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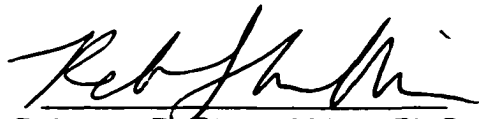
Karen M. O'Day

**MORE THAN MEETS THE EYES:  
THE DECORATION AND DEPOSITION OF CERAMIC VESSELS FROM  
THE SITIO CONTE CEMETERY, PANAMA**

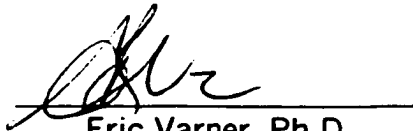
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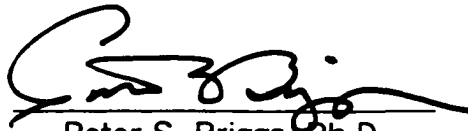
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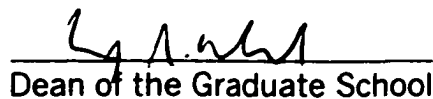


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**APR -4 2003**

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**MORE THAN MEETS THE EYES:  
THE DECORATION AND DEPOSITION OF CERAMIC VESSELS FROM  
THE SITIO CONTE CEMETERY, PANAMA**

**By**

**KAREN M. O'DAY  
B.A., Skidmore College, 1992  
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**Adviser: Rebecca R. Stone-Miller, Ph.D.**

**An abstract of  
A dissertation submitted to the Faculty of the Graduate  
School of Emory University in partial fulfillment  
of the requirements for the degree  
of Doctor of Philosophy**

**Art History Department**

**2003**

## ABSTRACT OF THE DISSERTATION

The people of ancient Panama, many of whom lived in chiefdom societies, buried some of their deceased at a cemetery known as Sitio Conte between approximately 750 and 950 CE. The survivors left in the graves various kinds of objects made of clay, metal, stone, bone, and fiber. This study concerns the decorated ceramic vessels. Both figural and abstract paintings appear on the interior and exterior surfaces of the mortuary vessels. This study concentrates on the abstract paintings.

Previous researchers clarified that the figural paintings portray creatures that lived in the Pacific side of Panama. The abstract geometric motifs, which are equally as common as the figural ones, are not as well understood. The set of motifs raises important art historical problems regarding the identify and purpose of the abstract motifs. Previous researchers also emphasized the relationship between the figural motifs and the socio-political context of the chiefdom societies. In other words, they discussed the function and value of the zoomorphic motifs for a chiefdom's members. The archaeological data indicates another perspective on the funerary context: the physical deposition of the decorated ceramic vessels. The ways that the vessels were physically prepared for interment and placed in the graves played a role in their significance.

This study proposes that Sitio Conte ceramic vessel painting cannot be fully understood without comprehensive identification, analysis, and interpretation of the abstract motifs. Regarding vessel deposition, this study proposes that the ceramics as they existed in the graves need identification, analysis, and interpretation. It shall be suggested that the

abstract motifs engaged humanity at large and specifically the community of living and deceased people involved with the cemetery. The motifs accomplished this through their formal and iconographic ties to ceramic anthropomorphic effigies and body decoration practices. The forms of physical deposition, including fragmentation and grouping, engaged the relationships between the living and dead. Furthermore, they drew the non-human cosmological realms into the relationships. Ceramic decoration and deposition thus indicated more completely the visual and physical resources the Sitio Conte community deployed in funerary spaces.

## ACKNOWLEDGMENTS

Many people helped me complete this project during the past five years. Emory University supported my work with several dissertation summer research grants. I am most grateful to Rebecca Stone–Miller who introduced me to the art of ancient Panama, trained me to study it, and encouraged me along the way. I thank James Farmer of Virginia Commonwealth University for inviting me to participate in his session of the College Art Association Conference in 1997. This opportunity alerted me to important issues in this dissertation. Richard Cooke and his staff greatly improved my understanding of ancient Panama during a research trip to that beautiful country. Ilean Isaza offered important advice at several points along the way. I thank Peter Briggs for his advice on an enormous range of issues throughout this project. Eric Varner responded to all of my questions with thought–provoking perspectives.

Staff members of various museums and other kinds of institutions assisted me. I thank Melissa Elsberry, Assistant Keeper; Lucy Williams, Keeper; Alessandro Pezzati, Reference Archivist; and Charles S. Kline, Photographic Archivist for help at the University of Pennsylvania Museum. I owe extra thanks to Melissa for opening her home to me. I thank Dr. Gloria Greis, Collections Manager, Archaeology and Osteology for her assistance with the collection of the Peabody Museum, Harvard University. Sarah Demb, Patricia Kervick, and India Spartz of the Archives of the Peabody Museum, Harvard University were very helpful during my visits and afterward. Donna Dickerson, Project Manager for the Peabody Museum Press, helped me obtain permission to reproduce material from Samuel K. Lothrop's site report. These museum professionals at the

Peabody Museum and University of Pennsylvania Museum deserve my extra gratitude because of their efforts to make their enormous Sitio Conte collections available to me. The staff of the Tozzer and Loeb Libraries of Harvard University were very helpful. I am grateful to Elisa Aguilar, Dr. Jonathan Haas, Janice Klein, and Steve Nash for assistance with research at The Field Museum of Natural History, Chicago. Janice Barrios at the Field Museum's Photo Archives handled my request for photography and reproduction rights. Curator Diane Fane welcomed me to the Brooklyn Museum of Art when I was just setting about this project and offered advice and an interesting perspective on ancient Panamanian art. Stacy Gannon, Assistant Registrar of the Michael C. Carlos Museum of Emory University helped me order photography and obtain reproduction rights. Rose Milovich, Art and Book Arts Curator/Exhibition Director of Utah State University Libraries, generously shared her drawings of Sitio Conte pottery, not to mention taking time to have Mehdi Kowsari of the Digital Library Program at Utah State University scan them onto a CD for me. Dover Publishers quickly gave me permission to reproduce drawings of the paintings. Antonio Zas put his graphic design skills to work for the catalogue.

Many family members, friends, and colleagues supported me. Many thanks go to Teyrn Gilbertson for her boundless help and encouragement. Thanks to Lisa and Jodi, Doug and Darcy, and Christina and Rob for roofs over my head in Boston. I never would have finished this project without all the support from my mother and brother.



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## LIST OF ABBREVIATIONS

### Museums

BMA	The Brooklyn Museum, Brooklyn, NY
FMNH	The Field Museum of Natural History, Chicago, IL
PMHU	Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, MA
UPM	University of Pennsylvania Museum, Philadelphia, PA

### Archives

CER	Coclé Expedition Records 33–42, Archives, Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, MA
SCER	Sitio Conte Expedition Records, Archives, University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, PA

### Graves

BU	University of Pennsylvania Museum burial
G	Peabody Museum grave
L	layer
T	trench

### Ceramic Vessels

B	bowl
BOT	bottle
CF	carafe
COV	cover
EB	effigy bowl
ECF	effigy carafe
EJ	effigy jar
EL	effigy lid
EXT	exterior surface
IB	incense burner
INT	interior surface
J	jar
PB	pedestal bowl
PPL	pedestal plate
PL	plate

<b>PT</b>	<b>pedestal tray</b>
<b>SECF</b>	<b>spouted effigy carafe</b>
<b>SEJ</b>	<b>spouted effigy jar</b>
<b>SHS</b>	<b>sherds</b>
<b>SJ</b>	<b>spouted jar</b>
<b>SQB</b>	<b>square bowl</b>
<b>T</b>	<b>tray</b>

# CHAPTER 1

## AN INTRODUCTION TO SITIO CONTE CERAMIC VESSELS

Sitio Conte, located in central Panama not far from the Pacific coast, has stood among the most important indigenous American burial grounds for the quality and quantity of works in clay, metal, stone, bone, and resin (Fig. 1.1). In fact, it may be the most well-known ancient cemetery in Latin America for the quantity of material, particularly goldwork.

Nevertheless, two hundred people rested in the graves along with the abundant objects, but no one knows what those individuals, who were mostly men, called themselves or the language they spoke. Researchers interpret them as members of a chiefdom, a political organization characterized first and foremost by the inequality of its members.<sup>1</sup> Many of the dead men have been identified as leaders of a chiefdom(s) who probably resided in the cemetery's vicinity. The differing quantities of art objects in their graves, which vary from just a handful to several hundred, seem to form a system for displaying their rank within the chiefdom. These chiefs became venerated ancestors following their deaths.<sup>2</sup>

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<sup>1</sup> Elman R. Service, *Primitive Social Organization: An Evolutionary Perspective* (New York: Random House, 1962), 154–55.

<sup>2</sup> Richard Cooke, Luís Alberto Sánchez Herrera and Koichi Udagawa, "Contextualized Goldwork from 'Gran Coclé', Panama: An Update Based on Recent Excavations and New Radiocarbon Dates for Associated Pottery Styles," in *Precolumbian Gold: Technology, Style, and Iconography*, ed. Colin McEwan (London: British Museum Press; Chicago: Fitzroy Dearborn Publishers, 2000), 172; Mary W. Helms, *The Curassow's Crest: Myths and Symbols in the Ceramic of Ancient Panama* (Gainesville: University Press of Florida, 2000), 4.



The ceramic vessels' high-quality painting and dynamic subject matter is cast as evidence of their chiefdom society.<sup>3</sup> The ceramics belong to the Conte painting which combines solid and vivid red, orange, and purple shapes with black line on a solid white ground. Figural (e.g. birds, reptiles, and crustaceans) and Abstract (e.g. scrolls, triangles, and ovals) motifs constitute the subject matter. These motifs appear on the vessels' interior and/or exterior surfaces.

This dissertation examines two aspects of Sitio Conte painted ceramics: their decoration and mortuary deposition. As Figural and Abstract motifs make enormous topics in themselves, this work focuses on one component. The Abstract motifs in the paintings (decoration) form the first line of inquiry. Deposition involves the vessels' physical presence in the graves. These two make a balanced pair for the fact that past researchers underestimated their significance.

Six chapters following this Introduction to present this material. Chapter 2 reviews the archaeological excavation and subsequent anthropological and art historical research about Sitio Conte art. This chapter explores in depth issues mentioned here in this Introduction such as the vessels' quality and quantity and the underestimated importance of the Abstract motifs and deposition. Next follows a description of this dissertation's objectives and method in light of the archaeology and

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<sup>3</sup> I decided to use the term "ceramics" following Prudence Rice's discussion of the terminology in art and archaeology. She points out that "ceramics" excludes all cements, bricks, abrasive and any other industrial products whereas it includes cooking and serving utensils and objects d'art. The Sitio Conte material takes the shape of cooking and serving vessels and also can be described as objects d'art due to the paintings, and less often, figural modeling. See Prudence Rice, *Pottery Analysis: A Sourcebook* (Chicago: The University of Chicago Press, 1987), 4.

historiography. The method is characterized as a modification of Erwin Panofsky's (1892–1968) tripartite art historical method. Chapter 3 presents the identification of the Abstract motifs and the symmetries used to paint them. In terms of the decoration, Abstract motifs relate to body decoration as demonstrated by the analysis of effigies and roller stamps. Chapter 6 turns to the identification and analysis of the deposition practices. Using data collected during the excavation, it is possible to reconstruct the vessels' physical presence –and thus that of the paintings as well. This part also introduces the preparators or the people responsible for depositing the vessels in the graves.

The final chapter presents an interpretation that unifies vessel decoration and deposition. This dissertation proposes that the painters and preparators did not only indicate a deceased person's rank within the chiefdom. The dissertation goes on to suggest that these practices were involved with people's identity and relationships. First among these was the relationship between the living and the dead. This is the primary relationship considered in this dissertation. However, it also appears that vessel deposition addressed the relationship between people and the universe. In a sense, the painting and deposition practices pulled at the vessels to extend their presence, even beyond the actual graves, to link beings (human and supernatural) and places. If these proposals stand, they contrast the tendency of previous researchers to see the people involved with the cemetery, that is, the living and deceased, as unrelated to each other as well as the vessels. Finally, the Postscript suggests future research projects about Sitio Conte decorated ceramics.

## CHAPTER 2 THE ARCHAEOLOGY AND HISTORIOGRAPHY

The Sitio Conte cemetery in present-day central Panama became one of the largest burial grounds in the Americas while in use between 750 and 950 CE (Fig. 1.1).<sup>1</sup> The Peabody Museum of Archaeology and Ethnology of Harvard University (PMHU) and The University of Pennsylvania Museum of Archaeology and Anthropology (UPM) excavated one hundred burials in the early 1930s and 1940 respectively.<sup>2</sup> They found many burials containing a multitude of ceramic, gold, copper, stone, animal bone, resin, and fiber objects. However, the decorated ceramic vessels are this dissertation's subject.

It is proposed here that significant data remain in the archaeological record about these Sitio Conte ceramic vessels as well as in their painted decoration. Therefore, a thorough analysis of the PMHU and UPM excavations and the site report is first necessary. Samuel Lothrop, leader of the PMHU team in the final season, wrote the site report. He privileged

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<sup>1</sup> This date is the most recent one advanced by archaeologists working in Gran Coclé. Richard Cooke, Luís Alberto Sánchez Herrera, and Koichi Udagawa, "Contextualized Goldwork from 'Gran Coclé', Panama: An Update Based on Recent Excavations and New Radiocarbon Dates for Associated Pottery Styles, 172.

<sup>2</sup> The abbreviation used for the Peabody Museum of Harvard University (PMHU), has appeared in previous publications; see Mary Miller, *Maya Art and Architecture* (London: Thames and Hudson, 1999), 235. Other authors have employed the one used here for the University of Pennsylvania Museum (UPM); see Peter Harrison, *The Lords of Tikal, Rulers of an Ancient Maya City* (London: Thames and Hudson, 1999), 206.

certain data and analytical methods in it. In particular, he emphasized the zoomorphic motifs and classifying them. The PMHU site report steered research right up to the present. Moreover, its apparent comprehensiveness even led to the unfortunate decision not to publish the results of the UPM's excavation in 1940. After reviewing the excavations by the PMHU and UPM, this chapter examines the site report in detail and its remarkable legacy.

#### Excavation: PMHU 1930–1933 and UPM 1940

Like most ancient sites in the Americas, the Sitio Conte cemetery is imperfectly preserved from the time of its use between 400 and 1000 CE. The only record of damage comes from 1927 when El Río Grande de Coclé, tumid from excessive rainfall, cut into and washed away graves. Naturally, this event also disinterred gold and stone items therein. Similar events likely occurred even further back in time so that some material from the cemetery is undoubtedly lost forever, ending up either reburied in the river or found and sold on the market without its provenance. The property owner, Mr. Miguel Conte, tried to protect the area until the arrival of PMHU representatives, although the Contes themselves did a little digging for they were the first to come across the stone columns and boulders (see below). Prior to their excavations, the PMHU purchased some disinterred items possibly from family members.

The PMHU conducted three field seasons during the dry season (January–April). Henry Roberts led the museum's expeditions in 1930 and 1931. Dr. Samuel Kirkland Lothrop, curator at the PMHU, managed the last excavation in 1933. Even though he only directed one season, Lothrop

is forever associated with the Sitio Conte cemetery due to his two-volume site report about the work during all three seasons (see below).

By the end of the final season (1933), the PMHU teams found fifty-nine graves<sup>3</sup> in nine of their twenty-three excavation trenches.<sup>4</sup> Lothrop reported that the skeletons' poor condition in these interments only allowed for measurement and basic analysis *in situ*.<sup>5</sup> In contrast, an advanced record of the graves' dimensions was feasible. Their depths from the earth's surface varied; 1.3–3.5 m (53–138 ins.) was the range of the six PMHU graves in this dissertation (Fig. 2.1).<sup>6</sup> In terms of thickness from top to floor, Grave 1 was the thickest at 45.7 cm (18 ins.). Graves 7, 13, 23, and 43 were 30.9 cm (12 ins.). Lastly, Grave 17 was the least thick at 17.8 cm (7 ins.).<sup>7</sup> The plans published in the site report note each grave's length and width (Figs. 2.2–2.6). Of the six PMHU interments selected for this project, Graves 1, 7, 13, 17, and 23 were in Trench I and Grave 43 was in Trench V. The museum and family arranged distribution of the excavated objects between them (an interesting parallel to the object

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<sup>3</sup> From here on, this dissertation employs the term “grave” to refer to the interments excavated by the PMHU because it is the term Lothrop used in his site report.

<sup>4</sup> The nine trenches with graves were I, II, III, IV, V, VIII, X, XI, and XVI. Note that the trenches were not the coherent units implied by the term because each one was actually the result of cuts made at different times; the Roman numerals were assigned only for greater clarity in publication; see Samuel Kirkland Lothrop, *Coclé: An Archaeological Study of Central Panama, Part I, Memoirs of the Peabody Museum, Volume VII* (Cambridge: Peabody Museum, 1937), 209.

<sup>5</sup> *Ibid.*, 12–13.

<sup>6</sup> Grave 1 fell at 3.0–3.5 m (10 ft.–11 ft. 6 ins.); Grave 7 at 1.7 m (5 ft. 6 ins.); Grave 13 at 2.6–2.9 m (8 ft. 6 ins.–9 ft. 6 ins.); Grave 17 at 1.3–1.5 m (4 ft. 5 ins.–5 ft.); Grave 23 at 1.4–1.7 m (4 ft. 6 ins.–5 ft. 6 ins.); Grave 43 at 2.4 m (8 ft.); see Lothrop, *Coclé Part I*, Table V.

<sup>7</sup> Lothrop, *Coclé Part I*, Table V.

distributions performed in antiquity in that both acts speak about power.<sup>8</sup> Over sixty years later, thousands of these objects are still at the museum in Cambridge, Massachusetts.

Turning to the second phase of excavation, the University of Pennsylvania Museum (UPM) sponsored one season between January and April of 1940. J. Alden Mason, curator of the museum's American Section, led this fieldwork. This team found forty-one burials, all three UPM burials in this study were in Trench 2: Burials 7, 12, and 19. However, the team actually cleared Burial 12 from a lateral cut into the wall of the trench, not from the top down like Burials 7 and 19.<sup>9</sup> Like its PMHU predecessor, this museum arranged with the Conte family to keep thousands of the excavated objects, the overwhelming majority of which remain today in its permanent collection.

Two UPM team members performed a wide range of duties and recorded the bulk of excavation data. This material is crucial for this dissertation, particularly its analysis of vessel deposition. John Corning, a member of the UPM's Education Section, analyzed the skeletal remains and conserved objects, which was difficult work due to the corrosive effect of the water-saturated soil. He did not even try to remove the human remains because of their exceptional fragility; like the PMHU excavators, Corning conducted his limited skeletal analysis *in situ*.<sup>10</sup> He also shot

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<sup>8</sup> Peter S. Briggs, "Pre-Conquest Mortuary Arts and Status in the Central Region of Panama" (Ph.D. diss., University of New Mexico, 1986), 98.

<sup>9</sup> UPM, SCER, Field Notes (1940), Mason, Diary, Friday, March 1, page 8.

<sup>10</sup> Briggs, "Pre-Conquest Mortuary Arts and Status," 97-98; Hearne, "The Story of the River of Gold," in *River of Gold: Precolumbian Treasures from Sitio Conte*, eds. Pamela Hearne and Robert J. Sharer (Philadelphia: The University Museum of Archaeology and Anthropology, University of Pennsylvania, 1992), 5.

footage for a silent color film that provides many views of the area around the cemetery and a general text about the natural surroundings and excavation areas.<sup>11</sup> Overall, his film is a general visual introduction to Sitio Conte and the working conditions rather than a rich data source.

Corning's ground plans and sections followed the data collected by his colleague Robert Merrill, a retired engineer who used his professional skills to be the team's surveyor, draftsman, and photographer (Figs. 2.7–2.10). Merrill anchored burial excavation to coordinates and elevation (Fig. 2.11). The total PMHU and UPM excavation area fell between 100–300 N and 100–250 W (Corning included these in his plan and sections). Measurement of burial elevation ascended from the water table upward to the earth's surface (the opposite of PMHU measurements that descended from the earth's surface) and is noted along the lateral edges of the sections.

Merrill also made an impressive photographic record. He took details of objects *in situ*, usually with a square grid positioned horizontally over the objects or vertically against them. In addition, he sketched the objects within these grids and identified each item therein by its field number and elevation. A decorated plate from UPM Burial 7 serves here as an example of how to “read” the object information in Merrill's sketches (Fig. 7.10). This plate was assigned field number 23 in Burial 7. Its sherds were found at three different elevations: 10.4, 10.5, and 11.0 feet of elevation. The plate was located at 172 N and 158 west. Thus, it is safe to

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<sup>11</sup> *The University Museum's 1940 Panama Expedition*, produced by Ted Nemeth and photographed by John B. Corning, UPM Photographic archives, 1940.

say that the precise locations of UPM-excavated ceramic vessels were usually well-recorded. Mason credited Merrill with the expedition's success because "we could replace almost every specimen in its original position, depth, and associations."<sup>12</sup> For this dissertation, Merrill's photographs and sketches documented key aspects of vessel deposition, especially position and location, which Corning excluded from his general plans and sections.

The combined efforts of the PMHU and UPM teams excavated one hundred interments at the Sitio Conte cemetery (Fig. 2.12). While tremendous, their excavations also were limited in terms of the cemetery's chronology and different activity areas.

#### Limitations of the Excavations

Regarding Sitio Conte's chronology, scientific analysis of chronology was limited for the obvious reason that the carbon-14 dating method had yet to be invented;<sup>13</sup> no radiocarbon dates from the cemetery exist. Lothrop concluded that a stratigraphy was impossible because the digging of grave shafts and other disturbances, such as the flooding (see above), had upset the layered sequence of material deposition.<sup>14</sup> Lothrop thus approached the question of chronology by other means. He used ceramic painting styles and the similarity of the graves' contents to those of

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<sup>12</sup> J. Alden Mason, "The Archaeological Expedition of the University Museum to Panama, 1940, Part I," *Tredyffrin-Easttown History Club Quarterly* 3 (1940a): 53.

<sup>13</sup> This invention in 1947 occurred seven years after the UPM expedition and five years after the publication of the second volume of the site report.

<sup>14</sup> Samuel Kirkland Lothrop, *Coclé: An Archaeological Study of Central Panama, Part II, Memoirs of the Peabody Museum, Volume VIII* (Cambridge: Peabody Museum, 1942), 3.



indigenous burials that sixteenth-century Spanish chroniclers described (see below).<sup>15</sup> He sorted the PMHU graves into three periods: Early (1330–1430 CE), Late (1430–1490), and Decline (1490–1520) (Fig. 2.13). This project analyzes four Early graves (1, 7, 13, 17) and two Late ones (23 and 43). The UPM team members and cataloguers never systematically employed Lothrop's Early–Late–Decline sequence to identify the graves nor the painted ceramics therein; they just occasionally noted that a certain vessel was possibly Early or Late based upon comparison with a vessel illustrated in Lothrop's site report (see below). For instance, a cataloguer noted that a bowl in UPM Burial 7 possibly was Late Polychrome (Cat. no. 123).<sup>16</sup> Subsequent refinement of the Gran Coclé ceramic chronology never strayed too far from Lothrop's sequence.

It was during the 1950s when John Ladd attempted a stratigraphy by analyzing approximately 2300 sherds found in Trench XI. He was able to make an important observation regarding ceramic chronology: Santa María Polychrome sherds preceded Coclé Polychrome sherds and El Hatillo Polychrome sherds followed them.<sup>17</sup> This generally holds true today, fifty years after his project. More and better radiocarbon dates from other Gran Coclé sites also have shed light on Sitio Conte's chronology.<sup>18</sup> Researchers currently believe that most Sitio Conte polychrome ceramics are Conte

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<sup>15</sup> Lothrop, *Coclé Part I*, 183–99.

<sup>16</sup> UPM, Sitio Conte Expedition Records, Field Notes, Cataloguing Notes.

<sup>17</sup> John Ladd, "A Stratigraphic Trench at Sitio Conte, Panama," *American Antiquity* 23, 3 (1957): 265–71.

<sup>18</sup> Richard Cooke, Luís Alberto Sánchez Herrera, and Koichi Udagawa, "Contextualized Goldwork from 'Gran Coclé', Panama: An Update Based on Recent Excavations and New Radiocarbon Dates for Associated Pottery Styles," 155–56.

(originally called Coclé) style dating between 700 and 850 CE (Fig. 2.14). However, the Sitio Conte assemblage also represents the preceding and succeeding styles. Grave 32, one of the cemetery's Early interments, contained a few vessels in the Cubitá style (500–700 CE). Some vessels in Grave 5, a Late interment, were examples of the later Macaracas style (750–1000 CE).

The second complication of the PMHU and UPM excavations was their necessarily limited spatial scope. Both Lothrop and Mason knew that they did not excavate the entire cemetery, which is estimated to cover between four and five acres.<sup>19</sup> They knew they certainly did not find every burial. Nor did the two teams devote time to investigate non-funerary areas. Lothrop hinted in his site report about possible non-funerary aspects by describing the area around the cemetery as a “summer residence” of paramount chiefs, their families, servants, and slaves.<sup>20</sup> Neither team looked for nor accidentally came across residential areas. Moreover, the excavations' incomplete status left areas that might present evidence of looting.

Along the same line, both teams found other kinds of constructions besides graves with people and objects. The PMHU team encountered deposits of various objects except human remains. The non-human items included stingray spines, celts, projectile points, and sherds. Lothrop termed these “caches” in the site report (see below). The UPM team also

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<sup>19</sup> Lothrop, *Coclé Part I*, 36; J. Alden Mason, “The Archaeological Expedition of the University Museum to Panama, 1940, Part II,” *Tredyffrin–Easttown History Club Quarterly* 3 (1940b): 88.

<sup>20</sup> Lothrop, *Coclé Part II*, 249.

found such deposits. As of yet, no one has studied them and their relationship to the graves even though ancient American practices of object deposition are currently earning more scholarly attention than ever before. Conte family members found the second non-grave construction: a line of stone columns and flat-top boulders.<sup>21</sup> The PMHU team followed this lead to reveal two lines.<sup>22</sup> The complete lithic arrangement cannot be analyzed because the river partly flooded it. Based upon its similarity with complexes at El Caño in Gran Coclé and Barriles in Gran Chiriquí, one archaeologist posited that this area was for meetings or even playing a ballgame.<sup>23</sup> However, this hypothesis does not rule out an area somehow related to funerary rites as well. Along this line, the third and final construction was a layer of stones 7.3 by 2.7 m (24 by 9 ft.). Lothrop speculated that it was for manufacturing stone tools.<sup>24</sup> Cobble causeways were at other Central American sites where one led to an empty plaza and two mounds.<sup>25</sup> Again, this construction possibly functioned as a processional way or meeting place during funerary rites.

Overall, the excavations of the Sitio Conte cemetery in the early twentieth century were good for their time. Their legacy has been mixed.

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<sup>21</sup> Lothrop, *Coclé Part I*, 36.

<sup>22</sup> *Ibid.*, Fig. 23.

<sup>23</sup> Richard Cooke, "Archaeological Research in Central and Eastern Panama: A Review of Some Problems," in *The Archaeology of Lower Central America*, eds. Frederick W. Lange and Doris Z. Stone (Albuquerque: University of New Mexico Press, 1984a), 289.

<sup>24</sup> Lothrop, *Coclé Part I*, 41–43.

<sup>25</sup> Michael J. Snarskis, "Wealth and Hierarchy in the Archaeology of Eastern and Central Costa Rica," in *Wealth and Hierarchy in the Intermediate Area*, ed. Frederick W. Lange (Washington, DC: Dumbarton Oaks, 1992), 152–56.

The PMHU work has come to stand for the burial ground because of Lothrop's two-volume site report. Meanwhile, the UPM's excavation results, which were never published, have gone mostly unexamined except by one art historian (see below). Therefore, the historiographic review below is split into two sections: Lothrop's site report and then the research since its publication.

### The PMHU Site Report

The PMHU published the Sitio Conte site report in two parts (Volumes VII and VIII of its well-known *Memoirs* anthropology series). *Coclé Part I* covered all aspects of the excavations except the ceramics which became the exclusive focus of *Coclé Part II*. Thus, this format isolated the ceramic classification in the second volume from the rest of the archaeological data. In other words, the site report divorced ceramic objects and their context. Whatever the reasons for this organization, this split has considerably influenced most subsequent research projects.

#### *Coclé Part I*

Lothrop began *Part I* with a discussion of central Panama's physical environment, the first Spaniards in Gran Coclé, historical accounts of indigenous people, and archaeological research in Panamá before the PMHU expeditions in the 1930s. He devoted the next section to the cemetery's river, strata, stone columns and "altars," clay floors, stone path, caches, and graves. In the third section, he presented all the non-ceramic objects in the caches and graves according to type and medium: stone tools, weapons, toilet articles, musical instruments, metal vessels, metal ornaments, stone and shell ornaments, textiles, bone

ornaments, jewelry, sheathing and inlays, and miscellaneous stone and bone items. Lothrop came the closest to presenting the material by the original graves in Appendix I, "Detailed Record of Excavation at the Sitio Conte." He catalogued all fifty-nine graves and thirty-two caches by providing a brief description of each grave or cache and its contents. His entries for each ceramic vessel consistently included type, base, decoration, and appendages. In contrast, he was much less complete, even silent, about the vessels' deposition.

The ground plans and cross-sections of trenches and graves reproduced in this dissertation first appeared in Appendix I. The exception was Grave 17's plan which this author found in the Lothrop Papers maintained by the PMHU archives (Fig. 2.15). These illustrations provided more data than the text of Appendix I because they showed details about vessel deposition. Given the difficulties of illustrating the three-dimensional graves on a two-dimensional paper surface, Lothrop included the majority –but not all– vessels in the grave plans. Field numbers made the object locations evident. Parallel lines and stippling further distinguished the ceramic vessels from one another. The presence or absence of a ring base clarified the vessel's upright or inverted position. Jagged fractures or lack thereof explained vessel condition. For example, the plan for Grave 1 distinguishes the plate with field number 50 by filling it with thin parallel lines (Fig. 2.2). Numerous jagged fractures note its broken condition. Lastly, the circular white ring base demonstrates the plate's inverted position. Two archaeologists characterized these illustrations as models unsurpassed in American archaeology:

Earlier this century, abundant work went into shading burial illustrations either through parallel lines or dot stippling. Quite impressive examples of the former technique are provided by Lothrop's (1937) Coclé report and have seldom been equaled and perhaps never excelled in New World contexts. Such drawings constitute some of the most attractive features of this landmark study and not only complement the text but provide an entirely independent body of evidence that can be much more rapidly assimilated (with captions) than many pages of text.<sup>26</sup>

They indeed turned out to be a crucial body of evidence about vessel deposition. For example, the position of some vessels only was recorded in these illustrations (Cat. nos. 75, 119, 120).

In addition to providing data about the graves in *Coclé Part I*, Lothrop also offered ideas about their social implications. As he rightly noticed, the graves had greatly differing quantities of objects, including ceramic vessels; one held nearly 500 ceramic objects, another about one hundred, and yet another contained just seventeen. Many pieces of metalwork were in Graves 1, 5, 26, and 32, but none was in Graves 7, 17, 21, and 36 (to note just a few). These sharp disparities stimulated Lothrop to classify the graves by the number of deceased, their objects, and the absence/presence of gold jewelry. Small graves held one or occasionally two people accompanied by an average of six items, none of which was gold.<sup>27</sup> Intermediate graves contained one or two deceased, thirty or forty ceramic vessels, and copper, bone, ivory, and/or stone jewelry.<sup>28</sup> Gold beads,

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<sup>26</sup> Brian D. Dillon and John W. Verano, "Burial Illustration," in *The Student's Guide to Archaeological Illustration*, ed. Brian D. Dillon, 2nd ed., rev., Archaeological Research Tools vol. 1 (Los Angeles: Institute of Archaeology, UCLA, 1985), 148.

<sup>27</sup> Small graves were 8, 9, 18, 22, 27, 28, 29, 30, 31, 32C, 33, 35, 36, 37, 38, 39, 40, 44, 46, 47, 48, 49, 58; Lothrop, *Coclé Part I*, 61.

<sup>28</sup> Intermediate graves were 7, 10, 11, 13, 16, 19, 20, 21, 23, 32A, 43, 55, 59; *Ibid.*, 59-60.

disks, and ear and nose ornaments were typical. Members of the third category, large graves, presented no less than three to twenty-two people, two hundred or more vessels, and abundant jewelry of all forms and media, including gold helmets, cuffs, shin guards, breastplates, and pendants.<sup>29</sup> Only six graves possessed these items.<sup>30</sup>

Such distinctions begged Lothrop to consider the identity of the deceased. He first identified the three grave classes by turning to the writings of sixteenth-century Spaniards. Lothrop favored Gonzalo Fernández de Oviedo y Valdez's (1478–1577) *Historia general y natural de las Indias* published in two parts (1535 and 1557). Oviedo joined Pedrarias Davila's expedition in 1514 to southern Central America and the northern Andes as overseer of gold smelting, but he also partook in wars against indigenous communities. In 1552, Emperor Carlos V named Oviedo official chronicler. Oviedo held a "callous contempt" for indigenous Americans wherever they resided and whether or not he actually met them.<sup>31</sup> His *Historia general* began a long line of European "anti-Indian chronicles."<sup>32</sup> His book became a resource for colonists because he spoke to colonial ambitions to dominate the Americas. He described Spanish expeditions throughout Central America for gold, including Gaspar de Espinosa's expedition in 1519 in Central Panama. During his expedition, the Spaniard

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<sup>29</sup> *Ibid.*, 48.

<sup>30</sup> Large graves were 1, 5, 6, 24, 26, 32B; *Ibid.*, 49–58.

<sup>31</sup> Benjamin Keen, *The Aztec Image in Western Thought* (New Brunswick, NJ: Rutgers University Press, 1971), 79.

<sup>32</sup> *Ibid.*, 78.

encountered the deceased leader named Parita prepared for burial with an array of gold jewelry.<sup>33</sup> Parita's gold became Lothrop's departure point for understanding the differentiation in the considerably older Sitio Conte graves.<sup>34</sup> Some men in the large graves wore or were directly associated with great amounts of gold; thirty-three items, including wrist cuffs and a nose pendant, rested on or around Old Man I in Grave 1. Their gold adornment and human "companions" (identified by Lothrop as their wives and retainers) cast these men as Sitio Conte's "Paritas" in Lothrop's eyes and thus he identified them as paramount chiefs.<sup>35</sup> Lothrop went so far as to suggest that Parita's items actually be compared with the Sitio Conte jewelry.<sup>36</sup> The intermediate and small graves contained lower ranking chiefs and warriors.<sup>37</sup> These three grave classes indicated a chiefdom society which, in turn, permitted some later researchers to interpret the imagery in that particular socio-political context.

### Coclé Part II

In the report's second volume, Lothrop presented a ceramic ware classification.<sup>38</sup> Lothrop opened *Coclé Part II* with the Polychrome ware or

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<sup>33</sup> Gonzalo Fernández de Oviedo y Valdes, *Historia general y natural de las Indias, Islas y Tierra-Firme del Mar Oceano*, Tomo VII, Libro 10, Capitulo 8 (Asunción: Editorial Guaranía, 1944), 184-90.

<sup>34</sup> Lothrop, *Coclé Part I*, 64.

<sup>35</sup> *Ibid.*, 52.

<sup>36</sup> *Ibid.*, 14.

<sup>37</sup> *Ibid.*, 64.

<sup>38</sup> Lothrop and museum staff members carried out this classification after Frederick Orchard, Mary Barbour Kidder, and Marion Hutchinson repaired the broken ceramic vessels; Lothrop, *Coclé Part II*, iii.



“color-filled patterns painted in two or more pigments on a light background.”<sup>39</sup> He and his assistants identified six more wares, most with their own subwares.<sup>40</sup>

Lothrop demonstrated this exhaustive classification with a massive corpus of illustrations which he rightly believed would be invaluable to researchers for many years to come.<sup>41</sup> *Part II* contains color photographs of thirty-seven ceramic items and black-and-white photographs of one hundred and thirty-six ceramic pieces. Furthermore, William Baake drew no less than five hundred and eighty-three ceramic objects.<sup>42</sup> These drawings are put to a new use in this dissertation as they are employed to demonstrate vessel deposition. Specifically, they appear in the reconstructions of the vessel groups (see Chapter 7).

Lothrop’s classification has certain limitations. First, it hid tremendous variety within each ware, but this issue surrounds all classifications (the difference between so-called splitters and joiners, meaning those who tend to divide material into ever narrower classes versus those who tend to draw material together in broad classes). Second, Lothrop devoted twice as many pages to the Polychrome ware than the six other wares combined. This presentation helped to establish

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<sup>39</sup> *Ibid.*, 11.

<sup>40</sup> The wares include Black-Line, Black-and-Red-Line, Red-Line, Red, Smoked, and Buff. Several of those consisted of subwares divided yet again into types and styles. For example, Red wares included Plain Red, Black-on-Red, Black-and-Red-on-Red, Black-and-White-on-Red, Black-White-and-Purple-on-Red, and Panelled Red. In terms of subwares, for example, four Buff wares were distinguished: Plain Buff, Red-and-Buff, Purple-and-Buff, and White-and-Buff.

<sup>41</sup> Lothrop, *Coclé Part II*, 5–6.

<sup>42</sup> Lothrop acknowledged Mr. Baake in the Preface; *Ibid.*, iii.

Polychrome as the diagnostic ware of the Sitio Conte cemetery, Gran Coclé, and even Panama, since, after all, this was the first archaeological site report for the nation. Panamanian anthropologist Reina Torres de Araúz affirmed this notion thirty years after *Part II's* publication:

The typical ceramics of Coclé culture are polychrome. The characteristic colors are white, black, chocolate-colored, dark red, light red, and purple. The explosion of colors that sometimes all appear on one piece is one of the best examples of beauty and technical perfection.<sup>43</sup>

A little more than twenty years after her comment, another anthropologist characterized the polychromy as “ubiquitous” and “diagnostic” of all ancient Panamanian ceramics.<sup>44</sup> This study certainly does not present an alternative classification. Instead, it claims that the original classification unit, that is, the grave, will provide different data about the decorated ceramics. In other words, the grave with the pottery therein is the analytical unit of deposition.

Baake's drawings have a few limitations of which researchers must be aware. Lothrop had Baake draw the vessels as he thought they “looked to the former Coclesanos.”<sup>45</sup> This means that he recreated lost shapes in

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<sup>43</sup> “La cerámica típica de la cultura Coclé es la policroma. Los colores característicos son el blanco, negro, chocolate, rojo oscuro, rojo claro y púrpura. Esta explosión de colores que a veces aparecen todos en una pieza constituye uno de los ejemplos de mayor perfeccionamiento técnico y belleza.” Reina Torres de Araúz, *Arte Precolombino de Panama* (Panama City: Instituto Nacional de Cultura y Deportes, 1972a), 39. Translation by author.

<sup>44</sup> Mary W. Helms, “Cosmological Chromatics: Color-Related Symbolism in the Ceramic Art of Ancient Panama,” in *Reconstructing Prehistory of Central America*, ed. Mark Miller Graham (Niwtot: University Press of Colorado, 1993), 210–11.

<sup>45</sup> Lothrop, *Coclé Part II*, iii.

small areas of paintings using similar shapes in the painting as reference (Cat. nos. 4, 15, 35, 110). Baake documented larger missing areas by color changes or dotted lines (Cat. no. 94). If the lost amount was more than about one-third then he only illustrated the recovered parts (Cat. nos. 109, 121). Sometimes he combined both strategies: recreating parts and leaving others blank (Cat. no. 113). In a few cases, many pieces of a plate or bowl came up missing during restoration that the drawing is difficult to accept (cat no. 12).<sup>46</sup> Baake's code for the six colors (white, black, brown, dark red, light red, and purple) is a challenge because the graphic patterns representing dark and light red are nearly impossible to distinguish (Fig. 2.16). Further, this code is somewhat imprecise because several shades fell under one color; this was especially true with purple. On a related note, the captions misidentify a few vessels' graves. To take one example, the caption for a plate listed Grave 13, but Appendix II gave this plate a catalogue number that sequentially belonged in Grave 7. Only examining the object in person allowed the author to verify that the catalogue number painted on the vessel corresponded to Grave 13, as stated in the caption.<sup>47</sup> Therefore, this dissertation rectified any inconsistencies (inevitably part of any massive excavation, cataloguing, and publishing project). For all of these reasons, the drawings cannot totally replace the actual study of the vessels.

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<sup>46</sup> It is possible that more pieces were present when Mr. Baake made this drawing.

<sup>47</sup> The author encountered this discrepancy during research for the master's thesis, concluding. Karen O'Day, "Preserved Permeability: A Study of the Formal Rule System of the Conte and Macaracas Styles of Polychrome Ceramics from the Central Region of Ancient Panama" (M.A. thesis, Emory University, 1996), 71.

In addition to classification, Lothrop began the process of motif identification in *Coclé Part II*. In fact, he attempted to answer art historical questions about Sitio Conte ceramic painting long before Central American art history came into existence during the 1980s. As art historian Mark Miller Graham reminded Americanists, “Art historians with an interest in Central America, its neighbors, and their prehistory must also acknowledge their pioneers in those archaeologists like Spinden and Samuel Lothrop and Doris Stone who worked in the space of art history’s absence.”<sup>48</sup> Graham’s comment certainly described Lothrop’s accomplishment with the Sitio Conte ceramics. In fact, Lothrop’s work resembled what art historian Erwin Panofsky (1890–1968), a contemporary of Lothrop, termed pre-iconographical description, the first of the three “acts” in his method (iconographical analysis and interpretation being the second and third acts).<sup>49</sup> Lothrop’s research amounted to recognizing “the shape and behavior of human beings, animals and plants.”<sup>50</sup> He identified and described three motif classes: Zoomorphic, Scroll, and Geometric. He pointed out a fourth minor motif class called space fillers.

Beginning with the Zoomorphic motifs, Lothrop identified birds, turtles, snakes, crabs, crocodiles, and fish. He often based his identifications upon personal observation of animals at the cemetery (what

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<sup>48</sup> Mark Miller Graham, “Displacing the Center: Constructing Prehistory in Central America,” in *Reinterpreting Prehistory of Central America*, ed. Mark Miller Graham (Niwot: University Press of Colorado, 1993), 5.

<sup>49</sup> Erwin Panofsky, *Studies in Iconology: Humanistic Themes in the Art of the Renaissance* (Oxford: Oxford University Press, 1939; reprint, New York: Harper Torchbooks, 1967), 5.

<sup>50</sup> *Ibid.*, 9.

Panofsky called “practical experience”<sup>51</sup> as well as the expertise of a zoologist from the Museum of Comparative Zoology at Harvard University.<sup>52</sup> Some of Lothrop’s Zoomorphic motifs, such as the serpent and fish, were relatively homogeneous, yet most were so heterogeneous that they needed further classification. The birds, for instance, included Spread–Eagle, Birds–which–Look–Back, Birds–which–Look–Ahead (Type A with a broad, double–line neck and Type B with a narrow, single–line neck), and Birds–with–Crocodile–Jaws (Type A with antlers and Type B with dragon tongues) (Fig. 2.17). Turtles formed two classes (Fig. 2.18). The Turtle consisted of the Full–Face and Profile types. The Turtle God had Seated, Standing, and Abbreviated varieties. Lothrop identified a crocodile and a Dancing Crocodile God (Fig. 2.19). He suggested that three Foot motifs (sharp, square, and parallel lines) derived from a crocodilian (Fig. 2.20).<sup>53</sup> Finally, he identified several crabs (Fig. 2.21). Birds, turtles, crocodiles, and crabs correspond to the Figural motifs in this dissertation.

Scroll, Geometric, and Space–filler motifs were Lothrop’s other motif classes. He identified Double YC, SY, S, Tongue, and Face Scrolls (Fig. 2.22), not to mention numerous subclasses. Most Scroll motifs consisted of a solid black, red, or orange motif and negative white space that created a wave–like motif, a figure–ground reversal that Lothrop concluded was an unintentional optical illusion.<sup>54</sup> The Geometric motifs formed his third

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<sup>51</sup> Ibid.

<sup>52</sup> Lothrop, *Coclé Part II*, 28; G. M. Allen, “Cocle–Identification of Animals,” PMHU, Lothrop Papers 996–20, 2–3.

<sup>53</sup> Lothrop, *Coclé Part II*, 45.

<sup>54</sup> Ibid., 17.

motif class: Herring-bone, Zigzag, Diamond, Arch, Meander, Concentric Circle, and Band (Fig. 2.23).<sup>55</sup> Lothrop defined the Space-filler motifs as “a number of subordinate patterns, the presence or absence of which does not affect the character of the principal motives.”<sup>56</sup> He included the V Element, Fringed lines, YC Scrolls, and Snail-shell Scrolls (Fig. 2.24). Lothrop advanced the notion that the painters used Space-filler motifs simply to counter their *horror vacui*:

Appreciation of the blank space in art is a tradition which has come down to us from the Classical days of Greece and Rome; among most primitive peoples the blank space, which to us would most effectively set off the major design, is deliberately avoided. This is accomplished either by so ordering the design that it covers the entire field of decoration or by the introduction of minor patterns to fill areas which otherwise would be vacant.<sup>57</sup>

*Horror vacui* did not actually hold up as a formal element; several paintings in this study alone demonstrated Lothrop's inaccuracy (Cat. nos. 46, 52, 54, 55, 77, 101, 104). In other words, some paintings suggested *amor vacui*.<sup>58</sup>

Heretofore, these Scroll, Geometric, and Space-filler motifs received less comprehensive attention than the Zoomorphic motifs. This was a major problem because the Geometric motifs occurred in the paintings as often as the other. Lothrop's Scrolls, Geometric motifs, and Space-fillers amount to the Abstract motifs examined in this dissertation.

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<sup>55</sup> His Chevron and Herring-bone motifs are very similar; *Ibid.*, 16 and 46.

<sup>56</sup> *Ibid.*, 73.

<sup>57</sup> *Ibid.*

<sup>58</sup> I am grateful to Eric Varner for suggesting this term.

The value of Lothrop's work on Sitio Conte ceramics is absolutely unquestionable. As suggested by Graham's comment quoted at the beginning of this section, Lothrop completed preliminary art historical work, that is, the pre-iconographical description of the subject matter. Perhaps because of the project's enormity, he did not earnestly interpret the motifs. In other words, he left Panofsky's iconographical analysis and iconological interpretation (the second and third acts of his method) for future researchers. Moreover, he skipped comprehensive formal analysis which one ideally undertakes before subject matter analysis.<sup>59</sup> Lothrop worked all over Latin America studying its antiquities and made contributions too numerous to count, yet his work on Sitio Conte ceramics arguably became his greatest legacy.

#### The Research Post-Lothrop

Lothrop's site report served as the foundation for virtually all subsequent research on ancient Panama let alone the Sitio Conte cemetery. Even Mason, who was excavating the burial ground in 1940 (between the publication of *Part I* in 1937 and *Part II* in 1942) was absolutely in awe of Lothrop's work. He never even published a site report for the UPM expedition because he believed that Lothrop had said everything that needed to be said about the cemetery. Therefore, subsequent ceramic studies rested on the results of Lothrop's PMHU classificatory method. This later work of the 1970s, 1980s, and 1990s

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<sup>59</sup> Rebecca Stone-Miller, per. communication, 1993; Jules Prown, "Mind in Matter: An Introduction to Material Culture Theory and Method," *Winterthur Portfolio* (1982): 1-19.

focused on the vessel quantities and subject matter. The following two sections address these historiographic issues.

### Quantity

The abundance, even conspicuous consumption of decorated objects in Sitio Conte graves, made it a perfect candidate to be and remain the stellar or “most dramatic” ancient chiefdom in southern Central America.<sup>60</sup> Lothrop’s three grave classes and the Spaniards’ wholehearted employment of the term *cacique* or “chief” to describe indigenous leaders lined up with anthropological theory of political development, particularly the stage known as the chiefdom. Needless to say, chiefdoms, in all of their variety, have been an on-going focus of anthropologists. Elman Service’s book served the purposes of this dissertation.<sup>61</sup> At the top is the chief who employs the power strategy of redistributing goods. Following anthropologists like Service, Winifred Creamer and Jonathan Haas focused on ancient Central American chiefdoms, exemplified by Sitio Conte:

They are also characterized by clearly defined social hierarchies manifested and indeed maintained by the restricted and conspicuous use of sumptuary goods by chiefs and their kin (Fried 1967; Service 1971). Chiefs may also enhance their status through the systematic

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<sup>60</sup> Robert D. Drennan, “Pre-Hispanic Chiefdom Trajectories in Mesoamerica, Central America, and Northern South America,” in *Chiefdoms: Power, Economy, and Ideology*, ed. Timothy Earle (Cambridge: Cambridge University Press, 1991), 274; Elsa M. Redmond, *Tribal and Chieftly Warfare in South America*, *Memoirs of the Museum of Anthropology*, No. 28 (Ann Arbor: Museum of Anthropology, University of Michigan, 1994), 116.

<sup>61</sup> Service, *Primitive Social Organization*, 143–77.



exchange or trade of sumptuary goods with chiefs from other areas (Flannery 1968; Upham 1982).<sup>62</sup>

Graves at the Sitio Conte cemetery were unequal in that some held more offerings than others. Moreover, these researchers corralled the large quantities of offerings in general and those of the ceramic vessels specifically as proof of specialization:

There was also specialized production of polychrome ceramics which appear to have played a major role as grave furniture. The articulation of trade and hierarchy, greater mobilization of resources, and concentration of valuables in the hands of a limited elite group, fairly clearly indicate that independent chiefdom level groups had formed in central Panama by the time of European contact.<sup>63</sup>

Their claim was noteworthy given the lack archaeological evidence aside from the vessels themselves meaning that no workshops or debris areas from ceramic production are known around the cemetery. Either these workshops have just not been found yet or they never existed in the first place. Prudence Rice stressed the difficulty of the archaeology of ceramic production.<sup>64</sup> Specialization may or may not have been a feature of the chiefdom communities that used the Sitio Conte cemetery.

Art historian Peter Briggs undertook the first comprehensive analysis of the archaeological data to assess the distribution of all object types and motifs in both the PMHU and UPM graves.<sup>65</sup> Thus, he was the first to

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<sup>62</sup> Winifred Creamer and Jonathan Haas, "Tribe Versus Chiefdom in Lower Central America," *American Antiquity* 50 (1985): 740.

