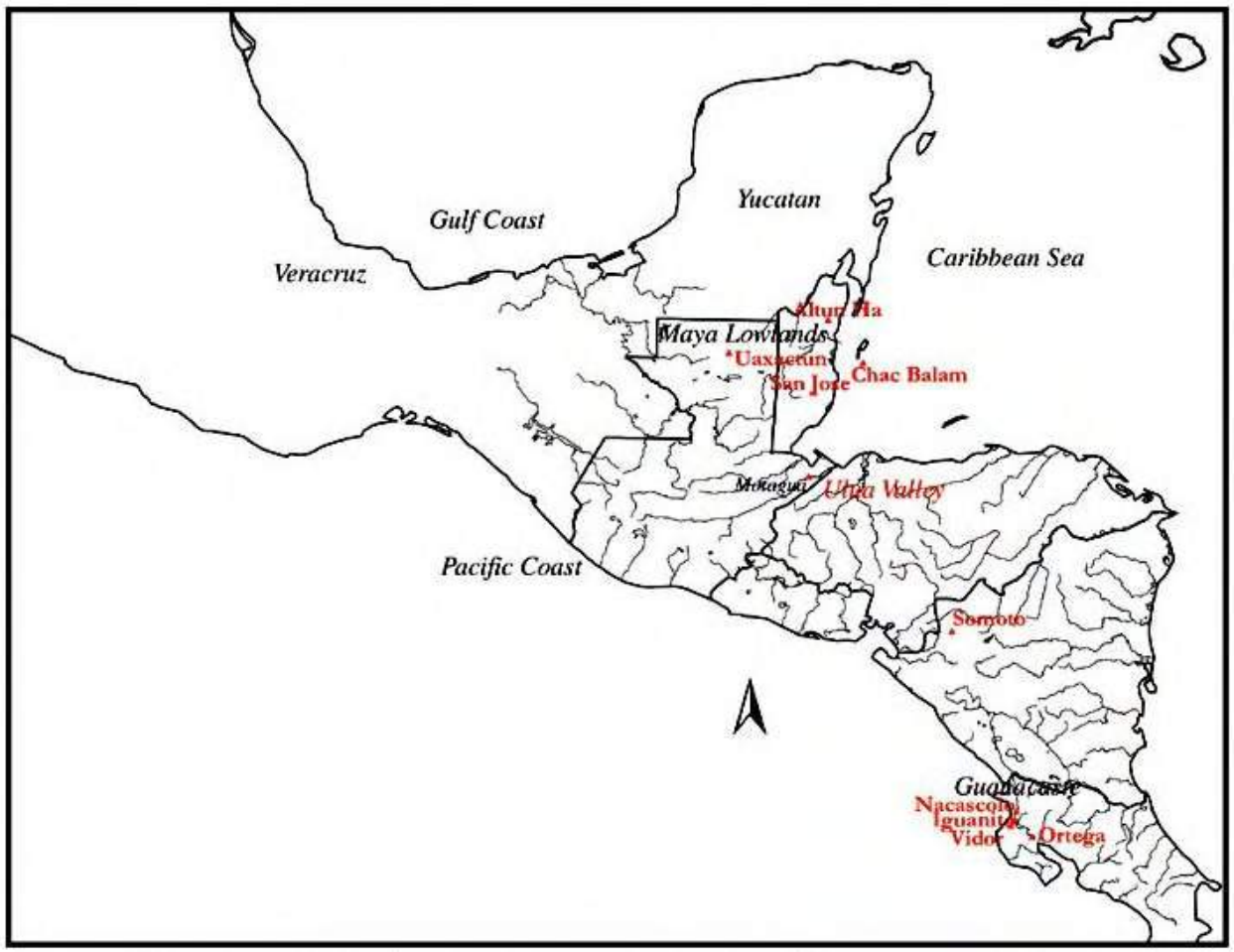
There are approximately 140 whole Ulúa marble vases and fragments located in institutions in the United States, Europe and Central America and a handful in Honduran

and Guatemalan excavation depots; an additional 30 to 50 are located in private collections, many of which are on display for the public at museums. This makes the known corpus approximately 200 and attests to the rarity and special nature of the vases.



Map 3. Late Classic sites and marble sources in the Lower Ulúa Valley.

Of those vases with site provenience, approximately 60% are from the Travesía area, including the nearby sites of Santa Ana, Mantecales, La Mora, Peor es Nada, and Puerto Escondido. Vases are notably absent from the other known regional centers of La Guacamaya, Calabazas, Curruste, and Villanueva.[1] In neighboring regions, vases come from the centers of El Abra (Nakamura 1987), Tenampua, and Salitron Viejo (Hirth and Hirth 1993).



Map 4. Distribution of Ulúa marble vases outside of Honduras.