<sup>63</sup> *Ibid.*, 745.

<sup>64</sup> Prudence Rice, *Pottery Analysis*, 170–71 and 188–89.

<sup>65</sup> Briggs, "Pre-Conquest Mortuary Arts and Status in the Central Region of Panama."

evaluate the data from both excavations. He introduced a new analytical method into Sitio Conte studies known as complete linkage. His analysis resulted in ten clusters of graves that were related by the types of objects they contained. These clusters formed a pyramid with graves in one cluster containing all the types found in the graves of the preceding cluster plus more (Fig. 2.25).<sup>66</sup> For example, the single grave of Cluster II had forty object types while the three graves of Cluster I averaged 44.6 types.<sup>67</sup> Briggs also analyzed the distribution of fifteen ceramic subjects: fish, bird, turtle, snake, human, crustacean, insect, armadillo, deer, stingray, monkey, crocodile, frog or toad, and unknown. He found the same trend: the three graves in Cluster I had the most subject types.<sup>68</sup> He concluded that this “additive system” along with the male majority of the deceased reflected the practice of ranking individuals in a chiefdom society.<sup>69</sup>

Briggs reached a conclusion specific to the ceramic vessels: they did not differentiate rank because they were present in almost every grave.<sup>70</sup> This is an important point for this dissertation. The ceramics did not differentiate the deceased’s rank. However, this is not to say that the ceramics were not about the people associated with the cemetery, living and dead. The vessels deposited in the graves addressed concerns other than the deceased’s rank in the social hierarchy. Indeed, this dissertation

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<sup>66</sup> *Ibid.*, 160–61.

<sup>67</sup> *Ibid.*, Table 27.

<sup>68</sup> Briggs, “Pre-Conquest Mortuary Arts and Status,” 171–75.

<sup>69</sup> *Ibid.*, 161 and 181.

<sup>70</sup> *Ibid.*, 162–64.

identities and relationships. Consequently, this dissertation uses other data about the ceramics besides their quantities (see Chapter 3).

The issues of quantity and distribution stagnated since Briggs's dissertation. Robert Drennan laid out a list of the cemetery's characteristics that connected with conventional chiefdom features: multiple burials, abundant and diverse grave goods (some imported from faraway places), and emphasis on warfare in grave goods and their iconography.<sup>71</sup> For an unknown reason, he did not factor in Briggs's results. Drennan's brief assessment of the Sitio Conte cemetery as a chiefdom artifact did not significantly advance the discussion.

### Subject Matter

The second historiographic issue has centered on the subject matter, especially Lothrop's Zoomorphic motifs. Overall, this work may be explained according to Erwin Panofsky's three acts: pre-iconographical description, iconographical analysis, and iconological interpretation (see Chapter 3).<sup>72</sup>

As suggested above, Lothrop set about Panofsky's first act to describe the motifs, which included identifying them. Subsequent researchers sometimes contradicted one another because description and identification challenge zoologists working with actual specimens,<sup>73</sup> never

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<sup>71</sup> Drennan, "Pre-Hispanic Chiefdom Trajectories in Mesoamerica, Central America, and Northern South America," 274.

<sup>72</sup> Panofsky, *Studies in Iconology*, 6–8.

<sup>73</sup> Louise H. Emmons, *Neotropical Rainforest Mammals: A Field Guide*, 2nd ed. (Chicago: University of Chicago Press, 1997), 3.

mind art historians and anthropologists studying ancient motifs. Relating the real animals and the painted ones is daunting work, in part because of the huge number of Neotropical animals: approximately 1100 mammal species, 3000 avian species, and 1700 reptile and amphibian species.<sup>74</sup> Central Pacific Panama is not home to all of these as it is seasonally dry forest with less species richness (i.e. fewer species of a given taxon within a given ecosystem) than wet or moist forest.<sup>75</sup> Nevertheless, approximately 900 native avian species have been recorded in addition to a great number of migrators.<sup>76</sup> These quantities present a formidable obstacle to description; eliminating the obvious still leaves plenty of candidates.

Regarding Panofsky's second act, the iconographical analysis, researchers suggested that certain Zoomorphic motifs represented culture heroes. Most jumped right to the third act, iconological interpretation, seeing the motifs as themes and concepts valued by the people who used the Sitio Conte cemetery. However, the limited data about the beliefs and values of Gran Coclé's inhabitants challenges this third act. Researchers used zoology, ethnographies of indigenous mythology, and anthropological theory about chiefdoms to compensate for this lack.

Mary Helms's research exemplifies the trials of working the Zoomorphic motifs with Panofsky's three acts. Since the 1970s, she has

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<sup>74</sup> Gerardo Ceballos, "Vertebrate Diversity, Ecology, and Conservation in Neotropical Dry Forests," in *Seasonally Dry Tropical Forests*, eds. Stephen H. Bullock, Harold A. Mooney, and Ernesto Medina (Cambridge: Cambridge University Press, 1995), 197.

<sup>75</sup> John C. Kricher, *A Neotropical Companion: An Introduction to the Animals, Plants, and Ecosystems of the New World Tropics* (Princeton: Princeton University Press, 1997), 394.

<sup>76</sup> Robert S. Ridgely and John A. Gwynne, Jr., *A Guide to the Birds of Panama with Costa Rica, Nicaragua, and Honduras*, 2nd ed. (Princeton: Princeton University Press, 1989).

identified certain “markers” of boa constrictors, iguanas, curassows, tinamous, spectacled bears, deer, crabs, and shrimp. For example, she keenly observed the boa constrictor skin pattern in the alternating ovals and rectangles (Fig. 2.26).<sup>77</sup> Among the birds, she identified the female curassow with a bipedal stance, bent legs, forehead spike, barred tail, and backward head with crest (Fig. 2.27).<sup>78</sup> Among the mammals, she saw the white-tailed deer marked by antlers, square muzzle, protruding tongue, and curled tail.<sup>79</sup> Helms’s spectacled bears were Lothrop’s turtles<sup>80</sup> and she reassigned his crocodilian Foot motif to the bear, raccoon, and/or coati.<sup>81</sup> For Helms, Lothrop’s Scroll motifs related to the animals. Specifically, she identified the YC Scroll as a boa constrictor marker based upon the reptile’s coiled pose.<sup>82</sup> Helms definitely took the description to a new level of specificity with a taxonomic-like approach. Some of her identifications made archaeologists nervous since she made no use of faunal remains analyses which would have added data about animals as resources.<sup>83</sup> Helms also called on ethnographies of indigenous North,

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<sup>77</sup> Mary W. Helms, *Creations of the Rainbow Serpent: Polychrome Ceramic Designs from Ancient Panama* (Albuquerque: University of New Mexico Press, 1995), Ch. 2; *The Curassow’s Crest*, Ch. 2 and 7.

<sup>78</sup> Helms, *Creations of the Rainbow Serpent*, 15–37 and 40–44; Helms, *The Curassow’s Crest*, 21–22.

<sup>79</sup> Helms, *The Curassow’s Crest*, 42.

<sup>80</sup> Mary W. Helms, “The Spectacled Bear in Iconic Imagery of Ancient Panama and Colombia,” in *Recent Advances in the Archaeology of the Northern Andes In Memory of Gerardo Reichel-Dolmatoff*, eds. Augusto Oyuela-Caycedo and J. Scott Raymond (Los Angeles: The Institute of Archaeology, UCLA, 1998), 136–38.

<sup>81</sup> Helms, *Creations of the Rainbow Serpent*, 65–67.

<sup>82</sup> *Ibid.*, 30–31.

<sup>83</sup> John Hoopes, Review of *Creations of the Rainbow Serpent: Polychrome Ceramic Designs*

Central and South Americans (Bororo, Warao, Talamancan, Kuna, Tukano, Kogi, Desana, Miskito, Sumu, Maya, and/or Mexitin) to view the Zoomorphs as representations of culture heroes, hunter heroes, and creator beings. This method bred disjunction or large gaps in the space and time wherein cultures change dramatically so that a motif's meaning at one point radically differs than at another. In other words, the Desana, who live in Colombia, cannot explain the motifs painted on Sitio Conte ceramics approximately 1300 years ago.

Overall, Richard Cooke was more conservative with subject matter. He identified five Sitio Conte vessels as felines.<sup>84</sup> Regarding birds, he pinpointed Lothrop's spread-eagled variety as a hummingbird, but took Lothrop's turtles and Helms' bears for human-parrot or macaw beings,<sup>85</sup> an important point because it recognized a human aspect in the zoomorphic motifs. He qualified Helms by adding that the spectacled bear was never actually documented in central Panama.<sup>86</sup> It is an endangered species of a markedly different ecosystem such as the Darién National Forest in eastern Panama and the eastern Andean region. He concluded that Helms' curassows mixed many avian features and therefore were

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from *Ancient Panama* by Mary Helms, *Latin American Antiquity* 7, 4 (1996): 374.

<sup>84</sup> Richard Cooke, "Animal Icons and Pre-Columbian Society: The Felidae, with Special Reference to Panama," in *Reinterpreting Prehistory of Central America*, ed. Mark Miller Graham (Niwot: University Press of Colorado, 1993), 182 and 187–88; Richard Cooke, "The Felidae in Pre-Columbian Panama: A Thematic Approach to Their Imagery and Symbolism," in *Icons of Power: Feline Symbolism in the Americas*, ed. Nicholas J. Saunders (London: Routledge, 1998a), 92.

<sup>85</sup> Richard Cooke, "Birds and Men in Prehistoric Central Panama," in *Recent Developments in Isthmian Archaeology*, ed. Frederick W. Lange (Oxford: BAR International Series 212, 1984b), 243–70.

<sup>86</sup> Cooke, "The Felidae in Pre-Columbian Panama," 82.

better identified as generalized avians.<sup>87</sup> Finally, he linked Lothrop's S Scroll to the curved jaguar tail.<sup>88</sup> In terms of iconographical analysis, Cooke proposed that the most prevalent zoomorphic motifs represented the " 'names' of Sitio Conte's social groups."<sup>89</sup>

Archaeologist Olga Linares integrated her identifications with the chiefdom organization for iconological interpretation. It was her position that people selected certain animals as subject matter because of their physical attributes (beaks, pincers, barbed spines, fangs, toxins, sharp teeth, talons, claws, protective shells, etc.) and/or aggressive behaviors. She concluded that this behavior was an appropriate model for human beings living in the chiefdom society which the Spaniards reported were very competitive and bellicose.<sup>90</sup> Again, temporal disjunction between the Sitio Conte cemetery and the sixteenth century, makes one desire archaeological evidence of warfare from the time when Sitio Conte was actually operational.

### Review

The archaeological excavation and historiography of Sitio Conte decorated ceramics offered many important departure points for this dissertation. Taken as a whole, research up to the present has sought to

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<sup>87</sup> Cooke, "Birds and Men in Prehistoric Central Panama," 245.

<sup>88</sup> Cooke, "The Felidae in Pre-Columbian Panama," 95.

<sup>89</sup> *Ibid.*, 109.

<sup>90</sup> Olga F. Linares, *Ecology and the Arts in Ancient Panama: On the Development of Social Rank and Symbolism in the Central Provinces*, Studies in Precolumbian Art and Architecture, Number 17 (Washington, DC: Dumbarton Oaks, 1977), 70.

tame the daunting object quantities and subject matter. The typical strategy was description, via identification and classification, to name and thus control it all. Not only did this research leave the identity of many of Zoomorphic motifs open-ended, but it also set aside many of the ceramics' other aspects, such as the ubiquitous Abstract motifs. Also notice that researchers identified little anthropomorphic subject matter; Linares came the closest by at least proposing a link between animal and human behavior and Cooke hypothesized that the animals represented social groups. On the other hand, Briggs's dissertation made it clear that vessel distributions in the graves did not display the deceased's rank in life.

Yet this total work does not mean that ceramics did not operate in the identities and relationships of the living and deceased. The material analyzed for this dissertation indicates that people were indeed represented by the Sitio Conte vessels, however, just in ways not immediately recognizable. Chapter 3 describes this dissertation's objectives and methods in light of these points.



## CHAPTER 3

### IDENTIFYING, ANALYZING, AND INTERPRETING VESSELS

Previous anthropological and art historical research about Sitio Conte decorated ceramic vessels had two emphases. First, researchers subject the zoomorphic subject matter to extensive rounds of identification and interpretation. Second, they look for ways that the object quantities differentiated the deceased's rank in a chiefdom. The excavators were the first researchers, particularly Samuel Lothrop. As the years passed, the research has become interdisciplinary with contributions from an art historian. This dissertation adds to that interdisciplinary aspect of Sitio Conte studies.

As the first step to making that contribution, Chapter 3 focuses on this dissertation's topic and method. On the first count, the ceramics' decoration and deposition are the primary topics. Decoration refers to the polychrome motifs painted on the vessel surfaces and deposition refers to the vessels' physical condition, position, and placement in the graves. Thus, this inquiry knowingly creates a binary structure for Sitio Conte ceramics. The method is characterized here in the context of Erwin Panofsky's work. Certainly, the influence of other art historians and anthropologists runs through it.

### Panofsky

Erwin Panofsky is one of Art History's luminaries due to his tripartite system for investigating subject matter in Western art. In turn, his method attracted waves of reassessment by art historians who weigh Panofsky's achievement and failure.<sup>1</sup> With modification, his method is useful for looking at the decoration and deposition of Sitio Conte vessels.

Beginning with Panofsky's work itself, he lays out three "strata" of subject matter in art which require three acts on the researcher's part: pre-iconographical description, iconographical analysis, and iconographical interpretation (also known as iconology).<sup>2</sup> Ultimately, he thinks they "merge with each other into one organic and indivisible process."<sup>3</sup> This dissertation seeks meanings of the Abstract motifs painted on Sitio Conte ceramic vessels through Panofskian description, analysis, and interpretation.

Panofsky conceives his method for the study of Western art, yet researchers observe that he "always implied a broader ambition than European art (or even visual art in general), one that would address both nonwestern and non-artistic visual images, and explore the whole field of human visuality and visual experience."<sup>4</sup> Certainly, Americanists employ

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<sup>1</sup> This list could be very long, but some of the most useful sources for this dissertation were Michael Ann Holly, *Panofsky and the Foundations of Art History* (Ithaca: Cornell University Press, 1984); Donald Preziosi, *Rethinking Art History: Meditations on a Coy Science* (New Haven: Yale University Press, 1989): 111-21; Mieke Bal and Norman Bryson, "Semiotics and Art History," *The Art Bulletin* LXXIII, 2 (June 1991): 174-208; Stephen Bann, "Meaning/Interpretation," in *Critical Terms for Art History*, eds. Robert S. Nelson and Richard Shiff (Chicago: The University of Chicago Press, 1996), 87-100.

<sup>2</sup> Panofsky, *Studies in Iconology*, 5.

<sup>3</sup> *Ibid.*, 17.

<sup>4</sup> W.J.T. Mitchell, "Iconology, Ideology, and Cultural Encounter: Panofsky, Althusser, and

components of Panofsky's method if not the whole product. Two Americanists working very different material (Colima ceramics and Inka metalwork) take up their topics in relation to Panofsky.<sup>5</sup> Configuring a dissertation project about Sitio Conte painted ceramics with a methodology informed by Panofsky is a comparable ambition. Yet this dissertation applies Panofsky in new ways. For example, he probably would not envision vessel deposition as a subject of his method since it strays from a conventional notion of subject matter. However, this dissertation considers this possibility: the forms of vessel deposition make meaning. The following sections present vessel decoration and deposition in Panofsky's three-part system.

### Vessel Decoration

The act of pre-iconographical description identifies the subject matter using a researcher's familiarity with objects and events:

The objects and events whose representation by lines, colours and volumes constitutes the world of motifs can be identified, as we have seen, on the basis of our practical experience. Everybody can recognize the shape and behavior of human beings, animals, plants.<sup>6</sup>

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the Scene of Recognition," in *Reframing the Renaissance: Visual Culture in Europe and Latin America, 1450–1650*, ed. Claire Farago (New Haven: Yale University Press, 1995), 293.

<sup>5</sup> Penny Dransart, "Clothed Metal and the Iconography of Human Form among the Incas," in *Precolumbian Gold: Technology, Style, and Iconography*, ed. Colin McEwan (London: The British Museum Press, 2000), 76–91; Mark Miller Graham, "The Iconography of Rulership in Ancient West Mexico," in *Ancient West Mexico: Art and Archaeology of the Unknown Past*, ed. Richard F. Townsend (New York: Thames and Hudson, 1998), 191–203.

<sup>6</sup> Panofsky, *Studies in Iconology*, 9.

This project identifies two basic kinds of motifs. First, the Figural motifs correspond to Lothrop's Zoomorphs (Fig. 3.1). These are a wide variety of animals. Second, Abstract motifs combine Lothrop's Scroll, Geometric, and Space-filler motifs (Figs. 3.2–3.3). The difference between the two groups is that the first one consists of motifs whose forms obviously resemble creatures observable in the natural world. The Abstract motifs are the subject of analysis and interpretation because researchers overlook them in favor of the dynamic creatures. Panofsky himself envisions Figural motifs as subject matter, yet this project demonstrates his method equally serves Abstract motifs.

Panofsky mentions formal analysis as part of pre-iconographical description.<sup>7</sup> However, he describes it as “pseudo”<sup>8</sup> and it never significantly appears in his method. At the same time, comprehensive formal analysis of Sitio Conte painting has been scanty. Thus, one must look elsewhere for insightful precedents to devise a symmetry analysis of the Abstract motifs. The analysis conducted is that of Dorothy Washburn and Donald Crowe in *Symmetries of Culture, Theory and Practice of Plane Pattern Analysis*.<sup>9</sup> People all over the world from ancient times have employed symmetry in art. Washburn and Crowe claim that a symmetry analysis provides data about “things that are perceptually important”<sup>10</sup> to a group of people. While that is less than a crystal-clear explanation of

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<sup>7</sup> Ibid., 14.

<sup>8</sup> Ibid.

<sup>9</sup> Dorothy K. Washburn and Donald W. Crowe, *Symmetries of Culture: Theory and Practice of Plane Pattern Analysis* (Seattle: University of Washington Press, 1988).

<sup>10</sup> Ibid., 270.

symmetry's potential, this author interprets their claim by way of their brief discussion about perception.<sup>11</sup> Human beings perceiving the world around them detect symmetry because it establishes order by way of the motif repetition. It even allows beholders to anticipate the information in their surroundings. Yet beliefs and ideas influence people's perception and their visual ordering of the world. Thus, artists who employ symmetry in their work often do so in specific ways that aid people of their own culture.<sup>12</sup>

Documenting the particular use of symmetry on the part of Sitio Conte painters requires the identification of the four fundamental and unchanging motions that repeat the Abstract motif(s): rotation, reflection, translation, and glide reflection (Fig. 3.4). Rotation repeats a motif around a central point while reflection copies a motif across one or more axes. Motifs repeated by these two motions are called designs. Translation copies the motif along a vector and glide reflection copies the motif by translating and mirror reflecting it.<sup>13</sup> All motifs translated or glide reflected are called patterns; one-dimensional patterns translate the motif in one direction and two-dimensional translate it in two. There are seven one-dimensional pattern classes and seventeen two-dimensional patterns (Figs. 3.5–3.6).

All symmetry explained thus far involves just one color, yet symmetry motions can alter a motif's color. The basic principle of two-color symmetry is that the motion reverses a motif's color when it copies it with

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<sup>11</sup> Ibid., 15–24.

<sup>12</sup> Rudolf Arnheim, *Art and Visual Perception: A Psychology of the Creative Eye* (Berkeley: University of California Press, 1974), 6.

<sup>13</sup> Ibid., 48 and 50.

a different color. The prime (') between the letter and number (e.g.  $d'1$ ) indicates that all reflections reverse color and all rotations preserve it. The prime at the end of the notation ( $d1'$ ) means that half of the reflections reverse color and half preserve it and all rotations preserve (Fig. 3.7).<sup>14</sup> Seventeen two-color one-dimensional patterns exist (Fig. 3.8). Washburn and Crowe do not address three-color symmetry and they recommend the classification and notation of Branko Grünbaum and G.C. Shephard;<sup>15</sup> the Sitio Conte paintings only require Grünbaum and Shephard's classification of three-color one-dimensional patterns. Identifying all motions that copy a motif as well as reverse its color allows it to be classified. Appendix I explains the notation for the classes of one-, two-, and three-color symmetry and since this notation appears throughout this dissertation, readers are advised to review Appendix I.

Despite the availability of a sound analytical method, the symmetry of Sitio Conte ceramic painting never has been the subject of a comprehensive analysis. Just three researchers offer passing observations. First, Lothrop writes about symmetry in a generally accurate manner: "Symmetry of design, therefore is more apparent than real, or we may say that the design is balanced but not symmetrical."<sup>16</sup> Apparent symmetry is a significant issue in Chapter 5. Anna Shepard, an expert on ceramic design and technology, first explained, demonstrated, and advocated symmetry analysis of whole-vessel designs (opposed to sherds) on ancient

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<sup>14</sup> Ibid., 65 and 68.

<sup>15</sup> Branko Grünbaum and G.C. Shephard, *Tilings and Patterns* (San Francisco: W. H. Freeman and Company, 1987).

<sup>16</sup> Lothrop, *Coclé Part II*, 21.

ceramics. Eight years after the final excavation season at the Sitio Conte cemetery, she undertook a limited symmetry analysis of certain kinds of motifs painted on the ceramics. Her work is restricted to Lothrop's Scrolls and finds that they are mostly three of the four symmetry motions: rotation, reflection, and glide reflection (see below).<sup>17</sup> Next, Linares identifies Static, Dynamic, and Facing symmetries,<sup>18</sup> but she actually diverges from the four invariant symmetry motions. Her Dynamic symmetry is really asymmetry and her Facing is twofold reflection. Most recently, Helms' work, while neither conceived nor executed in terms of a symmetry analysis per se, looks for structural organization. She detects and interprets underlying dual and quadripartite structure in some paintings (Cat. no. 2). All of these researchers sense symmetry's important presence in Sitio Conte ceramic painting and in the case of Shepard begins to identify preferences in the implementation of symmetry operations. This study expands Shepard's by including more types of motifs besides Lothrop's Scrolls.

Symmetry analysis is an old, yet rare topic in ancient American studies. Franz Boas observes symmetry in ceramics, textiles, and metalwork in his work just prior to the excavation of the Sitio Conte cemetery.<sup>19</sup> Just one anthropological study published many years later demonstrated that symmetry analysis provides good data for interpreting

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<sup>17</sup> Anna O. Shepard, *The Symmetry of Abstract Design with Special Reference to Ceramic Decoration*, Contribution to American Anthropology and History, no. 47 (Washington, DC: Carnegie Institution of Washington, 1948), 273 and 278.

<sup>18</sup> Linares, *Ecology and the Arts in Ancient Panama*, 51–54.

<sup>19</sup> Franz Boas, *Primitive Art* (Oslo: H. Aschehoug & Co., 1927), 32–40.

ancient American painting practices. Marcia and Robert Ascher looked for Inka “insistence” which was their term for a given society’s defining features. As part of their research, they analyze over 400 patterns on imperial Inka ceramic vessels. They discover that the painters focused on a few symmetry classes, most of which consisted of a mirror reflection. The Aschers conclude that motif repetition by mirror reflection was an Inka bureaucratic strategy also employed for architecture. Mirror reflection characterized Inka insistence along with portability, spatial arrangement, conservatism, and fit.<sup>20</sup> Their symmetry analysis comes to one conclusion about the importance of mirror reflection in the Inka program.

### Iconographical Analysis

As Panofsky conceived it, this analysis focuses on the narratives rather than the forms. For example, the Abstract motifs’ forms described in the pre–iconographical description express the narratives’ themes and concepts.

Several obstacles stand in front of the iconographical analysis of the Abstract motifs.<sup>21</sup> Reina Torres de Arauz effectively writes that this material constitutes “un simbolismo geométrico de difícil interpretación.”<sup>22</sup> Panofsky would turn to literary sources, yet texts are irrelevant in Gran

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<sup>20</sup> Marcia Ascher and Robert Ascher, *Mathematics of the Inca: Code of the Quipu* (New York: Dover Publishers, 1997; republication of *Code of the Quipu: A Study in Media, Mathematics, and Culture*, Ann Arbor: University of Michigan Press, 1981), 53–56.

<sup>21</sup> The same has already been said about Figural motifs; Linares, *Ecology and the Arts in Ancient Panama*, 59.

<sup>22</sup> Reina Torres de Araúz, *Natá Prehispánico*, Centro de Investigaciones Antropológicas, Publicación Especial No. 3 (Panama: Imprenta Universitaria, 1972b), 44.



Coclé as stories took oral form. Instead, this project turns to objects with Abstract motifs the region's inhabitants made and employed. Specifically, ceramic effigy vessels and roller stamps are sources for related ideas.

### Iconology

After themes and concepts, Panofsky introduces the third and final act: iconographical interpretation or synthesis. As he described it, a researcher should synthesize “essential tendencies of the human mind” expressed by the “themes and concepts”<sup>23</sup> identified by the second act. Another definition of Panofsky's ambition better describes this work seeking the “the underlying cultural premises from out of which the artist's work was drawn.”<sup>24</sup> Yet another author describes Panofsky's overarching objective in the following way:

Iconology does not unlock a painting or other representational form as a statement of explicit meanings as much as it addresses itself to the elusive underlying cultural principles of representation. Its implied direction involves discovering how meaning becomes expressed in a specific visual order, that is, it asks, in their, why certain images, attitudes, historical situations, and so forth have assumed one particular shape at one particular time.<sup>25</sup>

In a sense, this project's ultimate objective is the premises or principles from which the painters drew their decoration of Sitio Conte ceramics.

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<sup>23</sup> Panofsky, *Studies in Iconology*, 14–15.

<sup>24</sup> Robert Layton, *The Anthropology of Art*, 2nd ed. (Cambridge: Cambridge University Press, 1991), 35.

<sup>25</sup> Holly, *Panofsky and the Foundations of Art History*, 14–15.

However, ancient American artists, including the Sitio Conte painters, challenge iconology. In spite of Panofsky's claim, this author cannot rely on "synthetic intuition"<sup>26</sup> about the painters' cultural premises in order to identify themes and concepts given the temporal, spatial, and cultural chasm between her and them. It is a formidable challenge, as Briggs clearly states, "We have no information on the value system of the people of Sitio Conte . . ."<sup>27</sup> One popular way to circumvent this important problem is turning to ethnographies about Native Americans living at different places at different times. Interpretations of their practices are used to identify and interpret ancient art. Just in terms of Sitio Conte, a reader encounters references to the Desana of Colombia, the Kuna of Kuna Yala (San Blas Archipelago, Panama), and the Talamancans of Costa Rica, to name a few. Researchers compare Sitio Conte art with sixteenth-century descriptions (see Chapter 2) or modern Kuna art. The technique and subject matter of Kuna *molas* (rectangular panels of colorful layered cloth sewn onto women's blouses) are compared with Sitio Conte ceramics and goldwork,<sup>28</sup> suggesting a timeless native Panamanian artistic essence when Kuna women conscientiously seek out examples of ancient ceramics

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<sup>26</sup> Panofsky, *Studies in Iconology*, 14–16.

<sup>27</sup> Briggs, "Pre-Conquest Mortuary Arts and Status," 121.

<sup>28</sup> Mary Helms, *Kuna Molas and Coclé Art Forms: Reflections on Panamanian Design Styles and Symbols* (Philadelphia: Institute for the Study of Human Issues, 1981).

and goldwork for *mola* subject matter.<sup>29</sup> As Linares effectively writes, this link of Coclé and Kuna is a “mistaken association.”<sup>30</sup>

Therefore, this dissertation does not draw such analogies with colonial, modern, and contemporary Native Americans. Stated simply, the Spanish chroniclers, such as Fernandez de Oviedo y Valdés, speak at best about the practices of sixteenth-century peoples, including those who when painted and deposited El Hatillo and Mendoza ceramics. Along the same lines, Kuna women speak best about their own artistic enterprises in the nineteenth-, twentieth-, and twenty-first centuries.<sup>31</sup> These Native Americans, as well as others, adjusted to events (colonization) and circumstances (population reduction due to spreading diseases) and thereby have profoundly transformed. They cannot speak for Sitio Conte ceramic painters.

Instead, this dissertation does rely upon analogies with contemporaries of the Sitio Conte painters. The term “contemporary” refers to the time of burial at the cemetery between 750 and 950 CE. In other words, temporal proximity to Sitio Conte rather than distance was the criterion.<sup>32</sup> Spatial proximity to Sitio Conte informs the selection of artistic

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<sup>29</sup> For a contemporary *mola* with a motif based on ancient art see Mari Lyn Salvador, ed., *The Art of Being Kuna: Layers of Meaning among the Kuna* (Los Angeles: UCLA Fowler Museum of Cultural History, 1997), Cat. no. 55.

<sup>30</sup> Linares, *Ecology and Arts in Ancient Panama*, 78.

<sup>31</sup> See Mari Lyn Salvador, “Looking Back: Contemporary Kuna Women’s Arts,” in *The Art of Being Kuna: Layers of Meaning among the Kuna of Panama*, ed. Mari Lyn Salvador (Los Angeles: UCLA Fowler Museum of Cultural History, 1997), 151–211; Janet Catherine Berlo, “Beyond Bricolage: Women and Aesthetic Strategies in Latin American Textiles,” in *Textile Traditions of Mesoamerica and the Andes*, eds. Margot Blum Schevill, Janet Catherine Berlo, and Edward B. Dwyer (New York: Garland Publishing, Inc., 1991), 437–79.

<sup>32</sup> Examples exist outside ancient American studies. Myceneans, Hittites, and Mesopotamians are better sources on Minoan art than the later classical Greeks because they “formed part of a wider Bronze Age Mediterranean culture;” see Donald Preziosi and

analog. Practices and material culture of neighbors, especially people with whom they interacted, better inform interpretation of Sitio Conte ceramics. First and foremost, this dissertation looks at Intermediate Area societies contemporaneous with the Sitio Conte cemetery (Fig. 3.9). Archaeologists and art historians document and interpret practices of ancient Hondurans, Costa Ricans, Panamanians, and Colombians. These people moved goldwork technology from Colombia northward into Panama, Costa Rica, and then Mesoamerica. Further, people of these regions exchanged goldwork. Pieces of the International Group are found at sites scattered from northern Costa Rica to central Colombia between ca. 400 and 900 CE.<sup>33</sup> Along these lines, Helms posits that ancient Panamanian leaders traveled to Colombian centers to acquire knowledge and goldwork.<sup>34</sup> To the north, some gold offered to the large cenote at Chichen Itzá, Yucatan during the eighth and ninth centuries was originally from the Intermediate Area.<sup>35</sup> In addition gold objects, iconography pertaining to goldwork tied together people in Costa Rica, Panama, and Colombia.<sup>36</sup>

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Louise A. Hitchcock, *Aegean Art and Architecture* (Oxford: Oxford University Press, 1999), 85.

<sup>33</sup> Warwick Bray, "Sitio Conte Metalwork in Its Pan-American Context," in *River of Gold: Precolumbian Treasures from Sitio Conte*, Pamela Hearne and Robert J. Sharer, eds. (Philadelphia: The University Museum, University of Pennsylvania, 1992), 35-40.

<sup>34</sup> Mary Helms, *Ancient Panama: Chiefs in Search of Power* (Austin: University of Texas Press, 1979), 134-43.

<sup>35</sup> C.C. Coggins, "The Cenote of Sacrifice: Catalogue," in *Cenote of Sacrifice: Maya Treasures from the Sacred Well at Chichén Itzá*, eds. C.C. Coggins and O. C. Shane (Austin: University of Texas Press, 1984).

<sup>36</sup> Mark Miller Graham, "Merchants and Metalwork in Middle America." In *Paths to Central American Prehistory*, ed. Frederick W. Lange (Niwot: University Press of Colorado, 1996), 237-52.

Research about material produced in the Intermediate Area and moved around and/or through this region aids this dissertation's interpretation of Sitio Conte ceramic painting.

### Vessel Deposition

The second half of this dissertation concerns one context of the vessels, meaning specifically here the funerary context of the Sitio Conte burials. Instead of conventionally placing the vessels "in context," this work treats the vessels as agents as art historian Whitney Davis cast objects as context-makers rather than receivers:

I will begin by suggesting that representation should not be interpreted within a framework provided by an a priori formulation of their supposedly proper "context," such as "style" or "culture area." Rather, they should be interpreted as themselves making the context of their original meaningfulness.<sup>37</sup>

In other words, the vessels themselves actively made the(ir) funerary context which, in turn, needs to be analyzed.<sup>38</sup> The different ways the vessels were physically deposited and treated in the graves engendered funerary context.

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<sup>37</sup> Whitney Davis, "Writing Culture in Prehistoric Central America," in *Reinterpreting Prehistory of Central America*, ed. Mark Miller Graham (Niwot: University Press of Colorado, 1993), 253.

<sup>38</sup> Bal and Bryson, "Semiotics and Art History," 175–80.

### Description

In this part of the dissertation, the vessels' physical condition (broken or intact), position (upright or inverted), and grouping (pairs, nests) are identified and described. In a sense, this work attempts to undo the archaeological excavation and subsequent repair of the ceramic vessels.

A contemporary archaeologist influences this dissertation's description of vessel deposition. John Chapman's research is a primary source for describing vessel condition.<sup>39</sup> His topic is Mesolithic, Neolithic, and Copper Age deposits in southeastern Europe. Although temporally, spatially, and culturally distant from the vessels at the Sitio Conte, cemetery in Panama, Balkan object fragmentation opens up the pre-*iconographical* description of Sitio Conte vessel fragmentation by distinguishing two types: broken/complete and broken/incomplete.

In the Sitio Conte site report, Lothrop sets the PMHU vessels in two broad categories with regard to their deposition: those in proximity to the deceased and those without any discernible connection to a body. He reports about vessel deposition in a loose and sometimes even random manner, such as references to piles of vessels in a grave's corners. He seldom explains a vessel's placement in detail. Perhaps this reflects the great complexity of vessel deposition which could have easily overtaken the more immediate objective to report the whole range of findings rather than one in great detail. Lothrop reiterates the vessels' poor condition and

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<sup>39</sup> John Chapman, *Fragmentation in Archaeology: People, Places, and Broken Objects in the Prehistory of South-Eastern Europe* (London: Routledge, 2000).

overlapped groupings.<sup>40</sup> The issue has been abandoned; Linares and Briggs, who both have focused on other problems with the material, summarized descriptions from the excavations.<sup>41</sup> In truth, no researcher designs his/her work to analyze vessel deposition.

### Analysis

The ways of physically manipulating vessels, as recorded in the excavation data, must be analyzed and interpreted more fully. Indeed, an “aesthetics of deposition” or “management of interior space” is the least-studied and interpreted aspect of Sitio Conte ceramics. Thorough description and then analysis of an object’s deposition already caught on in some ancient American studies. The Mexica practice of depositing individual and groups of objects makes one impressive case. They deposited over one hundred offerings consisting of approximately 8,000 items in the Huey Teocalli (Great Temple) at their capital Tenochtitlan. At first, the analysis concentrates on specific pieces praised as artistic masterpieces; they existed in utter isolation from the other objects in the same offering, other offerings, or the entire monument itself.<sup>42</sup> This approach to the Huey Teocalli objects resembles that of the ceramics in the Sitio Conte graves which researchers tend to evaluate individually and without analysis of deposition.

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<sup>40</sup> Lothrop, *Coclé Part I*, 52; *Coclé Part II*, 3–5.

<sup>41</sup> Linares, *Ecology and the Arts in Ancient Panama*, 38; Briggs, “Pre-Conquest Mortuary Arts and Status,” 131 and 164.

<sup>42</sup> Leonardo López Luján, *The Offerings of the Templo Mayor of Tenochtitlan* (Niwot: University Press of Colorado, 1994), 9.

Archaeologist Leonardo Lopéz Luján describes his new research direction with the Huey Teocalli material, “Another possibility for research would be an examination of the composition and placement of the offerings, which would provide a better understanding of the ideology of the society.”<sup>43</sup> Thorough description, using all the technology available at the end of the twentieth-century (1978–1991), can define Mexica “management of interior space”<sup>44</sup> or the different ways that the Mexica deposited animal parts, human parts, ceramics, obsidian, and food products (among many other kinds of things) in the Huey Teocalli. Although the archaeological excavation of the Sitio Conte cemetery could not be as technologically sophisticated as that of the Huey Teocalli due to the improvement of archaeological techniques in the course of the twentieth century, the excavation records still provide considerable data about an “aesthetics of deposition” at the burial ground.

### Iconology

Diverse sources support an interpretation of vessel deposition. Comparison with Late Classic (ca. 600–900 CE) Maya iconography from funerary sculpture and ceramic vessels allow the interpretation of one form of fragmentation.

Chapman’s Balkan project not only aids description but also is an interpretation model. He links depositional practices, including object fragmentation, to people’s social activities. This opens up new avenues for the interpretation of vessel deposition (see Chapter 7).

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<sup>43</sup> Ibid., 38.

<sup>44</sup> Ibid.



Finally, description and analysis permit an interpretation of the people who deposited the vessels in the graves. Vessel deposition was the responsibility of the grave preparators, the term in this dissertation for the persons responsible for appropriately arranging the objects in the Sitio Conte graves. In a sense, these people are envisioned here as the painters' counterparts or colleagues in that both were knowledgeable about their tasks with the ceramics. They knew how to go about fragmentation and the other depositing activities just as the painters knew how to go about painting Figural and Abstract motifs. As archaeologist Joshua Pollard proposes about Neolithic depositors, the Sitio Conte preparators possessed knowledge about the "appropriate selection, arrangement, and burial of things."<sup>45</sup> No evidence suggests that the Sitio Conte preparators were specialists. The value of kin in chiefdom societies may allow the hypothesis that the preparators were also the deceased's own relatives. Alternatively, the preparators were "temporary specialists" who worked on the burials of many people during the dry season when the cemetery's soil was not water-logged. While it might be impossible to resolve this issue, this project at least draws attention to their significant contribution.

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<sup>45</sup> Joshua Pollard, "The Aesthetics of Depositional Practice," *World Archaeology* 33, 2 (2001): 330.

## CHAPTER 4

### FORMING THE CORPUS AND COLLECTING DATA

The combined PMHU and UPM expeditions identified one hundred graves, far too many for one multidimensional study. Yet even more important reasons for eliminating some graves are apparent in Briggs's warning: "The identification of any artifact assemblage at this site as mortuary remains requires independent and unambiguous evidence."<sup>1</sup> Indeed, a grave's mortuary nature and its completeness become key issues for excluding some graves from this study. At least seven reasons to remove graves from the corpus are apparent. First, the graves partly washed away obviously cannot be part of this study as their contents and their deposition cannot be reconstructed.<sup>2</sup> Second, graves left unexcavated or incompletely excavated are inappropriate for the same reason.<sup>3</sup> Third, features that excavators identified as human graves must to be carefully reviewed and many are ultimately eliminated due to their inconclusive status as burials. A case in point are twelve so-called "burials" that actually lacked human remains.<sup>4</sup> Fourth,

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<sup>1</sup> Peter S. Briggs, "Fatal Attractions: Interpretation of Prehistoric Mortuary Remains from Lower Central America," in *Reinterpreting Prehistory of Central Panama*, ed. Mark Miller Graham (Niwot: University Press of Colorado, 1993), 143.

<sup>2</sup> PMHU Graves 44, 45, and 46.

<sup>3</sup> PMHU Graves 50–53 were identified, but not excavated; see Lothrop, *Coclé Part I*, 295. UPM's Burial 28 was partly excavated; see Briggs, "Pre-Conquest Mortuary Arts and Status," 284.

<sup>4</sup> PMHU Graves 34. UPM burials in Trench 2: 1, 2, 8a, 12a, 12b, 12d, 12e, 13b, 14,

multiple graves that possibly formed one originally are excluded.<sup>5</sup> Fifth, any grave with evidence of ancient reopening or cutting for new burials has been set aside because these practices, while undoubtedly significant, obscure the original deposition of ceramics.<sup>6</sup> Graves without any decorated plates and bowls have to be removed because they cannot contribute to the analysis of decoration.<sup>7</sup> Finally, PMHU Grave 26 and UPM Burial 11 were original members of this study, but as analysis proceeded it became clear that each deserved to be an independent research focus. A dissertation in the future may focus on just one of these alone. Moreover, the excavators abandoned their standard procedure for describing vessels and recording their locations for Burial 11 because they felt “overwhelmed” with the amount of vessels therein.<sup>8</sup> Thus, the exact information crucial to the deposition analysis planned for this dissertation was not recorded for Burial 11.

The six PMHU graves are 1, 7, 13, 17, 20, and 43 and the three burials of the UPM excavation are 7, 12, and 19. None is perfect in every regard as a few vessels in each one are unavailable for direct examination at the museums, yet each grave offers a representative collection of vessels suitable for the description, analysis, and

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16, 26.

<sup>5</sup> PMHU Grave 47, 56. UPM Burials 9, 10a; 12f–12g, 16, 17a, 17b, 22, 23, 24.

<sup>6</sup> PMHU Graves 2, 3, 4, 5, 14, 22, 24, 25, 32, 38, 39, 41, 42, 57. UPM Burials 12c, 13, 26b.

<sup>7</sup> PMHU Graves 8, 10, 11, 12, 18, 20, 21, 27, 28, 29, 30, 33, 35, 36, 37, 40, 48, 49, 55, 56, 57 and 59. UPM burials in Trench 1: 1, 2, 3, 4, 5. Trench 2: 2, 3, 8a, 8b, 10b, 13b, 15, 18, 25, 27.

<sup>8</sup> Briggs, “Pre-Conquest Mortuary Arts and Status,” 125.

interpretation of their decoration and deposition. In terms of the previous research (see Chapter 2), they represent Lothrop's three tiers of differentiation (small, intermediate, and large graves) and five of Briggs' ten clusters.<sup>9</sup> Rather than seeing them as representatives of categories, however, this dissertation sees each one as a unique assemblage of decorated and deposited ceramic vessels.

### The Identification System

Specific terms and abbreviations throughout this dissertation facilitate reference to the nine selected interments, their human occupants, the ceramic vessels, and their paintings. First of all, "Grave" (G) stands for the PMHU graves and "Burial" (BU) for the UPM burials. These abbreviations follow the terminology of the respective expeditions and thereby remind readers of the responsible team. In this system, for example, PMHU Grave 1 is G1 and UPM Burial 7 is BU7. The excavators identified multiple layers (L) in three graves in this study: Grave 1, Grave 13, and Burial 12. For example, Grave 1 had two layers: Layer 1, or the bottom one, had nine turtle shells, three ceramics vessels, two metal disks, and basketry while Layer 2 above it held four deceased men and the bulk of objects. Layer abbreviations are actually unnecessary for Grave 1 since all vessels in this study were in Layer 2. The UPM excavators identified two layers in Burial 12, but they were compacted and almost melted together into one thick mass. In fact,

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<sup>9</sup> Clusters I, III, V, VI, and VIII.

Burial 12 highlights the common disconnect between identifying the layers the preparators originally formed versus those the excavators formed.<sup>10</sup> The other multi-layer interment does require layer designations because the grave preparators themselves delineated nine layers: G13–L6 and G13–L8 identify the two in Grave 13 that contained ceramics.

The identification system for the deceased employs their age and sex. The excavators “named” each deceased person “Skeleton” and if multiple in a grave, followed by a Roman numeral in the case of the PMHU excavations and a letter for the UPM. The deceased’s’ names will never be known again, yet this identification system drained them of aspects of their identity. To counter this effect, this dissertation refers to a deceased person by his/her age and sex followed by the assigned number or letter (Fig. 4.1). For example, the adult man in PMHU Grave 17 is Adult Man with no number because he was alone. Two skeletons in PMHU Grave 13–Layer 6 become Aged Man I and Adult Woman(?) II, the question mark denoting uncertain sex. Two skeletons in UPM Burial 19 are Adult Man A and Adult Woman B. Retaining the numeral or letter also helps readers recognize the deceased in plans, sections, and sketches where they are identified with the PMHU numbers or UPM letters.

Approximately seven hundred and fourteen painted vessels were deposited in the nine graves.<sup>11</sup> Of those, the bowls, plates, and trays

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<sup>10</sup> López Luján talks about this issue in regard to the Mexica offerings; see López Luján, *The Offerings of the Templo Mayor of Tenochtitlan*, 26.

<sup>11</sup> This number resulted from counting field numbers assigned to ceramics items and then making any reduction if two or more field numbers obviously belonged to same vessel.

are a cohesive group represented in all graves. With these terms, 152 total paintings on bowls, plates, trays, and sherds constitute the corpus. Even this number of vessels requires an identification system. The “title” for every vessel consists of four parts: vessel type (see List of Abbreviations), field number, interior (INT) or exterior (EXT) to designate the surface where the painting is found, and the grave. The excavators assigned each piece a field number that ran sequentially from number one to account for all items in a grave not just ceramics. For example, the interior painting of plate 42 in Grave 1–Layer 2 is completely titled PL42/INT/G1 and the exterior painting on plate 23 in Burial 12–Layer 1 is PL23/EXT/BU12–L1.

Despite the facile implementation of this system overall, the field numbers create a few unusual circumstances. A few field numbers first appear in *Coclé Part I*; these are identifiable by the letter “a” following the number.<sup>12</sup> They relate to the object with the primary field number (e.g. PL8a and L8 in Grave 43). Second, a title with multiple field numbers signifies that all of the field numbers belong to one object. For instance, PL299/339/INT/G1 reads sherds 299 and 339 in Grave 1–Layer 1 make one plate. Third, a few PMHU vessels are not in the field notes, but appear later in the site report. Their catalogue numbers are followed by letter “a,” “b,” or “c.” For example, the report listed nineteen such vessels in PMHU Grave 1 (field numbers 361–379), but the field notes actually end with numbers in the 340s. For example, B373/INT/G1 with catalogue number 33–42–20/871c was likely with

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<sup>12</sup> These only apply to the PMHU corpus and should not be confused with UPM vessels which were often assigned a field number and letter, such as 12a in Burial 7.

PL277 of catalogue number 33-42-20/871. Lothrop did not explain them anywhere in the report so it is believed that the restorers identified these “additional” vessels during the repair work, meaning that one group of sherds assigned one number in the field was eventually found to consist of parts of two or more objects.<sup>13</sup> Most importantly, the relationship between the vessel with the primary catalogue number and the vessel with the lettered catalogue number allows the author to trace the grave of the latter. Six “additional” vessels in PMHU Grave 1 are in this dissertation (Cat. nos. 66, 67, 68, 69, 71, 72).<sup>14</sup>

A catalogue is located at the end of this dissertation. Each of the 152 paintings has a dissertation catalogue number. These run sequentially through the six PMHU Graves 1, 7, 13, 17, 23, 43 and then the UPM Burials 7, 12 and 19. For example, the first painting from PMHU Grave 1, PL21/INT/G1, is dissertation catalogue number 1.

#### Data Collection

Data collection primarily occurred at the two museums that organized the excavations of the Sitio Conte cemetery in the 1930s and 1940. Two other museums received some ceramic vessels from the PMHU. Forty-seven items went to The Field Museum of Natural History (FMNH) in 1951. Their collection includes nineteen vessels from Graves 1, 2, 4, and 24 and one unprovenanced clay roller stamp that PMHU

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<sup>13</sup> This conclusion only applies to the PMHU corpus and should not be confused with the UPM vessels assigned a field number and letter, such as a tray in Burial 7 that was given the field number 12a.

<sup>14</sup> Lothrop, *Coclé Part I*, 218-20.

staff purchased before their excavations.<sup>15</sup> Therefore, the FMNH stamp is from Gran Coclé, but not necessarily the Sitio Conte cemetery. A FMNH staff member provided a list of PMHU catalogue numbers that this author traced back to field numbers in the PMHU site report.<sup>16</sup> Their original graves were thus known. The fortuitous deinstallation of the vessels in 1999 meant that in-person examination was possible for the first time in a great while. This author examined all nineteen vessels at the FMNH and only included vessels from Grave 1 in this dissertation because it is one of the nine selected for this project. The Brooklyn Museum of Art (BMA) received just over one hundred items as its share of the 1931 PMHU expedition that it financially assisted; the ceramic vessels constituted just under half of that total. The Department of Africa, Oceania, and the Americas shared their Coclé records which allowed this author to correlate BMA catalogue numbers and PMHU field numbers. It was thereby determined that the BMA collection represented Graves 4, 5, 6, 7, 8, 31, 55, 58, and Cache 27. Of these, just one plate in PMHU Grave 7 is in this dissertation. Finally, the Conte family received items from both expeditions, yet its collection is not in this dissertation because no documentation exists regarding their graves.<sup>17</sup> In other words, the site report notes that a given vessel went to the family, but there is no way to identify it among all ceramic items

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<sup>15</sup> Lothrop, *Coclé Part II*, 182.

<sup>16</sup> This one-page document titled "Cocle Material for Chicago Museum of Natural History" is kept by the museum's Anthropology Department.

<sup>17</sup> Peter Briggs, pers. communication, 1997.



that the family received nor all those still remaining in its collection today.

Identifying and recording data about decoration and deposition required examining the vessels and field records. This author recorded data on a sheet. To maximize efficiency during the museum research, a two-sided form for handwritten data (Figs. 4.2 – 4.3) replaced the multiple page computerized version initially employed. Side One holds data pertaining to design, particularly diagramming the motifs and symmetry. Side Two holds data regarding vessel type, appendages, carbonization, dimensions, and deposition.

Photographs of vessels taken at the museum established a study database. A given vessels' photographic set included views and details of the interior and exterior. An Olympus SuperZoom 3500 DLX 35–120 mm Ultra Compact Zoom and 400 speed color print film were the standard tools. The intensity of the light varied with museum storage conditions or work space, but it always was fluorescent. Most importantly, this author logged every photograph into a notebook to ensure that each vessel's identification was maintained from on-site data collection onward. many of these photographs are part of the entries for each painting in the catalogue.

Archival research focused on identifying and examining data from the excavations pertinent to the nine graves and specifically vessel deposition. The PMHU and UPM archives preserve the records from the respective excavations. The Coclé Expedition Records (CER) of the PMHU excavations were most important because they consisted of index cards that listed by field number every object in Graves 1, 13, 17, and 23 and usually described aspects of vessel deposition. Maps, plans,

and cross-sections, most of which also appeared in the site report, are stored in the archives. The most important discovery was the plan of PMHU Grave 17 that for an unknown reason was excluded from the site report (Fig. 2.15). The UPM's Sitio Conte Expedition Records (SCER) are organized into five groups: Correspondence, Administrative Records, Field Notes, Visual Collections, and Plans. The Field Notes and Plans were foci of data collection. In the former is Merrill's Field Notes, a 102-page book of photographs and sketches (see Chapter 2).<sup>18</sup> Also among the Field Notes are the Object Cards for each burial. These cards list vessel field number, type, decoration, condition, dimensions, and UPM catalogue numbers (much like the PMHU grave lists in the site report).<sup>19</sup> Oversize (larger than 8 1/2 x 11' or 8 1/2 x 14") plans and sections of UPM Trench 2 are in the archives. This author studied all excavation records as originals during two visits to the archives at both museums. Internet access to the UPM records permitted this author to recheck them when necessary.<sup>20</sup> Relevant data in was written into a notebook or photocopied depending upon its quantity and complexity and later added to the data sheets. This author photocopied plans, sections, sketches, and photographs for further study. This total, multi-phase process of data collection made the painting and deposition analyses discussed in the following chapters possible.

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<sup>18</sup> Robert H. Merrill's Field Notes (1940), Field Notes, SCER, Archives, University of Pennsylvania Museum, Philadelphia.

<sup>19</sup> Object Cards (1940) [2 folders], Field Notes, SCER, Archives, University of Pennsylvania Museum, Philadelphia.

<sup>20</sup> These records are available at the museum's website: [www.museum.upenn.edu/SitioConte](http://www.museum.upenn.edu/SitioConte).

## CHAPTER 5 OFFERINGS

All of the Sitio Conte ceramic vessels are for containing foods. Thus, on this level, all 152 pieces take the shapes of serving vessels. This chapter examines the three vessel types studied in the dissertation. They fall under the categories of bowl, plate, and tray.

### The Three Types of Vessels

This dissertation focuses on three of five vessel shapes Lothrop categorized in his site report (trays, plates, flaring bowls, carafes, and spouted vessels).<sup>1</sup> His five shapes are set into two overarching groups: 1) bowls, plates, and trays, and 2) jars. This distinction rests first and foremost on their painting fields. On the one hand, the more open bowls, plates, and trays usually have painted interiors. On the other hand, the closed jars have exterior paintings. This dissertation just focuses on the first group: bowl (B), plate (PL), and tray (T). All nine graves in this dissertation had many examples of bowls and plates. Those two vessel types far surpassed the trays in quantity; only three graves had one decorated tray each (PMHU Graves 1 and 13 and UPM Burial 7).

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<sup>1</sup> Lothrop, *Coclé Part II*, 8-10.

In terms of the 152 total vessels in this study (see Chapter 4), plates (PL) are most numerous with seventy-one examples. They are circular and usually with little concavity (Cat. nos. 71, 95, 113, 124, 128, 145). However, six display more concavity and/or an everted lip, meaning that the lip is flattened to be perpendicular to vessel wall (Cat. nos. 30, 52, 54, 62, 72, 77). Plate diameters average around 30 cm (12 ins.) although one (Cat. no. 7/8) measures exceptionally wide at 38.1 cm (15 ins.). The plates most often have a painting on their interior surface. However, seven of the seventy-one total plates also have a painting on the exterior (Cat. nos. 7/8, 23/24, 59/60, 69/70, 84/85, 88/89, 131/132). In a word, these plates are two-sided.

Next, sixty-four bowls are part of this dissertation. Lothrop defined a *Sitio Conte bowl* as a “vessel with unrestricted orifice, the diameter of which is greater than the height.”<sup>2</sup> His definition communicated the essence of their use: the wide orifice accesses an interior space for containing food. It also was where one finds the most painting.

Lothrop distinguished two bowls based upon their walls: flaring and sloping. In the first case, flaring bowls have a ring base and outward expanding wall. These were well-represented in the nine graves (Cat. nos. 5, 76, 78, 114, 116, 119, 127, 134, 142). Their rim diameters are as great as 20 cm (8 ins.) and their heights measure half of their diameters. The floor blends into the flaring wall and thereby makes one continuous concavity. Flaring bowls usually have a painting

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<sup>2</sup> *Ibid.*, 9.

on their interiors and their exteriors are either unpainted or covered with solid red or orange pigment. Regarding the sloping bowl, Lothrop again provided two definitions, "Typical out-sloping bowls have either a flat or a slightly curved bottom resting on a low ring base. The walls meet the bottom at an angle and slope upward and outward."<sup>3</sup> In contrast, he noted that in-sloping bowls have a "slightly rounded underbody which meets the walls in a sharp bevel, in-sloping and slightly incurved, and the flat lip."<sup>4</sup> The profile of the sloping wall varies because some curve more than others (compare Cat. nos. 102 and 111). Both kinds of sloping bowls have a pronounced shoulder articulating upper and lower walls. The potters made another variation by applying these principles to two square bowls (Cat. nos. 57, 66). Just eight sloping bowls are in this dissertation (Cat. nos. 14, 41, 51, 57, 66, 102, 111, 112).

In terms of their painting fields, flaring and sloping bowls are quite different. Decoration usually appears only on the interior of the flaring bowl. Regarding the sloping bowl, the painters only decorated the upper exterior walls. A variation on the out-sloping bowl added a flatter floor for another separate painting on that surface (Cat. nos. 27, 39). Moreover, both the interior and exterior surfaces are painting fields.

Finally, the third vessel type is the rectangular tray.<sup>5</sup> As stated above, these vessels are much less common than their circular

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<sup>3</sup> Lothrop, *Coclé Part I*, 57.

<sup>4</sup> Lothrop, *Coclé Part II*, 60.

<sup>5</sup> Lothrop called them "trays" and Mason named them "rectangular plates." Lothrop,

counterparts; just three are in this study (Cat. nos. 10, 80, 122).<sup>6</sup> The two examined in-person are approximately 28 cm (11 ins.) long and 23 cm (9 ins.) wide. One tray has a flat floor, slightly raised straight rim, and round corners (Cat. no. 10). In contrast, the pedestal tray (Cat. no. 122) has a concave form, raised curved rim, and pointed corners. In terms of their decoration, all three trays (Cat. nos. 10, 122) are only painted on their interior surfaces.<sup>7</sup>

### Offering Vessels

First and foremost, the vessels exhibit little visible evidence of contents or wear. Virtually no evidence of food in the vessels themselves exists. Of all the field records examined, only one mentions “traces of food” in one flaring bowl in Grave 1 (Cat. no. 55).<sup>8</sup> No visible traces of this food remain in the bowl today.<sup>9</sup> Such meager findings do not suggest a concern to supply last the deceased in the eternal

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*Coclé Part II*, 14; UPM, SCER, Field Notes, Mason, Diary (1940), Wednesday Feb. 14.

<sup>6</sup> PMHU, CER 33–42, Box 10, GIII 33G; Lothrop, *Coclé Part I*, 248.

<sup>7</sup> Despite the fact that no examples are in this dissertation, trays, like some plates, have interior and exterior paintings. The author came across examples from UPM Burial 11 during fieldwork.

<sup>8</sup> PMHU, CER 33–42, Box 10, I–33 Grave D. It seems that jars are the best candidates for chemical testing because they have the most protected interiors, especially bottles and carafes. Furthermore, a large jar in PMHU Grave 19 held several items: bowl sherds, pieces of rock, bones, two feline teeth, and two shark teeth; see Lothrop, *Coclé Part I*, 256.

<sup>9</sup> This piece would be a good candidate to test for traces of oils that were absorbed by the vessel. I am grateful to archaeologist Dr. Robert Tykot of the University of South Florida for sharing his expertise on this issue with me.

afterlife, although the wet soil perhaps destroyed such offerings in the vessels at one time.<sup>10</sup>

In terms of wear from actually holding items, this dissertation only found one plate heavily worn in the center of its interior painting; just the painting's edges remain today (Cat. no. 88).<sup>11</sup> The grave plan indicates that this plate was broken and its sherds were dispersed along the western wall of Grave 13–Layer 6 (Fig. 2.4). This deposition leads to the conclusion that the interior wear developed prior to burial rather than after. One may speculate that the wear was an intentional practice terminating the vessel's earthly life and simultaneously preparing it to serve the dead. That is to say, people “erased” the ceremonial painting to close out its life among living. However, if so, it was an infrequent practice performed at the Sitio Conte cemetery as far as the nine graves in this dissertation are concerned since no other examples were encountered.<sup>12</sup> In addition to this plate, the plain interior floor and

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<sup>10</sup> Virtually no evidence was encountered outside the ceramic vessels: a collection of unidentified seeds among the remains of a basket in PMHU Grave 26 and another group, not found in a container, in UPM Burial 11–Layer 1. The seeds in Grave 26 are field number 63 and museum catalogue number 33–42–20–1654; Lothrop, *Coclé Part I*, 274. The seeds in Burial 11, Layer 1, are field number 292 and museum catalogue number 40–16–315. These seeds were to be analyzed after excavation, yet this author found no test results; UPM, SCER, Field Notes, Object Cards (1940), T2–B11 card 38. This situation contrasts vessels in drier regions of the Americas; George Gumerman IV, “Corn for the Dead: The Significance of *Zea mays* in Moche Burial Offerings,” in *Corn and Culture in the Prehistoric New World*, Sissel Johannessen and Christine A. Hastorf, eds. (Boulder, CO: Westview Press, 1994), 399–405. Closer to Gran Coclé although in a non-funerary setting, a wide range of plant remains (maize, beans, squash, chili peppers, cotton, cacao) were preserved in ceramic vessels at Cerén, El Salvador, following a volcanic eruption sometime between 585 and 600 CE; see David Lentz et al., “Foodstuffs, Forests, Fields, and Shelter: A Paleoethnobotanical Analysis of Vessel Contents from the Cerén Site, El Salvador,” *Latin American Antiquity* 7, 3 (1996): 253–59.

<sup>11</sup> Of course, other graves may have more ceramic pieces displaying more wear.

<sup>12</sup> There is a bowl with a similar form of wear from Cerro Juan Díaz. It has one

lower wall of sloping bowls were generally more worn (compare the significant wear of Cat. no. 111 versus the slight wear of Cat. no. 51). Thus, the painted bowls, plates, and trays offer limited evidence of contents or wear from depositing materials in them. Thereby, they are viewed as ceremonial.

These ceremonial vessels may be interpreted in light of Mark Miller Graham's concept of the art-tool: ceremonial objects with visual imagery that emulate food production tools.<sup>13</sup> Graham focused on two non-ceramic art-tools made by ancient Costa Ricans: greenstone pendants and volcanic stone *metates* (Figs. 5.1–5.2). The pendants were versions of the plain stone celts used to fell vegetation for agriculture. Costa Rican lapidary artists copied the plain, sharp bottom of tool's blade and carved the handle into a zoomorphic or anthropomorphic figure. Suspension holes allowed a person to wear the pendant around his or her neck. Ornate *metates* imitated the plain ones people used to grind seeds. Costa Rican sculptors kept the plain grinding surface and then carved zoomorphs and/or anthromorphs at the ends, legs, and/or underside.

Like these Costa Rican pendants and *metates*, Sitio Conte decorated ceramic vessels may be viewed as "art-containers." As stated above, they have little evidence of food and they imitated the

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Figural motif on the interior which appears to be a bird. Richard Cooke, Luís Alberto Sánchez Herrera, and Koichi Udagawa, "Contextualized Goldwork from 'Gran Coclé, Panama,'" Fig. 8.9c.

<sup>13</sup> Mark Miller Graham, "Art-Tools and the Language of Power in the Early Art of the Atlantic Watershed of Costa Rica," in *Wealth and Hierarchy in the Intermediate Area*, ed. Frederick W. Lange (Washington, DC: Dumbarton Oaks, 1992), 170–*passim*.



vessels with which people served actual foods and drinks. Indeed, Panama's archaeofaunal record is one of the best in American archaeology. Archaeological and paleoecological studies show that Gran Coclé's inhabitants consumed a range of foods. People exploited the resources of all realms —land, rivers, ocean, and air. By approximately 400 BCE, people were living in sedentary agricultural communities. Cooke connected this development in subsistence practices with the vessels' increasing prominence in symbolic expression. Recall that painted ceramics generally date around this time in Gran Coclé or just a little earlier).<sup>14</sup> and by the time of Conte-style painting and the burials at the Sitio Conte cemetery, maize had pushed out other crops.<sup>15</sup> A plain *metate* from Cerro Juan Díaz (Fig. 1.1) dated to 700 CE with only maize grains on its surface, demonstrates this development since older *metates* carried the traces of different crops. Thus, a chronological link existed between subsistence and painted ceramics.

People in Gran Coclé also consumed land, air, and sea creatures. Seasonally Dry Forests such as Central Pacific Panama typically have erratic and lower mammal distribution in comparison to moist and wet

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<sup>14</sup> Richard G. Cooke and Anthony J. Ranere, "The Origin of Wealth and Hierarchy in the Central Region of Panama (12,000–2,000 BP), with observations on Its Relevance to the History and Phylogeny of Chibchan-Speaking Polities in Panama and Elsewhere," in *Wealth and Hierarchy in the Intermediate Area*, ed. Frederick W. Lange (Washington, DC: Dumbarton Oaks, 1992a), 274.

<sup>15</sup> Richard Cooke and Anthony Ranere, "Prehistoric Human Adaptations to the Seasonally Dry Forests of Panama," *World Archaeology* 24.1 (1992c): 123; Dolores R. Piperno and Deborah M. Pearsall, *The Origins of Agriculture in the Lowland Neotropics* (San Diego: Academic Press, 1998), 296; Dolores R. Piperno and Irene Holst, "The Presence of Starch Grains on Prehistoric Stone Tools from the Humid Neotropics: Indications of Early Tuber Use and Agriculture in Panama," *Journal of Archaeological Science* 25 (1998), 772.

forests.<sup>16</sup> People ate animals available near their communities: white-tailed deer, frogs, turtles, lizards, iguanas, collared peccaries, raccoons, and armadillos.<sup>17</sup> Bird bones excavated from domestic spaces at Sitio Sierra, a permanent village occupied to its maximum between 500 and 700 CE, belonged to herons, egrets, pigeons, doves, hawks, falcons, quails, and ducks.<sup>18</sup> People worked the mangrove stands and estuaries for fish, sharks, sting-rays, mollusks, and crabs.<sup>19</sup>

Ceramic art-containers were the art-tools of choice in the Sitio Conte graves. The preparators deposited some food production tools in the graves. Vulnerable fiber items, like baskets and nets cannot be

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<sup>16</sup> Richard G. Cook[e] and Anthony J. Ranere, "Hunting in Pre-Columbian Panama: A Diachronic Perspective," in *The Walking Larder: Pattern of Domestication, Pastoralism, and Predation*, ed. Juliet Clutton-Brock (London: Unwin Hyman, 1989), 302-06, 311.

<sup>17</sup> Cook[e] and Ranere, "Hunting in Pre-Columbian Panama," 302-08; Richard G. Cooke and Anthony J. Ranere, "Precolumbian Influences on the Zoogeography of Panama: An Update Based on Archaeofaunal and Documentary Data," in *Biogeography of Mesoamerica*, eds. S.P. Darwin and A.L. Wieden (New Orleans: Mesoamerican Ecology Institute, Tulane University, 1992b), 48-49; Olga Linares and R.S. White, "Terrestrial Fauna from Cerro Brujo (CA-3) in Bocas del Toro and La Pitahaya (IS-3) in Chiriqui," in *Adaptive Radiations in Prehistoric Panama*, Peabody Museum Monographs, Number 5, eds. Olga F. Linares and Anthony J. Ranere (Cambridge: Harvard University, 1980), 188-90.

<sup>18</sup> Cooke, "Birds and Men in Prehistoric Central Panama," 280.

<sup>19</sup> Cook[e] and Ranere, "Hunting in Pre-Columbian Panama," 301-02; Richard G. Cooke and Anthony J. Ranere, "Precolumbian Fishing on the Pacific Coast of Panama," in *Pacific Latin America in Prehistory: The Evolution of Archaic and Formative Cultures*, ed. Michael Blake (Pullman: Washington State University Press, 1999): 103-134; Richard Cooke, "Prehistoric Nearshore and Littoral Fishing in the Eastern Tropical Pacific: An Ichthyological Evaluation," in *Journal of World Prehistory* 6.1 (1992): 1-49; E.S. Wing, "Aquatic Fauna and Reptiles from the Atlantic and Pacific Sites," in *Adaptive Radiations in Prehistoric Panama*, Peabody Museum Monographs, Number 5, eds. Olga F. Linares and Anthony J. Ranere (Cambridge: Peabody Museum, Harvard University, 1980), 206-12; I. Borgogno and O.F. Linares, "Molluscan Fauna from Both Sides of the Isthmus," in *Adaptive Radiations in Prehistoric Panama*, Peabody Museum Monographs, Number 5, eds. Olga F. Linares and Anthony J. Ranere (Cambridge: Peabody Museum, Harvard University, 1980), 220-22.

forgotten because the excavators only found their imprints.<sup>20</sup> They deposited stone celts used to clear vegetation for planting and butcher fauna in this study's graves.<sup>21</sup> In terms of hunting tools, they left abundant projectile points of various sizes.<sup>22</sup> *Metates* were rare; the majority of graves had none. UPM Burial 19 held the most of all in this dissertation: three undecorated tripod *metates* and *manos*.<sup>23</sup> Grave 1 had just one small *metate*.<sup>24</sup> The excavations clearly demonstrated that *metates* were not a key burial item at the Sitio Conte cemetery. Celts were abundant, but people did not add anthropomorphic or zoomorphic imagery to them as did Costa Ricans. In contrast, the hundreds of decorated ceramic vessels distinguished themselves from their undecorated mates in the graves.

Being art-containers casts the ceramic vessels as a context of the paintings. In the past, researchers separated the vessels from the

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<sup>20</sup> Lothrop, *Coclé Part I*, 112.

<sup>21</sup> For instance, Burial 7 held a group of eleven celts as well as individual specimens. The group of eleven celts in Burial 7 is field number 36. Six went into the UPM collection and five to the Conte family. Individual celts include field numbers 38–40, museum catalogue numbers 40–13–246, 247, and 248; see UPM, SCER, Field notes, Objects Cards (1940), T2–B7 card 6 and T2–B7 card 7.

<sup>22</sup> 350 flint points were concentrated near Adult Man B in Burial 7. Field number 34 and museum catalogue numbers 40–13–251 to 601; see UPM, SCER, Field Notes, Object Cards (1940), T2–B7 card 6.

<sup>23</sup> The three *metates* in Burial 19 are field numbers 32, 33, and 37 and museum catalogue numbers 40–14–698, 699, and 700. *Manos* are field numbers 39, 40, and 93a and museum catalogue numbers 40–14–701, 702, and 703; UPM, SCER, Field Notes, Objects Cards, T2–B19 card 4 and T2–B19 card 5.

<sup>24</sup> Field number 30; Lothrop, *Coclé Part I*, 216. Eight graves not in this study had either a *metate* (Grave 11), one or more *manos* (Grave 18), or *manos* and *metates* as a set or separate (Graves 5, 15, 25, 32, and 39; Burial 13; see Lothrop, *Coclé Part I* 229, 245, 249, 254, 269, 289, 292; Briggs, "Pre-Conquest Mortuary Arts and Status," 265.

motifs painted therein so that the latter became an independent painting. In a sense, the motifs could have just as well been painted on canvas rather than bowls, plates, and trays. It is proposed here that the art-containers be treated as one of the paintings' contexts. If the ceramics were site-significant, that is, in the mortuary spaces in which they were deposited, then it follows their painted motifs were site-significant in their ceramic containers.

Yet the ceremonial paintings do not literally replace or become food. For example, the Figural motifs do not represent creatures regularly eaten. Indeed, Linares found that the inhabitants of Gran Coclé did not eat most of the animals portrayed in Gran Coclé ceramic paintings.<sup>25</sup> The ceremonial vessels painted with Figural and Abstract motifs were offered to tie the living and dead together. The next three chapters explore this proposal.

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<sup>25</sup> Olga F. Linares, "Animals That Were Bad to Eat Were Good to Compete With: An Analysis of the Conte Style from Ancient Panama," in *Ritual and Symbol in Native Central America*, University of Oregon Anthropological Papers No. 9, eds. Philip Young and James Howe (Eugene: University of Oregon, 1976), 11.

## CHAPTER 6

### VESSEL DECORATION

This chapter investigates the identity and significance of the motifs painted on the three vessel types discussed in the preceding chapter. Both Figural and Abstract motifs are painted on the walls around that open space. Various researchers demonstrated that the painters selected non-human animals as models for the Figural motifs. In other words, they painted birds, turtles, crocodiles, and crabs. As also explained in Chapter 2, Linares proposed that they represented behavior valued in chiefdoms and Cooke suggested that they represented social groups.

This chapter examines Abstract motifs painted on the vessels. No less than eighty-five paintings of the 152 total in this dissertation present at least one of the twelve Abstract motifs. Yet their ubiquity does not make them easy to understand. For one, these motifs are difficult to probe because they appear more abstract than the animals. Two forms of evidence help. First, analyzing designs and patterns of Abstract motifs using symmetry operations offers new information. Second, other objects made by the people who also made the decorated ceramics improve understanding. These two sources (symmetry analysis and comparative material culture) together suggest that almost all Abstract motifs relate to the practice of decorating human skin.

### The Abstract Motifs

Plates, bowls, and trays carry both Figural and Abstract motifs. In terms of the latter, twelve Abstract motifs are identified: Chevron, Circle, Cleft, Clefts-and-Waves, Fret, Hook, Lozenge, Oval, Quatrefoil, Stripe, Triangle, and Wave (Figs. 3.2–3.3). These motifs do not portray living creatures like birds and reptiles. They appear nonrepresentational, especially in comparison to the dynamic animals.

The painters used symmetry operations to array the motifs on the ceramics and their choices are a form of data. Discussion of the symmetry used first requires a review of the principles that are explained fully in Chapter 3 and Appendix 1. Recall that only four motions and combinations thereof create symmetrical motifs. Designs are made when the motif copies (1) rotate clockwise or counter-clockwise around a central point and/or (2) reflect across one or more axes and symmetrical patterns develop by (3) translating the motif along a vector or (4) glide reflecting (translating the motif along a vector and then reflecting it across [Fig. 3.4]). The term “one-dimensional pattern” signifies that the motif is translated or glide reflected in one direction. A two-dimensional pattern combines two directions. Furthermore, the motif’s color can alternate. Most often, two colors alternate. However, this dissertation has three examples of three-color symmetry meaning that motif’s color switched between three colors (Cat. nos. 20, 64, 75).

Irregularity can be a revealing aspect of how artists employ symmetry. As explained in Chapter 3, Washburn and Crowe described

irregularity as elements that “technically cancel the prevailing symmetry”<sup>1</sup> of the motif. For this dissertation, motion irregularity signifies a disruption in the rotation, reflection, translation, and/or glide reflection. Shape irregularity is a morphological disparity among the motif copies. Color irregularity means that a random switch in the motif’s color occurs.

In terms of Sitio Conte painting, many symmetrical motifs exhibit one or more motion, shape, and/or color irregularities. Only five of the twelve Abstract motifs seem completely immune to irregularity: Circle, Lozenge, Quatrefoil, Triangle, and Wave. Therefore, as important as identifying a given motif’s symmetry classes is identifying the irregularity at work. Abstract motifs do not all present the same irregularities; each repeated its own combination of the three possibilities: motion, shape, and color. The following twelve sections work through each Abstract motif in terms of the symmetry and irregularity identified.

### 1. Chevron

This motif has three examples in this study (Cat. nos. 10, 71, 75). It is a series of V-shapes. It occurs as a one-dimensional pattern ( $p1m1$ ) plus two colored classes ( $p'1m1$ ,  $p1m1[3]$ ). In one tray painting, the Chevron’s color alternates white–orange (Cat. no. 10). One plate painting features the Chevron bands in one-color and two-color symmetry (Cat. no. 71). In four bands, the black Chevron is pattern

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<sup>1</sup> Washburn and Crowe, *Symmetries of Culture*, 262.

class  $p1m1$  and in the other three bands, the motif alternates white and orange to make the class  $p'1m1$ . In the third painting on another plate, the single Chevron band is three-color pattern  $p1m1[3]$  alternating white, orange, and red (Cat. no. 75).

In terms of Chevron irregularity, only two of these three paintings present shape and color examples. Cat. no. 71 has an incomplete black Chevron motif located at the edge of the plate; Cat. no. 75 has the same kind of shape irregularity. Cat. no. 71 also has two bands of Chevron motifs that switch from orange to black, a color irregularity. No problems arise from the symmetry motions themselves: translation and horizontal mirror reflection.

## 2. Circle

The Circle motif has only one example in this dissertation (Cat. no. 104). It occurs as one-color one-dimensional pattern. It appears as a circular band in pattern class  $pmm2$ . In this symmetry, vertical and horizontal reflection and twofold rotations occur at the points where the vertical and horizontal axes meet (Fig. 3.5).<sup>2</sup> No irregularity occurs with this sole example of the Circle motif.

## 3. Cleft

The Cleft motif has thirteen examples in this study. It occurs as one-color design and one-dimensional pattern. On the first count, it is mirror reflected in three paintings ( $d1$ ,  $d2$ ) (Cat. nos. 11, 25, 131). This

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<sup>2</sup> *Ibid.*, 113.



motif appears in five one-dimensional patterns (*p1a1*, *pma2*, *pmm2*, *p'mm2*) (Cat. nos. 22, 23, 24, 59, 133). Moreover, the Cleft is also the only Abstract motif in this dissertation repeated in a two-dimensional pattern (*pmm*). Ten purple Clefts are copied in a pattern formed by vertical and horizontal reflection axes and twofold rotation centers (Cat. no. 37).

Regarding irregularity, the Cleft motifs present color, shape, and motion examples. One plate painting consists of thirty orange Clefts, but at least three (and possibly one more) are black (Cat. no. 25).<sup>3</sup> Another plate painting has five Clefts total in a central band, but one upsets the glide reflection by switching to rotation class *c2* (Cat. no. 22). The Cleft motif displays shape irregularity meaning that one reflected copy takes a different shape than the others (Cat. nos. 11, 25). In one bowl painting, for example, one motif has more clefts than the others (Cat. no. 11). In a plate painting, one copy looks more like a “U” than a Cleft motif (Cat. no. 25). Another copy in the same painting is more square-shaped Cleft rather than circular one.

#### 4. Clefts-and-Waves

There are fifty-two examples in this dissertation. It occurs as both designs and one-dimensional pattern. Clefts-and-Waves is rotated (*c2*, *c4*) (Cat. nos. 10, 13, 15, 16, 48, 57, 66, 73, 75, 105, 106, 134) and mirror reflected (*d1*, *d2*, *d4*) (Cat. nos. 6, 15, 17, 18, 35, 39, 55, 66, 68, 69, 75, 80, 87, 96). A few Clefts-and-Waves motifs copied by

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<sup>3</sup> The only possible addition is the Cleft nearly entirely lost at the rim by a fracture that runs through it. This Cleft was also probably black.

mirror reflection also alternate red and black ( $d'1$ ). In two other paintings, fourfold reflection alternates red and black ( $d4'$ ) (Cat. nos. 44, 47). In terms of the one-dimensional patterns, Clefts-and-Waves is glide reflected ( $p1a1$ ) most often (Cat. nos. 1, 3, 5, 7, 8, 12, 13, 14, 19). Translated examples exist ( $p111$ ) (Cat. nos. 41, 51, 91, 111, 112). Two paintings have this motif repeated with translation and vertical mirror reflection ( $pm11$ ) (Cat. nos. 84, 85).

Irregularity occurs in many Clefts-and-Waves. Most often, the glide occurs properly, but the mirror reflection misfires. Waves often perpetrate this irregularity. For example, eight Waves in one bowl painting form a one-dimensional pattern class  $p1a1$ , but two Waves translate amidst the other six glide reflected Waves (Cat. no. 5). In a different shape irregularity, the Cleft of this motif switches from a pair to a single one during the glide reflection; in the same painting, four single Clefts exist among six pairs (Cat. no. 5). No color irregularity occurs in any Clefts-and-Waves motif in this study.

### 5. Fret

This motif has just two examples in this study (Cat. nos. 80, 146). Cases of one-color design and one-dimensional pattern are known. In one bowl painting it is rotated ( $c2$ ) (Cat. no. 146). The Fret motif also forms a one-color one-dimensional pattern ( $p112$ ): translation and twofold rotation (Cat. no. 80). A shape irregularity occurs in the pattern because the Fret's hooks are oriented in different directions. No color or motion irregularities occur with this motif.

## 6. Hook

This motif has twenty-two examples in the study. It occurs as one-color design and one-dimensional pattern. It is copied by rotation class *c4* (Cat. nos. 116, 143). More often, the Hook is copied by reflection classes *d2* and *d4* (Cat. nos. 22, 87, 109, 124, 136). The Hook appears as the one-dimensional pattern classes *p1a1* and *pm11* (Cat. nos. 10, 22, 46, 70, 79, 104, 107). As an aside, this motif occurs on plate lips (the narrow band between the plate's interior and exterior surfaces). Always the same one-dimensional pattern appears on this area (*pm11*) (Cat. nos. 2, 7, 23, 33, 59, 84, 88, 132). In terms of irregular Hooks, subtle differences exist in the shape. No color or motion irregularities occur with this motif.

## 7. Lozenge

The Lozenge appears in just one interior plate painting (Cat. no. 37). Three copies in a central band form a one-color one-dimensional pattern (*pmm2*): horizontal and vertical reflection, glide reflection, and twofold rotation. Nothing irregular occurs with this pattern.

## 8. Oval

This motif appears in just one interior bowl painting (Cat. no. 115). It definitely forms a one-color design by a rotation. However, the specific class is indeterminable, as are any irregularities, due to the bowl's condition. Pieces are missing and areas have been repainted.

### 9. Quatrefoil

This motif has six examples in this study (Cat. nos. 4, 60, 89, 106, 107, 133). It is the most stable motif of the corpus because it only occurs by one-color fourfold mirror reflection ( $d4$ ). No other Abstract motif with multiple examples is as consistent. In all examples, the Quatrefoil motif is located at the center surrounded by other Figural and/or Abstract motifs. Nothing irregular in color, motion, or shape occurs with the motif's reflection symmetry.

### 10. Stripe

This motif has nine examples in the study (Cat. nos. 5, 20, 25, 32, 39, 40, 64, 67, 143). The motif occurs as both design and one-dimensional pattern. This motif is rotated ( $c11$ ) (Cat. no. 32) and reflected with and without color alternation ( $d2$ ,  $d4$ ,  $d4'$ ) (Cat. nos. 25, 39, 40, 67, 143). The Stripe is arranged as two pattern classes. First, a case of two-color translation exists ( $p'111$ ) (Cat. no. 5). Second, the motif is involved in three-color one-dimensional pattern in which the color reversal happens by the translation ( $p111[3]$ ) (Cat. nos. 20, 64). The color alternates eleven times from the center out to the bowl's rim: red-white-orange. The alternation occurs inconsistently, however, because the colors do not alternate in the same order. In contrast, motion and shape irregularity are not issues with any of the Stripe motifs.

### 11. Triangle

This motif appears in one bowl painting (Cat. no. 90). The Triangle is painted as a set rather than as an individual. In the painting,

the set consists of five Triangles: one row of two black Triangles and another of three black Triangles. The set is a one-color mirror reflection (*d2*). No irregularity occurs in its mirror reflection.

## 12. Wave

There are six examples of this Abstract motif (Cat. nos. 17, 45, 90, 91, 112). It only occurs as designs. It appears in one-color twofold and fivefold rotation (*c2*, *c5*) (Cat. nos. 90, 91). The Wave also forms one- and two-color mirror reflection (*d1*, *d2*, *d'2*) (Cat. nos. 17, 45, 90, 112). No irregularity is present in these examples.

### Iconographic Analysis

The twelve Abstract motifs present a variety of symmetry operations; many are peppered with shape or color irregularity. They have a range of frequency in the corpus. Four motifs only have one example (Circle, Lozenge, Oval, Triangle). However, the Circle, Lozenge, Oval, and Triangle, as well as the other more frequent motifs, appear in other Gran Coclé objects, such as effigy vessels and roller stamps.

### Effigies

Analysis of 152 vessel paintings documented the repetition of the Abstract motifs as symmetrical designs or patterns. Shots of irregularity often run through these designs and patterns. In terms of repetition of Abstract motifs, a kind of material culture made in the Gran Coclé region at the same time as the Sitio Conte vessels provides evidence about repeated Abstract motifs. These are ceramic anthropomorphic effigy vessels. As a group, the effigies certainly

appear to represent human beings. Their sex is portrayed. Moreover, many assume a seated position. Some possess non-human features such as claws instead of fingers and/or toes. These aspects might reveal another side to these humans such as their shamanic alter-ego. In terms of their provenance, anthropomorphic effigy vessels were deposited in many Sitio Conte graves. Of the nine graves in this dissertation, PMHU Graves 1, 7, 13-L6, and UPM Burials 7 and 12 contained at least one example. Graves not in this study (see Chapter 2) also had effigy vessels. Moreover, effigies were deposited at many other Gran Coclé sites.

Many of the effigies' body parts, including head, face, arms, stomach, and back, are decorated with Abstract motifs. They cast the Abstract as body decoration. Ideally, one would be able to examine the human remains at the Sitio Conte cemetery for evidence of tattooing and painting, but they were in such poor condition that any skin, and by extension any skin with decoration, was gone by the time of excavation. As a result, the next potential line of evidence about skin decoration comes from these decorated ceramic anthropomorphic effigy vessels themselves; Chevron, Clefts-and-Waves, Hook, Oval, Stripe, and Triangle motifs decorate their faces and bodies. These effigies propose that the Abstract motifs decorating the 152 vessel interior and/or exterior paintings also are decorating representations of human faces and bodies.

#### Effigies with Clefts-and-Waves motifs

Clefts-and-Waves motifs are the most popular in terms of effigy decoration. An effigy vessel in PMHU Grave 1 presents a seated man

who bears a mouth full of teeth and holds two hands/claws up to his chest. He has a Clefts-and-Waves motif on his face, arms, stomach, and back (Fig. 6.1). In terms of symmetry, his face and chest motifs are bilaterally symmetrical (*d1*). Two Clefts-and-Waves bands on his arms are not entirely visible in the drawing, but they definitely are not mirror reflections of each other. Each one might be formed by glide reflection (*p1a1*) like the bands of Clefts-and-Waves in several vessel paintings (Cat. nos. 15, 19, 33, 105). In contrast, another version of the motif covering his back is asymmetrical. This male effigy has two symmetrical motifs and one asymmetrical motif decorating his body.

This effigy's face painting is better discussed separate from the rest of the effigy because it actually appears in vessel paintings. In the corpus, six vessel paintings have a Clefts-and-Waves motif with facial features (Cat. nos. 55, 68, 69, 75, 84, 85). This is an extremely significant observation linking effigies and vessels. This is to say that effigy facial features and painting are also vessel paintings. As vessel paintings, one or more facial features accompany a Clefts-and-Waves motif. A rectangular or hemispherical mouth with teeth is painted with black pigment. This mouth form looks exactly like almost all effigy mouths. The motif's two white Waves above the mouth become eyes. One vessel painting even features a Clefts-and-Waves motif plus a pair of eyes (Cat. no. 69). These six vessel paintings are painted anthropomorphic effigy faces, but not portraits in any sense. In other words, the painter(s) painted painted human faces on the vessels. The effigy facial features and decoration are vessel paintings as well. In fact, it seems that the painters gave the face painting greater importance by

giving it more space since it overwhelms or dominates the small facial features.

The second effigy is a seated person deposited in PMHU Grave 7.<sup>4</sup> His body is not as completely covered with patterns as that of the effigy man from PMHU Grave 1. Yet like the Grave 1 effigy man, the person's sex is clearly represented by the male genitalia between his bent legs. He has a black, white, and red Clefts-and-Waves motif on his back that is bilaterally symmetrical (Fig. 6.2). It looks like his legs originally had decoration that faded away.

An effigy of a seated person was deposited in PMHU Grave 13-L6.<sup>5</sup> Unlike the two men from Graves 1 and 7, however, the sex is not represented. Like the Grave 7 effigy, this PMHU Grave 13-Layer 6 effigy has a black and white Clefts-and-Waves motif covering its back that is bilaterally symmetrical (Fig. 6.3).

An unsexed effigy from PMHU Grave 26 lacks legs and its hands amount to no more than three tear-drops. It has an intricate Clefts-and-Waves motif on his arms and running down the center of his chest (Fig. 6.4). Overall, this chest motif is bilaterally symmetrical (*d1*), but with shape irregularity. The drawing suggests that color irregularity might also be present although it could well be the drawings' ambiguous color code (see Chapter 2).

An unsexed effigy was deposited in UPM Burial 12. The chest has no painting and is essentially covered by exceptionally large yet overall

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<sup>4</sup> Samuel Kirkland Lothrop, *Pre-Columbian Designs from Panama: 591 Illustrations of Cocol Pottery* (New York: Dover Publications, 1976), 37.

<sup>5</sup> *Ibid.*, 36.



anthropomorphic fingers. It has a large purple Clefts-and-Waves motif extending all over its back that is asymmetrical (Fig. 6.5). This purple back painting most resembles the black one that meanders over the back of the PMHU Grave 1 male effigy discussed above.

One effigy vessel that PMHU representatives collected but did not actually excavate at Coclé village (Fig. 6.6). The effigy appears to be male due to the genitalia between his feet. He has two horizontal Clefts-and-Waves bands on his back. Of the sides visible in the two photographs, this motif is bilaterally symmetrical (*d1*).

A male effigy reclining with crossed legs is reportedly from Montijo in Veraguas province (Fig. 6.7).<sup>6</sup> A small protuberance in his cheek shows that he chews a quid of coca. He holds a small oval container in his right hand. Given the coca quid in his mouth, the container probably is a *poporo* used for storing the lime mixed with coca leaves to release the alkaloids. A band of black and white Clefts-and-Waves motifs decorates both arms. This author has not seen this effigy in-person, but the motifs likely are glide reflected (*p1a1*).

The Clefts-and-Waves motif is the only one that also decorates non-human bodies. In other words, a few animals carry this particular motif. This contrasts all of the other Abstract motifs on human effigies. The bodies of a toad, crab, and turtle are partly or completely covered with this motif. A toad deposited in UPM Burial 7 is portrayed with its mouth open as it croaks (Fig. 6.8). Its back is covered by an

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<sup>6</sup> Torres de Araúz, *Arte precolombino de Panama*, Cat. no. 28.

asymmetrical Clefts-and-Waves motif. The upper half of a crab from UPM Burial 12 likewise is covered in a one-dimensional pattern band of Clefts-and-Waves motif (Fig. 6.9). A turtle effigy from PMHU Grave 19 has two bands of Clefts-and-Waves motif on its top and bottom (Fig. 6.10).

Thus, these creatures present paintings just like the effigies in PMHU and UPM interments as well as non-Sitio Conte effigies (Figs. 6.1-6.7). This particular zoomorphic use of the Clefts-and-Waves motif distinguishes it from the other eleven Abstract motifs. Many animals have their own unique, often stunning, fur or skin patterning, but instead the Sitio Conte painters sometimes adorned them with Clefts-and-Waves motifs. For some reason, it was appropriate to decorate the bodies of people and animals with the Clefts-and-Waves motif. Speculating, similar decoration indicates that their bodies are similar. Possibly, people and animals need the same benefits of body decoration. Or, alternatively, the body decoration suggests that people and humans are related, not necessarily in a biological way, but possibly a social one. For instance, groups of people identify themselves as an animal. To consider another link, human and animal combine during a shaman's altered consciousness. Following this theory, the toad, crab, and turtle effigies are thus images of humans fully transformed into their animal identities. Only their Clefts-and-Waves mark their human aspect. At the very least, effigy decoration shows that the Sitio Conte painters did not understand human and animals as totally unrelated entities.

### Effigies with the Other Eleven Abstract Motifs

The Clefts-and-Waves motif is not the only one with demonstrable ties to the decoration of human effigy faces and bodies. These effigies present at least six other Abstract motifs: Chevron, Circle, Stripe, Hook, Oval, and Triangle.

The PMHU Grave 1 effigy presents multiple one-dimensional pattern bands of the Chevron motif on the back of its head (Fig. 6.1). They form one-dimensional pattern class  $p1m1$ . These Chevron bands on the men's heads are similar to those in two vessel paintings (Cat. nos. 71, 75).

A solid Circle is employed to mark the breasts or nipples. The motif may have additional elements. For example, the PMHU Grave 1 effigy has nipples marked with a solid Circle that is surrounded by another circular line with small linear projections (Fig. 6.1). The PMHU Grave 7 effigy also presents solid Circle motifs on his nipples, but without the additional circular line. The Circle motif is rare in Sitio Conte painting; just one interior bowl painting has a band of Circles (Cat. no. 104).

Lids in the shape of anthropomorphic heads carry the Hook motif on the back and top (Fig. 6.11). An unsexed effigy jar from PMHU Grave 4 has the Hook motif radiating sixfold from both eyes as well as the Clefts-and-Waves motif around its body (Fig. 6.12).

Two effigies from PMHU Graves 24 and 26 provide evidence about the Oval motif. A jar with a head has asymmetrical black Oval motifs on its cheeks and forehead (Fig. 6.13). A head-shaped lid has a similar group of Ovals (Fig. 6.14).

Effigies present the Stripe motif as skin decoration. Several effigies have stripes painted vertically or horizontally across or around their eyes (Figs. 6.1, 6.7). In others, solid stripes outline body parts. For example, the PMHU Grave 1 effigy has red Stripes outlining his arm patterns of a Clefts-and-Waves motif (Fig. 6.1). This body decoration resembles many vessel paintings. For instance, several paintings have a band of a Clefts-and-Waves motif framed by a red or orange Stripe (Cat. nos. 13, 15, 19, 33, 48). In other words, the effigy compositions and those of the vessels are so similar that one could exchange them. The Coclé effigy has zigzag Stripes on his arms and legs (Fig. 6.6). PMHU Grave 13-Layer 6 effigy also displays bands of vertical and horizontal Stripes on his arms and legs like the arms. This motif resembles one in a plate painting (Cat. no. 25). The Montijo reclining effigy also wears four black Stripes arching across his chest (Fig. 6.7). One plate painting has arched orange Stripes that resembles his chest decoration (Cat. no. 49).

### Stamps

If ceramic effigies portray decorated human faces and bodies then the discussion advances to real faces and bodies with roller stamps carved with Abstract motifs. Roller stamps are clay or stone cylinders between 2 and 5 cm (1-2 ins.) long. Pigment is applied to the stamp's surface. With a stick in its shaft (the diameters of which vary considerably), a person rolls the stamp completely to transfer the motif to a receiving surface. Researchers who tested ancient stamps from

coastal Ecuador sampled textiles, paper, and human skin and found that the best imprint was left on the latter.<sup>7</sup> Nothing suggests that people used roller stamps to decorate animals. For example, this author knows of no decorated animals skins.

The excavators did not encounter roller stamps at the Sitio Conte cemetery. This seems to indicate that stamps were irrelevant as a funerary offering. The PMHU team found one ceramic stamp in a refuse heap at the Sitio Hector Conte, just a few miles northeast from the Sitio Conte cemetery. This stamp is carved with three rows of the Triangle motif (Fig. 6.15). The drawing indicates that copies of the Triangle motif (perhaps up to ten) form each of its three rows. As stated above, just one vessel painting has a Triangle motif (Cat. no. 90).

The Wave motif is a more common roller stamp motif. The author identified just one Gran Coclé roller stamp with a Wave motif (Fig. 6.16). It presents four motif copies in two rows. Thus, the stamp would transfer four repetitions of the motif to render a symmetrical pattern. Lothrop illustrated four similar stamps in the Sitio Conte site report (Fig. 6.17). Unfortunately, he offered little information beyond the fact that the PMHU purchased them before their Sitio Conte excavations and a man named Karl Curtis told him that thirty stamps were together.<sup>8</sup> Thus, these four illustrated stamps, as well as the FMNH example, probably are from that cache of thirty. Where and how exactly these

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<sup>7</sup> Thomas Cummins, Julio Burgos Cabrera, and Carlos Mora Hoyos, *Huellas del pasado, los sellos de Jama-Coaque*, Arte prehispánico del Ecuador, Miscelánea antropológica ecuatoriana, Serie monográfica 11 (Quito: Banco Central del Ecuador, 1996), 61.

<sup>8</sup> Lothrop, *Coclé Part II*, 182.

thirty stamps were located together remains a mystery. An identical stone stamp is published.<sup>9</sup> From a bit further afield, one stamp with a Wave motif was deposited in Grave 10 at La Resaca, a burial ground in Cupica Bay, northwestern Colombia.<sup>10</sup> Thus, at least one stamp ended up in a burial in Gran Darién, although none was actually reported from the Sitio Conte cemetery.

Three conclusions emerge from roller stamps. The Wave motif predominates among the recovered stamps from Gran Coclé and possibly Gran Darién. Generally, Gran Coclé stamps contrast others in the Americas because Gran Coclé stamps present only Abstract motifs whereas other collections, such as those from coastal Ecuador, present both types of motifs. Finally, minimal evidence exists for the stamps' role as a funerary offering, suggesting that they stayed among the living, presumably to be used over and over again.

### Abstract Decoration

Roller stamps, effigies, and vessel paintings relate Abstract motifs and skin decoration. With effigies, stamps demonstrate that Clefts-and-Waves, Chevron, Hook, Oval, Stripe, Triangle, and Wave motifs turn up in skin decoration. This project's actual subject, the paintings on bowls, plates, and trays, have these same Abstract motifs. Thus, Abstract motifs linked together stamps, effigies, and vessels.

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<sup>9</sup> Torres de Araúz, *Arte precolombino de Panama*, Cat. no. 100a.

<sup>10</sup> Sigval Linné, *Darien in the Past: The Archaeology of Eastern Panama and North-Western Colombia*, Gotesborgs Kungl. Vetenskaps-Och, Vitterhets-Samhalles Handlingar, Femte Foljden, ser. A, band 1, no. 3. (Goteberg: Elanders Boktryckeri Aktiebolag, 1929), 182-83.

Abstract face and body decoration may have functioned in curative and/or apotropaic manners in Gran Coclé. Rebecca Stone–Miller provides a view of ancient American shamans as healers who saw geometric and abstract motifs as part of their wisdom quest.<sup>11</sup> For example, shamans read Abstract motifs in order to diagnose illness, determine the appropriate cure for patients, and protect the bodies from negative forces. Medicines they applied to the skin added or increased desirable physiological and/or psychological attributes. They painted substances into motifs, patterns, and solid washes that protected bodies against harmful energies. Thus, Abstract motifs painted on the funerary ceramics may be interpreted as invigorators who energized the deceased and stimulated their rebirth. Moreover, they may have protected the living, such as the preparators working in the graves (see Chapter 7), from the dead’s dangerous energy, although patterns on their own living bodies also would have filled that need. In this case, ceramics with Abstract motifs absorbed harmful energies accumulating in the grave space. In fact, this perspective links up with the practice of lining the walls of some Sitio Conte interments with ceramic vessels and sherds.<sup>12</sup>

This proposal stimulates questions about who wore these Abstract motifs in Gran Coclé. However, a single identification is difficult. Anthropomorphic effigies certainly were not portraits of

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<sup>11</sup> Rebecca Stone–Miller, *Seeing With New Eyes: Highlights of the Michael C. Carlos Museum Collection of Art of the Ancient Americas* (Atlanta: Michael C. Carlos Museum, Emory University, 2002), xx, xxv, and xxvi.

<sup>12</sup> Briggs, “Pre–Conquest Arts and Mortuary Status,” 125.

individuals who lived in Gran Coclé at this time.<sup>13</sup> Based upon Oviedo's account of the slaves' tattooed faces in Central America, Lothrop concluded that these effigies represented slaves.<sup>14</sup> However, this information not only accounted for practices more than five hundred years after the Sitio Conte cemetery, it did not explain skin decoration. Linares added more of the same information mostly based on sixteenth-century sources:

We know that, at the time of the Conquest, painted motifs on the body were also used as political insignia; warriors fighting under a single chief were painted in a special manner before going off to war. Quite conceivably then, some of the motifs on Sitio Conte objects carried connotations of rank, especially the geometric designs on effigy vessels. Certain motifs on the face or arm and leg portions of these vessels suggest that such motifs were more than simply decorative, and that they served to classify people and to mark their social roles.<sup>15</sup>

In light of her comments, the anthropomorphic effigies with skin decoration represented the warriors. If one includes the vessel shape and function, effigy jars and carafes cast the human as a container and distributor of goods. Resource redistribution was indeed among the key responsibilities of chiefs.<sup>16</sup> In all, precise identification, even of just social roles, remains elusive.

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<sup>13</sup> Lothrop, *Coclé Part II*, 110.

<sup>14</sup> *Ibid.*

<sup>15</sup> Linares, *Ecology and the Arts in Ancient Panama*, 61.

<sup>16</sup> Service, *Primitive Social Organization*, 155; Fried, Morton H., *The Evolution of Political Society: An Essay in Political Anthropology* (New York: Random House, 1967), 117–18.



The painting process itself adds a perspective to this proposed relationship between the decoration of people and vessels. The prevalence of irregularly symmetrical motifs in the paintings confirms that the vessel painters did not employ roller stamps to do their work. Stamping would leave perfectly and exactly repeated Abstract motifs on the vessels. For example, no painter used a stamp to paint Clefts-and-Waves motifs which change from double to single or even triple (Cat. nos. 1, 3, 5, 8); a stamp would prevent such idiosyncrasies. The painters used their hands to paint those vessels. Likewise, the Sitio Conte effigies were hand-painted in order to accommodate their many irregular surfaces. Moreover, the "all-over" and non-band presentation of some Abstract motifs on their faces, backs, and chests represents free-hand application.<sup>17</sup> Therefore, although the roller stamps provide important iconographic evidence about the vessel paintings, the actual practice of roller stamping should not be overinterpreted since the vessel decorators seem to have worked with their hands and brushes.