Vases are found at the prominent centers of Nacascolo (Abel-Vidor *et al*. 1987; Stone 1972, 1977), Vidor, Iguanita (F. Lange, personal communication, 2002) and Ortega (Ferrero 1981) in Guanacaste, and Altun Ha (Pendergast 1990, 1982), San Jose (Thompson 1939) and Uaxactún (Kidder 1947) in the central Maya Lowlands; several

[1] The pillage of sites in the Ulúa Valley for marble vases is endemic. Many sites have been completely destroyed from plunder activities. Furthermore, the collecting of marble vases has been on the rise for the last twenty years and the market is saturated with forgeries (see Luke and Henderson 2003).

vase fragments were excavated in the Motagua valley (G.R. Walters, personal communication, 2002) and one fragment is from Chac Balam (Guderjan 1995).

The Ulúa Marble Style

Ulúa-style marble vases are carved from a single block of white marble. Artisans divided the pictorial surface into two halves: an obverse and a reverse. Although the two sides may appear symmetrical, each is unique. On the majority of vases, dual lug anthropomorphic handles vertically separate the obverse and reverse sides. I have classified vases based primarily on handle type: bird, bat, monkey, feline or a composite of a feline and serpent, following conventions of classifying Ulúa polychromes (see Joyce 1993a; Viel 1978). An upper and/or a lower border frame the wrap-around iconographic program of volutes, the hallmark characteristic of Ulúa-style marble vases. Most frequently volutes form profile and frontal heads. A number of motifs, including the mat, scales, volutes, winged-volutes, triangles, bow ties and circles with central dots are used as fillers in the main program around these heads.

There are a number of border types: scales, voussures (repeating half-moon shape), interlocking keys, circles with a central dot, single and parallel circumferential lines, mat motifs, profile serpent heads, repeating Xs, ropes, and chevrons. Certain motifs are often combined in one border, especially voussures and interlocking keys. The mat motif is usually associated with voussures, interlocking keys, or serpents, but not with scales. Scale borders are most frequently found on vases with bird and bat handles; other border types are most commonly associated with feline handles.

There are two common forms of vases: cylinders and drums. In this study, a cylinder is defined as a vessel with a height greater than its diameter. A drum is a vessel with a diameter greater than its height. Ring and tripod supports are found on the majority of vases, while a limited number lack supports. Ring supports are common for cylinders, while tripod supports are more common for drums. Incised patterns, openwork step and triangle motifs alternate around ring supports. Flat bases are the norm for vases lacking handles and on vases with only a single handle.

A number of vases have remains of white, red/pink and/or blue/green stucco on the exterior and interior (see Luke 2003b). Found on the main iconographic program, base, handles, lip, and interior, the entire surface of white marble may once have been covered, similar to carved stone monuments from Mesoamerica.

Chronology of Ulúa Marble Vases

Based on archaeological contexts with Ulúa polychromes, Ulúa vase distribution, established exchange networks of artifacts from the Ulúa valley (see Joyce 1985, 1986, 1993a, 1985, 1996; Henderson 1984, 1988, 1992a, 1992b, 1997b; Hirth 1988; Stone 1957, 1972, 1977; Robinson 1978, 1987; Viel 1978), a working chronology of Ulúa-style

marble vases can be constructed. Stratigraphic data from the central valley provide the best context for the earliest documented Ulúa marble vase, associated with a Red Class polychrome, ca. 650 A.D. (Joyce, personal communication). Those vases with bird and bat handles (ca. 650-750 A.D.) appear to predate those with feline characteristics (750-850 A.D.) (see Luke 2002 for details). The best evidence for this is the types of vases found in the southern regions. Communication routes were strongest along the southern networks during the early phases of the Late Classic (Joyce 1986). The close stylistic association with Late Classic Lug Head polychromes Paloma and Bombero (see Joyce 1993a; Viel 1978) and marble vases found in the south also argues for an earlier date for marble vases with bird and monkey handles than those with feline handles. Vases with feline characteristics are found to the north in the central Maya Lowlands, again following documented shifts in stylistic changes and communication networks during the end of the Late Classic (see Joyce 1986, 1993b, 1996). The vases from the central Maya Lowlands also provide the latest known contexts, ca. 800-850 A.D. Other stylistic motifs offer additional dating criteria. For example, scale border types, most commonly found on vases with bird and bat handles, are another reliable stylistic criteria for early vases, while voussure and mat motifs in the borders are usually associated with later styles.