Abstract motifs painted on vessels were also involved in skin decoration. Without actual pieces of decorated human skin, the Sitio Conte effigies that possibly represent real human bodies, or at least aspects of human beings, and the Gran Coclé roller stamps that likely touched real human skin, point to a connection between clay and skin. Vessels were decorated similarly to people who lived and then died in Gran Coclé.

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<sup>17</sup> Cadeveo women at the time of Claude Lévi-Strauss's visit to Brazil in the 1930s decorated faces and bodies with their hands bamboo spatulas; see Claude Lévi-Strauss, *Tristes Tropiques*, Trans. from the French by John and Doreen Weightman, Librairie Plon, 1955; (New York: Penguin Books, 1992), 187.

## CHAPTER 7

### VESSEL DEPOSITION IN THE SITIO CONTE GRAVES

The dissertation shifts from the painters' work with Abstract motifs to that of the grave preparators who constructed the graves at the Sitio Conte cemetery with multitudinous and greatly varied objects including decorated bowls, plates, and trays. Considerable evidence in the archaeological record shows that they made decisions about each vessel's deposition. This chapter focuses on the patterns to their deposition practices that can be reconstructed and analyzed with confidence. This chapter examines two specific facets of the preparators' work that the analysis determined to be pervasive: fragmenting and grouping ceramic vessels. These two practices sound contradictory, yet it becomes evident in this chapter that they acted complementarily in the goal of establishing the vessels' identities.

#### Fragmentation

The preparators who worked in the nine graves altered the physical condition of the bowls, plates, and trays. Specifically, they decided to break the vessels or leave them intact. As explained in Chapter 3, John Chapman's analysis of object fragmentation in Balkan object deposits assists this analysis because he made a basic distinction between two kinds of object fragmentation which the Sitio Conte ceramics also clearly evinced: broken/incomplete and broken/complete.

It is not always so easy to identify the type of fragmentation due to the excavation procedures in the early twentieth century and subsequent preservation methods. For example, one bowl deposited in PMHU Grave 7 currently equals about one half of a bowl, but the grave plan (Fig. 2.3) and a photograph taken during excavation<sup>1</sup> confirm that the preparators deposited a whole bowl (Cat. no. 76). This confusion leads to the conclusion that the bowl lost some sherds since its excavation in the early 1930s. If one looks out for these unusual cases while conducting the analysis then Chapman's system is applicable.

### Broken/Incomplete

An object in this state of fragmentation "cannot be restored to completeness because it was never deposited as a complete item."<sup>2</sup> In the Sitio Conte graves, these general circumstances translated into vessel sherds recovered in a specific area within an interment that did not add up to a whole bowl, plate, or tray. It generally was documented in both the PMHU and UPM excavation records as "fragmentary." The amount of deposited "vessel" varied from as much as one-half of a whole to no more than one sherd. Most importantly, the preparators dispersed the pieces of the whole; parts ended up physically apart. Consequently, the paintings on broken/incomplete vessels also became dispersed. The following sections work through the different amounts of "vessel" the preparators deposited in the graves.

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<sup>1</sup> PMHU, CER 33-42, Box 9, Grave 1-B.

<sup>2</sup> Chapman, *Fragmentation in Archaeology*, 23.

Broken/incomplete “vessels” included those of approximately one half of a whole. One such item in PMHU Grave 17 was the bottom half of a plate that Lothrop described as a “large broken fragment”<sup>3</sup> (Cat. no. 109). The interior painting apparently had a bipedal Figural motif. Whether this motif was mirror reflected or asymmetrical is impossible to say because it depends on whether the creature’s missing head was in profile or frontal. Fragmentation created a biped minus its head and upper limbs. The same was true of another bowl in UPM Burial 12 (Cat. no. 135). The Figural motif, likely a quadruped, was either bilaterally symmetrical or asymmetrical depending on the presence of a straight or curved tail.

Broken/incomplete “vessels” occurred in even fewer parts. The amount dropped to about one third of a whole “vessel.” Sixteen plate sherds in UPM Burial 12 carried the head, neck, and a Figural motif’s arm (Cat. no. 136) . These body parts resembled those of a Figural motif in another painting in this dissertation (Cat. no. 126). Yet a difference existed between the two; the remaining upper limb or arm was a curved black line with a purple and red creature sprouting from its end, whereas the other figure’s arms had no such emerging motifs.

Another case occurred in PMHU Grave 43.<sup>4</sup> A small group of sherds had an unidentifiable Figural motif and two Abstract motifs, Wave and Hook (Cat. no. 121). The grave plan does not document its deposition, although these sherds were likely among those numbered “8” in the plan since they had the field number “8a.” (Fig. 2.6). However, its whole painting today is

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<sup>3</sup> PMHU, CER 33–42, Box 10, III 33, Grave B.

<sup>4</sup> Examination of this group identified six original sherds and one modern replacement piece made of plaster. The latter is excluded from the analysis.

impossibly envisioned because nothing resembling it is in this dissertation corpus nor Lothrop's site report. The whole composition is, and likely was, inconceivable.

Broken/incomplete "vessels" presented as little as a quarter of the whole. A group of plate sherds in UPM Burial 7 carried the remnants of a one-color one-dimensional pattern formed with Lothrop's Foot motifs and a one-color design of a Clefts-and-Waves motif (Cat. no. 125). Because several varieties of this composition (two hemispheres separated by a linear band) exist in the corpus alone, the symmetry classes of these two motifs can be hypothetically reconstructed: reflection or rotation for a Clefts-and-Waves motif (*d1* or *c2*) and glide reflection (*p1a1*) for the Foot motif. Any irregularity remains unknown.

The final representatives of broken/incomplete "vessels" were by far the most impressive fragmentation examples in the nine graves. The preparators deposited huge quantities of sherds from all kinds of vessels with all kinds of decoration. These epitomized broken/incomplete object morphology. In essence, they were free or autonomous from their vessels. Hundreds of years later, the UPM and PMHU excavators coped with the immense quantities by sorting and bagging the sherds according to Lothrop's wares so now they exist as bagged groups. As such, the bags studied for this dissertation were from UPM Burials 7, 12, and 19. They all contained at least fifty sherds, but they often hold sherds numbering in the hundreds. It is crucial to remember that they were not in these groups in the graves.

From UPM Burial 7, field number 37 stood for no less than twelve bags of autonomous sherds (Cat. no. 129).<sup>5</sup> In the two bags available for examination at the UPM, Red sherds from carafe bodies and plates predominated. Fragments of carafe necks painted with Clefts-and-Waves motifs were included. A few sherds, no more than ten total, presented pieces of Figural and Abstract motifs, although it is impossible to reconstitute the whole vessels and paintings. UPM Burial 12 contained no less than fourteen bags of autonomous sherds.<sup>6</sup> The two bags studied in-person mostly consisted of bowl and plate fragments (Cat. nos. 140, 141). These sherds presented parts of Figural motifs (eye, legs, torsos, and tails) as well as parts of Abstract motifs (Cleft, Chevron, Hook, Quatrefoil, and Wave). The sherds came from whole paintings that overall cannot be reconstituted, although a few can at least be hypothetically reconstructed. For instance, one bag included one autonomous sherd with a Figural motif's purple torso, red tail, and beak (Cat. no. 141). A series of small black lines and one thicker curved line suggested a Figural (polyped) motif. Possibly a Figural motif (biped) rotated around the whole plate while the polyped was translated across the center. There may have been two fields between the bipeds that also contained motifs. In other words, a painting on other vessels in this dissertation corpus is conjured (Cat. no. 136). This bag included sherds with pieces of Clefts-and-Waves motifs. Several sherds bearing a thick black line with red hooks may have been part of the "plate" with the sprouting upper limb just discussed above (Cat.

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<sup>5</sup> UPM, SCER, Field Notes, Object Cards (1940), T2-B7 #7.

<sup>6</sup> Field numbers 61-69, 72, 81, 82, 87, 133; UPM, SCER, Field Notes, Object Cards (1940), T2-B12 #8.

no. 136). Amazingly, one “plate” painting (i.e. about twenty sherds) can be linked to autonomous sherds in one bag (Cat. nos. 139, 140). Figural motifs definitely appeared in this painting and most likely a third motif, perhaps a purple Chevron, was present as well. Lastly, the UPM excavators gathered together seventeen bags of autonomous sherds in Burial 19.<sup>7</sup> One held plate sherds with parts of Figural (heads, limbs, torso) and Abstract (Cleft, Quatrefoil, Zigzag Stripe, and Wave) motifs (Cat. no. 152). Again, it is impossible today to reconstitute a whole painting from any of these sherds. For example, one sherd with nearly all of a Quatrefoil was most certainly at the center of a painting as known from whole paintings (Cat. no. 4). Two black feet are visible to its sides. The whole probably resembled a painting in Grave 13–L6 (Cat. no. 89), but they were not identical as the feet point in opposite directions.

The origin or source of these autonomous sherds becomes an issue. In other words, where and how did the preparators acquire these enormous amounts for their work. Sherds missing from the broken/incomplete “vessels” in the graves were one source. That is to say, the sherds of these “vessels” ended up physically separated and dispersed, yet all somewhere within the same grave. During research and analysis, few connections were made between broken/incomplete “vessels” and autonomous sherd(s) in the same grave. That is, the autonomous sherds in a given grave clearly hailed from more vessels than there were broken/incomplete “vessels.” It appears that deposition involved acquiring sherds from somewhere besides

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<sup>7</sup> (SHS133a–SHS133q); Bags n–q were reported missing; see UPM, SCER, Field Notes, Object Cards (1940), T2–B19 #13. Bags b, d, g, j, and k were found in museum storage for analysis.

the vessels in the grave itself. The high number of autonomous sherds leads to the conclusion that the preparators drew on a stock of sherds. They had a prepared source at their disposal which suggests that vessel sherds were an integral feature of burial at the cemetery.

Chapman notes a characteristic of Balkan broken/incomplete object fragmentation: the deposited parts were so distinctive that the whole item was “obviously presented.”<sup>8</sup> This, however, was not the case with the Sitio Conte broken/incomplete “vessels.” The whole vessels and whole paintings thereon were anything but “obviously presented” in their graves. Generally speaking, it was difficult and oftentimes impossible to conceive the original whole painting even the motifs themselves were recognizable. Looking at a grave was also a constant shuffle between the familiar and unfamiliar due to the autonomous sherds.

### Broken/complete

This second type of object fragmentation is not Chapman's specific focus because it was not a key element of the Balkan deposits. In contrast, it was a major facet of the preparators' work at the Sitio Conte cemetery. Two characteristics defined this fragmentation: all parts of the broken item were together in the same grave and they were restored to the complete item.<sup>9</sup> The Sitio Conte broken/complete ceramic vessels demonstrated both characteristics. All vessel sherds were in one place in the grave next to each other. Despite one or more fractures, the sherds maintained the

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<sup>8</sup> Ibid., 227.

<sup>9</sup> Chapman, *Fragmentation in Archaeology*, 25.



round bowl or plate shape and the rectangular tray shape. Museum staff repaired these vessels (i.e. glued the sherds together) in the years following the excavations.

Chapman notes cases where the fragmented objects were ritually killed.<sup>10</sup> The UPM and PMHU excavators actually made the same proposition about the Sitio Conte ceramics. Both Lothrop and Mason first suggested that a ritual act generated the broken/complete fragmentation. Mason spoke of trampling and dancing, “the practice seems to have been to place the ceramic vessels and other objects in the grave and then to dance upon them or trample them down so that almost all of them are broken into many pieces [. . .].”<sup>11</sup> The preparators set the bowl, plate, or tray directly on the grave floor or sometimes on top of other vessels (see below) and then stepped on it. As Mason’s comment indicates, he envisioned people dancing on top of the vessels to break them, a possibility that later scholars often mentioned.<sup>12</sup> While dancing is documented in most ancient American societies, including in funerary rituals, no direct independent evidence of people dancing on the ceramic vessels in the Sitio Conte graves has been uncovered.<sup>13</sup>

Aside from hypothetical dancing, intentionality behind the broken/complete morphology is evident in the fractured plates on the floor

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<sup>10</sup> Ibid.

<sup>11</sup> Mason, “The Archaeological Expedition of the University Museum to Panama, Part II,” 88–89.

<sup>12</sup> Helms, *Creations of the Rainbow Serpent*, 109.

<sup>13</sup> Rebecca Stone–Miller observed that the Figural motifs with their vigorous and dynamic body poses, often with one leg in the air, dance. This link proposed an isomorphism between funerary practices and iconography. Rebecca Stone–Miller, pers. communication, 1996.

and underneath intact jars (see below). The preparators deposited several examples in UPM Burial 7: PL1a under CF1b, PL2a under CF2b, PL3a under CF3b, PL10a under CF10b, PL19a under CF19b, and PL20a under CF 20b (Fig. 2.7). In each case, the broken plate rested underneath an intact carafe. It follows that the plate was broken before the intact carafe was set on top. Alternatively, the carafe was used to hit the plate and cause the break and then it was set on the broken plate. Thus, a number of behaviors (ordinary stepping, dancing, and/or hitting with another vessel or even a celt) possibly created the broken/complete ceramic vessels.

The broken/complete morphology may be expanded to include four cases in which each vessel's sherds were in the same grave, but in different areas (Cat. nos. 19, 50, 88, 105). For one plate in PMHU Grave 1, the sherds ended up in three different places, although all generally were in the grave's southern area (Cat. no. 19; Fig. 2.2). For another plate in Grave 1 some sherds were underneath plates approximately one foot away from the North wall (Cat. no. 50).<sup>14</sup> Meanwhile, additional sherds rested on their sides approximately two feet northwest from the other sherds.<sup>15</sup> Some plate sherds in PMHU Grave 13-L6 were near the west wall yet others were approximately two feet to the south (Cat. no. 88; Fig. 2.4). The sherds of another plate in Grave 13-L6 were split (Cat. no. 105): some in the northwest corner and others in the northeast one. Lothrop suggested that such vessels were thrown into the grave, especially Grave 13, of which he wrote "In the first place, we are certain that some vessels were shattered

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<sup>14</sup> PMHU, CER 33-42, Box 10, I-33, Grave D.

<sup>15</sup> *Ibid.*

on purpose by throwing them into the grave, for sherds from the same pot were found as much as 1.5. m (62 ins.) apart.”<sup>16</sup> Alternatively, they broke the plates prior to burial and then added the sherds to different areas of the graves. Either way, this was not one of the preparators' typical fragmentation practices.

The sherds of broken/complete bowls, plates, and trays added up to the original whole vessel and most often maintained the shape. Likewise, their interior and/or exterior paintings retained their wholeness. Onlookers located Above or Below (see below) the graves were able to see all the motifs that in turn formed the entire paintings. The visual reception of broken/complete vessels and paintings was very different than with broken/incomplete form. While people today prefer to examine whole objects and paintings, the thousands upon thousands of autonomous sherds as well as the broken/complete vessels with many fractures running through them highlighted separated and dispersed pieces.

#### Intact/Complete Art-Containers

Chapman does not address the opposite of fragmentation and there is little reason to do so in this project as well because just two bowls were intact in their Sitio Conte graves (Cat. nos. 51, 111). Both were examples of the in-sloping variety with paintings on their exteriors. It may be significant that both were members of pairs because their mates were broken. This combination made a pair with vessels in complementary states of being (see below). Other than these two cases, intact/complete

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<sup>16</sup> Lothrop, *Coclé Part I*, 58.

vessels played no role in the deposition of bowls, plates, and trays. The preparators did not practice intactness nearly as much as fragmentation.

### Grouping

In addition to fragmentation, the analysis of vessel deposition found that the preparators created groups of vessels, meaning vessels in a grave that may be considered spatially together. Three group types were identified: program, nest, and pair.

### Programs

The preparators positioned vessels upright and/or inverted so that their interior and/or exterior paintings were oriented to specific directions. The preparators positioned the vessels upright –resting on their ring base or pedestal– and they inverted them–resting on their lip.<sup>17</sup> Upright and inverted positions may be accepted as intentional because it would be difficult for any natural force, such as an earthquake (Panama generally is less seismically active than its Central American and northern Andean neighbors), to act like a spatula by lifting the bowl, plate, or tray up, flipping it over, and bringing it back down in the exact opposite position.

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<sup>17</sup> In contrast, it is impossible to distinguish vessels intentionally positioned sideways from those accidentally positioned as such by a wayward human foot (belonging to the preparators or archaeologists) or the earth. Therefore, cases of sideways plates and flaring bowls are not be pursued further. This does not suggest that sideways was insignificant. Researchers analyzing sideways jars in other ancient American ritual settings have been able to make persuasive interpretations; see Leonardo López Luján, "Recreating the Cosmos: Seventeen Aztec Dedication Caches," in *The Sowing and the Dawning: Termination, Dedication, and Transformation in the Archaeological and Ethnographic Record of Mesoamerica*, ed. Shirley Boteler Mock (Albuquerque: University of New Mexico Press, 1998), 180.

As a consequence of vessel positioning, the preparators oriented the paintings on the interior and/or exterior halves of the vessels. Four combinations of vessel position and painting orientation were possible. A bowl, plate, or tray with an interior painting was set upright to orient that painting to Above (Fig. 7.2a). Second, the vessel with an interior painting was inverted, orienting that painting to Below (Fig. 7.2b). Third, a vessel with interior and exterior paintings was either upright (Fig. 7.2c) or inverted (Fig. 7.2d). Of the seventy-seven paintings of known orientation, forty-one were oriented downward, thirty-one were oriented upward, and five were bioriented. The latter signifies that the five vessels were directed to both directions because they were broken and some of their sherds were oriented to both of the directions. Therefore, the preparators affiliated the paintings with the space Above and Below the burials. The only exception was the eight sloping bowls because their exterior paintings were oriented off to the sides.

Above and Below the interments outweighed other possible directions such as North, South, East, and West.<sup>18</sup> In contrast, the only evidence that ceramic vessels were deposited to mark and/or target cardinal or intercardinal directions is PMHU Grave 13–Layer 8. This layer consisted of seven vessels, three of which rested at Center and four at the cardinal points (Fig. 7.3).<sup>19</sup> Three undecorated vessels were at Center and North also had one undecorated vessel. Decorated ones rested at East, West, and South (Cat. nos. 77–79). The painting at East consisted of

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<sup>18</sup> Capitalization of the terms “Above” and “Below” serves to indicate that they were cosmologically significant directions, equal to North, South, East, and West.

<sup>19</sup> *Ibid.*, 249.

Figural motifs (quadruped and footprint) and the painting at West contained one bipedal Figural motif. The painting at South had one Figural motif (footprint). Unfortunately, little is known about the significance of the cardinal and intercardinal directions for Gran Cocolé's inhabitants. This study concluded that the preparators forged a relationship with the cardinal points using these vessels since the cloth of Layer 7 could have been secured with other vessel arrangements. However, this study detects no more evidence of a connection with the cardinal and intercardinal points in these nine graves.

Above and Below were clearly the greater focus in vessel deposition. By determining as many painting orientations as possible from the excavation records, it is possible to reconstitute grave programs for this dissertation project. The oriented paintings formed the grave "program." The paintings collectively oriented upward were the interment's "Above" members and those oriented downward were its "Below" members. If a grave only had either Above or Below members, then its program was identified as such. These two designations not only pointed out the direct spatial orientation, but also the cosmological realms above and below the earth that the paintings addressed.

Grave 13–Layer 8 and Grave 43 only had Below members. Four of the six graves with reconstructed programs had both kinds of painting orientations; the term "Mixed" refers to these programs (Grave 1, Grave 7, Grave 17, and Burial 7). This section's goal is to present the reconstructed programs of six of the nine graves (PMHU Graves 1, 7, 13–L8, 17, 43 and Burial 7). PMHU Grave 23, UPM Burial 12, and UPM Burial 19 lacked records of vessel positions and thus programs are unreconstructable. As explained in Chapter 2, the PMHU and UPM excavators often recorded

vessel position in their writings, illustrations, and photographs, but they never considered the consequences, such as painting orientation and audience reception beyond the actual graves.

### Programs to Below

Two grave programs only consisted of paintings oriented to Below. Grave 13–Layer 8 (discussed above in regard to the cardinal directions) consisted of three interior paintings (Fig. 7.3).<sup>20</sup> One painting presented Figural (quadruped, footprint) and Abstract (Hook) motifs. The other two had Figural (footprint, biped) motifs (Cat. nos. 77–78). These three paintings presented a collection of Figural motifs with one Abstract motif. Likewise, Grave 43's program oriented to Below presented two interior paintings on inverted bowls (Fig. 7.4; Cat. nos. 119–120). One painting had a biped Figural motif and the other presented two kinds of bipeds and a polyped.

No identical set of motifs dominated these two cases. Figural motifs dominated both of these grave programs, with the closest resemblance being their bipeds, but they were clearly different due to their facial features, tail/belt, and limbs. In other words, these two relatively simple programs indicated no set of required Figural and/or Abstract motifs for programs to Below.

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<sup>20</sup> Lothrop, *Coclé Part I*, 249.

#### Four Mixed Programs

Four graves were much more complex than Graves 13–L8 and 43 because they exhibited Mixed programs (PMHU Graves 1, 7, 17, and UPM Burial 7). Their Above and Below members were not identical or redundant and thereby the two directions did not receive the same motifs.

Grave 1 held at least seventy-two paintings. The Mixed program presented twenty-two Above members and twenty-nine Below members (Figs. 7.5–7.6). The Above members featured all kinds of Figural motifs (bipedal, quadrupedal, polypedal) and Abstract motifs: Cleft, Clefts-and-Waves, Hook, Quatrefoil, Stripe, and Wave. The Below-oriented motifs were as varied.

Amidst the variety, however, Above and Below had two links or redundancies via two pairs of vessels. Pair B162/INT–B340/INT (Cat. nos. 20, 64) consisted two paintings of the Stripe motif in the same three-color symmetry pattern. However, their orientation was to the opposite directions: B162/INT to Above and B340/INT to Below. Another pair of PL21/INT–PL313/INT (Cat. nos. 2, 56) qualified because they both portrayed a similar Figural motif in twofold rotation. PL21/INT was oriented to Below while PL313 was oriented to Above. Thus, two pairs in Grave 1 linked Above and Below by sending them the same or very similar paintings.

The Mixed program of PMHU Grave 17 (Fig. 7.7) consisted of two Above members (Cat. nos. 109, 114) and two Below members (Cat. nos. 110, 113). Figural (biped, quadrupedal) and Abstract (Oval) motifs faced Above. Meanwhile, the Below members consisted of two Figural motifs.



One painting in its program was bioriented (Cat. no. 115).<sup>21</sup> Biorientation of this painting with Oval motifs generated a link between the two sides of Grave 17's Mixed program much like the two pairs in PMHU Grave 1.

PMHU Grave 7 had a Mixed program (Fig. 7.8). One Figural motif (footprint) was the single Above member (Cat. no. 74). It had three Below-facing members (Cat. nos. 73, 75, 76). They collectively presented Figural (biped, quadruped) and Abstract motifs (Chevron, Clefts-and-Waves, Clefts-and-Waves). No Below- and Above-members repeated a motif. Nor was a painting bioriented to forge a link between the two directions with Grave 7's Mixed program. Thus, Mixed programs did not always link Above and Below.

The Mixed program of UPM Burial 7 had two Above members (Cat. nos. 123, 126) and five Below members (Cat. nos. 122, 124, 126-128) (Fig. 7.9). The single Above-oriented sherd belonged to a plate (Cat. no. 126). The rest of the plate sherds were inverted on the floor and against the burial's north wall. After being crunched against those surfaces, this Above sherd likely fell back from the wall and thus was left oriented upward. Drawings and photographs of Burial 7 during excavation noted this sherd's position flipped on top of the rest of the inverted broken/complete plate (Fig. 7.10). Furthermore, Mason wrote about this plate's unique deposition in his diary, "Then to e, a red plate, ring-base, inverted, tilted up to n.e. as if at corner of grave. One sherd turned over showed fine polychrome design."<sup>22</sup> He did not consider how it ended up in

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<sup>21</sup> UPM, SCER, Field Notes, Mason, Diary (1940), Wednesday February 14, page numbered 45, Tr#2, 14.

<sup>22</sup> Ibid.

this position. Overall, one Figural motif and some of the facial features (mouth and one eye) of another went to Above. Meanwhile, the five Below-members included mostly Figural motifs (bipeds, quadrupeds, and a polyped). One painting had an Abstract motif (Hook). Bioriented plate fragments forged a link between the two directions as also occurred in PMHU Grave 17.

Mixed programs certainly were not redundant Above and Below. Rather, their members sent different combinations of Figural and/or Abstract motifs to the two directions. Consequently, Above and Below did not receive the same content and this implies that the audiences therein were not recognized as the same. Most of the Mixed programs, however, linked the two directions via two identical paintings or one painting's biorientation.

#### Four Unreconstructable Programs

The programs of PMHU Graves 13–Layer 6 and 23 and UPM Burials 12 and 19 were unreconstructable because neither published nor unpublished sources provided vessel position. Therefore, painting orientation was not recoverable. This was not an oversight on the excavators' part, but reflected the extent of the vessel fragmentation and their mixed and compacted sherds. For instance, Lothrop wrote regarding the ceramics in PMHU Grave 13–Layer 6, "It was more completely broken and the fragments were more tightly packed than in any other grave encountered, with the possible exception of Grave 15 just above."<sup>23</sup> The

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<sup>23</sup> Lothrop, *Coclé Part I*, 247–48.

excavation records confirmed his observation as they noted the positions of only seven of approximately 109 total vessels therein (Fig. 7.11).<sup>24</sup> To Above went four paintings (Cat. nos. 80, 82–84) and halves of two more paintings (Cat. nos. 103, 105). To Below went just two whole paintings and two halves (Cat. nos. 81, 85, 103, 105). The Above subject matter included Figural and Abstract. Meanwhile, to Below also went Figural and Abstract motifs. This collection presents evidence that careful painting orientation was practiced in Grave 13–L6 as well. Furthermore, a link existed between Above and Below by way of the virtually identical interior and exterior paintings of one plate (Cat. nos. 84, 85). However, the Wave and Clefts-and-Waves motifs at the interior painting's center could have been added to the plain center of the exterior painting. This suggests that the difference between Above and Below was important. Moreover, two bioriented vessels also forged links between Above and Below as seen in PMHU Grave 17 and UPM Burial 7.

Circumstances were even worse for PMHU Grave 23 and UPM Burials 12 and 19. The field records provided no information about vessel positions in Grave 23.<sup>25</sup> The ground plan illustrated just a little more data (Fig. 2.5) showing one Below-facing painting by way of the bowl's visible ring base (Cat. no. 117). Unfortunately, the interior painting was remarkably pitted so that its motif was illegible; all that may be said was that an indeterminable Figural motif faced Below. In Burial 19, the orientation of just one painting could be determined from two photographs

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<sup>24</sup> PMHU, CER 33–42, Box 10, III 33G.

<sup>25</sup> PMHU, CER 33–42, Box 10, IV33 Grave C.

taken during excavation (Cat. no. 143).<sup>26</sup> The bowl's upright position sent Abstract motifs to Above. Finally, Burial 12's vessels formed one compacted sherd conglomeration.<sup>27</sup> Neither Merrill's drawings nor photographs indicated upright or inverted vessels. As Mason succinctly described in his diary, "#12 very confused but also rich in pottery & possibly in other small things."<sup>28</sup> These four programs could not be recovered for the reasons just explained, yet three provide at least one piece of evidence indicating that the preparators attended to painting orientation in the ways the reconstituted programs of PMHU Graves 1, 7, 13-L8, 17, and UPM Burial 7 demonstrated more clearly.

### Program Review

The most important result of tracking painting orientation was that it revealed a preoccupation with Above and Below over other cosmological directions. It became clear that the preparators followed no set of necessary ingredients for Above or Below members. Considering PMHU Graves 1, 7, 13-L8, 17, and UPM Burial 7, the preparators directed all kinds of motifs to both places. The analysis demonstrated that the six interments sent unique ensembles to the two directions. The analysis also showed that grave programs often included one or more links between the two directions. Preparators forged one link by positioning sherds of a given vessel in the two opposite directions (PMHU Graves 17 and 13-L6 and

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<sup>26</sup> UPM, SCER, Field Notes, Merrill Field Notes, Neg # S5-36783 and S5-36785.

<sup>27</sup> Briggs, "Pre-Conquest Mortuary Arts and Status," 259.

<sup>28</sup> UPM, SCER, Field Notes, Mason, Diary, page 14, Saturday March 16.

UPM Burial 7). Pairs of identical bowls and plates in PMHU Graves 1 and 13–L6 also struck exceptionally strong commonalities. Overall, the six programs indicated a slight preference to Below. This was true in that no grave programs only had Above members and most had more Below members. Finally, the programs suggested that one of the preparators' goals was to engage audiences located above and below the graves. While the graves were open, the audience Above included any human observers. Otherwise, the audience consisted of supernatural forces and perhaps ancestors who inhabited those realms.

### Nests

Lothrop's term for three or more vessels grouped together was "nest."<sup>29</sup> Interestingly, Lothrop used this term often in his excavation notes, but dropped it entirely from the site report perhaps because object deposition was not a major issue in the report overall (see Chapter 2). Mason and the rest of the UPM team neither identified nor researched pairs and nests per se and therefore Lothrop's terms are employed in this dissertation to identify these units in the UPM Burials 7, 12, and 19. The nest titles in this dissertation combine the lowest and highest field numbers. For example, Nest 23–29 in UPM Burial 7 took its title from PL23 and B29. Grave nests are analyzed as whole entities in terms of their collective motifs. Each nest's grave structure is also examined.

Nests always consisted of vessels in great proximity which tended to generate physical and visual intricacy. Lothrop employed similes to

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<sup>29</sup> PMHU, CER 33–42, Box 10, Tr. III33 Grave C.

describe the complex structure of nests. He described the southeast and northwest sides of the square of ceramics in PMHU Grave 17 like a “shingled roof” to communicate how one piece partially overlapped another below.<sup>30</sup> When many overlapped like shingles, they became “interlocked, like geared wheels.”<sup>31</sup> Viewers shuffled back and forth between the whole nest and its constituents just as they did with the broken/incomplete “vessels.” Focus again fell on the parts of nests.

#### Nest 157–169, PMHU Grave 1

This nest consisted of decorated plates and bowls (Fig. 7.12). Lothrop referred to nine vessels in his notes (field numbers 157, 161, 162, 164, 165, 166, 167, 168, and 169).<sup>32</sup> It is assumed that PL163, which was unlisted in the field notes, was part of this nest.<sup>33</sup> Thus, ten vessels formed Nest 157–169. All but one of the bowls and plates were decorated (Cat. nos. 18–25).<sup>34</sup> Unfortunately, two decorated vessels were not available for examination at the PMHU and no illustration or photograph was available.<sup>35</sup> The field notes and site report agreed that both were decorated.<sup>36</sup> As a whole, Figural (bipeds, polypeds, footprints) and

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<sup>30</sup> Lothrop, *Coclé Part I*, 254; PMHU, CER 33–42, Box 10, III33, Grave B.

<sup>31</sup> PMHU, CER 33–42, Box 10, I–33 Grave D.

<sup>32</sup> *Ibid.*

<sup>33</sup> This plate might have been identified from sherds rejoined during restoration.

<sup>34</sup> The undecorated vessel was PL163.

<sup>35</sup> The two paintings that could not be studied were B168/INT and B169/INT.

<sup>36</sup> PMHU, CER 33–42, Box 10, I–33 Grave D; Lothrop, *Coclé Part I*, 218.

Abstract (Clefts–and–Waves, Cleft, Hook, Quatrefoil, and Stripe) motifs dominated this nest.

In terms of structure, Nest 157–169 consisted of decorated plates and bowls “piled as a unit” on the southwest corner of Stone B, against the grave’s southern wall, and therefore over the legs of Adult Man II.<sup>37</sup> Working upward from the bottom, PL166/INT faced Below toward Stone B. By the same token, PL166/EXT faced Above to PL167. In turn, PL167/INT faced Above to PL168 on top of it. Likewise, B162 obscured PL169/INT. PL157 partly obscured B162/INT. PL165/INT slanted against the grave wall. PL157 and PL163 were at the top with the sherds of PL161 scattered over PL163. No data were found to account for the precise location of B164. The vessels in this nest tended to cancel each other’s paintings by partly or entirely cutting one another off from any viewing parties located Above or Below PMHU Grave 1.

#### Nest 170–198, PMHU Grave 1

Lothrop identified this nest also in Grave 1.<sup>38</sup> It consisted of fifteen decorated plates and bowls as well as undecorated vessels, bird bones, and a celt (Fig. 7.13). It possessed all the qualities as Nest 157–169. Regrettably, no illustration exists of one plate painting that could not be examined at the museum.<sup>39</sup> This nest mixed numerous Figural and

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<sup>37</sup> Ibid.

<sup>38</sup> Lothrop, *Coclé Part I*, 218. The plate numbered 199 in *Coclé Part I* may be added to this nest since it probably came to light during vessel restoration at the museum.

<sup>39</sup> This vessel was PL171/INT.

Abstract motifs (Clefts-and-Waves, Lozenge, Cleft, and Stripe (Cat. nos. 19, 26–38).

In terms of the structure working upward from the bottom of the nest, Above-facing B195/INT directly faced Below-facing PL194/INT. The same relationship existed between Above-facing B198/INT and Below-facing PL197/INT. In both situations, the vessels formed a closed vessel covered with two different paintings ( ). Therein, the two paintings became the direct and immediate audience of each other. B190/INT and PL189/INT interfaced in that Below-facing PL189 entirely obscured Above-facing B190/INT. Again, Below-facing PL191/INT partly faced Above-facing PL194/INT causing the former to project incompletely. Of all the paintings in Nest 170–199, only two, Above-facing B192/INT and PL185/INT at the top of the nest were entirely visible to audience Above.

#### Nest 50–271a, PMHU 1

These principles also operated in this nest located in the northeast corner Grave 1 (Fig. 7.14). It consisted of just four plates, three with interior paintings and one plate with interior and exterior paintings. PL89/INT and PL271a/INT were unavailable for direct examination in the museum and moreover neither was illustrated in the site report. This leaves three paintings (Cat. nos. 6–8). One presents Figural and Abstract (Clefts-and-Waves) motifs. The other painting features Figural and Abstract (Clefts-and-Waves) motifs on the interior and just an Abstract (Clefts-and-Waves) motif on the exterior.

All vessels in this small nest were inverted except for one. Below-facing PL50/INT faced the head of Adult Man III. Only one Below-facing painting (Cat no. 7) was fully visible to Below. Yet once



again, the others were partly or entirely intercepted by one or more vessels in the same nest.

#### Nest 23–29 , UPM Burial 7

Lothrop's term "nest" is applicable to vessels 23–29 in UPM Burial 7 (Fig. 7.15). It was a mix of three plates, three bowls, two jars, one group of sherds, and numerous celts. Only three vessels were decorated with interior paintings of Figural motifs (bipeds and quadruped [Cat. nos. 126–128]).

In terms of structure, all three interior paintings faced Below, but their overlapping partially eclipsed them. The only exception was the single sherd of PL23 (see above), with a creature's eye, that was oriented upward for those Above to see.

#### Review

A major result of nesting was the paintings' visual fragmentation. Each nest included paintings visible in their entirety from Above or Below, yet many paintings were partially or completely intercepted by their nest mate(s). Complete interception erased the painting whereas partial interception fragmented it, allowing pieces of the painting to project to Above or Below. Nesting produced visual fragmentation of paintings, complementary to the physical fragmentation practiced (see above).

Furthermore, nests countered the unity of grave programs. In a sense, this dissertation reconstitutes ideal programs for Graves 1, 7, 13, 17, 43, and Burial 7 because no beholder either Above or Below ever received all of the oriented paintings in all of their entirety due to the overlapping or shingling of vessels for nest structure.

## Pairs

The final group examined involves vessel pairs. The titles for pairs employed in this dissertation are the vessels' field numbers joined with a hyphen. PMHU Grave 1 contained at least six pairs: PL21/INT-PL313/INT, B162/INT-B340/INT, PL166/INT/EXT-PL331/INT/EXT, B177/INT/EXT-B257/INT/EXT, B274/INT-B300/INT, and SQB321/EXT-SQB362/EXT. PMHU Grave 17 contained two: PL7/INT-PL12/INT, and B8/EXT-B9/EXT. UPM Burial 7 contained just one pair: PL19a/INT-CF19b.

Grouping vessels encompassed two units that Lothrop first identified in his excavation notes: nest and pair. He noted the presence of two similar vessels, i.e. pairs, in his field notes and discussed their subject matter in *Part II* of the site report.<sup>40</sup> Lothrop originally classified pairs into three types according to their shape, size, and decoration; deposition was not a factor for him.<sup>41</sup> His first type was the identical pair: two vessels identical on all three counts. He cited as examples two pairs in Grave 1: SQB321/EXT-SQB362/EXT and B162/INT-B340/INT. Lothrop's other two types developed on the principle of contrast. One pair consisted of vessels identical in shape and size but different decoration; he cited as an example PL166/INT/EXT-PL331/INT/EXT from Grave 1.<sup>42</sup> Lothrop's identification rested on the fact that he believed the same person painted the interiors and exteriors of these two plates.<sup>43</sup> The other contrasting pair involved two

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<sup>40</sup> PMHU, CER 33-42, Box 10, III 33 Grave B, 3; Lothrop, *Coclé Part II*, 10-11.

<sup>41</sup> Lothrop, *Coclé Part II*, 10-11.

<sup>42</sup> *Ibid.*, 11.

<sup>43</sup> *Ibid.*, 186.

vessels of identical shape and decoration but different size.<sup>44</sup> Lothrop rightly concluded that this second type of contrasting pair was the least common at Sitio Conte<sup>45</sup> as no examples of this type occurred in this dissertation.

This study identified a fourth pair type which was another contrasting pair. Vessel shape and decoration contrasted the two vessels and only the physically close deposition linked the them. Specifically, this fourth pair type always consisted of either a bowl or plate and a carafe.

By looking at pair deposition, as well as shape and decoration, it was learned that unity was not always the preparators' priority. In fact, it turned out that the vessels' spatial location, meaning their proximity or lack thereof and the orientation of their paintings to Above or Below, controlled their unity as a pair. One or more of those force(s) often pulled pairs apart rather than held them together.

### Pairs United

Identification of the pairs and analysis of the relationship between the vessels reveal that fully united pairs rarely occurred in Sitio Conte graves; only three examples were in the nine interments of this study.

Grave 17 contained a pair of two sloping bowls: B8/EXT–B9/EXT (Cat. nos. 111, 112). In terms of decoration, the pair brought together similar Figural and Abstract (Clefts–and–Waves, Wave) motifs. Only a viewer's careful look would reveal the differences in subject matter.

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<sup>44</sup> Ibid.

<sup>45</sup> Lothrop, *Coclé Part II*, 11.

In terms of deposition, both were positioned upright and next to each other (Fig. 2.15). The first bowl was intact and the second one was broken/incomplete, suggesting a complementary opposition.<sup>46</sup> In this way, vessel shape and physical proximity united this pair in Grave 17. Only their condition differentiated them.

Pair PL166–PL331 (Cat. nos. 23, 24 and 60, 61) was identified as a united pair, albeit a more complicated example. The obvious commonalities were their circular plate shape and that both had interior and exterior paintings. Moreover, their interior paintings were organized into five bands. There was just one small difference in their motifs: the first had one more Figural motif than the other and the second also had Abstract motifs. Their exterior paintings differed in that one had one more Abstract motif.

Turning to the deposition, both plates were inverted so that both interior paintings faced Below while both exterior paintings faced Above. The first plate was against the south wall underneath several vessels while the second plate was in the northwest corner underneath many vessels (Fig. 2.2).<sup>47</sup> The field records documented that both were underneath many vessels (rather than on top of many vessels) so that both interior paintings may have been visible for onlookers Below. Both were broken/incomplete plates. This pair was most united in their similar, fragmented, and Below-facing interior paintings. Thus, Pair PL166–PL331 was united most strongly from the perspective of Below.

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<sup>46</sup> PMHU, CER 33–42, Box 10, card 8, Trench III 33, Graves A and B.

<sup>47</sup> Lothrop, *Coclé Part I*, 186.

The third example was the contrasting pair of either a bowl or plate and a carafe. The title for this pair was the plate's field number followed by the carafe's. Interestingly, the UPM plates and bowls forming this type of pair usually had the same field number and then "a" for the plate and "b" for the carafe. One may interpret this cataloguing practice as the excavators' sense that these vessels belonged together.

This pair relied entirely on deposition to hold it together. Typically, the intact carafe was deposited on top of the broken bowl or plate (Fig. 7.16). This pair was present in at least four of the nine interments (PMHU Graves 1 and 43 and UPM Burials 7 and 19).

Numerous examples were deposited in Burial 7 alone (Figs. 2.7): PL1a-CF1b, PL2a-CF2b, PL3a-CF3b, PL10a-CF10b, PL19a-CF19b, and PL20a-CF20b. The plate-and-carafe pair represented complementary service of solid foods and beverages. It may have represented a service set. In terms of their decoration, three combinations were possible. First, one was plain and the other decorated (PL19a and Red J19b). Second, both vessels were plain (Red PL2a and CF2b). Third, both vessels were decorated. PL19a-CF19b formed a contrasting pair in every regard. The plate had an interior painting with Figural (quadruped, biped, polyped) and Abstract (Hook) motifs. Meanwhile, the carafe was plain Red ware. The plate was inverted, orienting the interior painting to Below while the carafe was upright, sitting directly on top of the plate. This physical contact made it easy to recognize their relationship.

Limited evidence indicates that this type of pair was doubled to create a quartet. This rare ensemble was deposited in the northwest corner of PMHU Grave 43 (Fig. 2.6). It consisted of two flaring bowls with interior paintings (Cat. nos. 119, 120) and two carafes with exterior

paintings.<sup>48</sup> The two bowls were not identical; one carried three Figural motifs (bipeds, polyped) while the other had only one. However, deposition strengthened this pair's unity: both bowl paintings faced Below without any vessels obscuring them and the decorated carafes both rested sideways near the bowls. Burials at other cemeteries in Gran Coclé, such as Burial 21 at La Cañaza cemetery in the Azuero Peninsula, contained a similar group or "quartet" of two decorated bowls and two carafes; Ichon identified them as part of the classic burial arrangement during the La Cañaza period (500–1000 CE).<sup>49</sup>

#### Pairs Disunited

Pairs were typically less unified than those just described. Consequently, they were difficult to spot in the graves. Three pairs were utterly invisible even though they were actually deposited close to each other.

Pair PL7/INT–PL12/INT was in PMHU Grave 17 (Fig. 2.15; Cat. nos. 110, 113). Their paintings consisted of one Figural motif, the difference between the two being in the head shapes. The two plates were identical in every deposition feature: brokenness, inversion, and proximity. Thus, their interior paintings faced Below. Yet they were unrecognizable as a pair because the first plate was crushed over B8 and B9 and its sherds ended up on top of the second plate.<sup>50</sup> In other words, the two were physically

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<sup>48</sup> These two carafes are CF2/EXT and CF3/EXT.

<sup>49</sup> Alain Ichon, *Archéologie du Sud de la Péninsule d'Azuero, Etudes Mesoamericanes-Series II, No. 3* (Mexico: Mission Archéologique et Ethnologique Française au Mexique, 1980), 295. Briggs evaluated Burial 21, yet he numbered it Grave 13; see Briggs, "Pre-Conquest Mortuary Arts and Status in the Central Region of Panama, 232.

<sup>50</sup> PMHU, CER 33–42, Box 10, III 33 Grave B, 2.

close, but not neatly laid out next to each other and this rendered them invisible. Perhaps audience Below could have determined some sense of their relationship through the sherds oriented in that direction.

The second disunited pair involved two bowls in PMHU Grave 1: B274/EXT–B300/EXT (Fig. 2.2; Cat. nos. 41, 51). In addition to being identical in shape, their exterior paintings were truly identical in their Figural and Abstract motifs. These mates sat in considerable proximity in the grave's northern area. Working against their unity was condition and location. The first was broken and the second was intact. Again, this suggested a complementarity. Furthermore, they rested near each other, but the second bowl was underneath a plate,<sup>51</sup> thereby hiding their relationship.

The third disunited pair was two square bowls with exterior paintings in Grave 1: SQB321/EXT–SQB362/EXT (Fig. 2.2; Cat. nos. 57, 66). The exterior paintings were similar with an Abstract motif (Clefts–and–Waves), but not identical. Both were broken yet physically close in the northwest corner. This area was filled with overlapped vessels that earth pressure had buckled together.<sup>52</sup> Thereby, their “pairness” became undetectable.

Two pairs in PMHU Grave 1 were physically disunited meaning that the vessels' locations upset the connection. The first, Pair B177–B257, consisted of two bowls with similar interior and exterior paintings (Cat. nos. 27, 28, 39, 40). The first interior painting was considerably worn and missing several sherds; two Abstract motifs (Clefts–and–Waves and Stripe)

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51 Ibid.

52 Ibid.

were visible. The second interior painting presented Figural and Abstract (Clefs-and-Waves and Stripe) motifs. In terms of the two exterior paintings, both consisted of Figural (quadruped) and Abstract (Stripe) motifs. This pair was split up by being deposited in opposite spatial directions (Fig. 2.2). The first was just southwest of Aged Man I, underneath a plate<sup>53</sup> whereas the second was to his northeast. The two bowls were identical in vessel type, motifs, broken condition, and upright position, yet undetectable in Grave 1 because of their locations.

Yet Pair B162/INT-B340/INT was also disunited in PMHU Grave 1 (Cat. nos. 20, 64). The two interior paintings consisted of identical Abstract motifs (Stripe). However, this pair was not buried in proximity; the first bowl was on the southern area of Grave 1, partly underneath two plates, while the second bowl was in the exact opposite area, the northern side and underneath plates.<sup>54</sup> Furthermore, the first was upright and the second was inverted. Therefore, the identical interior paintings were oriented in opposite directions thereby separating the pair. Horizontal location and vertical orientation disjoined Pair B162-B340.

## Review

The Sitio Conte painters created pairs with vessel paintings of one or more identical or contrasting motifs. Yet deposition was also key to the pairs at the Sitio Conte cemetery, not subsidiary to shape and painting. Location, orientation, and condition affected a pair's unity. The

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<sup>53</sup> Ibid.

<sup>54</sup> PMHU, CER 33-42, Box 10, I33 Grave D.



preparators did not always unite pairs were not always. Rather they separated them by one or more contrasting aspects.

### Fragmenting and Grouping

Analyzing vessel deposition detects two major practices: fragmenting and grouping. Fragmenting took two forms: broken/complete and broken/incomplete. Regarding the second practice, grouping vessels in the graves took three basic forms: programs, nests, and pairs.

Vessels, programs, nests, and pairs maintained different degrees of unity. For example, the carefully reconstructed grave programs are ideal or conceptual wholes projecting to Above and/or Below; other depositional practices detracted from the ideal, the completely visible program from both directions.

Analysis discovers that other vessel features (shape, painting) exercised varying degrees of influence over the cohesion of a program, nest, or painting. In other words, all group members did not share one or more of those features. Thereby, the group broke apart in actual deposition. This phenomenon paralleled the other major deposition practice: fragmenting the vessels. One may say that vessels and groups maintained tension between unity and disunity, cohesion and separation, and whole and part.

Grouping and fragmenting engendered vessels that possessed multiple identities. In other words, they were able to belong to more than one entity. A strong example was the broken/complete bowl in PMHU Grave 1 (Cat. no. 20). The interior painting presented a three-color Stripe pattern. As a whole, it was a member of a pair, nest, and program. Many vessels belonged to two of the three groups, like the grave program and either a

pair or nest; the list of such vessels just from PMHU Grave 1 is long (Cat. nos. 2, 6, 7, 8, 23, 24, 25, 31, 32, 33, 34, 35, 36, 37, 38, 40). One vessel with interior and exterior paintings identified with Above and Below as well as with a nest or pair. Broken/complete vessels were directed to both Above and Below by way of their bioriented sherds (Cat. nos. 103, 105, 115, 126). Sherds were parts of a vessel and a nest (Cat. no. 19). Sherds of a whole vessel ended up in different areas of the same grave (Cat. nos. 139, 140). Vessel identities were indeed numerous.

Separation and multiple identities were related. In particular, physical separation multiplied identity. Pieces of a whole vessel joined more groups than the whole itself. In this way, the vessels had a tendency to resemble the way people fracture to maintain numerous relationships. The relationship between the living and dead was foremost among those relationships. As Sitio Conte vessel paintings referenced humans with the Abstract motifs and painted human faces, so the deposited vessels looked like human relationships. The next chapter explores this idea further.

## CHAPTER 8

### DECORATION AND DEPOSITION: AN INTERPRETATION

The graves at the Sitio Conte cemetery were the resting place for some two hundred people (mostly men) between 750 and 950 CE. At the same time, their graves became repositories of decorated objects because the survivors deposited thousands of ceramic, metal, stone, and bone objects therein. Of all those different items, this dissertation focused on 152 decorated ceramic vessels deposited in nine graves which held a total of seventeen deceased people.

As recounted in Chapter 2, researchers interpreted these decorated and deposited vessels –specifically their zoomorphic subject matter– in light of a hypothesized chiefdom organization. However, that narrow research focus left out the vessels’ other significant aspects, such as their non–zoomorphic subject matter and the nature of their deposition in the mortuary spaces. For example, Lothrop did not include an anthropomorphic category in his subject matter classification. As another example, Mary Helms wrote, “The Coclé ceramic wares are characteristically multicolored and combine geometric forms with lively, very graphic depictions of curious birds and beasts.”<sup>1</sup> With that narrow set of terms, the Sitio Conte ceramics would indeed seem to lack any kind of anthropomorphic imagery. The objects’ reorganization into Lothrop’s

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<sup>1</sup> Helms, *Creations of the Rainbow Serpent*, 4.

classification (first and foremost according to the different materials) partly fostered this research direction. Vessel deposition generally has met even less interest from researchers. Olga Linares offered an intriguing vision of the vessels *in situ*, but did not pursue the matter:

The sections of Sitio Conte vessels that were invisible (the underside, for instance) were seldom decorated and sometimes not even slipped. The flat shapes and flamboyant designs in central Panamanian art suggest that, regardless of their certain usage in everyday life, vessels were manufactured to be looked art by others, often from above, and hence to serve as objects of display. Therefore, it is not difficult to imagine crowds of people gathered at the edge of a large and luxurious grave, admiring its contents, and by a very common form of reasoning, equating the status and rank of the grave's occupants with the quality and abundance of their funerary gear<sup>2</sup>

At the least, this project demonstrates that humans located above were not the only audience engaged by the decorated vessels.

In response, this dissertation project took up two tasks. First, it analyzed the Abstract motifs. Then it analyzed the principle way the painters organized them with symmetry. Second, the dissertation reconstructed and analyzed the vessel deposition in the graves. In other words, this project strove to maintain a holistic view; decoration and deposition formed a partnership for information about the decorated funerary vessels that in turn may be interpreted. This chapter's primary objective is to complete an interpretation.

Aspects of decoration and deposition focused on human beings. First, the twelve Abstract motifs referenced decorated human faces and

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<sup>2</sup> Linares, *Ecology and the Arts in Ancient Panama*, 60.

bodies. Second, vessel identities and separation referenced human identities and relationships. That is to say, the vessels addressed issues for the dead buried at the cemetery and the living who buried them there. This proposal parts company with conclusions of most researchers in the past. Specifically, this interpretation counters the long-standing observation that, overall, the ceramics at the Sitio Conte cemetery were not really about the people who used the cemetery.

### Through Abstract Motifs: Decorated People and Pots

Without a question, all the Figural motifs represented animals that lived in central Panama. While the particular species that the different researchers identified often varied, overall, birds, reptiles, and crustaceans dominated the multitudinous identifications to-date. In contrast, the twelve Abstract motifs (Chevron, Circle, Cleft, Clefs-and-Waves, Fret, Hook, Lozenge, Oval, Quatrefoil, Stripe, Triangle, and Wave) represented parts of decorated human bodies. These motifs did not present humanity in the more easily recognizable forms of narratives or portraits like Classic Maya ceramics or Moche portrait vessels. Instead, they did so via their role in a practice. Abstract motifs were tied to humans by their role in the practice of decorating people's limbs, back, and faces, and heads. As demonstrated in Chapter 4, the effigy vessels from graves at the Sitio Conte cemetery as well as other places in Gran Coclé provided the main evidence of this practice. Parts of their bodies carried the Waves, Clefs-and-Waves, Chevron, Hook, Oval, and Stripe motifs. One or more of those motifs covered parts of their heads, faces, backs, chests, and/or arms. Some vessel paintings with Clefs-and-Waves motifs, mouths, and sometimes eyes may be identified as representations of painted faces. In a

sense, the ceramic bodies were patchworks of different symmetrical and/or symmetrical Abstract motifs. As also demonstrated in Chapter 4, the unprovenanced roller stamps, as well as those from sites in Gran Coclé and Gran Darién, drew even closer to the actual practice of rolling patterns on the human skin or textiles. Waves, Clefts-and-Waves, and Triangle motifs carved into them were transferred onto skin or textiles. Thus, this dissertation proposes that human beings were indeed referenced in Sitio Conte vessel painting. Abstract motifs, like those that covered parts of human faces and bodies, were a subject of the funerary ceramic vessels, as important as the better-studied Figural motifs.

#### Enchainment Through Deposition

It was also proposed here that the vessels decorated with Abstract and/or Figural motifs were art-containers. They imitated the utilitarian vessels that people in Gran Coclé used to hold food. The act of depositing them in the graves was equivalent to the living offering sustenance to the dead.

The analysis of deposition acknowledged the grave preparators at the Sitio Conte cemetery who organized the offerings. Researchers have acknowledged the painters' talents from the moment of excavation. Lothrop began the site report's second volume with a laudatory statement, "Sitio Conte pottery enters our horizon in full maturity. The most ancient graves yielded material without known antecedents but fully developed and rich in design."<sup>3</sup> Later, Mason described the Sitio Conte objects as

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<sup>3</sup> Lothrop, *Coclé Part II*, 3.

“beautiful, artistic, and unique specimens.”<sup>4</sup> Both of their comments showed great respect for the people who made the objects. However, this was not the case with the preparators who placed those wonderfully decorated vessels in the graves. Neither Lothrop nor Mason left any indication of their admiration of the preparators’ work. This was a little ironic since they actually had more in common with the preparators as they unpacked the offerings that the preparators packed so long ago. Their work has gone largely unnoticed until now.

This study of the Sitio Conte decorated funerary vessels found that each pot was like a person in that both were “a shifting amalgam of different identities.”<sup>5</sup> All of the preparators’ work rested on the fact that a vessel maintained multiple identities. A single broken/complete bowl with Figural and Abstract motifs could be one of the Above-facing members of a grave’s program, one vessel of a pair, and one of the vessels in a nest. B162/INT/G1 (Cat. no. 24) was such a vessel: Pair B162–B340, Nest 157–169, and Above-member of the grave program. Take the vessels with interior and exterior paintings; PL166/G1 (Cat. nos. 23 and 24) has an interior painting of Figural and Abstract motifs as well an exterior painting with both types of motifs. It belonged to Pair PL166–PL331, Nest 125–169, and, last but not least, both the Above and Below sides of Grave 1’s program. To be sure, these two vessels best exemplified the fractal identity of ceramic vessels. Most Sitio Conte vessels did not juggle all of

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<sup>4</sup> J. Alden Mason, “The Archaeological Expedition of the University Museum to Panama, 1940,” *Tredyffrin–Easttown History Club* 3, 3 (1940a): 53.

<sup>5</sup> Chapman, *Fragmentation in Archaeology*, 145.

these ties, yet on the other hand, most had to juggle at least more than one.

In other words, a ceramic pot can be dividual as well as individual. Interestingly, another term one anthropologist employs for the dividual person is “the fractal person.”<sup>6</sup> Either term challenges understanding the ceramic vessel as only one whole singular identity, that is, an individual. By literally breaking apart an object can engage more with other entities just as a person can do so by figuratively breaking into more than identity.

Dividual vessels the preparators to develop the relationship between the living and dead. The preparators used them to practice “enchainment,” a social practice to tie people together through an exchange.<sup>7</sup> Chapman specifically mentions the enchained relationship most relevant to the situation at the Sitio Conte cemetery: between the dead and their living kin.<sup>8</sup> Chapman explains that creating broken/incomplete items was one primary way to indicate the enchainment of the living and dead:

The two people who wish to establish some form of social relationship or conclude some kind of transaction agree on a specific artifact appropriate to the interaction in question and break it into two or more parts, each keeping one or more parts as a token of the relationship. There may well be limits of size on how often a single object can be successively fragmented to maintain the impetus of the enchained relationship. Thus, the part of the object may itself be further broken and part passed on down the chain, to a third party.

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<sup>6</sup> Roy Wagner, “The Fractal Person,” in *Big Men and Great Men: Personifications of Power in Melanesia*, eds. Maurice Godelier and Marilyn Strathern (Cambridge: Cambridge of University Press, 1991), 159–73.

<sup>7</sup> Chapman, *Fragmentation in Archaeology*, 5.

<sup>8</sup> *Ibid.*, 6.



The fragments of the objects are then kept until reconstitution of the relationship is required, in which case the parts may be deposited in a structured manner.<sup>9</sup>

The broken/incomplete “vessels” lacked some of their pieces. Thereby, deposition did not preserve the shape of the whole item. The sherds of one broken/incomplete vessel could have gone with living and dead. The survivors kept some of them while they left other sherds with the deceased as tokens of their continuing bond. Graves such as PMHU Grave 1 and UPM Burials 7 and 19 contained tens, hundreds, and even thousands of autonomous sherds intimating that somebody, the living and perhaps deceased in some of the other Sitio Conte graves, held the thousands of mate sherds that once formed the whole plates, bowls, and trays.

Some sherds originally belonging to the broken/incomplete vessels ended up with the deceased while living people outside of the Sitio Conte community possibly came to possess the others. In other words, chains between living and dead extended to other Gran Coclé inhabitants not directly involved with the Sitio Conte cemetery. Potsherds traveled throughout this region and beyond. The clearest evidence was in the form of sherds excavated at a site where they were not produced. Polychrome sherds known to be produced in the Gran Coclé region have been excavated outside of that region. For example, Macaracas-style Polychrome sherds were in tomb fill (with radiocarbon dates in the eighth century CE) at Miraflores in Gran Darién.<sup>10</sup> From the other side of Gran Coclé, a center

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<sup>9</sup> Ibid.

<sup>10</sup> Richard Cooke, “Cupica (Chocó): A Reassessment of Gerardo Reichel-Dolmatoff’s Fieldwork in a Poorly Studied Region of the American Tropics,” in *Recent Advances in the Archaeology of the Northern Andes In Memory of Gerardo Reichel-Dolmatoff*, eds. Augusto Oyuela-Caycedo and J. Scott Raymond (Los Angeles: The Institute of Archaeology, UCLA, 1998b), 99–100.

known as La Pitahaya in Gran Chiriquí, Cooke reported that of 120 polychrome sherds, 77.5% are Conte or Macaracas style, that is, they were from Gran Coclé (Fig. 1.1).<sup>11</sup> In fact, he identified them as “trade sherds,” although it was unclear exactly what he meant by this term.<sup>12</sup> They probably were brought to La Pitahaya between 500 and 900 CE when “contacts” between the two regions peaked.<sup>13</sup> To be sure, no sherds from Sitio Conte and another site have been traced back to the same vessel, but that may happen with the appropriate research project in the future (see Postscript).

It is harder to isolate well-traveled sherds within the Gran Coclé region because it was also the production region. On the other hand, substantial reports of massive lots of sherds in both funerary and non-funerary settings indicated mass production of sherds. Archaeologists reported incredible amounts of sherds at several Gran Coclé funerary and non-funerary centers. For example, Hyatt Verrill described “immense numbers of potsherds at El Caño” and he continued to explain that “the pottery fragments are so densely packed and so numerous that they form fully eighty percent of the soil deposit.”<sup>14</sup> Moreover, fragments of ceramic vessels in burials at other Gran Coclé sites indicated that this deposition

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<sup>11</sup> Richard Cooke, “Report 11 Polychrome Pottery from the Central Region of Panama at La Pitahaya,” in *Adaptive Radiations in Prehistoric Panama*, Peabody Museum Monographs, Number 5, eds. Olga F. Linares and Anthony J. Ranere (Cambridge: Peabody Museum, Harvard University, 1980), 383.

<sup>12</sup> *Ibid.*, 382.

<sup>13</sup> *Ibid.*, 384.

<sup>14</sup> Hyatt A. Verrill, “Excavations in Coclé Province, Panama,” *Indian Notes* 4, 1 (1927): 56–57.

practice was not unique to the Sitio Conte preparators. For example, burials at Las Huacas and Cerro Juan Díaz held fragments of ceramic vessels (Fig. 1.1).<sup>15</sup> These reports propose that the dead at different cemeteries were enchainned by potsherds.

The preparators did not limit enchainment to the living and dead via sherds. One of the most important manifestations of the preparators' work was painting orientation to Above or Below. Thus, grave programs enchainned the dead with Above and/or Below. This study recovered the painting programs for six of the nine graves. These programs demonstrated that Above and Below were considered unequal; they need not receive the exact same paintings.

Exactly how the people who developed Sitio Conte as a cemetery conceived Above and Below remains unknown. Generally speaking, ancient Americans conceived the upper- and underworlds as two of the main features of their universe.<sup>16</sup> In different forms and contexts, virtually every society acknowledged both vertical realms as the necessary parts of the whole universe. Part of the recognition stemmed from the forces believed to emanate from the two realms: earthquakes, volcanoes, sunlight, rain, and hail. It also arose from shamanism wherein the practitioner must travel to both realms, often along an *axis mundi*, in order to gather information from the forces dwelling there for their healing work. Nahuas

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<sup>15</sup> Cooke, Sánchez Herera, and Udagawa, "Contextualized Goldwork from 'Gran Coclé', Panama," 158, 162-63.

<sup>16</sup> Alfredo López Austin, *The Human Body and Ideology: Concepts of the Ancient Nahuas*, trans. Thelma Ortiz de Montellano and Bernard Ortiz de Montellano (Salt Lake City: University of Utah Press, 1988), 332-36; Mary Ellen Miller and Linda Schele, *The Blood of Kings: Dynasty and Ritual in Maya Art* (New York: George Braziller, 1986), 42.

living in Central Mexico understood that the, “The living and the dead labored on different sides of the same fields, some visible, other invisible.”<sup>17</sup> One interpretation of this statement is literal: living Nahuas worked the fields while the dead, dwelling above and below the agricultural lands, also exerted their force on the earth’s fertility and productivity. The same may be said regarding the paintings on the interiors and/or exteriors of the Sitio Conte bowls, plates, and trays; the preparators made sure that they were oriented so that they engaged the universe’s two main sides. Also, they tied or enchained the deceased to those realms.

#### Preparing for the Future

The preparators fragmented the vessels rather than left them intact; only two of 152 vessels were left unbroken. Lothrop and Mason interpreted this practice as a way to release the vessels’ energy. One researcher pooling data from a variety of subjects arrived at a similar conclusion.<sup>18</sup> In other words, the released energy would work for the deceased in the afterlife.

This dissertation observes that the preparators’ work fragmenting the vessels into two different forms actually raised more issues. Broken/complete vessels maintained the shape of the whole. That is to say, the shape remained visible despite the numerous fractures. It is proposed here that the broken/complete morphology had meaning. In a

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<sup>17</sup> *Ibid.*, 342.

<sup>18</sup> L.V. Grinsell, “The Breaking of Objects as a Funerary Rite,” *Folklore* 72 (September 1961): 475–91.

sense, it formed an iconographic element representing the earth's cracked surface.

An analogy with the significance of cracks, crevices, and clefts in Classic Maya society sheds light on this morphology. The Maya earth band, which appeared in sculpture and ceramics, consists of asymmetrical and jagged clefts (Fig. 8.1). Ancestors emerged from the earth clefts as Ahaw Pakal portrayed his ancestors on the sides of his sarcophagus.<sup>19</sup> The crack in the Turtle of Creation's shell from which the Maize Being emerged was yet another earth cleft.<sup>20</sup> A fracture in a ceramic bowl, plate, or tray was also an earth cleft.

Evidence of similar iconography among the people who used the Sitio Conte cemetery exists. This evidence comes from decorated ceramic vessels from the burial ground: turtle effigy vessels often with a pattern of circles representing the shell (Fig. 8.2). The creature's head, limbs, and tail usually project from the body of the vessel. Furthermore, a decorated anthropomorphic lid in the shape of a head sometimes topped off these effigies. Helms rightly pointed out that the turtle effigy vessels with human lids portrayed a scene comparable to the Maya Maize Being rising through the cleft in the Cosmic Turtle's shell.<sup>21</sup> An important observation to add is that some lids lacked mouths so that when they were on the turtle, the head appeared to be in the process of cracking through and rising from the

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<sup>19</sup> Linda Schele and Peter Mathews, *The Code of Kings: The Language of Seven Sacred Maya Temples and Tombs* (New York: Scribner, 1998), 121.

<sup>20</sup> This image is well-known from a painting on the interior of a ceramic plate in the Museum of Fine Arts, Boston; see Mary Ellen Miller, *Maya Art and Architecture*, Fig. 183.

<sup>21</sup> Helms, *Creations of the Rainbow Serpent*, 98.

turtle shell (Fig. 8.3). One even hastens to point out that the turtle carapace pattern, regardless of species, closely resembles any one of the broken/complete vessels in the Sitio Conte graves.

This iconography was present in another piece of Sitio Conte pottery (Fig. 8.4). This vessel was unique in that no other example was found during data collection. Moreover, no similar vessels are illustrated in *Coclé Part II*. It consists of a large and very flat plate with a bowl at its center, not unlike what might be commonly referred to today as a “chip-and-dip bowl.” However, this central bowl was formed in the shape of a human head. The vessel was fragmented in UPM Burial 12. In a sense, the head emerged from the broken/complete plate as if it was the earth, a symbolism Helms suggested for the Sitio Conte plates in general.<sup>22</sup> This vessel joined together all relevant associations: plate-as-earth, fractures, and rebirth emergence.<sup>23</sup>

With this evidence, it is proposed here that the Sitio Conte graves filled with fractured pots were one way for the transformation or rebirth of the deceased individuals into ancestors. Cracked and broken vessels anticipated the deceased’s future identity as an ancestor. Underneath the many pieces of broken earth, either completely or partially covered, the deceased would eventually undertake his or her rebirth. In other words, the physical deposition of decorated vessels in the Sitio Conte graves actually helped to create the funerary context to benefit the deceased.

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<sup>22</sup> Ibid., 99.

<sup>23</sup> It is worth mentioning that this unique Sitio Conte vessel from UPM Burial 12 resembles a type of Maya ceramics: cylindrical vessels with lids. The lid handles take the shape of human heads. Thus, it appears that a person is rising from the lid. Perhaps these Maya vessels raise a set of ideas about rebirth similar to the Sitio Conte vessel.

**With the presence of fragmented vessels, transition from deceased person to ancestor happened in the most appropriate setting.**

## POSTSCRIPT

In the course of this dissertation project, several issues about ceramic vessel decoration and deposition related to the interpretation proposed here emerged as strong candidates for additional research in the future.

### About Decoration

First, the irregular symmetry of the Abstract motifs in bowl, plate, and tray paintings begs a comparable analysis of the paintings on the equally large corpus of jars. Furthermore, their sideways position and exterior paintings will cast additional perspectives on the theme of art-containers. As the contents of a jar were obviously hidden from view, the exterior paintings became in a way advertisements about the products within.

Second, a comprehensive study of the anthropomorphic effigy vessels in Gran Coclé is warranted in the future. Such a study will consider effigies from many sites since they generally are not as numerous as bowls, plates, trays, and jars. A systematic identification and symmetry analysis of the Abstract motifs forming their head and body decoration is necessary. This work will strengthen the connection observed here between the human body and vessel decoration.



### About Deposition

One important project about deposition will select Sitio Conte vessels for testing of their possible residues.<sup>1</sup> Maize and cacao are just two possible findings if the contents of Mesoamerican vessels provide a lead. For instance, four vessels in Tomb 19 (ca. 460–480) at Río Azul in Guatemala contained theobromine and caffeine (both are cacao elements) and the researchers concluded that three vessels definitely contained some form of cacao and the fourth likely did as well.<sup>2</sup> Ceramic vessels at Cerén, a village in El Salvador inundated by ash from Loma Caldera volcano in the sixth century CE, contained remains of maize, beans, squash, chile peppers, cotton, cacao, capulín, and hackberry.<sup>3</sup> Both of these analyses of the vessel contents made major contributions to understanding ancient American sustenance practices and ceramic vessel function. The authors of the Cerén report characterized their findings as “unusual because no other Mesoamerican site has revealed as many containers with their original contents still preserved in situ.”<sup>4</sup> The vessels from the Sitio Conte cemetery could make a similar contribution about funerary offering in Gran Coclé.

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<sup>1</sup> I am grateful to Dr. Robert Tykot of the University of South Florida for sharing his expertise on this analysis with me.

<sup>2</sup> Grant Hall, et al., “Cacao Residues in Ancient Maya Vessels from Río Azul, Guatemala,” *American Antiquity* 55, 1 (1990): 139–42.

<sup>3</sup> David L. Lentz, et al., “Foodstuffs, Forests, Fields, and Shelter: A Paleoethnobotanical Analysis of Vessel Contents from the Ceren Site, El Salvador,” 247–62.

<sup>4</sup> *Ibid.*, 259.

Second, significant projects in the future will continue to study the broken/incomplete vessels and autonomous sherds. This dissertation came to see these sherds in new ways. They acted as major social agents not merely as grave fill. First, all sherds, many of which are now in huge bags, must be documented more completely. Sherds deserve just as much attention as complete vessels. This project also suggests that after documentation, it is necessary to attempt to rejoin the vessel sherds. Rejoining needs to be done not for the sake of it, but to trace the enchainment of people. Projects are needed to determine if the sherds in one Sitio Conte grave related to the broken/ incomplete vessels in the same grave or another one at the cemetery. Additional projects will document sherds at other Gran Coclé sites. When finished, the sherd collections from the different sites may be compared to see if sherds at multiple sites originally belonged together. This comparative project may potentially reap great rewards in terms of inter-site relations. The results may connect with existing evidence of other ancient American cultures behaving similarly with sherds; for instance, excavators at Casas Grandes in the Mexican state of Chihuahua found 172 decorated sherds carefully worked into various geometric shapes.<sup>5</sup> None of this research with the Gran Coclé material will be easy as Chapman warns, "the hardest task is to find and match the different parts of once integral artefacts."<sup>6</sup> Broken objects and their many

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<sup>5</sup> Charles C. Di Peso, *Casas Grandes: A Fallen Trading Center of the Gran Chichimeca*, Volume 2, ed. Gloria J. Fenner (Draagoon: The Amerind Foundation, Inc., 1974), 617 and 743.

<sup>6</sup> Chapman, *Fragmentation in Archaeology*, 54.

parts, while not always the prettiest nor the easiest items to analyze, must become a greater research focus in the future.

Continuing with deposition, this author knows no studies demonstrating that other ancient American societies made a practice of positioning upright and inverted ceramic vessels or other types of objects in order to orient imagery to cosmological directions such as Above and Below. However, researchers frequently mention that ancient Americans inverted ceramic vessels, both decorated and undecorated, in their burials as well as non-funerary settings.<sup>7</sup> As noted in Chapter 7, ancient Americans recognized Above and Below as vibrant places populated by supernatural energies and ancestors. Thus, it would be unsurprising if future studies detected programs in other ancient American settings, funerary and perhaps also non-funerary that possibly linked different groups of people. Ultimately, the deposition of Sitio Conte ceramics ties in with the growing body of literature about objects in funerary spaces and termination rituals, particularly in Mesoamerican studies. The vessels properly deposited in the Sitio Conte graves showed that rituals and practices with objects did not conform to the geographical boundaries established for archaeological regions. Mesoamericans and their southern Central American neighbors employed objects like ceramic vessels in similar ways.

All of this work will be impossible without archaeologists working in central Panama with ever better theory, techniques, and instruments at

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<sup>7</sup> Examples of inverted ceramic vessels have been published. One Maya inverted vessel was part of an ancestor shrine; see Patricia A. McAnany, *Living with the Ancestors: Kinship and Kingship in Ancient Maya Society* (Austin: University of Texas Press, 1995), Fig. 2.18.

their disposal. Identifying and analyzing the deposition of the ceramic vessels highlighted the importance of professional site excavation and documentation. This art historical study would have been impossible without the work of the PMHU and UPM archaeological teams in the first half of the twentieth century. The same will undoubtedly hold true for all future studies.



Fig. 1.1. Archaeological regions and sites in Panama discussed in the text.

Grave	Depth
Grave 1	10' 11'6"
Grave 7	5'6"
Grave 13	8'6".9'6"
Grave 17	4'5".5'
Grave 23	4'6".5'6"
Grave 43	8'

Fig. 2.1. Depths of PMHU graves in this dissertation.

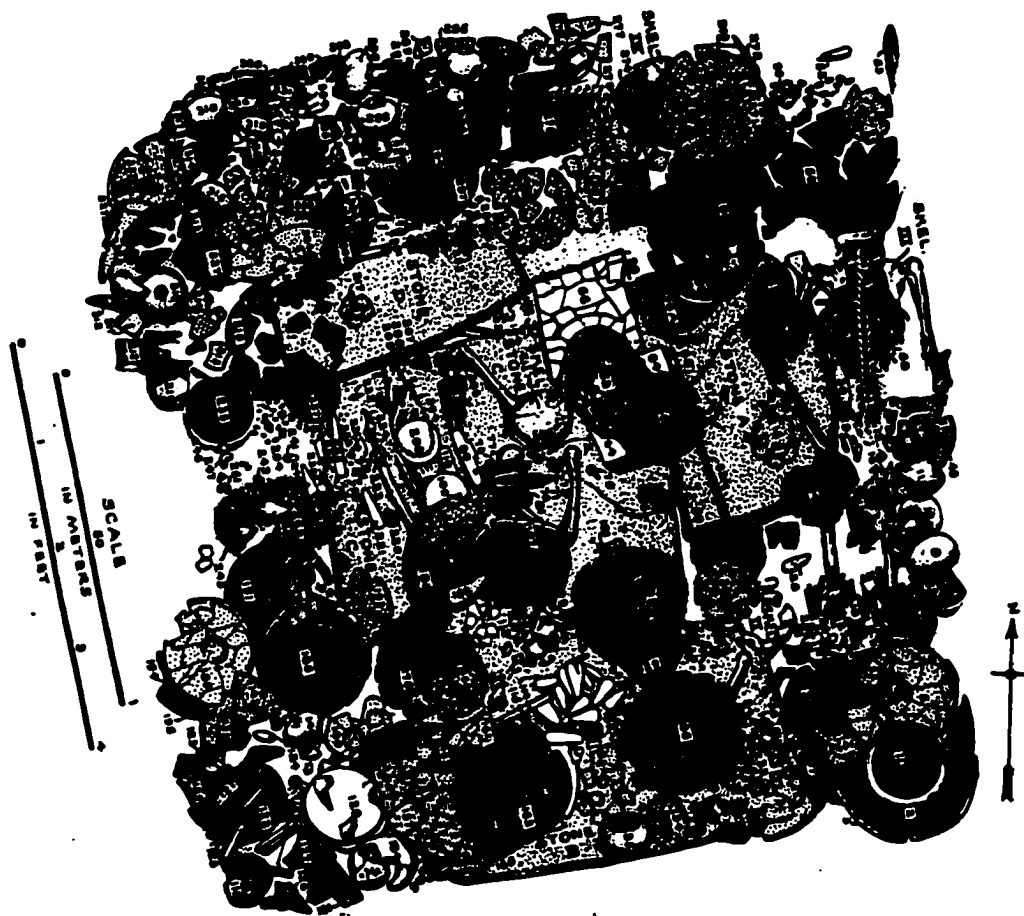


Fig. 2.2. Plan of PMHU Grave 1-Layer 2 reoriented with North at top.

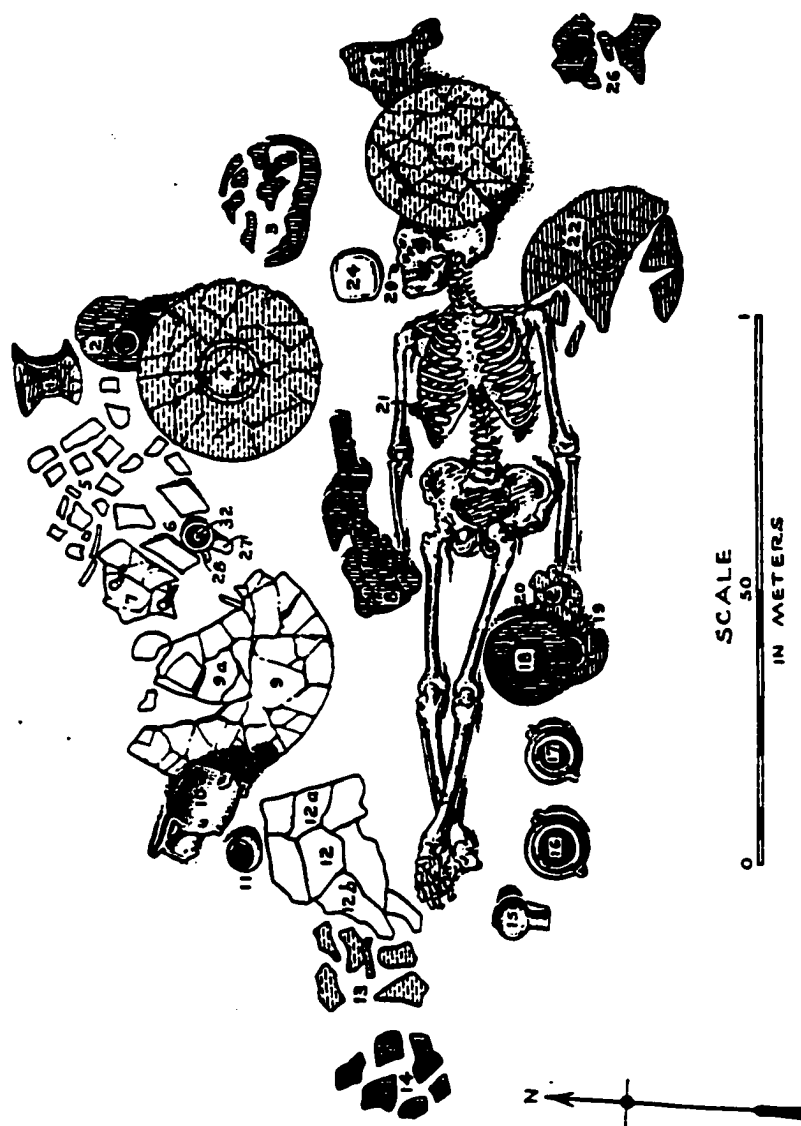


Fig. 2.3. Plan of PMHU Grave 7.





Fig. 2.4. Plan of PMHU Grave 13.

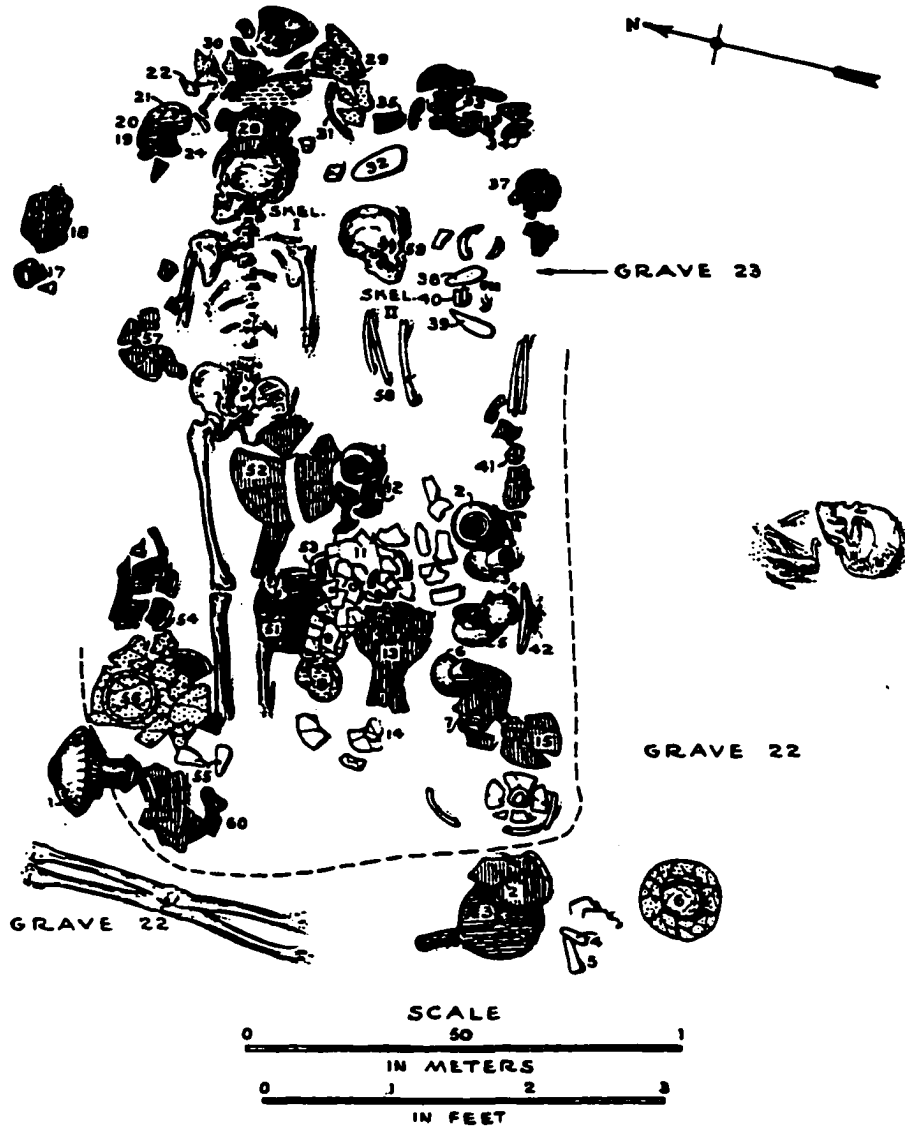


Fig. 2.5. Plan of PMHU Graves 22 and 23 reoriented with North at top.

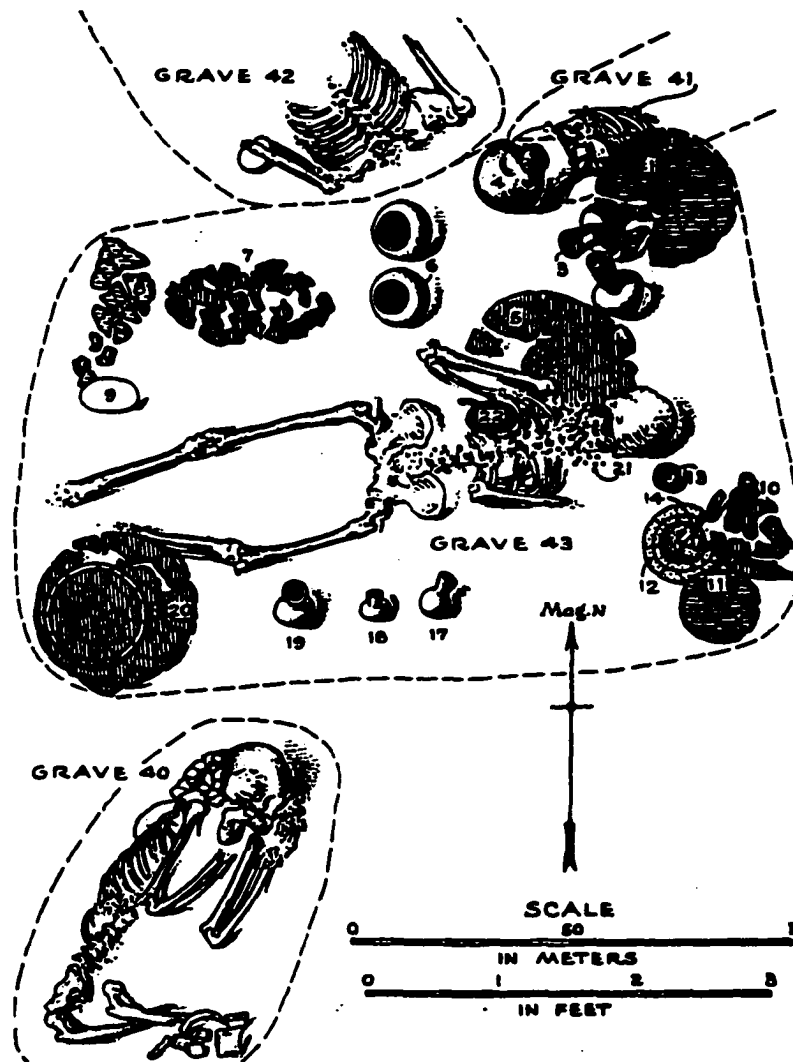


Fig. 2.6. Plan of PMHU Graves 40, 41, 42, and 43.

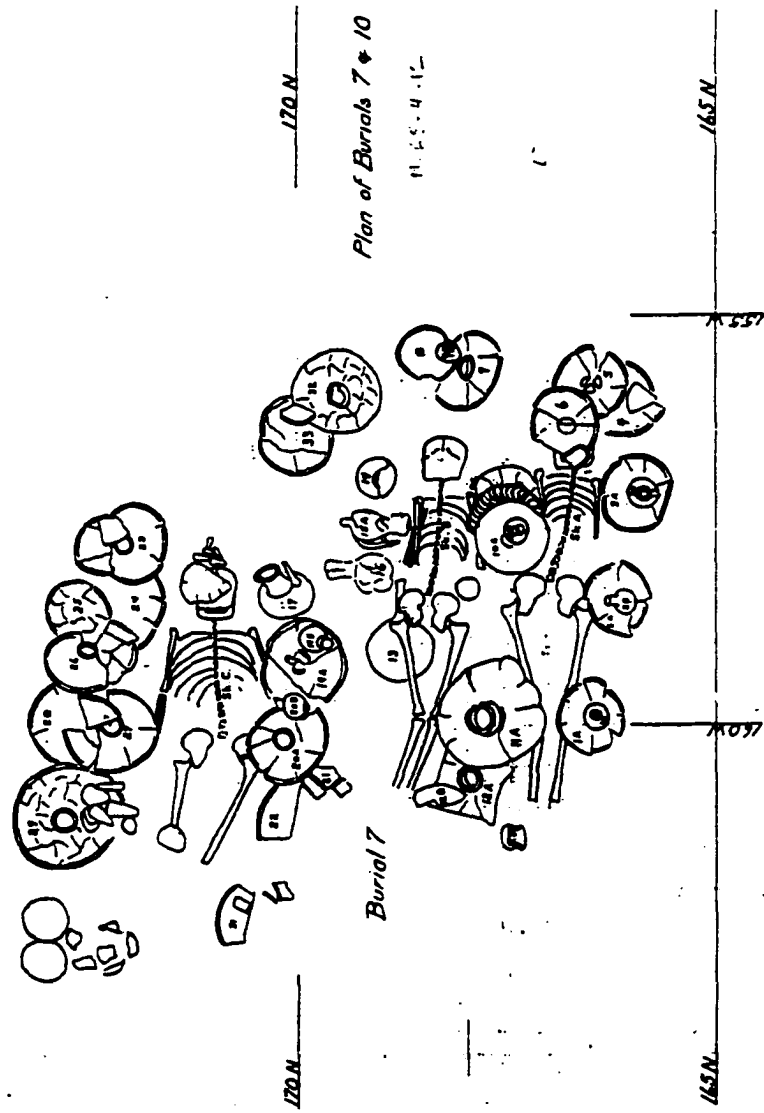


Fig. 2.7. Plan of UPM Burial 7. Note the coordinates, object field numbers, and skeletons A, B, and C.

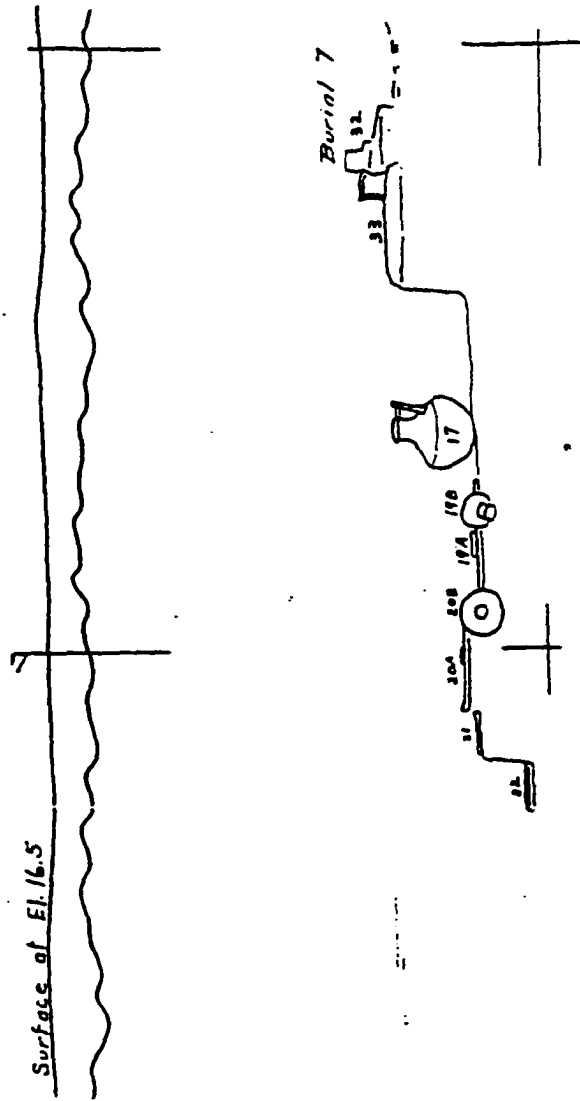


Fig. 2.8. Section of UPM Burial 7.

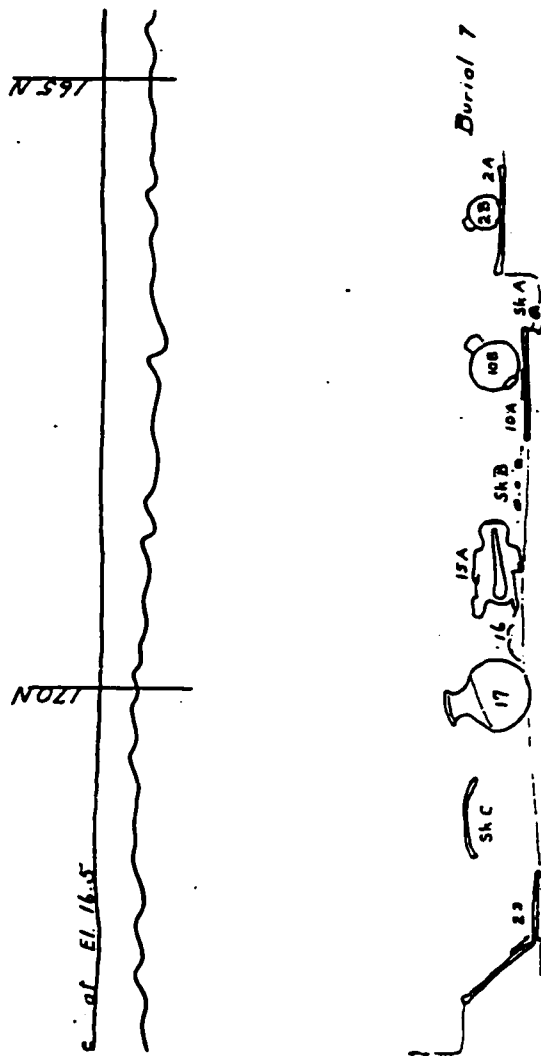


Fig. 2.9. Section of UPM Burial 7.

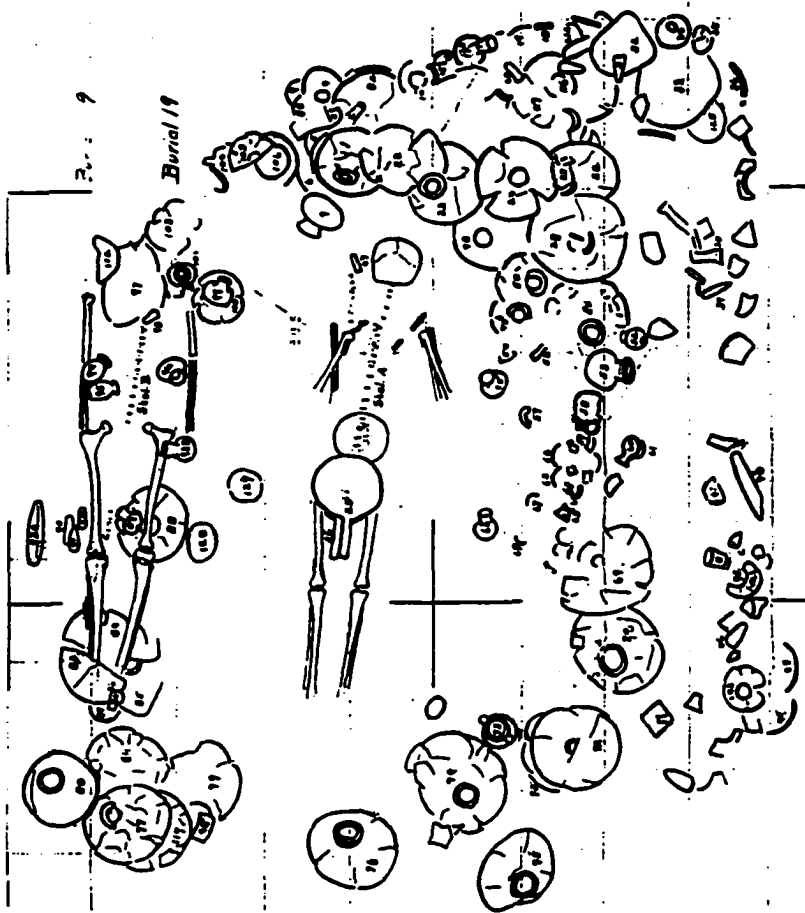


Fig. 2.10. Plan of UPM Burial 19.

<b>Burial</b>	<b>coordinates</b>	<b>elevation</b>
<b>Burial 7</b>	<b>166-173 N by 155-161.2 W</b>	<b>10.3-11.5'</b>
<b>Burial 12</b>	<b>178.6-181.6 N by 172.9-176.8 W</b>	<b>10.2-12.3'</b>
<b>Burial 19</b>	<b>165.7-174.7N by 182.9-193.7 W</b>	<b>5.5-7.2'</b>

**Fig. 2.11. Coordinates and elevations of UPM burials in this dissertation.**



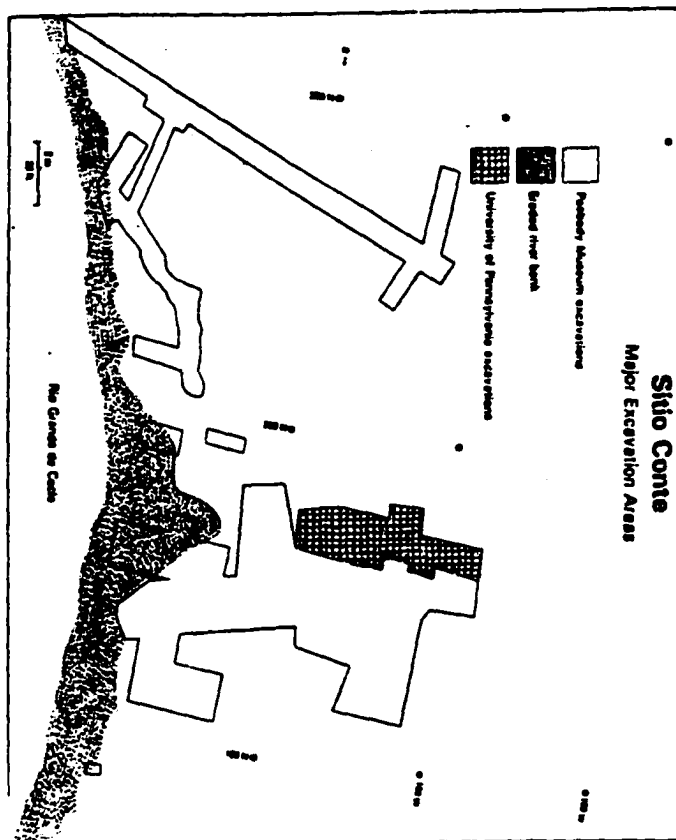


Fig. 2.12. Plan of total excavations by PMHU and UPM reoriented with North at top.

PERIOD	APPROX. DATE	STRATIFIED SERIES OF GRAVES				ISOLATED GRAVES				
DECLINE	1520	10, 11, 12		27, 28	58					
	1510						27, 28	56		
	1500									
	1490								55	
LATE	1480	8		26	23	49	45			
	1470	9								
	1460	5B, 5A		25	22	54				
	1450									
	1440	24		21	20					
	1430			19	6					
	EARLY	1420		?	18				44	
1410			16							
1400			15							
1390		7	14							
1380			17							
1370		3	13	32C	29		31			48
1360		4								
1350		2	32B							
1340										
1330		1		32A						

Fig. 2.13. Lothrop's periodization.

Period IV	Early Ceramic	ca. 3000–900 BCE	
Period V	Middle Ceramic A	900–500 BCE	
	Middle Ceramic B	200 BCE–350 CE	La Mula
	Middle Ceramic C	100 BCE–300 CE	Aristide
	Middle Ceramic D	200–750 CE	Tonosí
	Middle Ceramic E	300–900 CE	Cubitá Montijo
Period VI	Late Ceramic A	700–850	Conte
	Late Ceramic B	650–1250	Macaracas
	Late Ceramic C	950–1450	Parita
	Late Ceramic D	950–1450	El Hatillo
	Late Ceramic E	1522–	Mendoza

Fig. 2.14. Gran Coclé periodization.



Fig. 2.15. Plan of PMHU Graves 17 and 18.



Fig. 2.16. Color chart of pottery drawings.



Fig. 2.17. Lothrop's Bird motifs. Top left: Spread-eagle. Top right: Bird-which-looks-back. Middle left: Bird-which-looks-ahead, type A. Middle right: Bird-which-looks-ahead, Type B. Bottom left: Bird-with-crocodile jaws, Type A, with antlers. Bottom right: Bird-with-crocodile-jaws, Type B, with dragon tongue.



Fig. 2.18. Lothrop's Turtle motifs. Top left: full-face. Top right: profile. Middle left: Seated turtle god. Middle right: standing turtle god. Bottom: abbreviated turtle god.



Fig. 2.19. Lothrop's Crocodile motifs. Top: crocodile. Bottom: dancing crocodile gods.



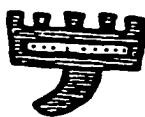


Fig. 2.20. Lothrop's three varieties of the Foot motif.

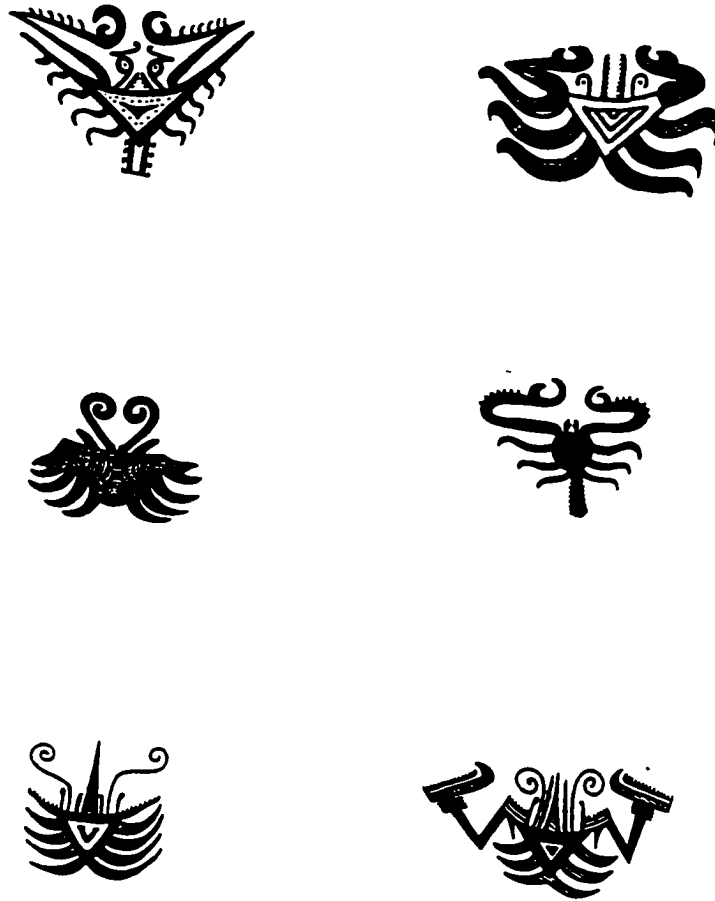


Fig. 2.21. Lothrop's Crab motifs.