Chemical Signatures of Sources and Vases

The materials science component of this study included two goals. First, possible sources of marble were located and sampled (Luke *et al*. 2000; Luke and Tykot 2002, 2001, m.s.). The second component was to sample vases in hopes that their signatures would provide data on the number of possible sources and may overlap with sampled sources and, thus, indicate potential procurement areas. For the vases and the sources stable isotope analyses of the ratios of carbon 13 and oxygen 18 were used, as these ratios have proven to be effective for sourcing marble in the Mediterranean (see papers in Herz and Waelkens 1988; True and Podany 1990; Waelkens *et al*. 1992; Maniatis *et al*. 1995; Herrmann *et al*. 2002; Herz 1990, 1992; Pike 2000; Tykot, Hermann *et al*. 2001; Tykot, R.H., R. Newman *et al*. 1998; van der Merwe, Hermann *et al*. 1995). Petrographic analyses of sources helped determine which sources were true marble and their respective geologic age.

The geological survey concentrated on the low hills on the valley floor and the surrounding mountain ranges. Samples were taken from sixty-nine Ulúa-style marble vases from museum and excavation collections in the United States, Italy, Honduras, and Guatemala; results were inconclusive for one vase. All but one stylistic group is represented in the sampled corpus. At the time of sampling, vases with a single bird handle were not included in the study as none were held by museums or stored in excavation depots (Luke 2002b). Based on my research one-hundred thirty-six vases and fragments are located in museum and excavation collections. Chemical results presented in this study represent approximately 50% of this known corpus. Future analyses will include an additional thirty vases from museum and excavation collections making the final sample size approximately 70% of this corpus.

The petrographic results and consultations with Marmoles de Honduras confirm that there are three marble sources in the valley (Luke *et al*. 2000). A number of limestone sources were located and used for the data presented in the dissertation. Our understanding of the chemical signature of limestone bedrock of an exhausted marble source was that it would be the same as marble once available at the quarry (Luke and Tykot 2002). Based on recent consultations with colleagues, this may not be true and, hence, this study must rely only on the sources that we have evidence for marble. Thus, the original data set has been reduced to only three quarries (Luke and Tykot, m.s.).

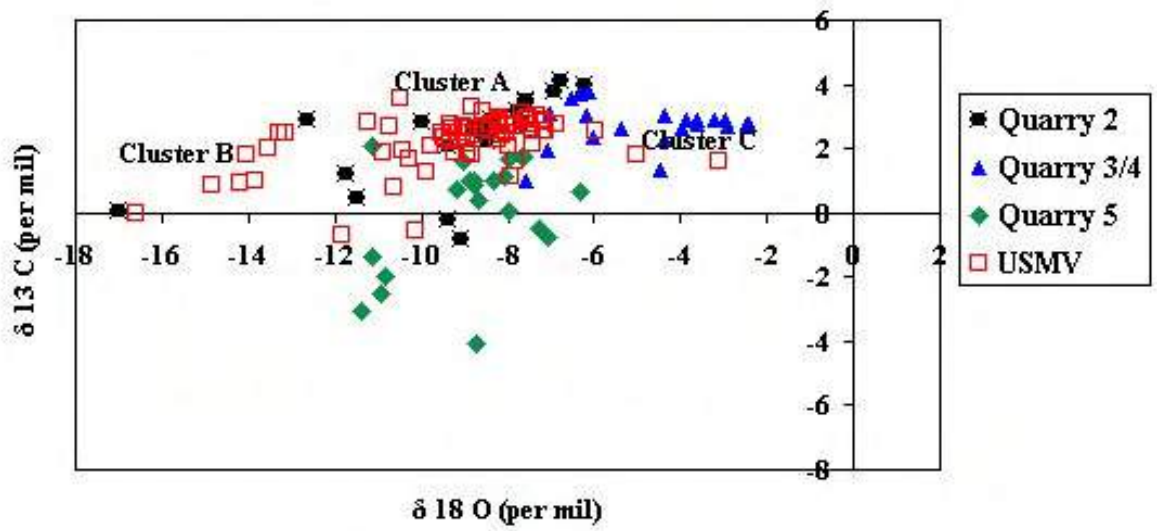


Figure 3. Stable Isotope results from three marble quarries and Ulúa-style marble vases (USMV).

Stable isotope analyses of sixty-eight Ulúa-style marble vases indicate that vases do have similar isotopic ratios. The majority of vases sampled, fifty-eight vases (85% of the sample size), fall into a very tight group, shown as Cluster A in Figure 3, above. Eight vases make-up Cluster B (8.5% of the sample size). Two sampled fragments fall outside of these two cluster groups, tentatively called Cluster C. The concentration of fifty-eight vases in Cluster A suggests that a single marble source was preferred. The two other clusters may indicate a second location from the same source[2] or two additional sources.

All broad stylistic groups (Groups 1-5) were included in this sample and are included in both Cluster A and Cluster B; the outlying Cluster C results are from two small fragments from Altun Ha in Belize. Results from the vases demonstrate that there was

[2] Pike's (2000) research on Pentelic marble very clearly demonstrates that specific areas of this quarry have homogenous signatures, while the entire signature of a given quarry may be very broad. Artifacts have been attributed to specific zones in the quarry, many with ancient quarry marks. Hence, it is likely that areas in Quarry 2 may have very specific signatures within the broad isotopic field.

most likely one primary source, those vases part of Cluster A. Clusters B and C could represent outliers from the same source used to produce vases from Cluster A or they represent secondary sources.

Petrographic results confirm marble at three sources. The stable isotope results of these sources can be compared with the vase results (Luke and Tykot m.s.). Quarry 2 overlaps with both Cluster A and Cluster B; Quarry 3/4 overlaps with Cluster B; Quarry 5 overlaps with Cluster A.

These results suggest two different procurement scenarios. First, Quarry 5, the closest source to Travesía and located near a local obsidian source, may have been the preferred source with two secondary sources. Quarry 5 has a commanding view of the entire central valley, particularly the Travesía area. Quarry 2 is located along a prominent southern exchange route to El Cajon, Olancho, and Lower Central America beyond. Its large cliffs may have acted as a beacon attracting attention to the source. Similarly Quarry 3/4 is located along the northern route, again with prominent white cliffs that may have held special significance in procurement processes.

The second alternative is that Quarry 2 was the primary source and Quarry 3/4 was a secondary source; Quarry 5 may or may not have been used. The large isotopic field of Quarry 2 overlaps with all but the fragments from Altun Ha, strongly arguing for this as the main source. Under this scenario, Cluster B most likely represents a second procurement area in Quarry 2 and the samples from Altun Ha point to the northern source, Quarry 3/4.

Conclusions

The results of this multi-disciplinary approach do indicate centralized production for Ulúa style marble vases. The skill involved in carving the vase as well as the knowledge required for sculpting the iconography are all hallmarks of highly trained artisans (see Reents-Budet 1994, 1998; Reents-Budet *et al*. 2000). Furthermore, the high frequency distribution at the prominent site of Travesía and nearby vicinity coupled with the chemical results pointing to a main procurement source with two possible secondary sources argue for a central production location. The number of vases known to exist (approximately 150-200) and the broad time frame of production over approximately 200 years (650-850 A.D.) suggest a specialized microtradition located in the lower Ulúa valley over a period of three to four generations. Approximately fifty to sixty vases would have been produced under one master sculptor in a central workshop of two to three apprentices. This type of organization suggests a prosperous site that supported the workshop as well as acted as a node for the communication of knowledge related to the sacred imagery on the vases and the exchange of luxury goods, including the vases themselves.

Travesía has long been considered a key site in the valley (Stone 1941), but not a site considerably larger or more powerful than other regional centers (Joyce 1991, 1983).

Each center may have had specific iconography associated with it, under the larger Ulúan canon. Travesía used polychromes as visual identity markers (Joyce 1991), perhaps even sculpture and building materials–cut white stone–and carved white stone vases. And, Travesía also may have held considerable sway over the production as well as the movement of cacao. Located on the banks of the Ulúa river and in prime cultivation land for cacao, access to exchange and communication routes as a result of this sought after commodity may have placed Travesía in a particularly favorable position among other regional centers. Luxury goods would have signaled the social prominence of the site. Prominent community members may have gifted vases to form and strengthen alliances at smaller hamlets part of the greater Travesía community. The movement of cacao along the river may have allowed community members to receive as well as give luxury items to foreign dignitaries. And, as exchange routes shifted over time from a southern focus to the northern Caribbean sphere canons changed on the marble vases.

In conclusion, long-standing white stone vase traditions in Honduras (see Luke *et al*. 2000) allowed a specialized artisan and patron group at Travesía to tap skills as well as resources in their endeavor to develop a very specific luxury tradition. This tradition placed the Ulúa valley on the greater Mesoamerican map in a way not previously reached. Goods produced in the region, particularly polychromes and marble vases, influenced craft production in southern regions of El Salvador, Nicaragua, and northern Costa Rica. And, in later times, these elaborate marble vases made their way to prominent central Maya Lowland sites along with other Late Classic white stone vase traditions known from the central and northern lowlands and México–also restricted in number and style and limited to putative elite contexts (see Luke 2003a). The link with white stone vases in various styles (Maya, Yucatán and Mexican) as elite goods is clearly shown in their associations with each other at the sites of El Abra, Altun Ha, San Jose, Yaxchilán, Uxmal, Ek Balam, and Chichén Itzá, among other sites. And, in many examples elaborate jades or gold objects were also associated with the vases in truly fantastic contexts (see Luke 2003a). The marble vases from the Ulúa valley are among the finest from greater Mesoamerica and clearly indicate a community interacting within a vast "Mesoamerican Corridor" from Guanacaste to the central Maya Lowlands.