Fig. 2.22. Lothrop's Scroll motifs. Top to bottom: Double YC, SY, S, Tongue, and Face.

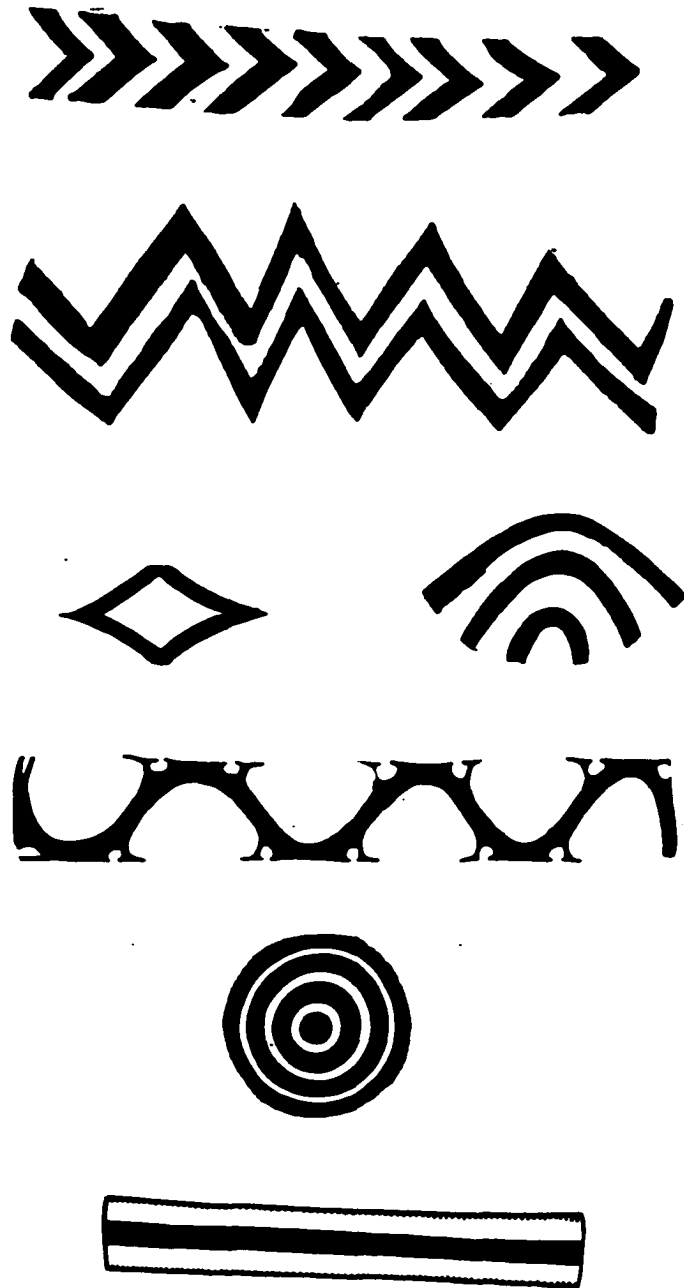


Fig. 2.23. Lothrop's Geometric motifs. Top to bottom: Herring-bone, Zigzag, Diamond, Arch, Meander, Concentric Circles, and Band.

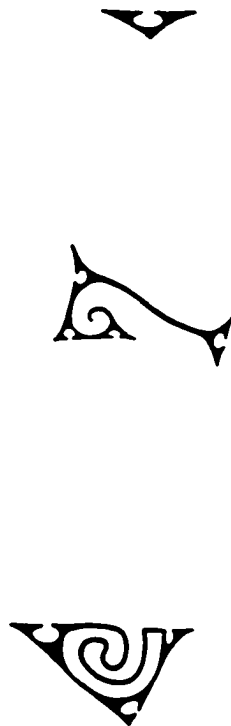


Fig. 2.24. Lothrop's space-filler motifs. Top: V Element. Middle: YC Scroll. Bottom: Snail-shell Scroll.

<u>Grave Cluster</u>	<u>Types</u>	<u>Number of Object</u>	
81	IX	12	.....
93	IX	12	.....
100	IX	12	.....
86	X	15	.....
95	IX	16	.....
88	IX	16	.....
23	VI	17	.....
19	VI	17	.....
6A	VI	18	.....
20	VI	21	.....
4	VI	22	.....
90	VII	24	.....
16	V	26	.....
2	IV	26	.....
6	VI	28	.....
24	VI	30	.....
91	III	31	.....
13	V	32	.....
74	III	39	.....
32	II	40	.....
1	I	42	.....
5	I	43	.....
26	I	46	.....

Grave Cluster Quantity

86	X	1	.
95	IX	1	.
81	IX	1	.
93	IX	2	..
88	IX	2	..
68	VI	2	..
20	VI	2	..
16	V	2	..
100	IX	3	...
23	VI	3	...
19	VI	3	...
2	IV	4	....
91	III	5	.....
4	VI	5	.....
90	VII	6	.....
6	VI	6	.....
24	IV	7	.....
13	V	9	.....
74	III	9	.....
32	II	9	.....
1	I	9	.....
5	I	10	.....
26	I	10	.....

Fig. 2.25. Pyramidal results of Briggs's cluster analyses of Sitio Conte graves. Top: object types. Bottom: motifs.



Fig. 2.26. Helms's boa markers.



Fig. 2.27. One example of Helms's curassow markers.





Fig. 3.1. Figural Motifs.

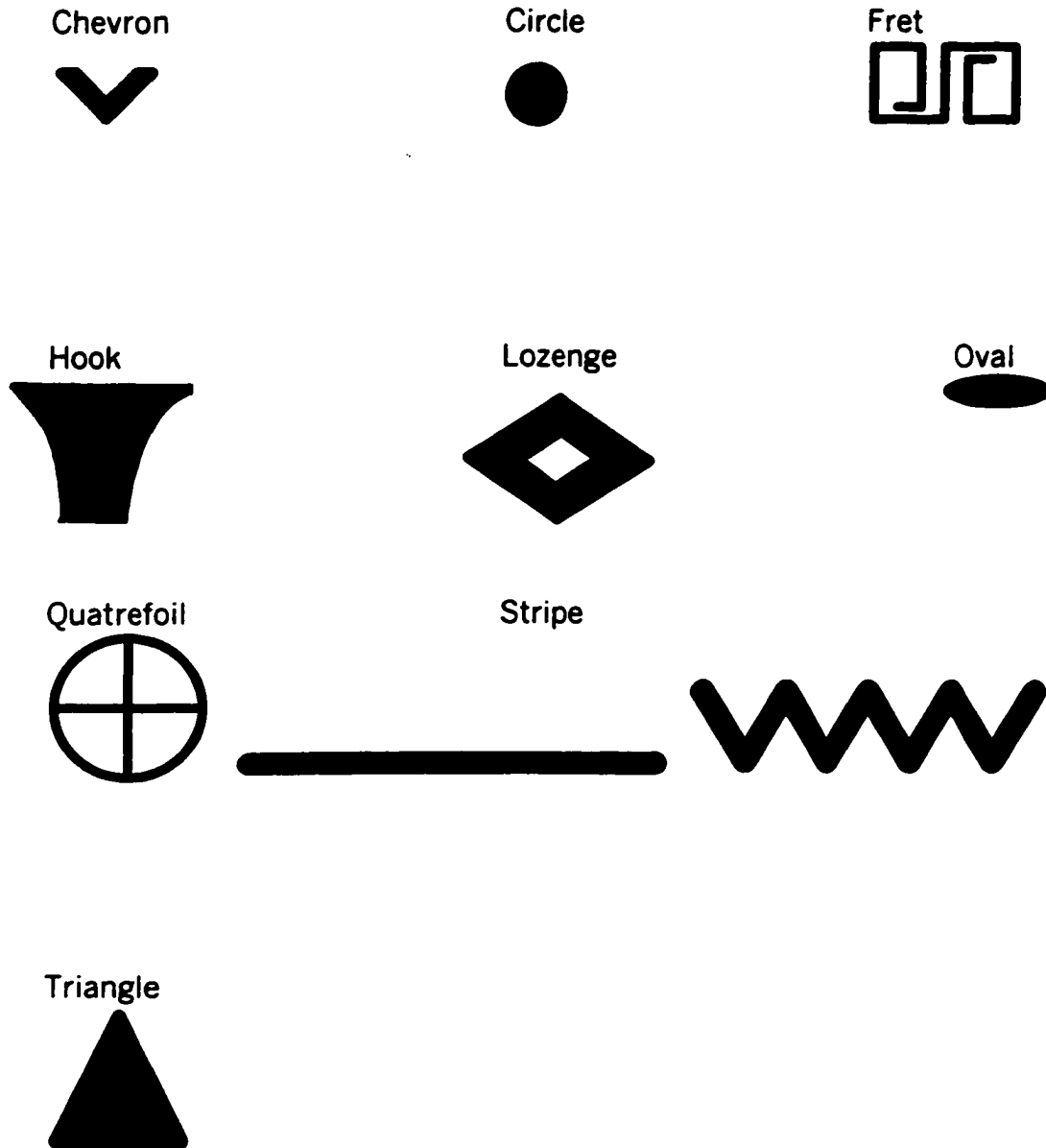
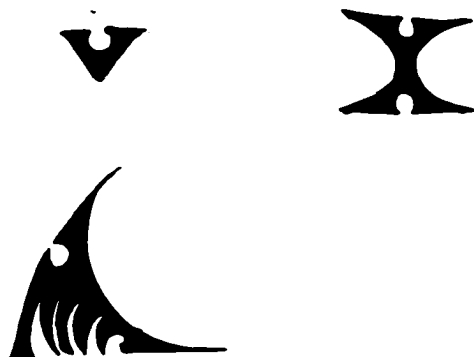


Fig. 3.2. Examples of nine of the twelve Abstract motifs. Cleft, Clefts-and-Waves, and Wave are not illustrated here.

Clefts



Waves



Clefts-and-Waves



Fig. 3.3. Abstract motifs: Cleft, Clefts-and-Waves, and Wave.

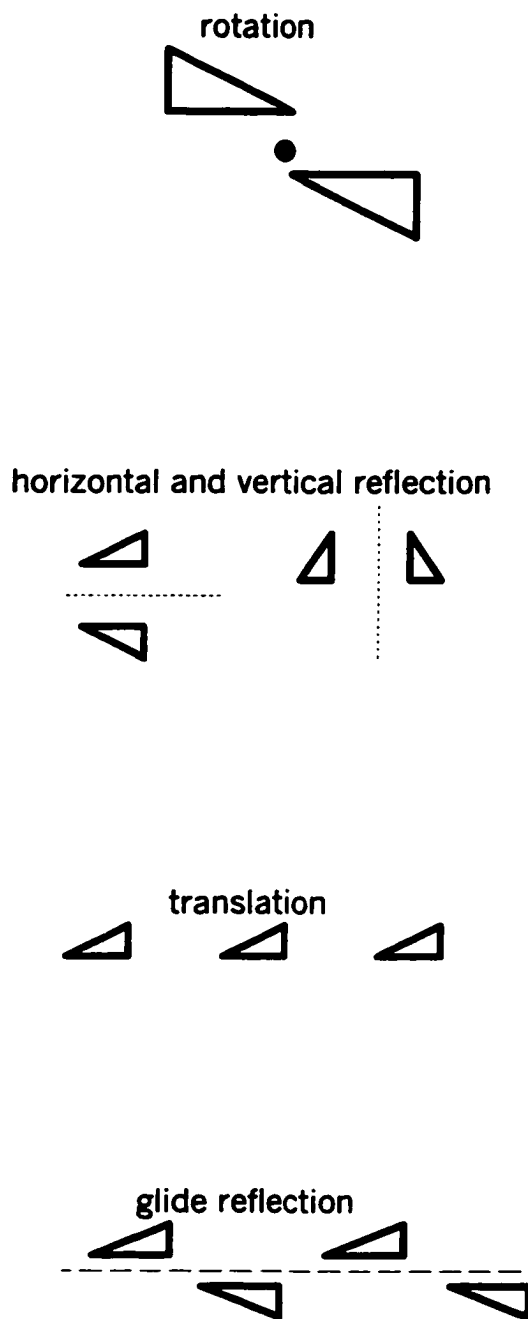


Fig. 3.4. The four symmetry motions.

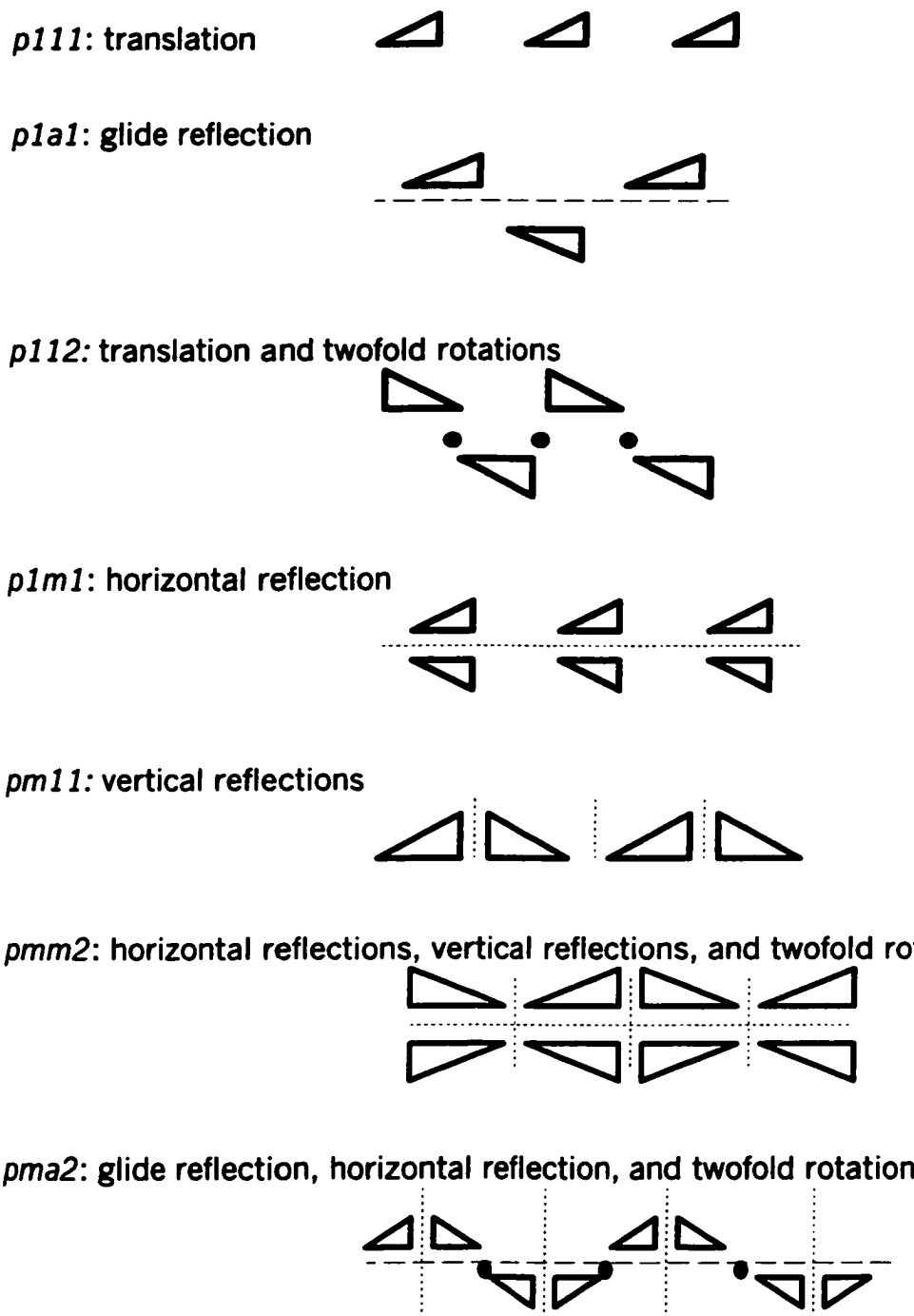


Fig. 3.5. The seven one-color one-dimensional patterns.

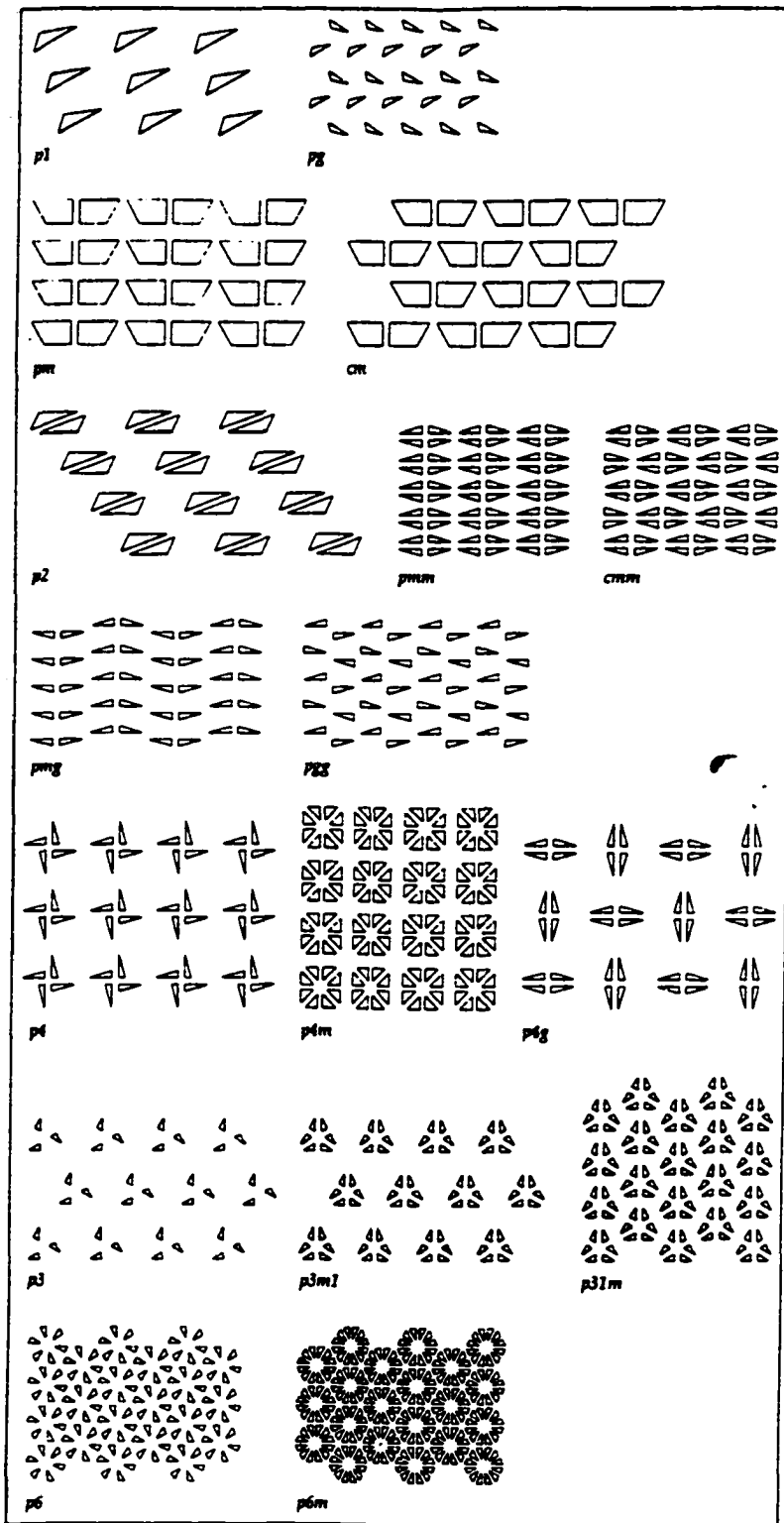


Fig. 3.6. The seventeen one-color two-dimensional patterns.

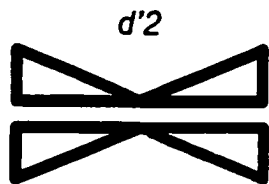
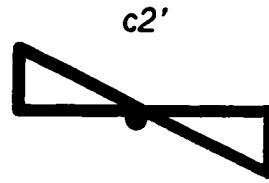


Fig. 3.7. Examples of two-color designs.

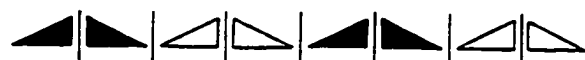
$p'111$  $p'1m1$  $p1m'1$  $p'1a1$  $p1a'1$  $p'm11$  $pm'11$  $p112'$  $p'112$ 

Fig. 3.8. Nine of the seventeen two-color one-dimensional patterns.



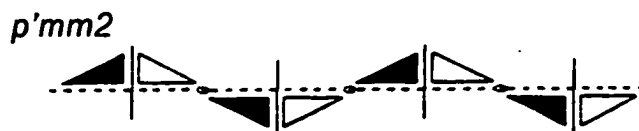
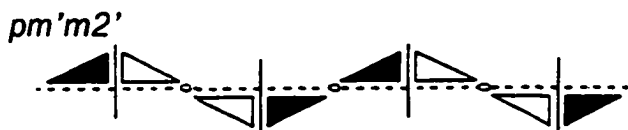
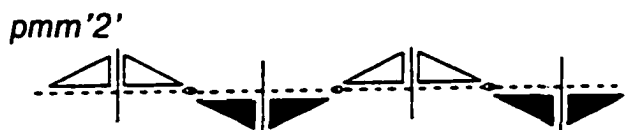
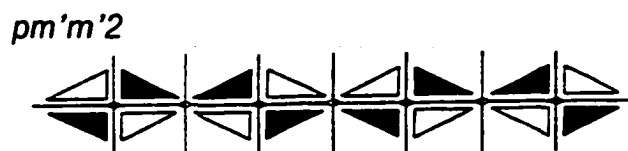
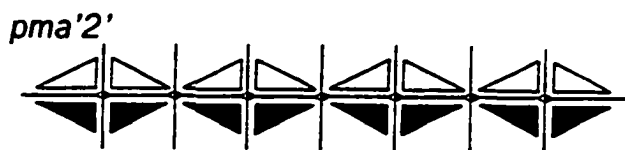
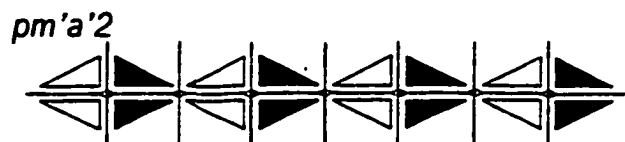
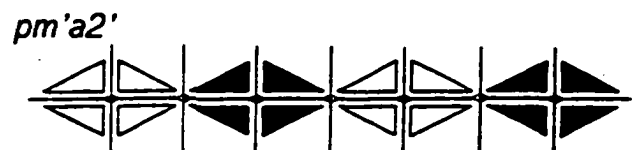


Fig. 3.9. Eight of the seventeen two-color one-dimensional patterns.

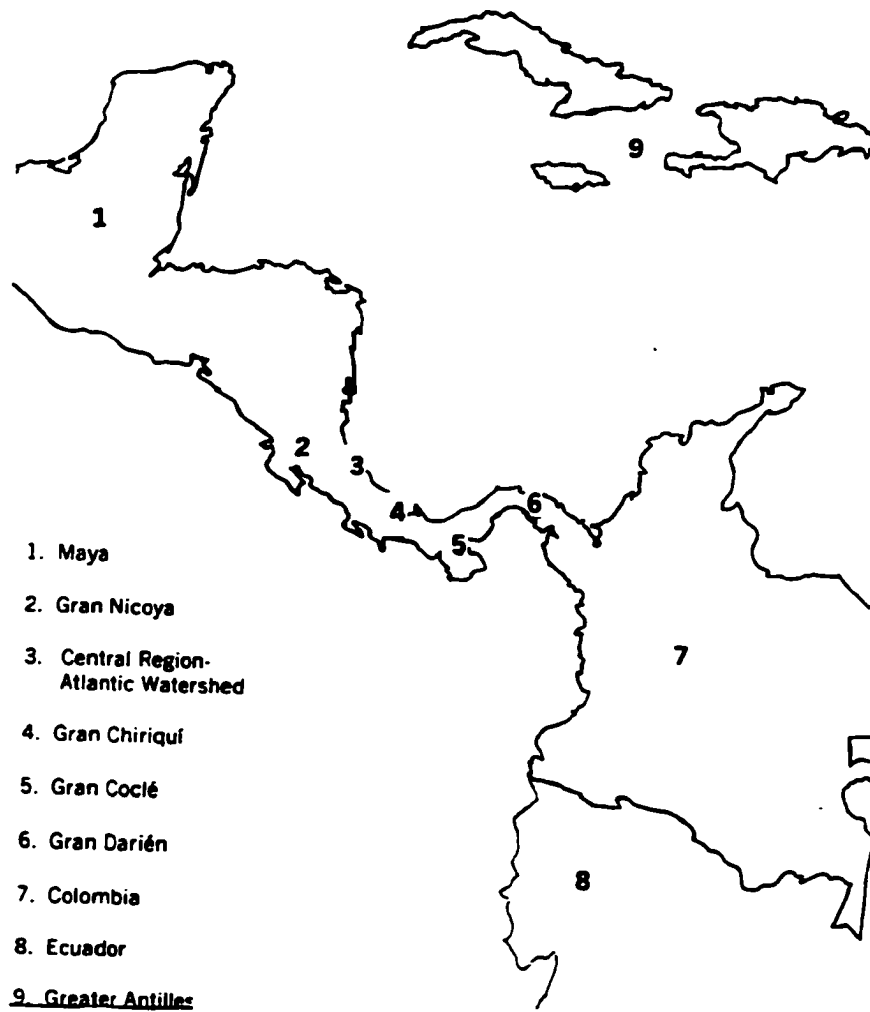


Fig. 3.10. Archaeological regions of eastern Mesoamerica and the Intermediate Area discussed in the text.

Grave 1–Layer 2 Old Man I, Adult Man II, Adult Man III, Aged Man IV

Grave 7 Young Adult Man

Grave 13–Layer 6 Aged Man I and Adult Woman(?) II

Grave 17 Adult Man

Grave 23 Aged Man I, Aged Woman II

Grave 43 Adult Man

Burial 7 Adult Woman A, Adult Man B, Man C

Burial 12 Adult Man

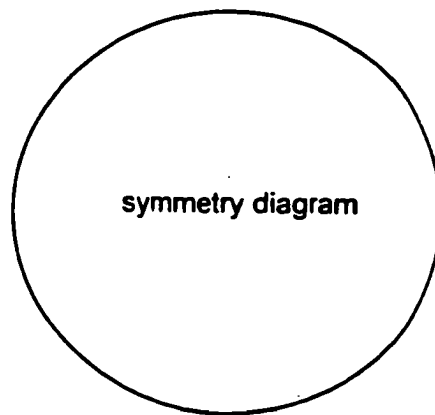
Burial 19 Adult Man A, Adult Woman B

Fig. 4.1. The deceased in the Sitio Conte graves.

interior palette  
rim palette  
exterior palette

vessel title  
burial program

bibliography  
print roll



design unit(s)

symmetry class

irregularities

Fig. 4.2. Data sheet: side 1.

Function  
dimensions

vessel title

Design-symmetry, cont'd

Burial  
condition  
position  
placement

Fig. 4.3. Data sheet: side 2.

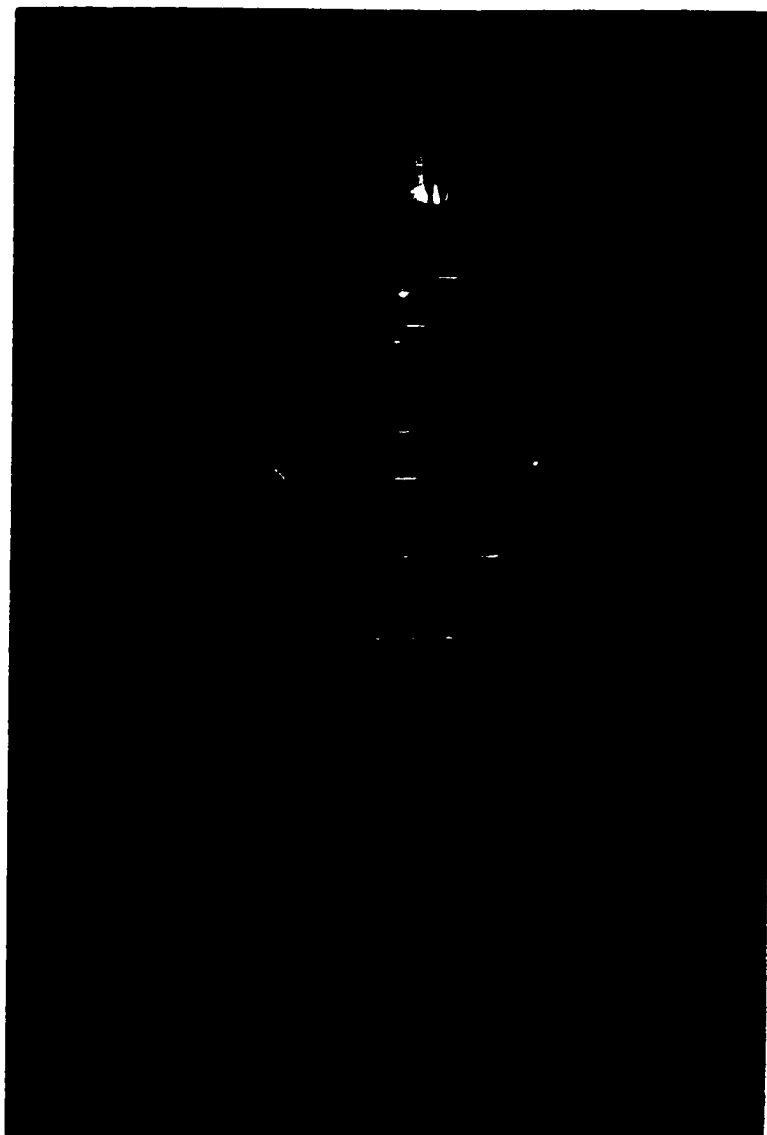


Fig. 5.1. Altered jadeite celt-pendant from Guanacaste, Gran Nicoya, Costa Rica.

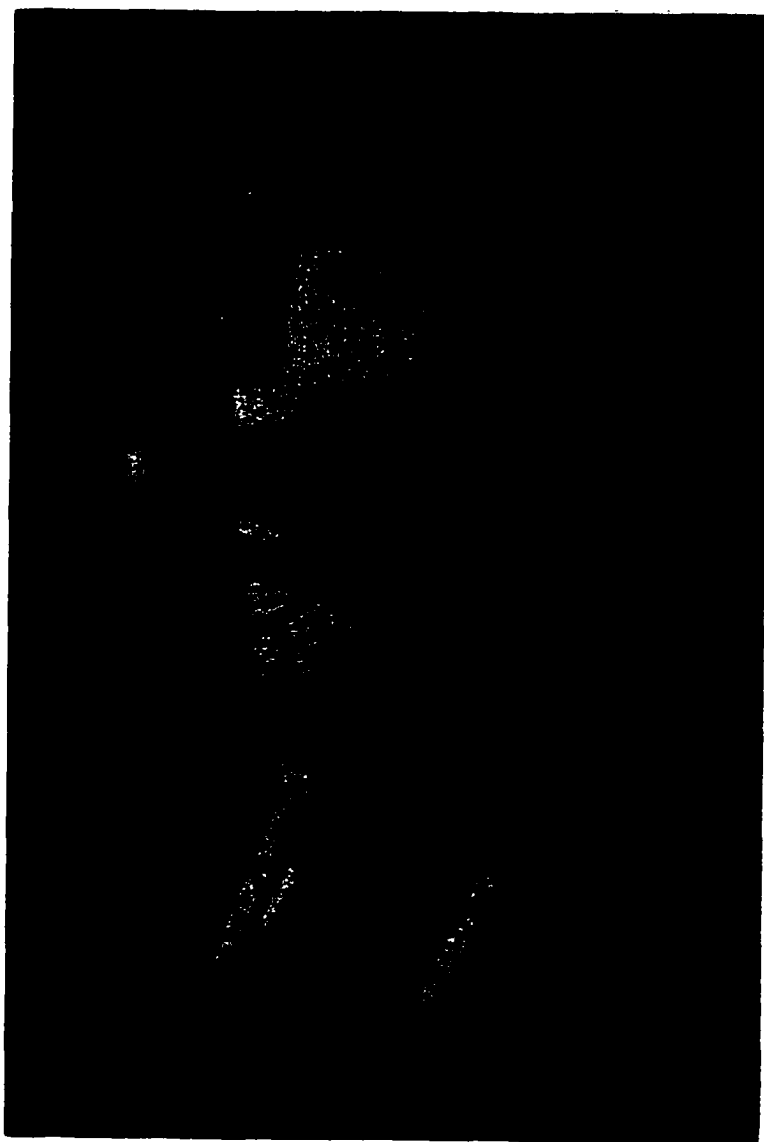


Fig. 5.2. *Metate* from Guanacaste, Gran Nicoya, Costa Rica.

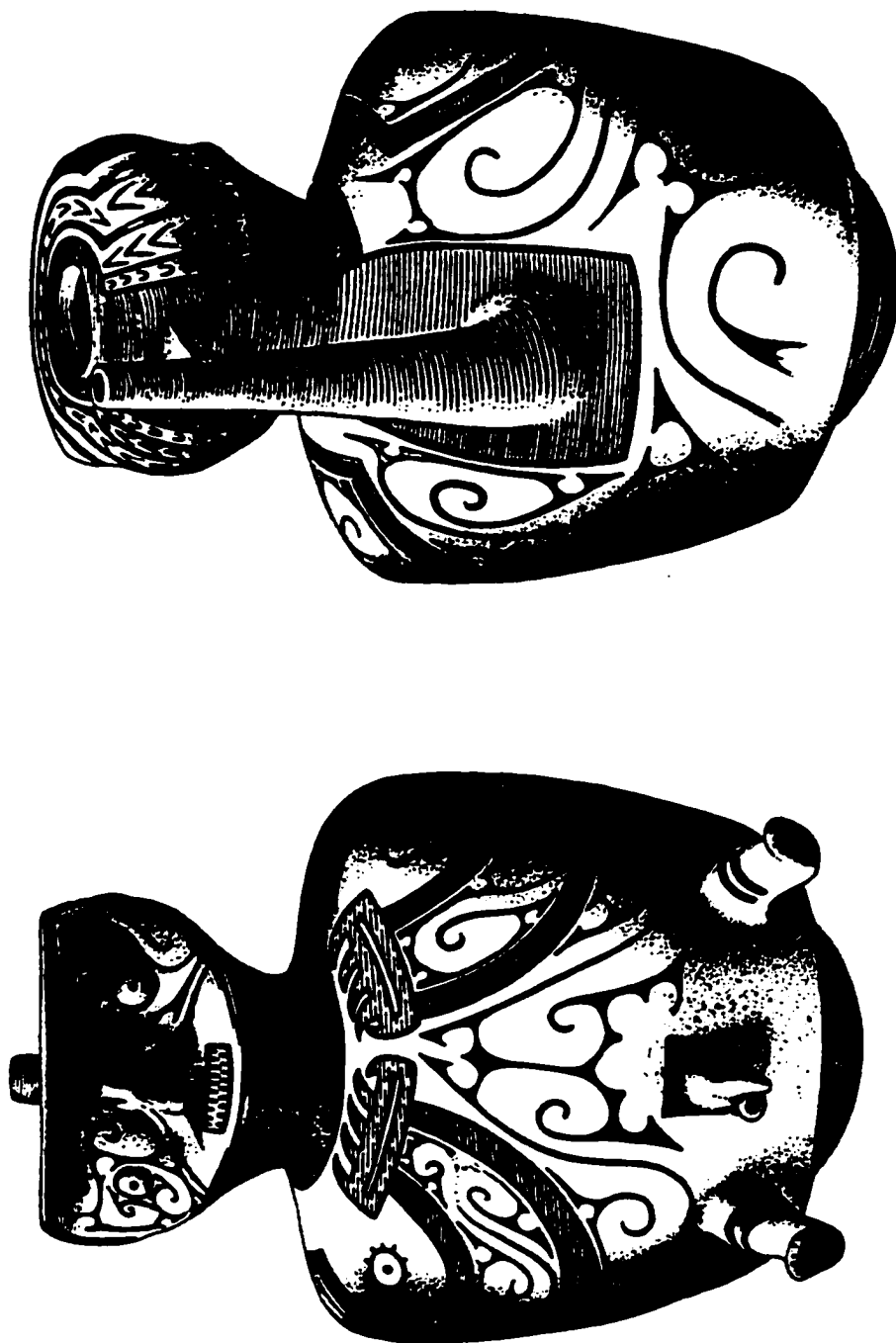


Fig. 6.1. Seated male effigy vessel from PMHU Grave 1 with Clefts-and-Waves motif on his face, arms, chest, and back.





Fig. 6.2. Clefts-and-Waves and Cleft motifs on the back of a seated male effigy from PMHU Grave 7.

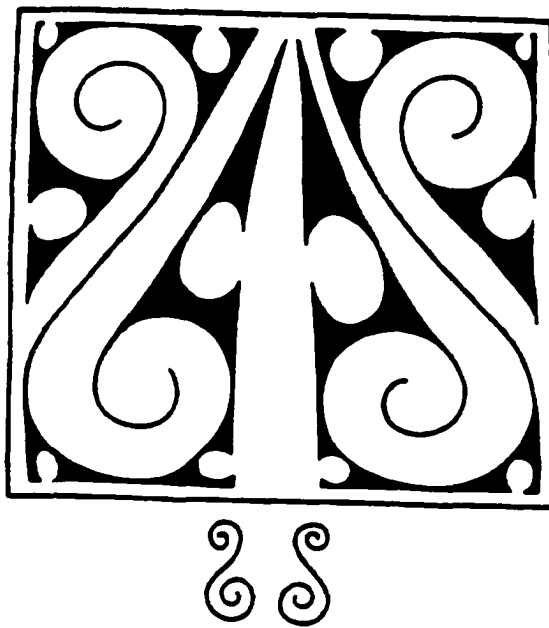


Fig. 6.3. The Clefts-and-Waves motif on the back of a seated human effigy carafe from PMHU Grave 13-Layer 6.



Fig. 6.4. Back of human effigy jar from UPM Burial 12.



Fig. 6.5. Effigy from PMHU Grave 26.



Fig. 6.6. Effigy head lid from UPM Burial 19.

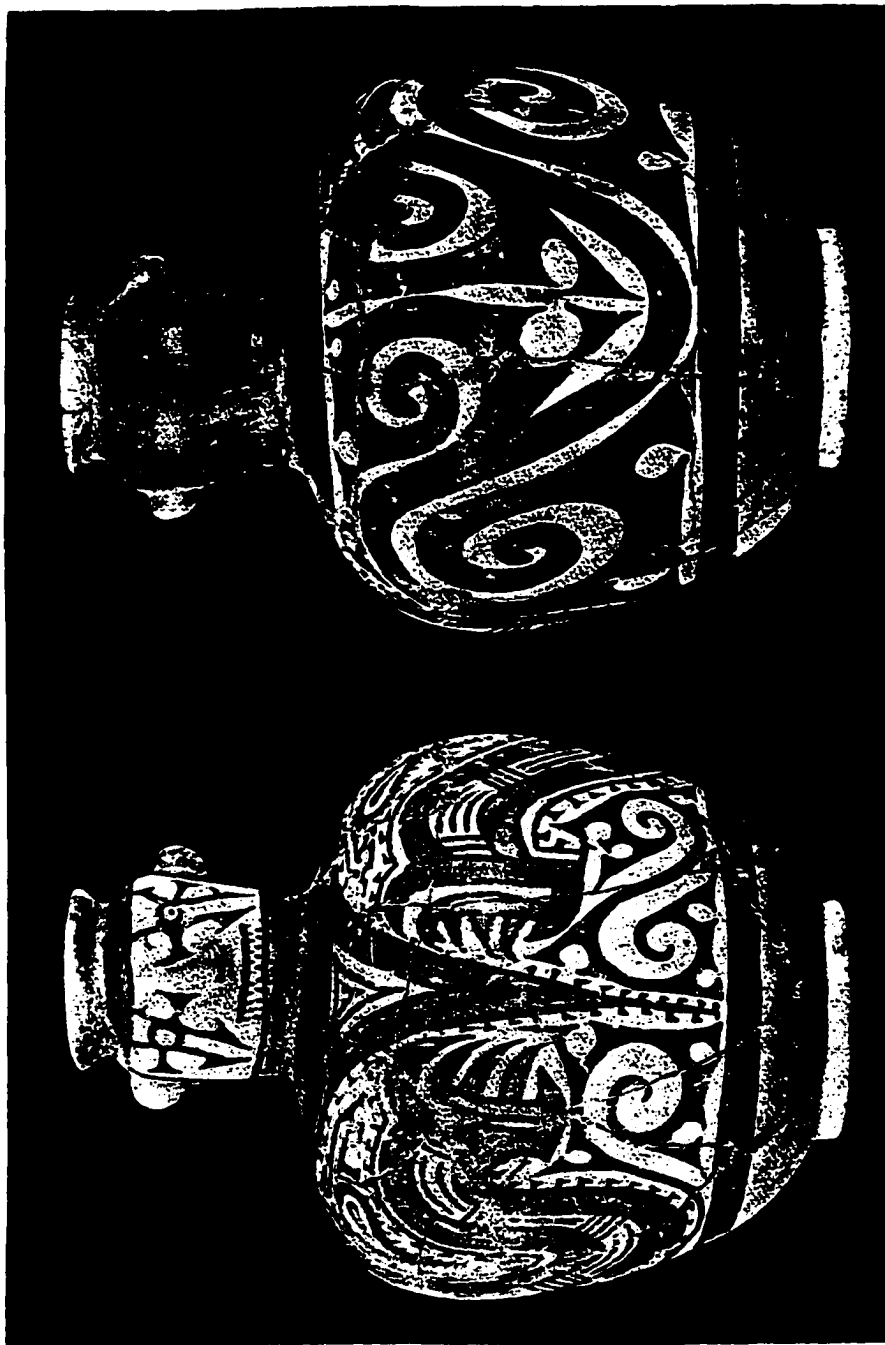


Fig. 6.7. Effigy carafe from PMHU Grave 4 with a Hook motif radiating from both eyes.



Fig. 6.8. Spouted effigy carafe with the Oval motif on the head from PMHU Grave 26.

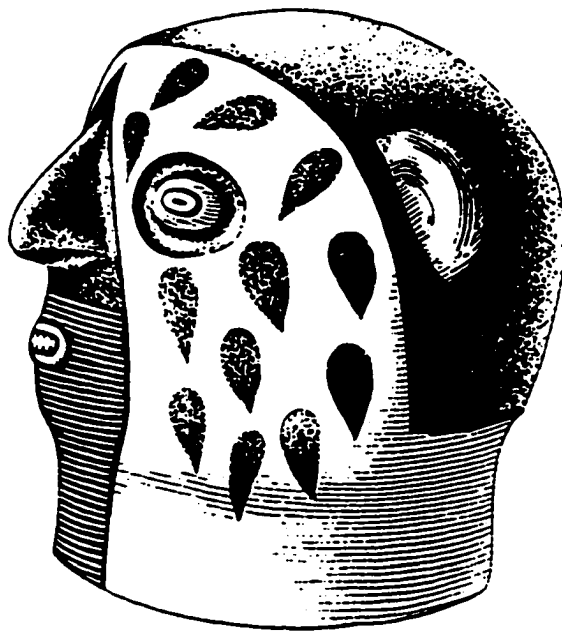


Fig. 6.9. Effigy head lid with the Oval motif from PMHU Grave 26.





Fig. 6.10. Human effigy vessel from Coclé village.



Fig. 6.11. Effigy of a reclining man holding a *poporo*. Reportedly from Montijo, Veraguas.

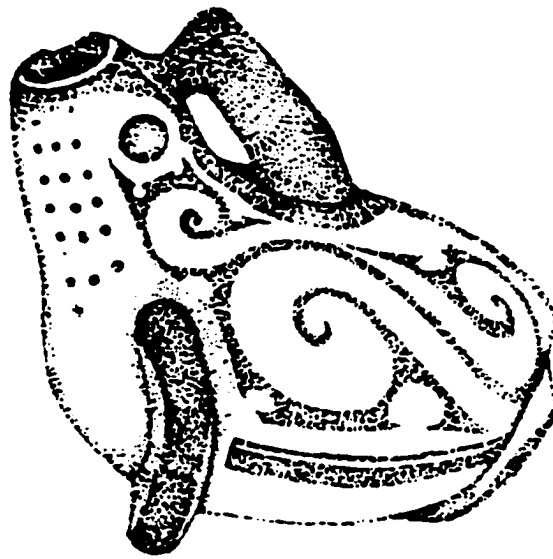


Fig. 6.12. Toad effigy.



Fig. 6.13. Crab effigy.



Fig. 6.14. Turtle effigy.

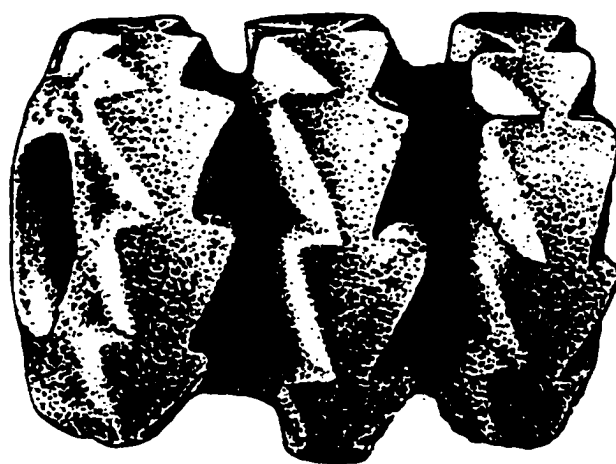


Fig. 6.15. Roller stamp from Sitio Hector Conte.



Fig. 6.16. Roller stamp.



Fig. 6.17. Roller stamps purchased by the PMHU.



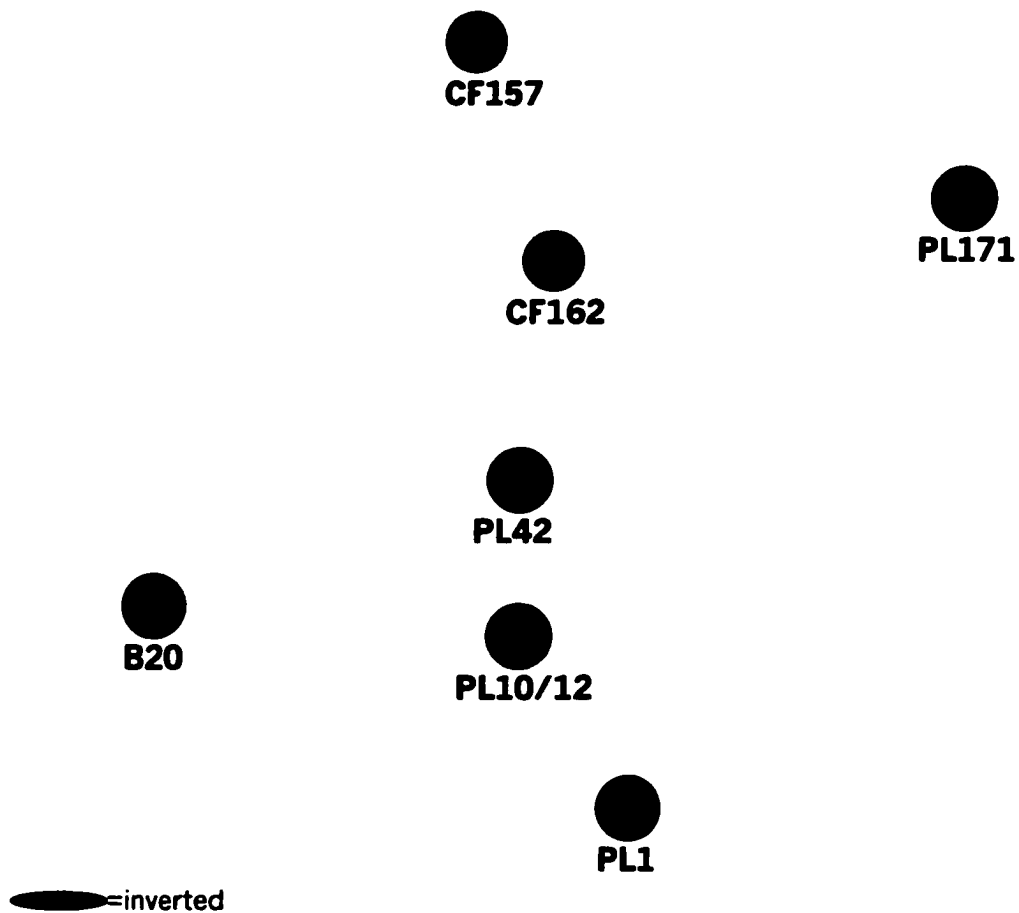


Fig. 7.1 Plan of PMHU Grave 13-Layer 8.