Acknowledgements

This project could not have been completed without the support of so many wonderful people and institutions. First, I am grateful to the Instituto Hondureño de Antropología e Historia for the opportunity to conduct research in Honduras. I wish to thank John S. Henderson (Cornell University) and Rosemary Joyce (UC Berkeley) for their friendship and comments during my dissertation writing. Robert Tykot (University of South Florida) has been an integral part of this research, responsible for all stable isotope results as well as expert guidance on marble sourcing. And, Anne-Louise Schaffer's research for her exhibition On the Edge of the Maya World provided a base point for this study. Thanks to the Foundation for the Advancement of Mesoamerican Studies, Inc., (FAMSI) for grant funds provided for the dissemination of my dissertation. Funding for the

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(keeper of ethnology: George Bankes); University of Pennsylvania Museum, Philadelphia (director: Jeremy Sabloff, assistant keeper: Melissa S.E. Wagner, photo archivist: Charles Kline, acting archivist: Alex Pezzati, senior conservator: Virginia Greene).

Appendix: Classification of Ulúa-Style Marble Vases and Representative Image Collection

Conventions of form, motifs, and imagery allow for the placement of vases into five groups and a number of sub-groups. All whole vases and fragments and their attributes were entered into a database (Microsoft Access) using standard code names (Appendix A). I searched, using the advanced filter application in Microsoft Access for co-variation between vessel form and stylistic data. I placed the greatest weight on handle form, as I believe that this trait is the most diagnostic among the marbles without ambiguity; handle type also is used as a diagnostic trait for Lug Head polychromes (Joyce 1993a; Viel 1978). Sub-groups can be documented by comparing variation in vessel form against the cohesiveness of the resulting handle groups. I found that handle form and vessel form and support type correlated with other variables–iconographic motifs and patterns. These iconographic variables–upper border, central program, and volute type–do correspond with vessel form, but are less sensitive traits due to a higher frequency of variation, possibly due to workshop organization and/or the individual skills of the artisans.

The major five groups and a number of fragments are illustrated here. Please consult Luke (2002a) for more detailed information regarding sub-groups and sub-sub-groups as well as the isotope data for specific vases. The reference numbers for the images presented correspond to the catalogue entries in Luke (2002a).

Groups

Group	Sub-Group
Group 1: Bird and Serpent Handles	
	1A: Tripod vases with two bird handles
	1B: Ring support vases with two bird handles
	1C: Vases with one handle
Group 2: Bat and Monkey Handles	
	2A: Two handle tripod vases

2B: Two handle ring support vases with bat handles

Group 3: Feline Handles

3A: Feline handles lacking bound tails

3B: Feline handles with bound up-turned tail

3C: Feline handles with bound tail

3D: Double-headed or multiple feline handles with a ring support

Group 4: Composite Handles

4A. Two handle tripod vases

4B. Two handle ring support vases

Group 5: No or small Handles

5A. Tripod vases

5B. Tetrapod vases

5C. Ring support vases

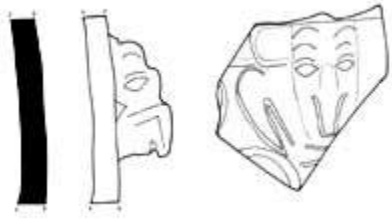
5D: Vases lacking supports

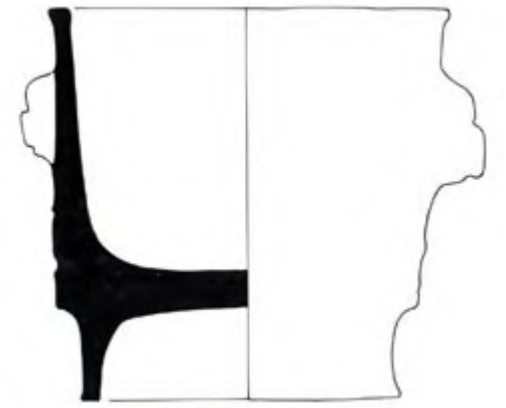
5E: Extremely small and unidentifiable handles

Group 1: Bird and Serpent Handles

Group 1 vessels have either dual or single bird or, more rarely, serpent lug handles. In all but one example, scale borders frame the central program. Profile heads are far more common than frontal heads on tripod forms. Frontal heads flanked by profile heads are more commonly found on cylindrical vases with ring supports. Vessel supports include tripod and ring supports, save the one-handle drum forms lacking supports. Vessels with tripod supports, usually drum forms, are more common than cylinders with ring supports.

Click on an image to view a larger image.

Group 1: Bird and Serpent Handles	
 	Staatliche Museen zu Berlin - Preußischer Kulturbesitz Ethnologishes Museum IV ca 23587 Region: Ulúa Valley Site: Travesía Ref: Luke Vase 3
Sub-Group 1A: Tripod vases with two bird handles	
	Courtesy of the Middle American Research Institute Tulane University H.1.3 35.6539 Region: Ulúa Valley Site: Peor es Nada Ref: Luke Vase 7

	Staatliche Museen zu Berlin - Preußischer Kulturbesitz Ethnologishes Museum VI ca 21067 Region: Ulúa Valley Site: Travesía Ref: Luke Vase 11
Sub-Group 1B: Ring support vases with two bird handles	
	Carved Vase with Eagle Handles, *ca*.650-700 H: 3-15/16 inches W: 4-3/4 inches Chrysler Museum of Art, Norfolk, VA Gift of Walter P. Chrysler, Jr. 78.518 Region: Ulúa Valley Ref: Luke Vase 14
	Peabody Museum of Archaeology and Ethnology Harvard University Cambridge, Massachusetts 96-35-20/C1161 Region: Ulúa Valley Site: Lagartijo Ref: Luke Vase 15 See Peabody Museum of Archaeology and Ethnology website: www.peabody.harvard.edu/col/Image

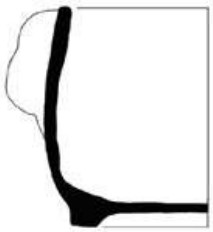
	Courtesy of Museum of the American Indian Smithsonian Institution, Washington D.C. 6.1262 Region: Ulúa Valley Ref: Luke Vase 17
	Courtesy of the Popol Vuh Museum Guatemala City, Guatemala 0690 Region: Motagua Valley Ref: Luke Vase 18

Group 2: Bat and Monkey Handles

Group 2 vessels have dual lug bat or monkey handles. Similar to Group 1, vessels with tripod supports, usually drums, are more common than vessels with ring supports, usually cylinders. All examples in this group have upper scale borders. In the main program, there is a high probability of profile images, while frontal images are rare.

Group 2: Bat and Monkey Handles	
  	Staatliche Museen zu Berlin - Preußischer Kulturbesitz Ethnologishes Museum VI ca 23175 Region: Ulúa Valley Site: Travesía Ref: Luke Vase 25
	Staatliche Museen zu Berlin - Preußischer Kulturbesitz Ethnologishes Museum VI ca 23176 Region: Ulúa Valley Site: Travesía Ref: Luke Vase 26
Sub-Group 2A: Two handle tripod vases	
 	Courtesy of the Cleveland Museum of Art Cleveland, OH 1990.17.1 (Obverse and reverse shown) Region: Ulúa Valley Ref: Luke Vase 27a

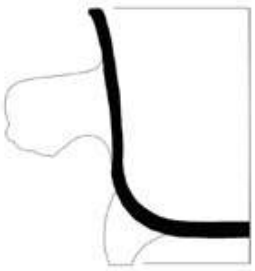
	Photograph courtesy of Dumbarton Oaks Washington, D.C. B-149.MAS (Deaccessioned) Region: Guanacaste, Costa Rica Ref: Luke Vase 29
	Courtesy of the Instituto Hondureño de Antropología e Historia Tegucigalpa, Honduras Region: Olancho Site: Orica Ref: Luke Vase 31
	Courtesy of Museum of the American Indian Smithsonian Institution, Washington D.C. 4.3955 Region: Ulúa Valley Ref: Luke Vase 34
	Courtesy of the Middle American Research Institute Tulane University H. 17.1 38.57 Region: Ulúa Valley Ref: Luke Vase 35

	Courtesy of the Middle American Research Institute Tulane University H.1.3. 34.2946 Region: Ulúa Valley Site: San Juan Farm Ref: Luke Vase 36
Sub-Group 2B: Two handle ring support vases with bat handles	
 	Courtesy of the American Museum of Natural History New York, NY 1.933 Region: Ulúa Valley Site: Travesía Ref: Luke Vase 40
	Courtesy of Cleveland Museum of Art Cleveland, Ohio 1990.17.0 Region: Ulúa Valley Ref: Luke Vase 41

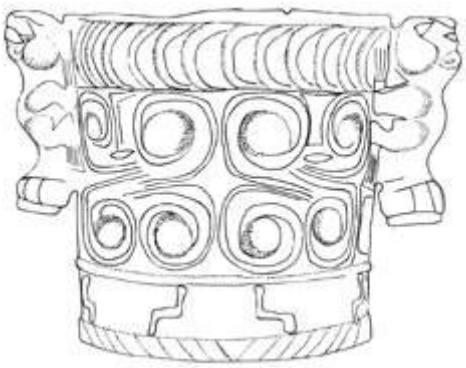
	Courtesy of Museum of the American Indian Smithsonian Institution, Washington D.C. 4.3956 Region: Ulúa Valley Site: Santa Ana Ref: Luke Vase 42
	Courtesy of the Middle American Research Institute Tulane University H. 1.3 35.6540 Region: Ulúa Valley Site: Peor es Nada Ref: Luke Vase 43
 	Courtesy of the Middle American Research Institute Tulane University H.1.3 38.46 (Obverse and reserve shown) Region: Ulúa Valley Site: Santa Ana Ref: Luke Vase 44