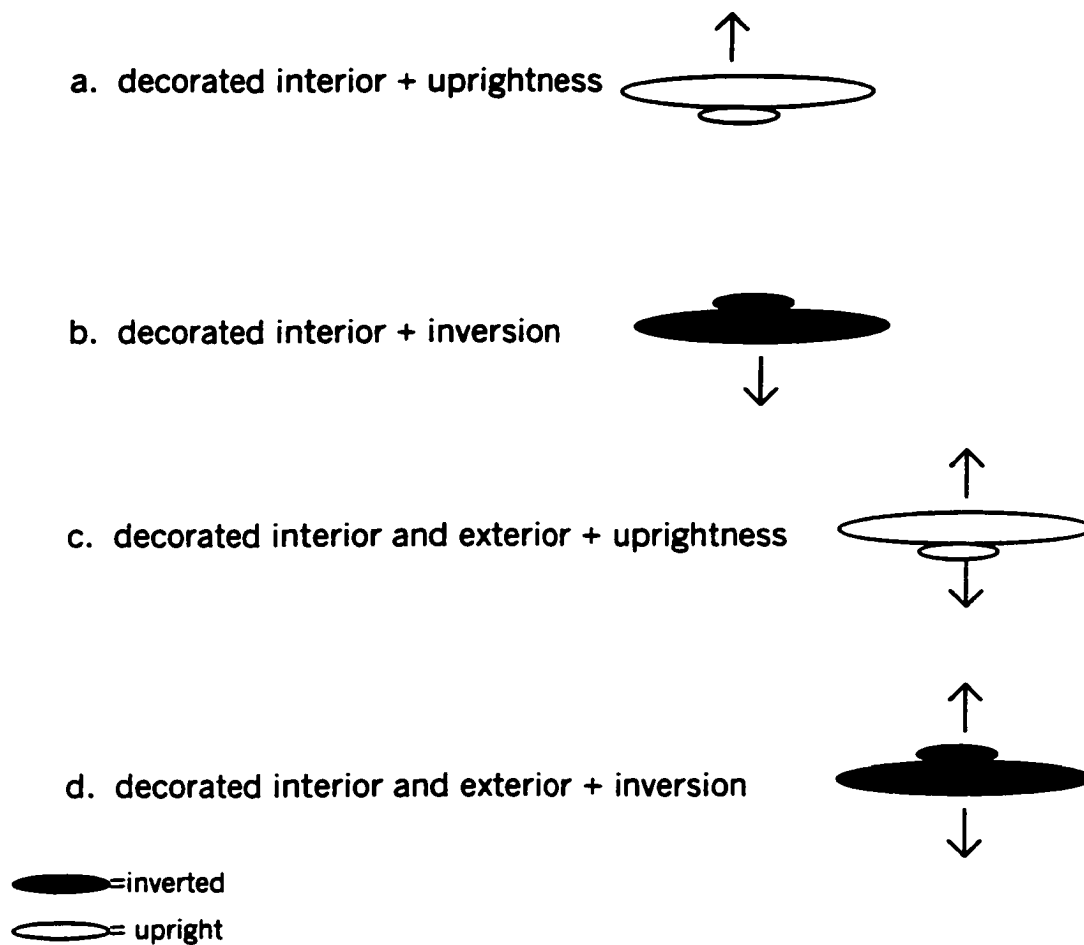
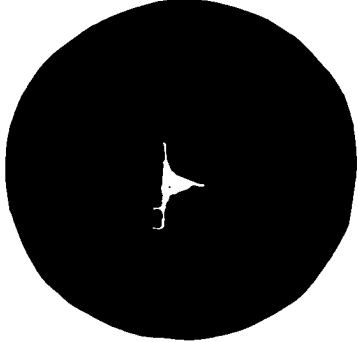
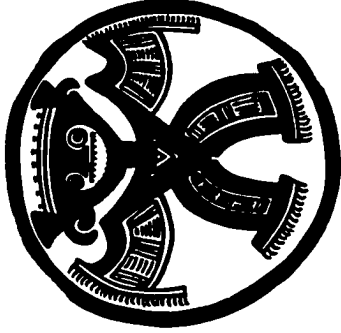


Fig. 7.2. Painting orientations.



PL1/INT



B20/INT



PL171/INT

Fig. 7.3. The program of PMHU Grave 13–Layer 8. All paintings are oriented to Below.



B5/INT



B1/INT

Fig. 7.4. The program of PMHU Grave 43.

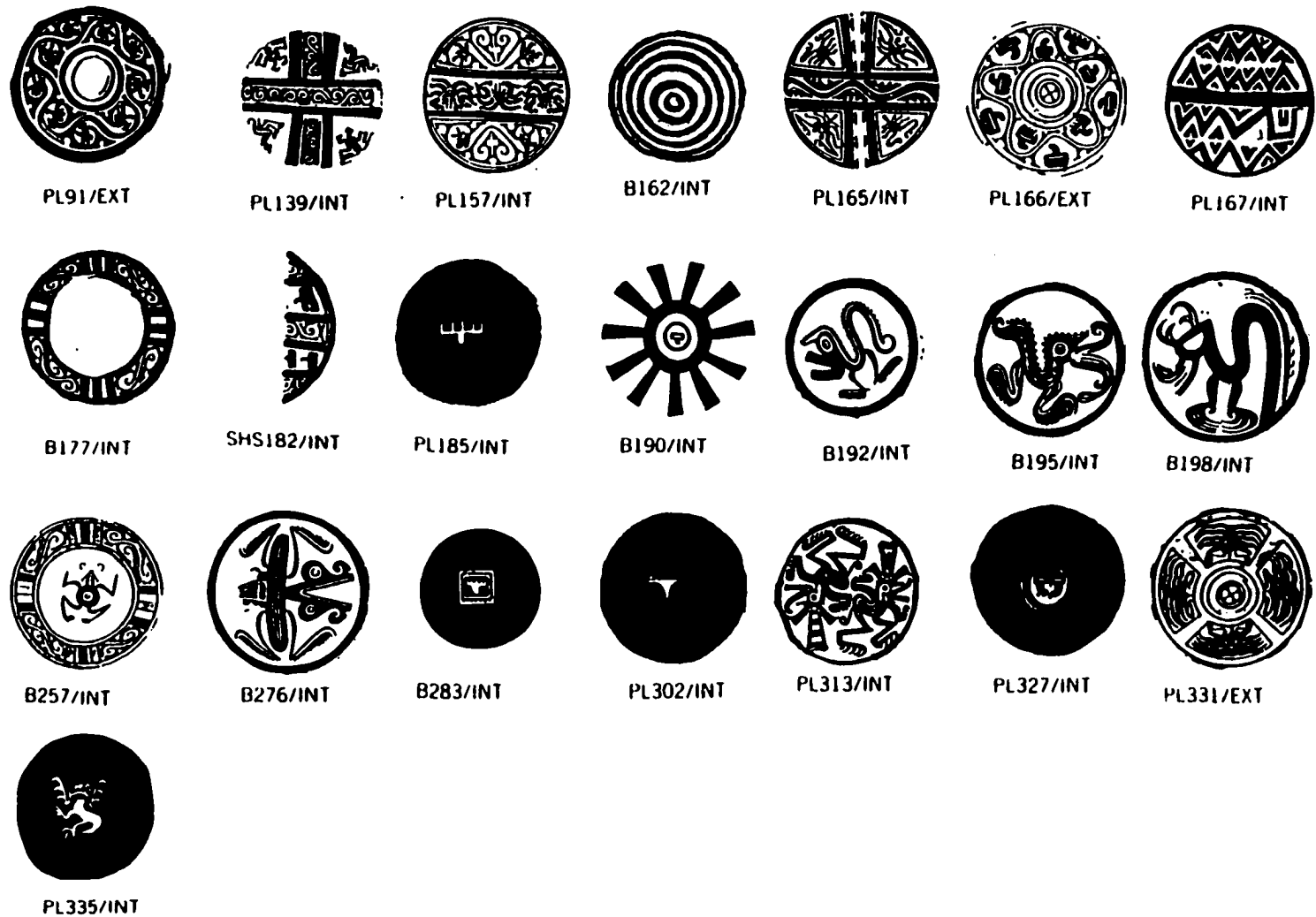


Fig. 7.5. The program of PMHU Grave 1: Above members.



Fig. 7.6. The program of PMHU Grave 1: Below members.

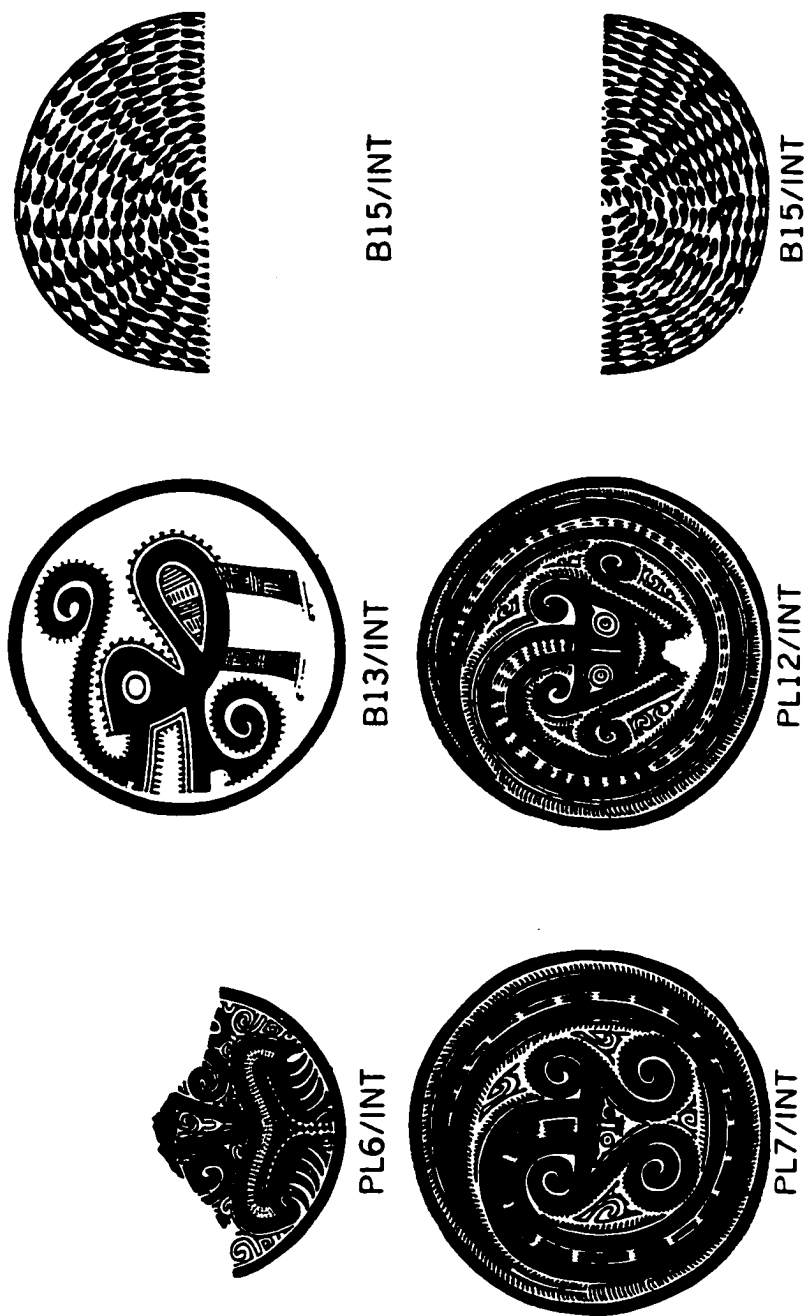
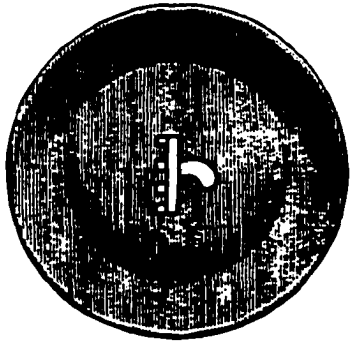


Fig. 7.7. The program of PMHU Grave 17. Top: Above-members. Bottom: Below-members.



B18/INT



B23/INT



PL22/INT



PL4/INT

Fig. 7.8. The program of PMHU Grave 7. Top: Above-members. Bottom: Below-members.



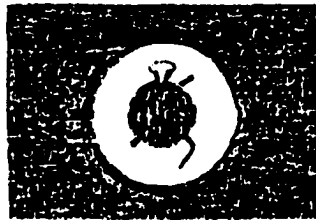


Fig. 7.9. The program of UPM Burial 7. Top: Above-members. Bottom: Below-members.

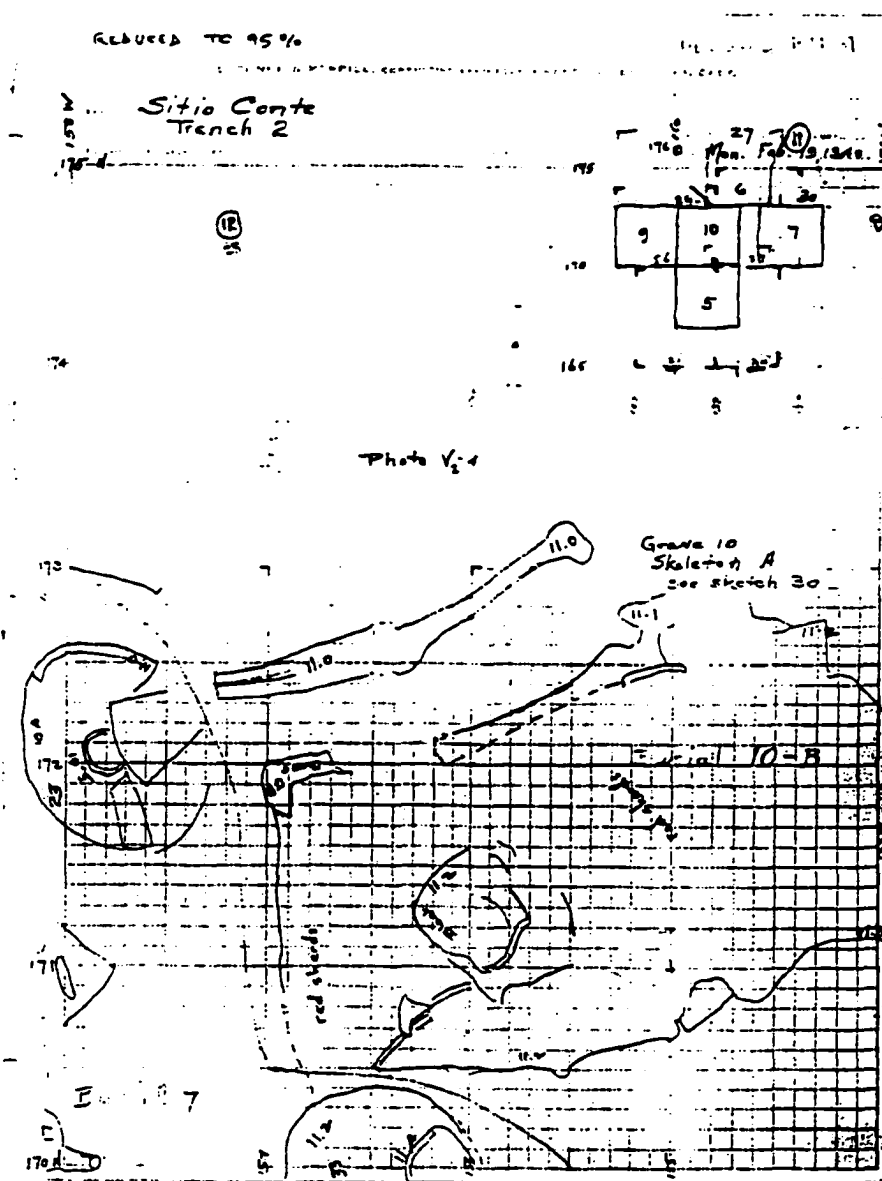


Fig. 7.10. Robert Merrill's sketch of part of UPM Burials 7 and 10B. Note the upright sherd resting on top of PL23.

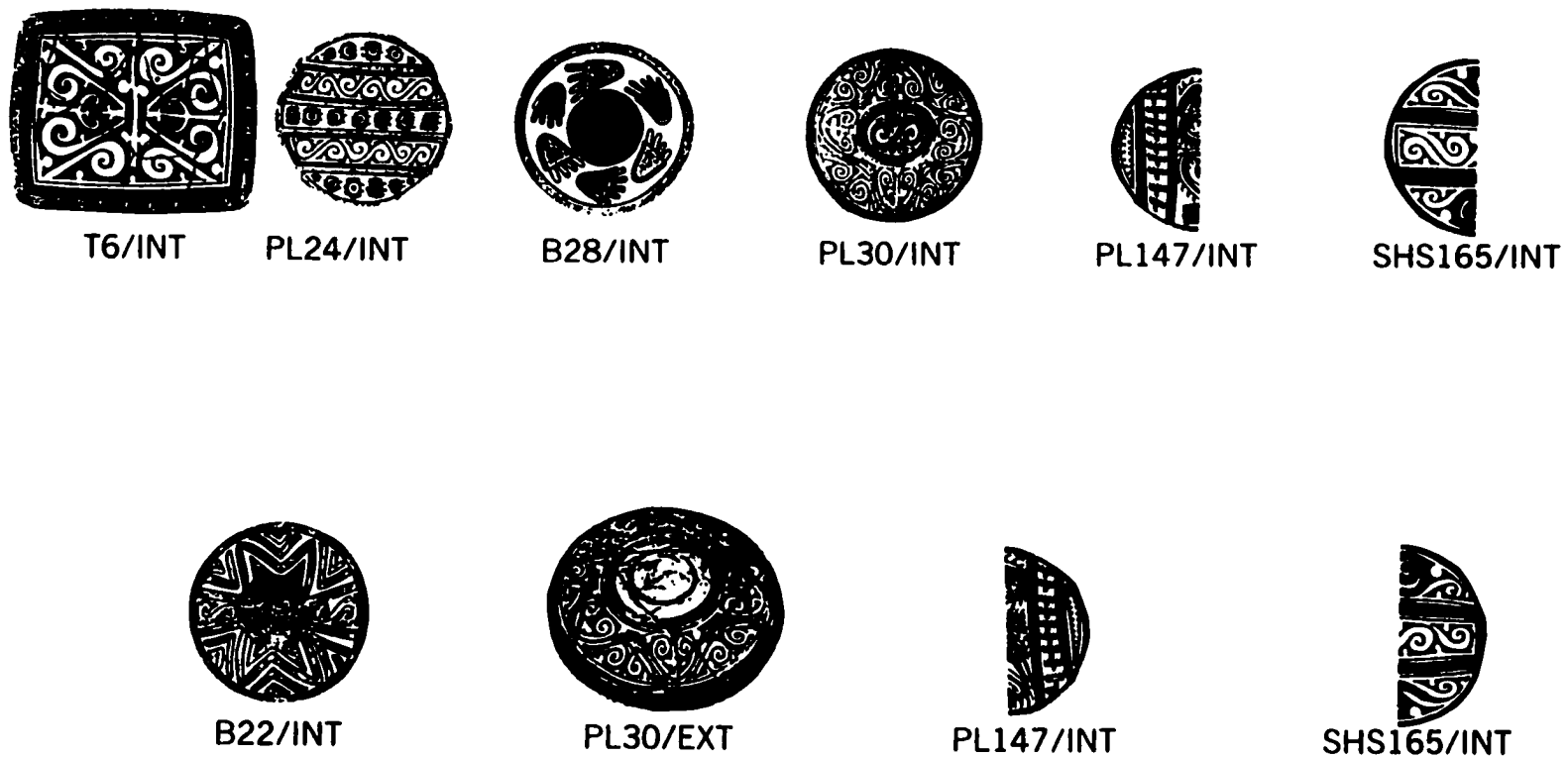


Fig. 7.11 The program of PMHU Grave 13-Layer 6. Top: Above-members. Bottom: Below-members.

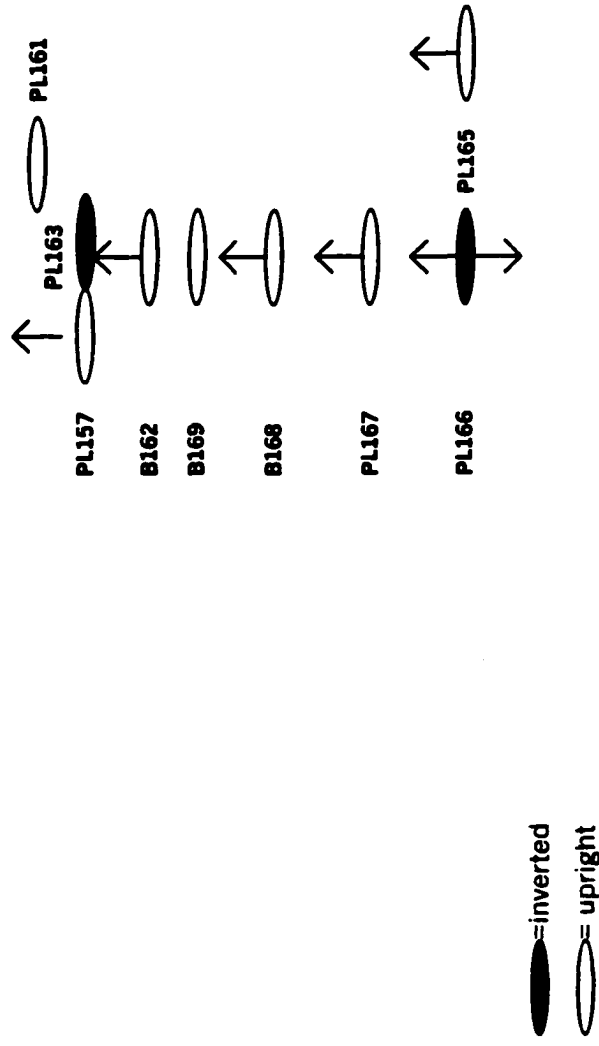


Fig. 7.12. Nest 157-169, PMHU Grave 1.

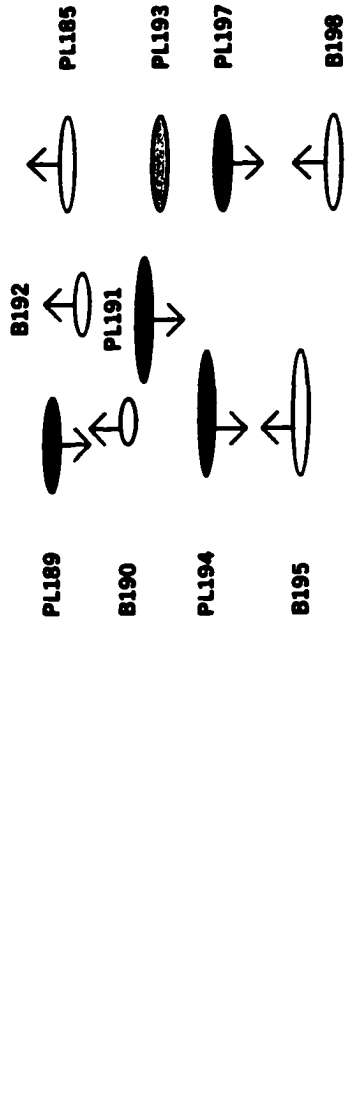


Fig. 7.13. Nest 170-198, PMHU Grave 1.

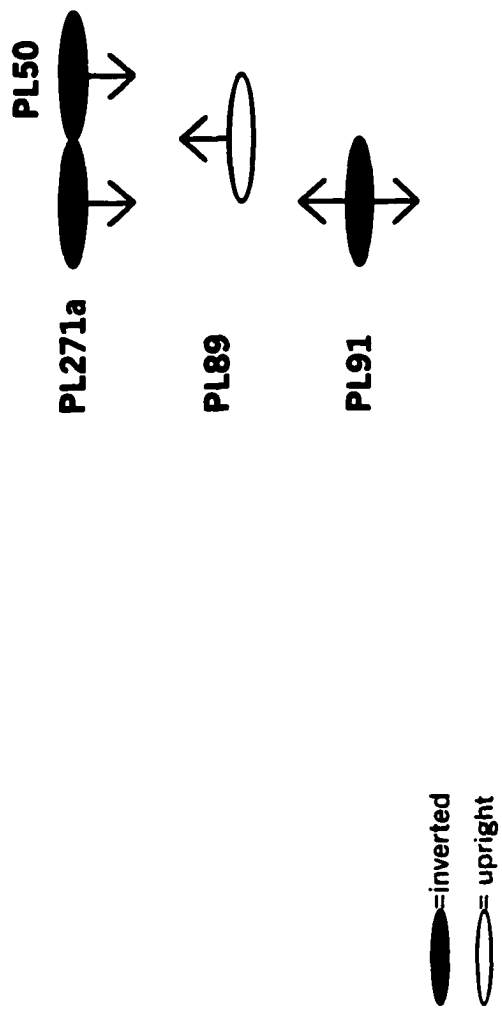


Fig. 7.14. Nest 50-271a, PMHU Grave 1.



Fig. 7.15. Nest 23-29, UPM Burial 7.

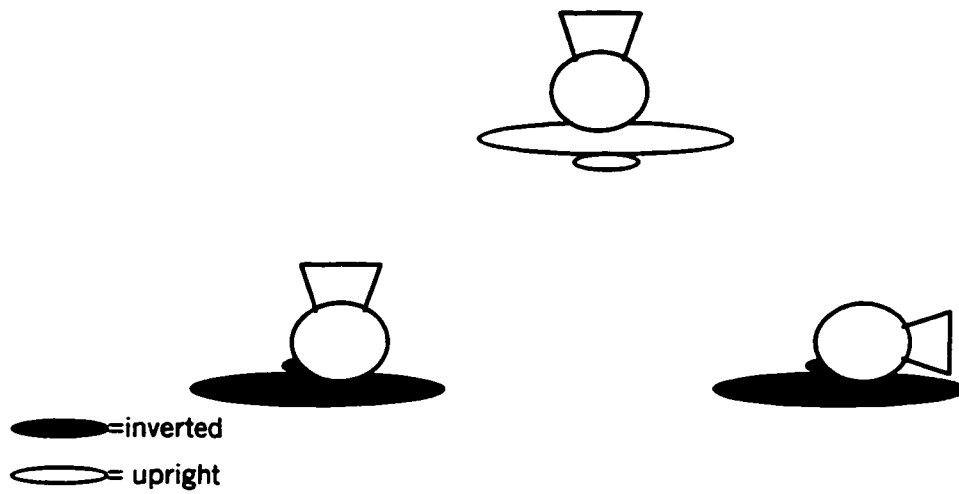


Fig. 7.16. Plate-and-carafe pairs. Top: upright plate and carafe (rare). Bottom: inverted plate and upright or sideways carafe (common).



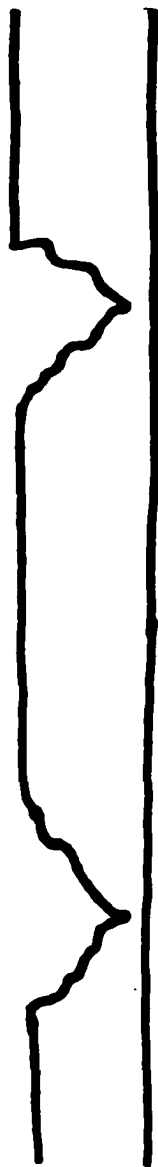


Fig. 8.1. Maya earth band.



Fig. 8.2. Turtle effigy vessel with human head lid from the Sitio Conte cemetery.

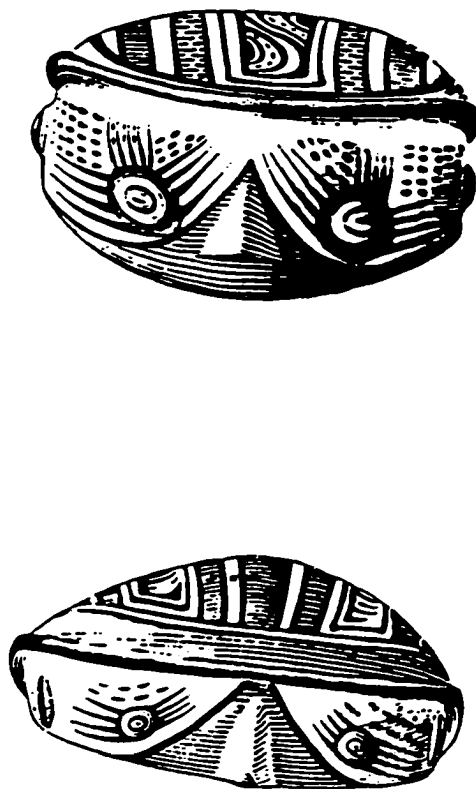


Fig. 8.3. Head effigies without mouths from PMHU Grave 5.

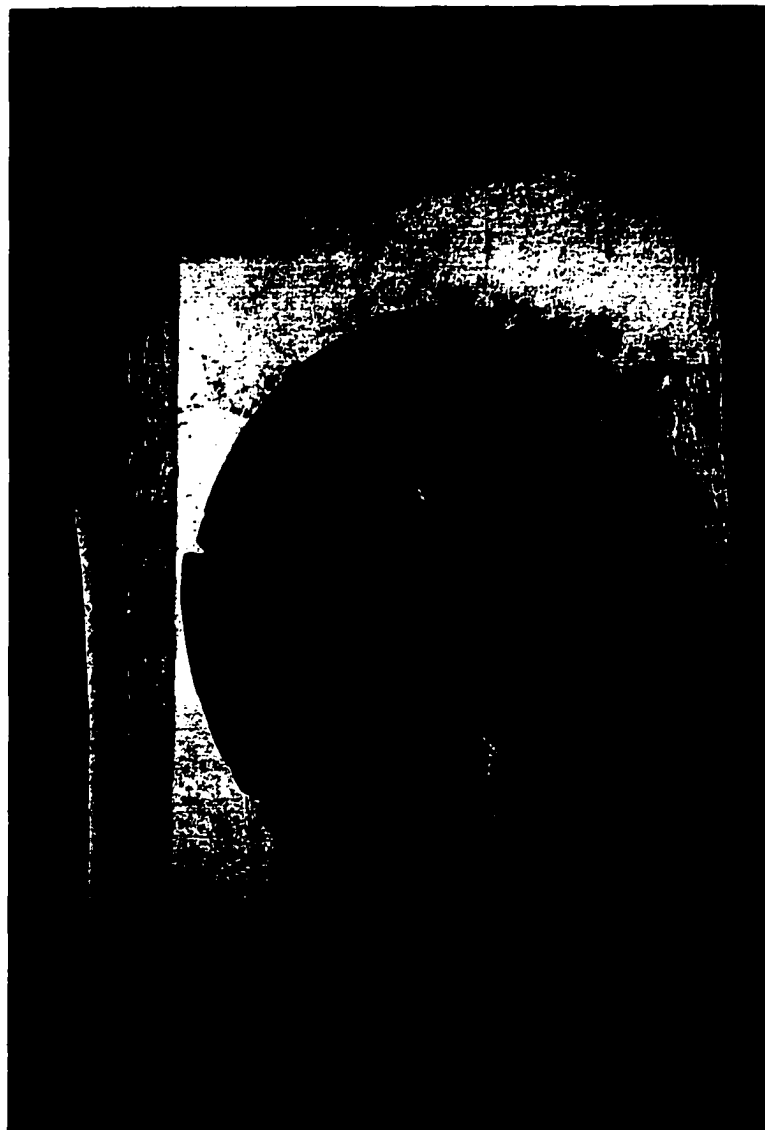


Fig. 8.4. Plate-and-bowl vessel from UPM Burial 12c.

## THE CATALOGUE

This catalogue contains entries for all 152 paintings discussed in this dissertation. Unless noted otherwise at the beginning of an entry, each vessel was examined at the museum. The entries are in the order of their dissertation catalogue numbers. These numbers follow a particular sequence: PMHU Graves 1, 7, 13, 17, 23, and 43 and the UPM Burials 7, 12, and 19. The vessel "title" below the catalogue number consists of the following data: vessel type (see List of Abbreviations) and field number(s)/interior (INT) or exterior (EXT)/grave. The next line of information explains the museum location and catalogue number. The entry continues with citations for illustrations in this dissertation. The commentary on the vessel paintings includes interpretations by previous researchers followed by the data and issues pertinent to the analysis of decoration and deposition in this dissertation. A photograph and/or drawing of each vessel is provided

PB1/INT/G1  
 PMHU 33-42-20/630  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

The vessel was unavailable for examination at the PMHU. Lothrop classified this interior painting as Early Polychrome ware ware.<sup>1</sup> Red, white, and black are the colors. He identified the subject as a turtle.<sup>2</sup>

Figural and Abstract motifs occur in this painting. This painting combines a creature and skin decoration. In terms of symmetry, the motifs join an asymmetrical Figural motif and a one-dimensional Abstract pattern (*cl+p1a1*). The Figural motif is asymmetrical and the Clefts-and-Waves motif is organized as a one-dimensional pattern by glide reflection (*p1a1*). Regarding irregular symmetry, the glide reflection of the Clefts-and-Waves motif consists of irregularly shaped Clefts in that they are single or double (irregular *p1a1*). No color or motion irregularity occurs in this painting.

The pedestal bowl was broken and inverted in Grave 1.<sup>3</sup> This interior painting acted as a Below-member of the grave program.

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1. Lothrop, *Coclé Part II*, 55.

2. *Ibid.*

3. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL21/INT/G1  
 PMHU 33-42-20/645  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Photograph by author.

Lothrop identified this interior painting as Early Polychrome ware ware.<sup>4</sup> Red, orange, black, and white are the colors. He further classified it as Style A (Firm and thin-line style of Grave 1) with two red pigments.<sup>5</sup> Lothrop interpreted the subject as a dancing crocodile god.<sup>6</sup>

Figural and Abstract motifs occur in this painting. The Figural motif wears ligatures around its wrists, shoulders, thighs, knees, and ankles.<sup>7</sup> In terms of the symmetry, the Figural motif is rotated (c2). The Cleft is asymmetrical. Regarding irregular symmetry, a shape irregularity is the unequal amounts of digits and ligatures. A color irregularity might be present: one foot of one copy is orange in contrast to the red feet of the other copy (irregular c2). However, it is a repainted area as the painting today differs from the one photographed for the site report. One Figural motif gained sets of ligatures at its shoulders. No motion irregularity occurs in this painting.

This plate was broken and inverted in Grave 1.<sup>8</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above.

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4. Lothrop, *Coclé Part II*, Pl. I.

5. *ibid.*, 187.

6. *ibid.*, 53.

7. Helms, *Creations of the Rainbow Serpent*, 17.

8. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL40/INT/G1  
 PMHU 33-42-20/662  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was unavailable for examination at the PMHU. Lothrop classified this interior painting as Early Polychrome ware ware.<sup>9</sup> Red, purple, black, and white are the colors. Lothrop identified the two subjects as a Triple YC scroll and a crab.<sup>10</sup>

Figural and Abstract motifs occur in this painting. This combines a living creature and skin decoration. In terms of symmetry, the two motifs form a one-color design and one-dimensional pattern ( $d1+p1a1$ ). The Figural motif is bilaterally symmetrical ( $d1$ ) and the Clefts-and-Waves motif is glide reflected ( $p1a1$ ). Regarding irregular symmetry, the drawing indicates that the Clefts of the Clefts-and-Waves motif switch between single and doubles (irregular  $p1a1$ ). No color irregularity occurs in this painting.

The plate was broken, inverted, and underneath vessels 31-34 in Grave 1.<sup>11</sup> Thus, this interior painting acted as a Below-member of the grave program.

9. Lothrop, *Coclé Part II*, 19.

10. *Ibid.*

11. PMHU, CER 33-42, Box 10, I-33 Grave D.



PL42/INT/G1  
 PMHU 33-42-20/664  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware ware.<sup>12</sup> Orange, black, and white are the colors. Lothrop identified the motif as a Spread-Eagle Bird with crocodile jaws.<sup>13</sup> While his interpretation of the mouth may require revision, it appears to be some kind of bird hovering in the air.

Figural and Abstract motifs occur in this painting. In terms of the symmetry, the motifs form two designs ( $c4+d4$ ). The Figural motif is rotated fourfold ( $c4$ ) and the Quatrefoil admits reflection ( $d4$ ). Regarding irregular symmetry, some shape irregularities are likely, but these cannot be documented due to the painting's condition. No color or motion irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>14</sup> It is identified in this dissertation as a broken/complete vessel. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above.

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13. Lothrop, *Coclé Part II*, 28.

14. *Ibid.*

15. PMHU, CER 33-42, Box 10, I-33 Grave D.

B43/INT/G1  
 PMHU 33-42-20/665  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

Lothrop classified this interior painting as Early Polychrome ware.<sup>15</sup> Orange, black, and white are the colors. Helms interpreted this painting on a cosmological level: a collapsed representation of a conical universe with multiple layers around an axis mundi.<sup>16</sup>

Two Abstract motifs occur in this painting. Thus, in terms of the subject matter, the painting relates to skin decoration. In terms of the symmetry, the two motifs make one- and two-color patterns ( $p'111+p1a1$ ). The Stripe motif is translated and its color is reversed ( $p'111$ ). Glide reflection ( $p1a1$ ) copies the Clefts-and-Waves motif around it. Regarding irregular symmetry, the Clefts-and-Waves motif has shape and motion irregularities. The Clefts switch between single, double, and triple specimens (irregular  $p1a1$ ). No color irregularity occurs in this painting.

The bowl was broken and inverted in Grave 1.<sup>17</sup> It is identified in this dissertation as a broken/complete vessel. This interior painting acted as a Below-member of the grave program. In contrast, the unpainted exterior faced Above.

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15. Lothrop, *Coclé Part II*, 47.

16. Helms, *Creations of the Rainbow Serpent*, 99.

17. *ibid.*

PL50/INT/G1  
 PMHU 33-42-20/672  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6  
 nest diagram: Fig. 7.14



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is classified as Early Polychrome ware.<sup>18</sup> Red, orange, black, and white are the colors. Lothrop identified the subject matter as a turtle and a foot motive.<sup>19</sup> Mary Helms offered a complicated interpretation whereby the quadrants are linked so that there is one unit of red serpent markers while the two mammals filling the other two quadrants (lateral in her orientation of the painting) are iguanas.<sup>20</sup>

Figural and Abstract motifs occur in this painting. An animal and skin decoration form the subject matter. Asymmetry and symmetry are present ( $c1+d2$ ). The asymmetrical print Figural motif is located in the center. Reflection axes ( $d2$ ) move the animal and the Clefts-and-Waves. Regarding irregular symmetry, the Figural motif has a motion irregularity and the Clefts-and-Waves motif has a shape irregularity. The tail is misreflected across the axis and one of the copies of the Clefts-and-Waves motif connects at the top whereas the other does not (irregular  $d2$ ). No color irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>21</sup> All of its sherds were collected

18. Lothrop, *Coclé Part II*, 36.

19. *Ibid.*

20. Helms, *Creations of the Rainbow Serpent*, 96.

21. PMHU, CER 33-42, Box 10, I-33 Grave D.

from Grave 1 except for a few small pieces that have been filled. It is identified in this dissertation as a broken/complete vessel. The grave plan shows that some sherds maintained the plate formation while others were slightly dispersed in the immediate vicinity. This interior painting acted as a Below-member of the grave program. In contrast, the plain orange exterior faced Above. The plate also was a member of Nest 50-271a, partly over PL89 and the skull of Adult Man III. Thus the view from Below of this interior painting was partly eclipsed.

PL91/NT/G1  
 PMHU 33-42-20/707  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6  
 nest diagram: Fig. 7.14



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate is one of the eleven vessels in this dissertation with interior and exterior paintings. Lothrop classified this interior painting as Early Polychrome ware.<sup>22</sup> Red, orange, black, and white are the colors. Mary Helms identified the Great Mother at the center surrounded by a boa constrictor.<sup>23</sup>

Figural and Abstract motifs occur in this interior painting. Both motifs are symmetrical and make design and one-dimensional pattern ( $d1+pl1$ ). The Figural motif at the center is bilaterally symmetrical ( $d1$ ). The Clefts-and-Waves motif is glide reflected ( $pl1$ ) around the periphery. No color, motion, or shape irregularities occur in this painting. However, the eight incomplete Figural motifs sprouting from the Clefts are asymmetrical.

The plate was broken and inverted in Grave 1.<sup>24</sup> It is identified in this dissertation as a broken/complete vessel. The grave plan indicates that the sherds were together in one area of the grave, but they were slightly dispersed within this immediate vicinity and thereby they did not maintain a tight plate formation. This interior painting acted as a Below-member of the grave program. The plate also was a member of Nest 50-271a, located underneath PL89 and PL271a.

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22. Lothrop, *Coclé Part II*, 20.

23. Helms, *The Curassow's Crest*, 93.

24. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL91/EXT/G1  
 PMHU 33-42-20/707  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.5  
 nest diagram: Fig. 7.14



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

Lothrop classified this exterior painting as Early Polychrome ware.<sup>25</sup> Red, orange, black, and white are the colors. Mary Helms sees the encircling motif as a *boa constrictor*.<sup>26</sup>

The only motif is an Abstract Clefts-and-Waves. Yet this motif also has incomplete Figural motifs sprouting from the Clefts and filling up the Waves, as if the former is giving them life. This painting is a pattern band derived from skin decoration that, in turn, sprouts incomplete creatures. In terms of the symmetry, the Clefts-and-Waves motif admits only glide reflection (*p1a1*). Unlike the interior painting, irregular symmetry is present in this exterior painting. The Clefts of the Clefts-and-Waves motif display a shape irregularity in that they are single and double and the Waves display the motion irregularity in that two of them unravel from the center twice consecutively (*irregular p1a1*). No color irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>27</sup> It is identified in this study as a broken/complete vessel. The grave plan indicates that the sherds were together in one area of the grave, but they were slightly dispersed within this immediate vicinity and thereby they did not maintain a tight plate formation. This exterior painting acted as an Above-member of the grave program. The plate also was a member of Nest 50-271a in the northeastern quadrant, underneath PL89 and PL271a. Therefore, the view of the exterior painting from Above was restricted.

25. Lothrop, *Coclé Part II*, 20.

26. Helms, *The Curassow's Crest*, 93.

27. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL125/INT/G1  
 PMHU 33-42-20/735  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was unavailable for examination at the PMHU. Lothrop classified the interior painting as Early Polychrome ware.<sup>28</sup> Red, orange, black, and white are the colors. He identified the subject to be Bird-which-looks-backward and a turtle.<sup>29</sup> Helms identified them as the curassow and spectacled bear.<sup>30</sup>

Two Figural motifs occur in this painting. In terms of symmetry, this interior painting is two designs ( $c2+d2$ ). The bipedal Motif is rotated twofold ( $c2$ ) and the quadrupedal Motif is mirror reflected twofold ( $d2$ ). Regarding irregular symmetry, the drawing indicates that the quadruped has a shape irregularity in the presence and absence of a nose (*irregular d2*). The biped has a shape irregularity in the striped tails (*irregular c2*). No color irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>31</sup> Thus, this interior painting acted as a Below-member of the grave program.

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28. Lothrop, *Coclé Part II*, 36.

29. *Ibid.*

30. Helms, *Creations of the Rainbow Serpent*, 55.

31. PMHLL, CER 33-42, Box 10, I-33 Grave D.

T130/INT/G1  
PMHU 33-42-20/74



Photograph by author.

Although Lothrop did not classify it in his publication, it is Early Polychrome ware. White, black, and orange are the colors.

Three Abstract motifs are in this interior painting: Clefts-and-Waves, Chevron, and Hook. All subject matter represents skin decoration. In terms of the symmetry, the motifs form a design and one- and two-color one-dimensional patterns ( $c2+p'1m1+pm11$ ). The Clefts-and-Waves motif is rotated twofold ( $c2$ ). The Chevron motif across the center is translated and horizontally reflected with the color reversal by the translation ( $p'1m1$ ). The Hook around the rim is translated and vertically reflected ( $pm11$ ). Regarding irregular symmetry, repainting makes it too difficult to compare the copies for shape irregularities. No color or motion irregularity is present in this interior painting. In contrast, the exterior is plain orange.

The tray was broken in Grave 1.<sup>32</sup> It is identified as a broken/complete vessel in this dissertation. The field notes did not record this tray's position and thus the painting's orientation cannot be reconstructed.

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32. PMHU, CER 33-42, Box 10, I-33 Grave D.



B131/NT/G1  
 PMHU 33-42-20/741  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

Lothrop classified this interior painting as Early Polychrome ware.<sup>33</sup> Red, orange, black, and white are the colors. Lothrop interpreted this motif as a Double Tongue Scroll terminating in birds heads.<sup>34</sup> Helms added to that idea by describing a bird-serpent composite: bicephalic serpent with quetzal heads.<sup>35</sup> The set of lateral Cleft motifs are wings of these two birds.

Two Abstract motifs make up this interior painting: Wave and Cleft. The Wave motif has a Figural head sprouting from its two ends. In terms of symmetry, the two motifs form two designs ( $c2+d2$ ). The Wave motif is rotated ( $c2$ ) and the Cleft admits reflection ( $d2$ ). Regarding irregular symmetry, one shape irregularity is present: the different amount of hooks of the four Clefts (irregular  $d2$ ). No color or motion irregularity occurs in this painting.

The bowl was broken and inverted in Grave 1.<sup>36</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as a Below-member in the grave program. In contrast, the unpainted exterior surface faced Above.

33. Lothrop, *Coclé Part II*, 51.

34. *Ibid.*, 50.

35. Helms, *Creations of the Rainbow Serpent*, 29.

36. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL132/INT/G1  
PMHU 33-42-20/742



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

Lothrop classified this painting as Early Polychrome ware.<sup>37</sup> Red, orange, black, and white are the colors. According to Helms, this painting depicts a bird surrounded by boa markings, a symbol that adds serpentness to the bird.<sup>38</sup>

Both Figural and Abstract motifs occur in this painting. In terms of symmetry, they form figure and design (*cl+plal*). The bipedal Figural motif in the center is asymmetrical. The Clefts-and-Waves motif around the periphery is glide reflected (*plal*). Regarding irregular symmetry, the Clefts-and-Waves motif probably has a motion and/or shape irregularity given that this motif often has these two kinds of irregularities, but the condition of the vessel makes it impossible to document. No color irregularity occurs in this painting.

The plate was broken in Grave 1.<sup>39</sup> It is identified in this dissertation as a broken/complete vessel.

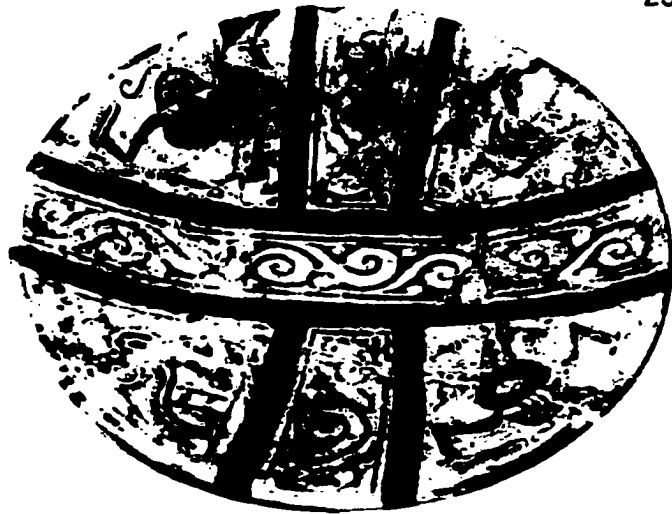
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37. Lothrop, *Coclé Part II*, 188.

38. Helms, *Creations of the Rainbow Serpent*, 30–33.

39. PMHU, CER 33–42, Box 10, I-33 Grave D.

PL139/INT/G1  
 PMHU 33-42-20/749  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.5



Photograph by author.

Lothrop did not publish his classification of this painting, yet it belongs with Early Polychrome ware ware. Red, orange, black, and white are the colors.

Figural and Abstract Motifs occur in this painting. The painting combines animals to skin decoration. In terms of symmetry, they form two designs and a one-dimensional pattern ( $c2+d2+pl1$ ). The biped and Clefts-and-Waves A are both rotated ( $c2$ ). The quadruped is mirror reflected ( $d2$ ). Clefts-and-Waves B is glide reflected ( $pl1$ ). Regarding irregular symmetry, one of the Waves of Clefts-and-Waves B makes an irregular motion in the opposite direction of the other Waves (irregular  $pl1$ ). No color irregularity occurs in this painting.

The plate was broken and upright in Grave 1.<sup>40</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as a Above-member of the grave program. In contrast, the plain exterior faced Below. It was partly underneath PL122 and thus the reception of the interior painting from Above was partly obscured.

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40. *Ibid.*

PB140/EXT/G1  
PMHU 33-42-20/750



Photograph by author.

This exterior painting is Panelled Red ware and the interior is plain red, as is the bottom and pedestal. One symmetrical Abstract motif is wrapped around the exterior. The subject matter is related to skin decoration. In terms of symmetry, the Clefts-and-Waves motif is glide reflected (*plal*). Regarding irregular symmetry, the Wave of the Clefts-and-Waves motif has a motion irregularity as it switches direction (irregular *plal*). No shape or color irregularity occurs in this painting.

The vessel was broken, the bowl having separated from the pedestal, and tilted upright in Grave 1.<sup>41</sup> It is identified as a broken/complete vessel in this dissertation.

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41. *Ibid.*

PL142/INT/G1  
 PMHU 33-42-20/752  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Figure 30b, Samuel Kirkland Lothrop, *Coclé: An Archaeological Study of Central Panama Part II* (1942) *Memoirs of the Peabody Museum of Archaeology and Ethnology*, Vol. 8. Reprinted courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University.

Lothrop identified this interior painting as Early Polychrome ware.<sup>42</sup> Orange, purple, black, and white are the colors. One Abstract motif occurs in three different forms: Clefts-and-Waves A, B, and C. In all, the motifs relate to skin decoration. In terms of symmetry, the three motifs form two designs ( $c2+d1$ ). Each of the five bands could be analyzed independently as one-dimensional patterns, but the rotation and reflection that move A, B, and C to cover the entire plate are analyzed here. Clefts-and-Waves A and B are rotated ( $c2$ ) around a central point. Reconstructing the lost section of Clefts-and-Waves C reveals reflection across a vertical axis ( $d1$ ). Regarding irregular symmetry, the condition of the plate makes it difficult to compare the motif copies. No color irregularity occurs in this painting.

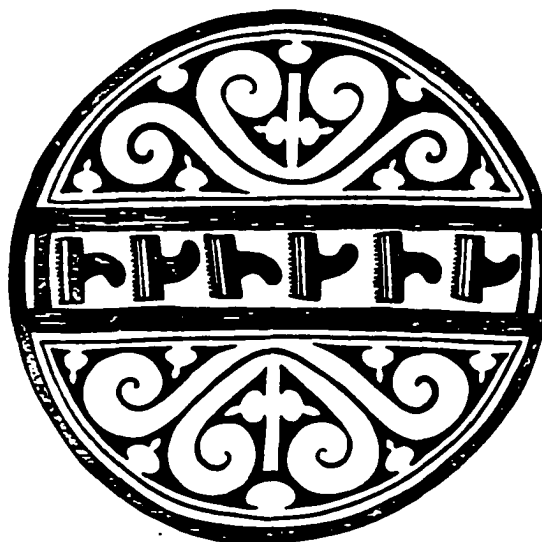
The plate was broken and inverted in Grave 1.<sup>43</sup> It is identified in this dissertation as a broken/complete vessel. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above.