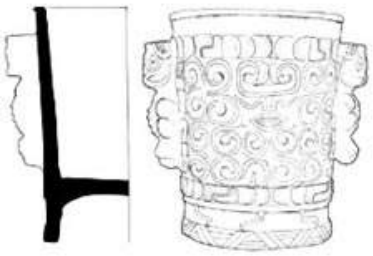
Group 3: Feline Handles

In contrast to Groups 1 and 2, Group 3 vessels have dual lug feline handles, save for the one single handle example. In many cases the feline lacks a tail, in others the tail is bound and may include a spiny back crest. Both tripod and ring-supports are represented in this group. There is a high probability of upper border types incorporating voussure or mat motifs. The main theme includes profile heads and, often, frontal heads.

Group 3: Feline Handles	
Sub-Group 3A: Feline handles lacking bound tails	
	Courtesy of the Middle American Research Institute Tulane University H. 17.1 39.150 Region: Ulúa Valley Ref: Luke Vase 49
 	Courtesy of the University of Pennsylvania Museum NA 5528 (NEG. #G8-19518) Region: Ulúa Valley Site: Santa Ana Ref: Luke Vase 52
 	Courtesy of Dumbarton Oaks Washington, D.C. B.561.67.MAS Region: Ulúa Valley Ref: Luke Vase 55

	Courtesy of Museum of the American Indian Smithsonian Institution, Washington D.C. 21.3783 Region: Ulúa Valley Ref: Luke Vase 57
 	Courtesy of the University of Pennsylvania Museum NA 5529 NEG. #G8-19521 Region: Ulúa Valley Site: Santa Ana Ref: Luke Vase 58
Sub-Group 3B: Feline handles with bound up-turned tail	
 	Courtesy of the Michael Carlos Museum Emory University Atlanta, Georgia EU 1991.4.380 Region: Guanacaste, Costa Rica Ref: Luke Vase 60
	Museum of the American Indian Smithsonian Institution, Washington D.C. 6.1263 Region: Ulúa Valley Ref: Luke Vase 61

Sub-Group 3C: Feline handles with bound tail	
	Staatliche Museen zu Berlin - Preußischer Kulturbesitz Ethnologishes Museum VI ca 23490 Region: Ulúa Valley Site: Travesía Ref: Luke Vase 66
	Peabody Museum of Archaeology and Ethnology Harvard University Cambridge, Massachusetts 46-26-20/ 17149 Region: Guanacaste, Costa Rica Ref: Luke Vase 69
	British Museum, London, England 1931.7 - 17.1 Region: Ulúa Valley Ref: Luke Vase 72

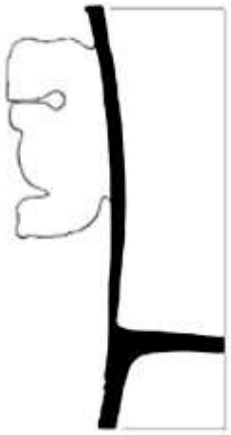
Courtesy of the University of Pennsylvania Museum
NA 5527
NEG. #G8-19514
(Obverse and reserve shown)

Region: Ulúa Valley
Site: Santa Ana
Ref: Luke Vase 76

Sub-Group 3D: Double-headed or multiple feline handles with a ring support

Courtesy of the Middle American Research Institute
Tulane University
H.1.3 38.58

Region: Ulúa Valley
Site: Santa Ana
Ref: Luke Vase 78

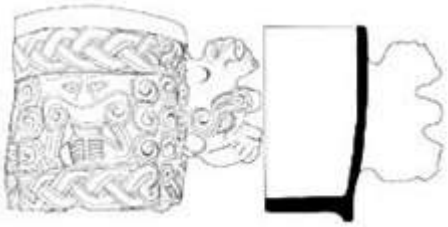
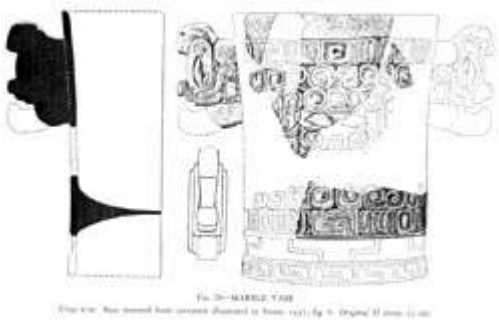
Courtesy of the University of Pennsylvania Museum
NA 5526
NEG. #S4-140361

Region: Ulúa Valley
Site: Santa Ana
Ref: Luke Vase 79

Group 4: Composite Handles

Group 4 vessels have dual lug composite handles. These handles commonly have a feline head, a bound feline tail and a profile image superimposed on the exterior of the body. There is a high probability of cylinders with ring supports. Whole vases in this group all have upper borders that include voussure and/or mat motifs. Those vases with volutes as part of the main theme all represent frontal heads; vases lacking volutes have a central mat design.

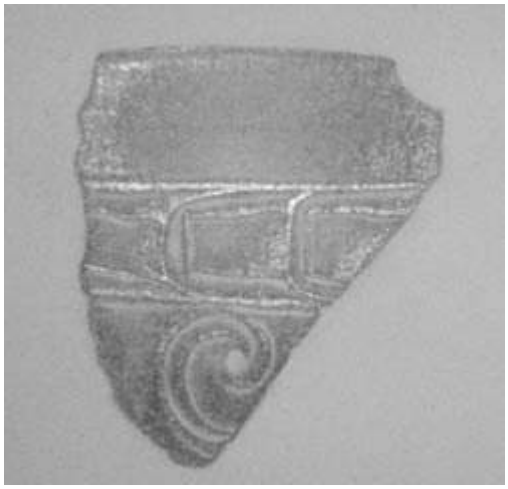
Group 4: Composite Handles	
Sub-Group 4B: Two handle ring support vases	
	Courtesy of the Cleveland Museum of Art Cleveland, Ohio 90.9 Region: Ulúa Valley Ref: Luke Vase 84
	Courtesy of the Denver Art Museum Gift of Jan and Fredrick Mayer 1979.329 Region: Ulúa Valley Ref: Luke Vase 85

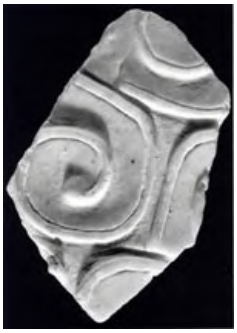
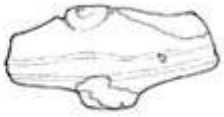
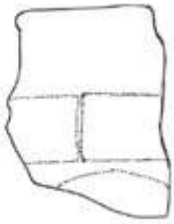
 	Courtesy of Museo Etnografico Castello D' Albertis, Genoa, Italy Region: Comayagua Ref: Luke Vase 87
	Courtesy of the Instituto Hondureño de Antropología e Historia Tegucigalpa, Honduras Region: La Florida Valley Site: El Abra Ref: Luke Vase 93
	From Kidder 1947: Figure 20 Region: Central Maya Lowlands Site: Uaxactún Ref: Luke Vase 94

Group 5: Vases Lacking Handles

Group 5 represents vases lacking handles or vases with such small handles as to make them unclassifiable. This group has the most variation in other characteristics as well. Vessel forms include bowls, drums, and cylinders; supports include tetrapod, tripod, and ring. Unique main themes include vertical panels of the mat motif alternating with dancers or profile heads.

Group 5: Vases Lacking Handles	
Sub-Group 5A: Tripod vases	
	Courtesy of the Instituto Hondureño de Antropología e Historia Tegucigalpa, Honduras Region: Ulúa Valley Ref: Luke Vase 96
	Courtesy of the Instituto Hondureño de Antropología e Historia Tegucigalpa, Honduras TCG 255 Region: Ulúa Valley Ref: Luke Vase 97

Undiagnostic Fragments	
	Courtesy of the American Museum of Natural History New York, NY 30.3575 Region: Ulúa Valley Site: Travesía Ref: Luke Vase 110
	Instituto Hondureño de Antropología e Historia Tegucigalpa, Honduras Drawn by Yolanda Tovar Region: Ulúa Valley Site: Puerto Escondido Ref: Luke Vase 112
	Courtesy of Museum of the American Indian Smithsonian Institution, Washington D.C. 4.3951 Region: Ulúa Valley Ref: Luke Vase 113
	Courtesy of the Middle American Research Institute Tulane University H.6.1 37.9326 Region: Olancho Site: Río España Ref: Luke Vase 115
 	Staatliche Museen zu Berlin - Preußischer Kulturbesitz Ethnologishes Museum VI ca 23177 Region: Ulúa Valley Site: Travesía Ref: Luke Vase 117

  	Staatliche Museen zu Berlin - Preußischer Kulturbesitz Ethnologishes Museum VI ca 23178 Region: Ulúa Valley Site: Travesía Ref: Luke Vase 118
  	Staatliche Museen zu Berlin - Preußischer Kulturbesitz Ethnologishes Museum VI ca 23179 Region: Ulúa Valley Site: Travesía Ref: Luke Vase 119
 	Peabody Museum of Archaeology and Ethonology, Harvard University Cambridge, Massachusetts 33-57-20/2657 Region: Ulúa Valley Ref: Luke Vase 122
 	Peabody Museum of Archaeology and Ethonology, Harvard University Cambridge, Massachusetts C1783 Region: Ulúa Valley Site: Santa Ana Ref: Luke Vase 126

List of Maps and Figures

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