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42. Lothrop, *Coclé Part II*, 22.

43. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL143/INT/G1  
PMHU 33-42-20/753



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was unavailable for examination at the PMHU. It is Early Polychrome ware. Red, black, and white are the colors. Lothrop identified similar motifs as the Face Scroll and claws.<sup>44</sup>

Figural and Abstract motifs occur in this painting: a Clefts-and-Waves and a Print. In terms of the subject matter, the Clefts-and-Waves is related to skin decoration. In terms of symmetry, they form a design and one-dimensional pattern ( $d2+p1a1$ ). The Clefts-and-Waves motif is mirror reflected ( $d2$ ) and the Figural motif is glide reflected ( $p1a1$ ). Regarding irregular symmetry, there appears to be a shape irregularity in the Clefts-and-Waves motif. The shape of some of the small Clefts are not identical (irregular  $d2$ ). The drawing also suggests that the Figural motif has a shape irregularity in that all but one has two white rectangular areas (irregular  $p1a1$ ). No motion or color irregularity occurs in this painting.

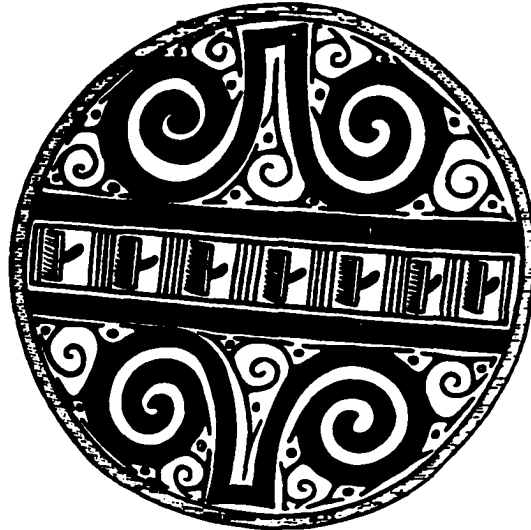
The deposition of this plate was exceptionally complicated. The plate was broken, but it could not be sorted and separated from B144.<sup>45</sup>

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44. Lothrop, *Coclé Part II*, 26.

45. *Ibid.*

PL145/INT/G1  
 PMHU 33-42-20/755  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

The interior painting was classified as Early Polychrome ware.<sup>46</sup> Red, orange, black, and white are the colors. Lothrop identified the motifs as Tongue Scroll and Foot motive.<sup>47</sup> Helms interpreted the central band as alternating boavals and rectangles as limb-and-foot motifs and parallel bar-units.<sup>48</sup>

Figural and Abstract motifs occur in this painting. In terms of symmetry, they produce two designs and one-dimensional pattern ( $d1+d2+p111$ ). The Clefts-and-Waves motif is reflected across one horizontal axis ( $d1$ ) and the Wave motif is reflected across two axes ( $d2$ ). The Figural motif is translated sevenfold ( $p111$ ). Regarding irregular symmetry, the Figural motif has shape irregularity that involves unequal number of digits (irregular  $p111$ ). No color or motion irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>49</sup> It is identified in this study as a broken/complete vessel. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above.

46. Lothrop, *Coclé Part II*, 183.

47. *Ibid.*, 185.

48. Helms, *Creations of the Rainbow Serpent*, 24–25.

49. PMHU, CER 33–42, Box 10, I-33 Grave D.

PL157/INT/G1  
 PMHU 33-42-20/765  
 grave plan: Fig. 1.3  
 grave program: Fig. 4.



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

The plate was unavailable for examination at the PMHU. This interior painting is Early Polychrome ware. Red, purple, black, and white are the colors. Lothrop identified similar subject matter as Face Scroll Type A (with animal heads) and crab.<sup>50</sup>

The Clefts-and-Waves motif has a part of a Figural motif, basically a creature's head, sprouting from the ends of the Clefts. In terms of symmetry, the motifs combine a design and one-dimensional pattern ( $d2+pma2$ ). The Clefts-and-Waves motif is mirror reflected ( $d2$ ). The Figural motif is glide reflected and rotated twofold ( $pma2$ ). Regarding irregular symmetry, the Figural motif has a shape irregularity in the treatment of the pincers and first set of legs in that these are connected in two of three copies (irregular  $pma2$ ). No color or motion irregularity occurs in this painting.

The plate was broken and upright in Grave 1.<sup>51</sup> This interior painting acted as an Above-member of the grave program.

50. Lothrop, *Coclé Part II*, 26.

51. PMHU, CER 33-42, Box 10, t-33 Grave D.



PL161/176/182/INT/G1  
 PMHU 33-42-30/767  
 grave plan: Fig. 2.2



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

The plate was not available for direct examination at the PMHU and therefore it is known from the drawing published in the site report. Lothrop classified this interior painting as Early Polychrome ware.<sup>52</sup> Red, black, and white are the colors. He identified the motifs as the Double YC scroll and Foot.<sup>53</sup>

Figural and Abstract motifs occur in this painting. Thus, this painting brings together representations of a part of a creature and skin decoration. In terms of symmetry, the motifs form asymmetrical figure and symmetrical one-dimensional pattern (*c1+p1a1*). The foot motif laid out in two bands is translated (*p111*). The Clefts-and-Waves A is asymmetrical. The Clefts-and-Waves B is glide reflected (*p1a1*). Regarding irregular symmetry, a shape irregularity occurs with the foot motif as the amount of rectangular segments varies between three and five (irregular *p111*). The Clefts-and-Waves motif has motion irregularities (irregular *p1a1*). One of the Clefts and one of the Waves are oriented in the opposite direction of the other copies. No color irregularity occurs in this painting.

The deposition of this plate was exceptionally complicated. According to the records, three groups of sherds separated in the grave (although in the same general area in the southwestern corner) formed this plate. The sherds numbered 176 were inverted and those numbered 182 were upright; position was unrecorded for the sherds numbered 161.<sup>54</sup> Thus, pieces of this interior painting were oriented in both directions.

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52. Lothrop, *Coclé Part II*, 19.

53. *Ibid*, 19 and 45.

54. PMHU, CER 33-42, Box 10, I-33 Grave D.

B162/INT/G1  
 PMHU 33-42-20/768  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.5



Photograph by author.

Lothrop classified the mate of this painting (Cat. no. 64) as Early Polychrome ware.<sup>55</sup> Red, orange, black, and white are the colors. Concentric bars are one of Lothrop's Geometric motifs.<sup>56</sup>

One Abstract motif occurs in this painting. It resembles body markings or ligatures of Figural motifs (Cat. no. 2). In terms of symmetry, this painting with eleven repetitions of the Stripe motif is one of five examples of a three-color one-dimensional pattern (*p111[3]*). White, red, and orange alternate. No color, motion, or shape irregularity occurs in this painting.

The bowl was broken and upright in Grave 1.<sup>57</sup> It is identified as a broken/complete vessel. This interior painting acted as an Above-member of the grave program. In contrast, the unpainted exterior faced Below. This bowl also belonged to Nest 157-169. The grave plan indicates that it was located in the southern side of the grave, on the knee of Adult Man II, and underneath PL157, SHS161, and PL163. This bowl was a member of one more vessel group in Grave 1. Lothrop noted that B340 (Cat. no. 64) was one of a pair<sup>58</sup> and the examination for this dissertation determined the mate to be B162. While the bowls contain similar paintings, they were deposited quite differently so their resemblance was unobservable in burial; they formed an invisible pair. Specifically, B162 was upright and therefore its interior painting faced Above while the interior painting of inverted B340 faced Below.

55. Lothrop, *Coclé Part II*, 46.

56. *Ibid.*

57. PMHU, CER 33-42, Box 10, I-33 Grave D.

58. Lothrop, *Coclé Part II*, 46.

B164/INT/G1  
 PMHU 33-42-20/770  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting was classified as Early Polychrome ware.<sup>59</sup> Orange, black, and white are the colors. Lothrop identified it as a coiled snake<sup>60</sup> with a bifurcated tail, but the mouth suggests a crocodile. There is one asymmetrical Figural motif with two limbs protruding from the neck.

The bowl was broken and inverted in Grave 1.<sup>61</sup> It is identified in this study as a broken/complete vessel. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above.

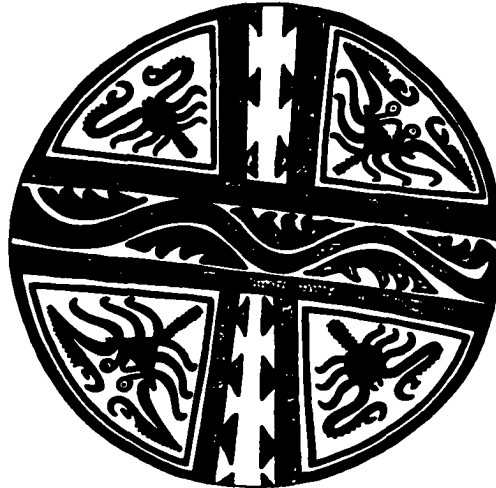
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59. *Ibid.*, 186.

60. *Ibid.*

61. PMHU, CER 33-42, Box 10, 1-33 Grave D.

PL165/INT/G1  
 PMHU 33-42-20/771  
 grave plan: Fig. 1.3  
 grave program: Fig. 4.  
 nest diagram: Fig. 4.



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>62</sup> Red, black, and white are the colors. Lothrop identified the creatures as crabs; he noted that the feelers resemble antlers.<sup>63</sup>

Figural and Abstract motifs form this painting. The painting is combination of two kinds of creatures and two kinds of skin decoration. In terms of symmetry, the motifs form design and one-dimensional pattern ( $d2+p1a1$ ). Both polypeds admit reflection ( $d2$ ) as does Hook A (this motif appears to be one-dimensional pattern, but there are insufficient repetitions in one direction). The Cleft motif is glide reflected ( $p1a1$ ). Regarding irregular symmetry, Hook b has a motion irregularity from the third to fourth copy (irregular  $p1a1$ ). No color or motion irregularity occurs in this painting.

The plate was broken and upright in Grave 1.<sup>64</sup> It is identified in this study as a broken/complete vessel. This interior painting acted as an Above-member of the grave program. In contrast, the plain exterior faced Below. This plate also belonged to Nest 157-169, located underneath PL166. This situation obscured the interior painting from Above.

62. Lothrop, *Coclé Part II*, 42.

63. *Ibid.*, 42-43.

64. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL166/INT/G1  
 PMHU 33-42-20/772  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6  
 nest diagram: Fig. 7.12



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate is one of eleven in this dissertation with paintings on both interior and exterior sides. This interior painting was classified as Early Polychrome ware.<sup>65</sup> Red, orange, black, and white are the colors.

There are Figural and abstract symmetrical motifs in this painting. In terms of symmetry, the motifs form three different one-dimensional patterns ( $p1m1+p112+pma2$ ). The Figural motif is translated with a horizontal mirror reflection ( $p1m1$ ). The Print is translated and rotated twofold ( $p112$ ). The Cleft admits vertical reflection, glide reflection, and twofold rotation ( $pma2$ ). Regarding irregular symmetry, one polyped in each band has three pairs of walking legs while the others have four (irregular  $p1m1$ ). One Print in Band 5 is black, a color irregularity (irregular  $p112$ ).

The plate was broken and inverted in Grave 1.<sup>66</sup> It is identified in this dissertation as a broken/complete vessel. This interior painting acted as a Below-member of the grave program. Lothrop proposed that this plate and PL331 (Cat. nos. 59-60) formed a pair by the same potter based upon similar style and despite different motifs and exterior paintings.<sup>67</sup> If PL166 and PL331 were paired, their relationship was strained because PL166 also belonged to Nest 157-169 in the southwestern area while PL331 was in the northwestern area. Countering that strain was their similar interior paintings as Below-members of the grave program.

65. Lothrop, *Coclé Part II*, 184.

66. PMHU, CER 33-42, Box 10, I-33 Grave D.

67. *Ibid.*, 186.

PL166/EXT/G1  
 PMHU 33-42-20/772  
 grave plan: Fig. 1.3  
 grave program: Fig. 4.  
 nest diagram: Fig. 4.



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This exterior painting was classified as Early Polychrome ware.<sup>68</sup> Red, orange, black, and white are the colors. Figural and Abstract motifs fill the painting, in terms of symmetry, they produce design and one-dimensional pattern ( $d4+p112+p1a1$ ). The Quatrefoil motif is reflected ( $d4$ ). The Figural (foot) motif is translated and rotated twofold ( $p112$ ). Between the is the band of glide reflected Cleft ( $p1a1$ ). Regarding irregular symmetry, the Figural motif has two shape irregularities: switching between a left and right and blunt and sharp digits (*irregular*  $p112$ ). No motion or color irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>69</sup> This exterior painting acted as an Above-member of the grave program. This plate also belonged to Nest 157-169, located underneath PL167. Thus, the plate on top of it obscured a view of the interior painting from Above. This plate also was a pair with PL331 (Cat. no. 59). In terms of the pairing, both plates were inverted so both exterior paintings acted as Above-facing members of the grave program, yet the two exterior paintings have nothing in common in terms of subject matter.

68. Lothrop, *Coclé Part II*, 184.

69. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL167/INT/G1  
 PMHU 33-42-20/773  
 grave program: Fig. 7.5  
 nest diagram: Fig. 7.12



Photograph by author.

This interior painting is Early Polychrome ware. Orange, black, and white are the colors. Two Abstract motifs, fill the painting. In terms of symmetry, both of the motifs are mirror reflected across the orange horizontal axis and an unpainted vertical axis ( $d2$ ). Regarding irregular symmetry, the Cleft motif has one of the rare color irregularities as the orange Cleft turns black at three places. There is an improper mirror reflection of the Cleft at the horizontal axis (irregular  $d2$ ). The Zigzag Stripe in one hemisphere displays a shape irregularity whereby the apex gives way to a straight or flat line (irregular  $d2$ ). In contrast, the exterior is unpainted.

The plate was broken and upright in Grave 1.<sup>70</sup> It is identified in this dissertation as a broken/complete vessel. This interior painting acted as an Above-member of the grave program. In contrast, the plain exterior faced Below. This plate also belonged to Nest 157-169, located underneath PL168. This deposition thereby obscured the interior painting from Above.

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70. *Ibid.*

B170/INT/G1  
 PMHU 33-42-20/776  
 grave nest: Fig. 7.13



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>71</sup> Red, orange, black, and white are the colors. There is a Figural Motif. In terms of symmetry, the motif is mirror reflected across a horizontal axis (*d1*) to fill the interior. No color, motion or shape irregularity occurs in this painting. In contrast, the exterior surface is plain.

The bowl was broken in Grave 1.<sup>72</sup> It is identified in this study as a broken/complete vessel. The position was not recorded in the field notes and thus the orientation cannot be reconstructed. This bowl also belonged to Nest 170-198, located partly underneath PL171.<sup>73</sup>

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71. Lothrop, *Coclé Part II*, 51.

72. PMHU, CER 33-42, Box 10, I-33 Grave D.

73. *Ibid.*



## 27 and 28

250

B177/INT/EXT/G1  
PMHU 33-42-20/783  
grave program: Fig. 7.5  
grave nest: Fig. 7.13



Photograph by author.



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

Lothrop identified these interior and exterior paintings as Early Polychrome ware.<sup>74</sup> Red, orange, black, and white are used for both paintings. Lothrop noted that this bowl was one of a pair,<sup>75</sup> and this study determined that its mate was B257 (Cat. nos. 39-40). The floor of the bowl is greatly worn, suggesting that it held items.

Two Abstract motifs occur in this interior painting: Clefts-and-Waves and Stripe. Yet due to wear, as well as a large missing portion of the wall, even tentative symmetry analysis is impossible. B257/INT has a Figural motif in the center, leading to the possibility that B177/INT did as well. The exterior painting consists of Figural and Abstract motifs.

The bowl was broken and upright in Grave 1.<sup>76</sup> It is identified as a broken/incomplete vessel in this dissertation. This interior painting acted as an Above-member of the grave program. This bowl also belonged to Nest 170-198, underneath SHS176 of PL161/176/182.<sup>77</sup> Thus, this interior painting was directed to Above, albeit impeded by SHS176. The exterior painting was directed to the sides. This bowl was also a member of a pair: B177 was in the southern section of Grave 1 while its mate B257 (Cat. no. 40) was in the northern section. This distance weakened the pair's connection.

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74. Lothrop, *Coclé Part II*, 57.

75. *Ibid.*

76. PMHU, CER 33-42, Box 10, I-33 Grave D.

77. *Ibid.*

PL181/INT/G1  
 PMHU 33-42-20/787  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6  
 grave nest: Fig. 7.13



Photograph by author.

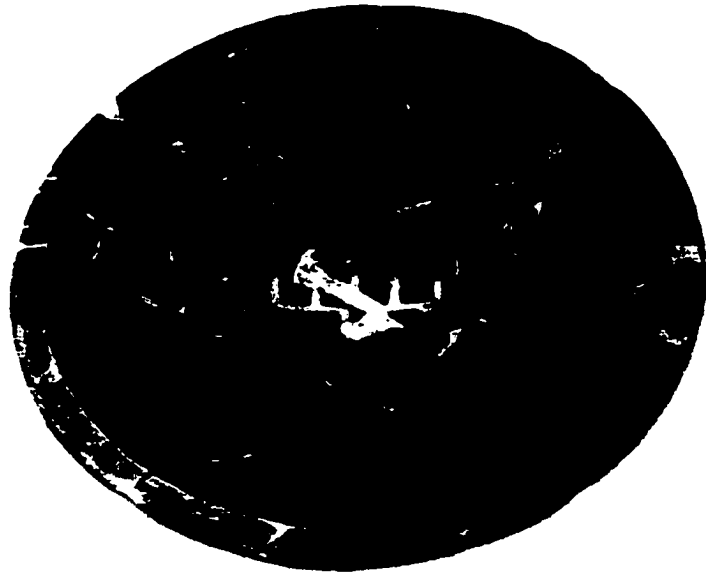
This interior painting is Black-and-White-on-Red. One Figural motif occurs in the painting. This motif is at the center surrounded by a red periphery. In terms of symmetry, they are mirror reflected (*d1*). No color, motion, or shape irregularity occurs in this painting

The plate was broken and inverted in Grave 1.<sup>78</sup> It is identified as a broken/incomplete vessel in this dissertation. This interior painting acted as a Below-member of the grave program. The plate also belonged to Nest 170-198.

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78. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL185/INT/G1  
 PMHU 33-42-20/791  
 grave plan: Fig. 2.2  
 grave program: Fig.7.5  
 nest diagram: Fig. 7.13



Photograph by author.

This interior painting is Black-and-White-on-Red. It makes a good case against previous assertions about the painters' *horror vacui* as just one Figural motif, sits at the center surrounded by solid red paint. In terms of symmetry, the motif is bilaterally symmetrical (*d1*). No color, motion, or shape irregularity occurs in this painting.

The plate was broken and upright in Grave 1.<sup>79</sup> It is identified as a broken/complete vessel in this dissertation. The interior painting acted as an Above-member of the grave program. In contrast, the plain exterior surface faced Below. The plate also belonged to Nest 170-198.

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79. *Ibid.*

PL189/INT/G1  
 PMHU 33-42-20/795  
 grave program: Fig.7.6  
 nest diagram: Fig. 7.13



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was unavailable for examination at the PMHU. Lothrop identified the interior painting as Early Polychrome ware.<sup>80</sup> The drawing indicates that red, orange, black, and white are the colors. Lothrop classified the subject as turtles, notwithstanding the double tongue, external ears, and fringe.<sup>81</sup> Mary Helms went in a different direction, suggesting that the upright figure with a round abdomen and ears was related to the Spectacled Bear.<sup>82</sup>

The drawing indicates two Figural motifs. In terms of symmetry, the motifs form two designs ( $d1+d4$ ). One motif is bilaterally symmetrical ( $d1$ ) and it is surrounded by the reflected and rotated motif ( $d4$ ). Regarding irregular symmetry, the motif has several shape irregularities, especially of the facial features (irregular  $d4$ ). No color or motion irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>83</sup> Thus, this interior painting acted as a Below-member of the grave program. The plate also belonged to Nest 170-198.

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80. Lothrop, *Coclé Part II*, 56.

81. *Ibid.*, 35.

82. Helms, *Creations of the Rainbow Serpent*, 56.

83. PMHU, CER 33-42, Box 10, 133 Grave D.

B190/INT/G1  
 PMHU 33-42-20/796  
 grave program: Fig. 7.5  
 nest diagram: Fig. 7.13

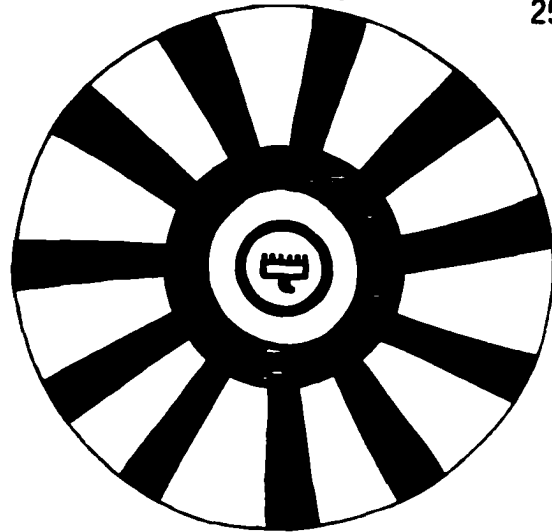


Figure 99, Samuel Kirkland Lothrop, *Coclé: An Archaeological Study of Central Panama Part II* (1942) *Memoirs of the Peabody Museum of Archaeology and Ethnology*, Vol. 8. Reprinted courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University.

This interior painting is Early Polychrome ware.<sup>84</sup> Red, black, and white are the colors. Lothrop noted that it is one of a pair of bowls, but this dissertation did not encounter the mate.<sup>85</sup> He identified the motifs as radiating lines and a foot.<sup>86</sup>

Figural and Abstract motifs occur in this painting. In terms of subject matter, the radiating Stripe motif points to ligatures or linear skin decoration. In terms of symmetry, these motifs join asymmetry and symmetry (*c1+c11*). No color, motion, or shape irregularity occurs in this painting.

The bowl was broken and upright in Grave 1.<sup>87</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted an Above-member of the grave program. In contrast, the plain orange exterior surface faced Below. The bowl also belonged to Nest 170-198, located underneath PL189.<sup>88</sup> Thus, other members of Nest 170-198 impeded the reception of this interior painting.

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84. Lothrop, *Coclé Part II*, 57.

85. *Ibid.*

86. *Ibid.*

87. PMHU, CER 33-42, Box 10, I-33 Grave D.

88. *Ibid.*

PL191/INT/G1  
 PMHU 33-42-20/796a  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6  
 nest diagram: Fig. 7.13



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>89</sup> Orange, black, and white are the colors. Mary Helms identified the motif as a naturalistic female curassow.<sup>90</sup> Figural and Abstract motifs occur in this painting. In terms of the subject matter, this painting combines the creatures with skin decoration. In terms of symmetry, the motifs form design, two-color design, and one-dimensional pattern ( $c2+c4'+p1a1$ ). First, the print Figural motif suggests a one-dimensional pattern, but due to insufficient copies it is treated as rotated design ( $c2$ ). The bipedal Figural motif is rotated, but the color of their crests alternates from black to orange ( $c4'$ ). An insufficient number of copies of the Cleft occur for a pattern, but the Wave is glide reflected ( $p1a1$ ). In terms of irregular symmetry, the Clefts-and-Waves motif has a motion irregularity; one of its Waves is oriented in a different direction than the others (irregular  $p1a1$ ). The Figural biped motif has shape irregularity in the crests and tails (irregular  $c4'$ ). No color irregularity occurs in this painting.

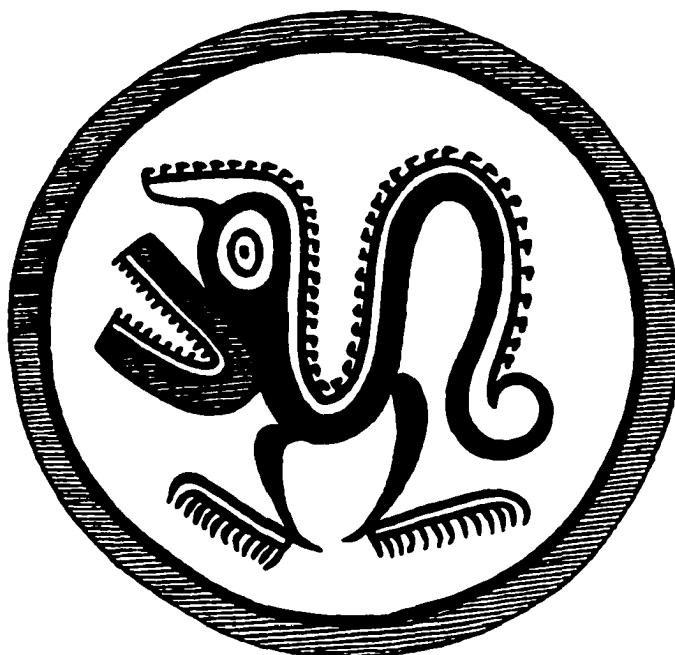
The plate was broken and inverted in Grave 1.<sup>91</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above. This plate also was a member of Nest 170-198. This interior painting faced Below yet with partial obstruction by PL194 and B195.

89. Lothrop, *Coclé Part II*, 29.

90. Helms, *The Curassow's Crest*, 35-36.

91. PMHU, CER 33-42, Box 10, F33 Grave D.

PL192/INT/G1  
 PMHU 33-42-20/797  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.5  
 grave nest: Fig. 7.13



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

The bowl was not available for direct examination at the museum and therefore it is known from the drawing published in Lothrop's site report. Lothrop classified this interior painting as Early Polychrome ware.<sup>92</sup> Red, orange, black, and white are the colors. He identified the subject as a crocodile-headed bird.<sup>93</sup>

There is only one asymmetrical Figural motif. In terms of burial, the bowl was broken, upright, and placed on PL191 in Grave 1.<sup>94</sup> Thus, this interior painting acted as an Above-member of the grave program. The bowl also belonged to Nest 170-198.

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92. Lothrop, *Coclé Part II*, 49.

93. *Ibid.*

94. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL194/INT/G1  
 PMHU 33-42-20/799  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6  
 nest diagram: Fig. 7.13



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>95</sup> Red, orange, black, and white are employed. Lothrop identified the common Face scrolls, but he is less certain about the other motif, identifying it as a plumed serpent.<sup>96</sup>

A Figural and Abstract motif occur in this painting. In terms of symmetry, the two motifs fill the painting with two designs ( $c2+d2$ ). The Figural motif is rotated twofold ( $c2$ ) and the Clefts-and-Waves motif is reflected ( $d2$ ). The two reflection axes of the Clefts-and-Waves motif compete with the two diagonal red ones. Regarding irregular symmetry, the Figural motif displays shape irregularity in the quantity of hooks projecting from its torso (*irregular c2*). No color or motion irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>97</sup> It is identified in this study as a broken/complete vessel. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior surface faced Above. The plate also was in Nest 170-198. Thus, this painting projected toward Below, yet directly at PL195.

95. Lothrop, *Coclé Part II*, 45.

96. *Ibid.*, 44.

97. PMHU, CER 33-42, Box 10, I-33 Grave D.



B195/INT/G1  
 PMHU 33-42-20/800  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.5  
 nest diagram: Fig. 7.13



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>98</sup> Red, orange, black, and white are the colors. Lothrop identified the motif as a crocodile-headed bird and Helms identified an iguana with serpentine essence.<sup>99</sup>

The painting presents one asymmetrical Figural motif. Its movement to the left is hampered by the legs heading in opposite directions.

The plate was broken and upright in Grave 1.<sup>100</sup> It is identified as a broken/complete vessel in this dissertation. The interior painting acted as an Above-member of the grave program. In contrast, the plain exterior faced Below. The plate also was a member of Nest 170-198, located underneath PL194. Therefore, PL194 and PL195 directly faced each other.

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98. Lothrop, *Coclé Part II*, 49.

99. *Ibid*; Helms, *Creations of the Rainbow Serpent*, 29.

100. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL197/INT/G1  
 PMHU 33-42-20-801  
 grave program: Fig. 7.6  
 nest diagram: Fig. 7.13



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>101</sup> Red, orange, purple, black, and white are the colors. Lothrop identified the zoomorphic motif as a crab.<sup>102</sup>

In terms of subject matter, the painting joins a Figural creature with the Abstract motifs related to skin decoration. In terms of symmetry, the motifs form design, one-dimensional pattern, and two-dimensional pattern ( $d4+pmm2+pmm$ ). The Figural motif has four mirror reflection axes ( $d4$ ). The Lozenge is repeated by vertical reflection, horizontal reflection, glide reflection, and twofold rotation ( $pmm2$ ). The Cleft motif is repeated ten times in two dimensions by two sets of mirror reflection and twofold rotation ( $pmm$ ); it is one of the few examples of two-dimensional patterns in the corpus. Regarding irregular symmetry, a variation occurs where the polyped's pincers meet the torso disrupts the repetition (irregular  $d4$ ). No color or motion irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>103</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above. The plate also was a member of Nest 170-198, located over PL198.<sup>104</sup> In this nest, this interior painting faced directly PL198.

101. Lothrop, *Coclé Part II*, 43.

102. *Ibid.*, 42.

103. PMHU, CER 33-42, Box 10, I-33 Grave D.

104. *Ibid.*

B198/INT/G1  
 PMHU 33-42-20/802  
 grave program: Fig. 7.5  
 nest diagram: Fig. 7.13



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>105</sup> Red, purple, black, and white are the colors. Lothrop identified the motif as a crocodile-headed bird (avian body, legs, and crest with saurian mouth).<sup>106</sup> One Figural motif fills the interior painting. It is asymmetrical as it moves to the side although its feet point outward in opposite directions.

The bowl was broken and upright in Grave 1.<sup>107</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as an Above-member of the grave program. In contrast, the plain exterior faced Below. The bowl also was a member of Nest 170-198, located underneath PL197. The interior painting therefore was obscured from Above and directly faced PL197.

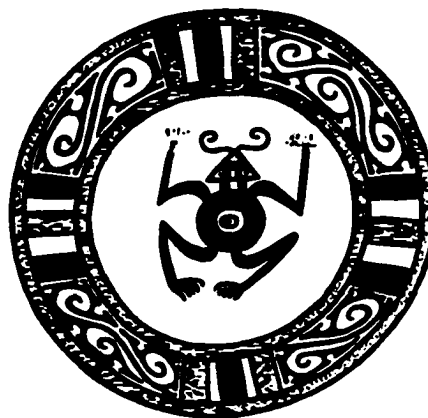
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105. Lothrop, *Coclé Part II*, 49.

106. *Ibid.*, 49-50.

107. PMHU, CER 33-42, Box 10, I-33 Grave D.

B257/INT/G1  
 PMHU 33-42-20/851  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.5



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>108</sup> Red, orange, black, and white are the colors. Lothrop identified the turtle with SY scrolls and Double YC scrolls.<sup>109</sup>

One Figural and three Abstract motifs occur in this painting. Both asymmetry and one- and two-color designs form this painting ( $c1+d1+d4$ ). The Clefts-and-Waves A motif admits no symmetries ( $c1$ ). The Figural motif and Clefts-and-Waves B motif admit bilateral symmetry ( $d1$ ). The Stripe alternates red and orange so that half of the reflections reverse color and half preserve them, while rotation by one fourth of a full turn reverses colors ( $d4$ ). The worn condition makes it difficult to compare copies, but it seems that no color or motion irregularity occurs in this painting.

The bowl was broken and upright in Grave 1.<sup>110</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as an Above-member of the grave program like its mate (Cat. nos. 27,28). However, B177 was on the south of Grave 1 while B257 was on the north. The distance between the two weakened the visibility of their formal links.

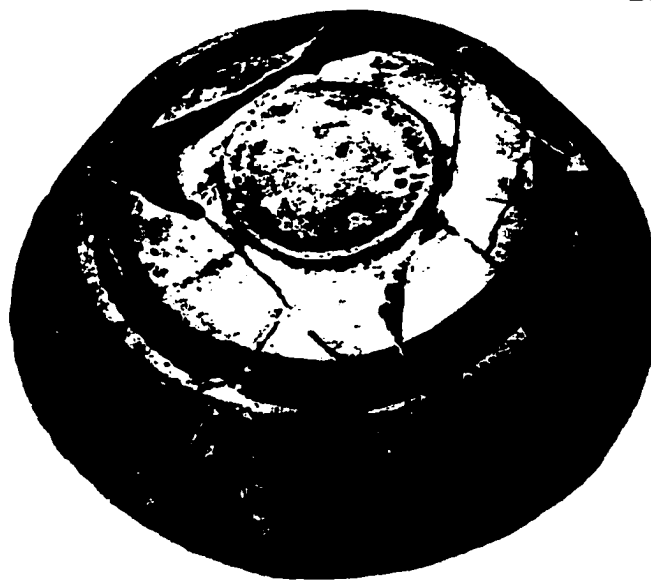
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108. Lothrop, *Coclé Part II*, 57.

109. *Ibid.*

110. PMHU, CER 33-42, Box 10, I-33 Grave D.

B257/EXT/G1  
 PMHU 33-42-20/851  
 grave plan: Fig. 2.2



Photograph by author.

Lothrop classified this exterior painting as Early Polychrome ware.<sup>111</sup> Orange, black, and white are the colors. He identified the subjects as turtles either in profile or seen from above.<sup>112</sup>

One Figural and one Abstract motif occur in this painting. In terms of symmetry, both are reflected fourfold ( $d_4$ ). Regarding irregular symmetry, the condition of the painting prevents a comparison of the Figural motif for shape irregularity. No color or motion irregularity occurs in this painting.

The bowl was broken and upright in Grave 1.<sup>113</sup> It is identified in this study as a broken/complete vessel. It is now repaired with most of its original sherds and replacements. Neither Above nor Below directly viewed this exterior painting since it was oriented laterally.

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111. Lothrop, *Coclé Part II*, 57.

112. *Ibid.*

113. PMHU, CER 33-42, Box 10, 1-33 Grave D.

B274/EXT/G1  
PMHU 33-42-20/868  
grave plan: Fig. 2.2



Photograph by author.

This exterior painting is Early Polychrome ware according to Lothrop's classification, although he did not address this particular painting in the site report. Red, orange, black, and white are the colors. Lothrop noted that B300/EXT/G1 was one of a pair<sup>114</sup> and this dissertation identified B274 as its mate.

One Figural and one Abstract motif form this painting. In terms of symmetry, these motifs form design and one-dimensional pattern (*c2+p112*). The Figural motif is rotated (*c2*). The Clefts-and-Waves motif is translated and rotated twofold around the top and the bottom (*p112*). Regarding irregular symmetry, the Clefts-and-Waves motif has irregular shape (*irregular p111*). No color or motion irregularity occurs in this painting.

The bowl was broken and upright in Grave 1.<sup>115</sup> It is identified in this study as a broken/complete vessel. These two bowls forming the pair were identical in vessel type and painting, but not condition as B274 was broken and B300 intact. Unlike other pairs (B162-B340, SQB321-SQB362), these bowls were in close proximity at the northern side of the grave. Because B300 was underneath PL278 their relationship was obscured.

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114. Lothrop, *Coclé Part II*, 60.

115. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL275/INT/G1  
 PMHU 33-42-20/869  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>116</sup> Orange, black, and white are the colors. Lothrop identified this motif as a serpent of the S-coil type and the alternating sets of lines running the length of its body indicate the serpentine quality proposed by Helms.<sup>117</sup>

There is one Figural motif that is asymmetrical. One type of subject matter is present, the snake; no motif is related to skin decoration. The plate was broken and inverted in Grave 1.<sup>118</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior surface faced Above.

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116. Lothrop, *Coclé Part II*, 54.

117. Lothrop, *Coclé Part II*, 53–54; Helms, *Creations of the Rainbow Serpent*, 27.

118. PMHU, CER 33–42, Box 10, t-33 Grave D.

B276/INT/G1  
 PMHU 33-42-20/870  
 grave program: Fig. 7.5



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This bowl was unavailable for examination at the PMHU and thus it is known from the drawing published in Lothrop's site report. Lothrop identified this interior painting as Early Polychrome ware.<sup>119</sup> Red, orange, black, and white are the colors. He identified the subject matter as "an extreme stage in conventionalization of the turtle."<sup>120</sup> For this dissertation, it is an asymmetrical Figural motif.

The bowl was broken and upright in Grave 1.<sup>121</sup> This interior painting acted as an Above-member of the grave program. The bowl was deposited underneath PL275 and thereby this interior painting was actually obscured from Above.

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119. Lothrop, *Coclé Part II*, 52.

120. *Ibid.*

121. PMHU, CER 33-42, Box 10, I-33 Grave D.



PL277/INT/G1  
 PMHU 33-42-20/871  
 grave plan: Fig. 2.2



Photograph by author.

This interior painting belongs with Lothrop's Early Polychrome ware ware; red, orange, black, and white are the colors. There are Figural and Abstract motifs. In terms of symmetry, the motifs produce figure and two-color design ( $c1+d4$ ). One asymmetrical Figural ( $c1$ ) motif in the center is accompanied by a symmetrical Clefts-and-Waves motif ( $d4$ ). For the coloring of the Clefts-and-Waves motif, one-half of the reflections preserve color and one-half reversed colors while all rotations by one-fourth of a full circle reverse colors. The poor condition of the painting makes it difficult to compare the motif copies in order to find shape irregularities. No color or motion irregularity occurs in the painting.

The plate was broken in Grave 1. It is now repaired with the original sherds and replacements. It is identified as a broken/complete vessel in this dissertation. There is no record of the vessel's position and thus the paintings orientation cannot be reconstructed.

PL278/NT/G1  
 PMHU 33-42-20/872  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>122</sup> Red, orange, purple, black, and white are the colors. Lothrop identified the subject matter as tongue scrolls, small YC scrolls, and footprints.<sup>123</sup>

Figural and Abstract motifs occur in this painting. In terms of symmetry, they form design, two-color design, and one-dimensional pattern ( $d1+d'2+p111$ ). The Clefts-and-Waves motif is reflected across a horizontal axis in the form of the central red band ( $d1$ ). The Wave motif is reflected across vertical and horizontal axes with a color alternation ( $d'2$ ). The Figural motif is translated ( $p111$ ). Regarding irregular symmetry, the drawing suggests that the Figural motif has a shape irregularity in the number of digits of each copy (irregular  $p111$ ). The Clefts-and-Waves motif has one shape irregularity in the repetition of the small circles set inside some Clefts (irregular  $d1$ ). The point in the Wave motif where the color alternates from red and purple is off the reflection axis so that red extends a little into the space that should be purple. This is identified as a color irregularity (irregular  $d2$ ).

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122. Lothrop, *Coclé Part II*, 183.

123. *ibid.*, 185.

The plate was broken and inverted in Grave 1.<sup>124</sup> It is now repaired with original sherds and one replacement. It is identified in this dissertation as a broken/complete vessel. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above. The plate was deposited over B300<sup>125</sup> towards the center of the north wall. Thus, the intervening vessel obscured this interior painting from Below.

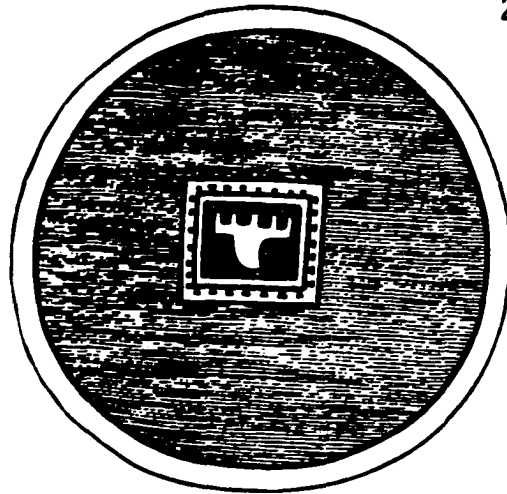
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124. PMHU, CER 33-42, Box 10, I-33 Grave D.

125. *ibid.*

B283/INT/G1  
 PMHU 33-42-20/877  
 grave program: Fig. 7.5

Figure 283, Samuel Kirkland Lothrop, *Coclé: An Archaeological Study of Central Panama Part II* (1942) *Memoirs of the Peabody Museum of Archaeology and Ethnology*, Vol. 8. Reprinted courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University.



This interior painting is Black-and-White-on-Red ware. This painting consists of a Figural and Abstract motif. A square band of the Hook motif surrounds Figural motif. In terms of symmetry, the two motifs form an asymmetrical figure and one-dimensional pattern ( $c1+pm11$ ). The Figural motif is asymmetrical ( $c1$ ) and the Hook is one-dimensional pattern ( $pm11$ ). Regarding irregular symmetry, the poor condition of the Hook motif makes it too difficult to compare the copies for shape irregularities. No color or motion irregularity occurs in this painting.

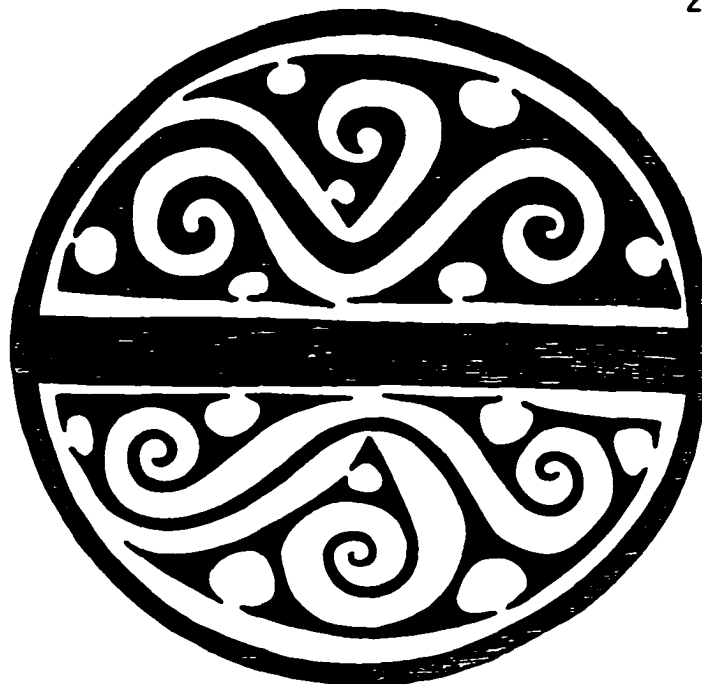
The bowl was broken and upright in Grave 1.<sup>126</sup> It has been repaired with original sherds, including the central motif, and replacements concentrated in the periphery. It is identified in this dissertation as a broken/complete vessel. This interior painting acted as an Above-member of the grave program. In contrast, the plain exterior faced Below. This bowl was placed underneath PL282 and PL278 located along the north wall towards the center.<sup>127</sup> Two plates obscured this interior painting from Above.

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126. *Ibid.*

127. *Ibid.*

B296/INT/G1  
 FMNH 191567  
 grave plan: Fig. 2.2



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>128</sup> Red, black, and white are the colors. One Abstract symmetrical motif, the Clefts-and-Waves, occurs in this interior painting. In terms of symmetry, the motif is reflected across the red horizontal mirror axis, yet the color of the motif is reversed across it (*d'*1). No color, motion or shape irregularity occurs in this painting. Indeed, the motif appears so perfect that it looks as if it was stamped onto the surface. In contrast, the exterior is plain.

According to the grave plan, the bowl was broken in Grave 1. It is complete with all of its sherds and therefore it is identified as a broken/complete vessel in this dissertation. Its burial position was not recorded in the field notes nor grave plan and thus the painting's orientation cannot be reconstructed.

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128. Lothrop, *Coclé Part I*, 47.

PL297/INT/G1  
 PMHU 33-42-20/890  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware. Red, orange, black, and white are the colors. Figural and Abstract motifs fill this painting. In terms of symmetry, they create design and one-dimensional pattern ( $c2+pl1$ ). Both Figural motifs are rotated ( $c2$ ). The Clefts-and-Waves A motif is also rotated twofold ( $c2$ ). Regarding the Clefts-and-Waves B, there are too few repetitions to be analyzed as a pattern, but the four Waves are generated by glide reflection ( $pl1$ ). Regarding irregular symmetry, the Waves of Clefts-and-Waves B have a motion irregularity between the third and fourth copy (*irregular pl1*). No color irregularity occurs in this painting.

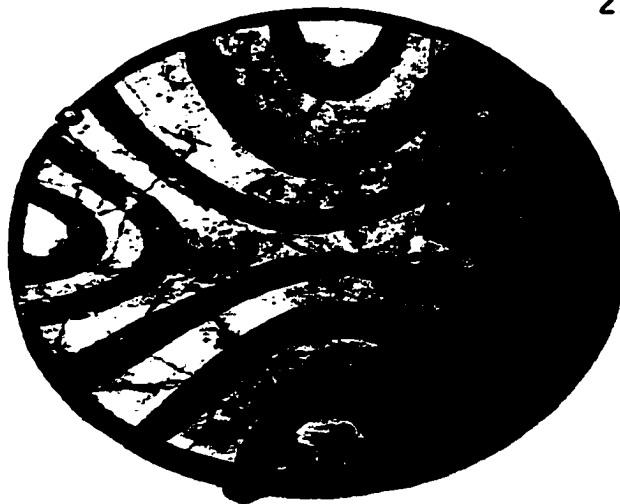
The plate was broken and inverted in Grave 1.<sup>129</sup> It is identified in this dissertation as a broken/complete vessel. This interior painting was acted as a Below-member of the grave program. In contrast, the plain exterior faced Above. The plate was underneath PL294 and PL298 amidst the numerous mixed vessels 285-299.<sup>130</sup> Thus, the interior painting was obscured by two plates.

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129. *ibid.*

130. *ibid.*

PL298/INT/G1  
 PMHU 33-42-20/891  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Photograph by author.

This interior painting is Early Polychrome ware. Orange, black, and white are the colors. In Lothrop's classification, this motif was a Geometric Arch.<sup>131</sup>

The Stripe motif forms two sets (A and B). In fact, this linear motif appears as ligatures, body paint, or tattoos on the arms, legs, and torsos of the Figural motifs in PL21/INT/G1 and PL313/INT/G1. In terms of symmetry, they make two designs based upon mirror reflection (*d2*). No color, motion, or shape irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>132</sup> It has been repaired with original sherds. It is identified in this dissertation as a broken/complete vessel. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above. The plate was on top of PL297 and underneath CF292, amidst the mixed vessels 285-299.<sup>133</sup> Thus, the interior painting's orientation to Below was obscured by the plate underneath as well as the overall welter of broken plates and carafes.

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131. Lothrop, *Coclé Part II*, 16.

132. PMHU, CER 33-42, Box 10, I-33 Grave D.

133. *Ibid.*

PL299/339/INT/G1  
 PMHU 33-42-20/892  
 grave program: Fig. 7.6



Photograph by author.

This interior painting is Early Polychrome ware. Orange, black, and white are the colors. Two Figural motifs are depicted. In terms of symmetry, these two motifs form figure and design (c1+c4). The center is marked with an asymmetrical (c1) foot motif. The other Figural motif is rotated fourfold (c4) around the center. This interior painting has been repainted. As such, the motifs are generally accurate, but details such as shape irregularities warrant caution. For example, one Figural motif has two white rectangles on its torso while the others have only one. No color or motion irregularity occurs in this painting. In contrast, the exterior is plain.

The plate was broken in Grave 1.<sup>134</sup> It is identified in this dissertation as a broken/complete vessel. The two field numbers indicate that the plate was dispersed in the northern area. One group of sherds, SHS299, was discovered in an inverted position under PL294, PL297, and PL298 while the other group, SHS339, was on their side against the wall.<sup>135</sup> Therefore, the plate was complete within Grave 1, but dispersed therein. Moreover, an incomplete interior painting acted as a Below-member of the grave program.

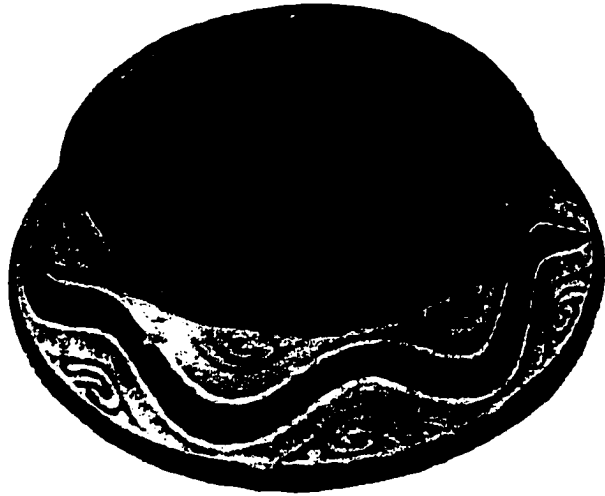
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134. *Ibid.*

135. *Ibid.*



B300/EXT/G1  
 PMHU 33-42-20/893  
 grave plan: Fig. 2.2



Photograph by author.

This exterior painting is Early Polychrome ware. Red, orange, black, and white are the colors. There are Figural and Abstract motifs. In terms of symmetry, these two motifs form design and one-dimensional pattern (*c2+p112*). The Figural motif is repeated twofold (*c2*). The Clefts-and-Waves motif is repeated by translation and twofold rotation (*p112*). Regarding irregular symmetry, the Clefts-and-Waves motif changes direction in the course of the translation (*irregular p112*). No color or shape irregularity occurs in this painting. In contrast, the interior is plain with some wear as if used to contain materials.

The bowl was intact and upright in Grave 1. It is identified in this dissertation as an intact/complete vessel. This exterior painting was oriented to the sides rather than Above and Below. The bowl was underneath PL278 in the northern area of the grave.<sup>136</sup> Lothrop observed that B300 was one of a pair<sup>137</sup> and the present study identified B274 as the mate. They were in proximity on at the northern side of the grave, but differed in their condition: broken B274 and intact B300.

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136. *Ibid.*

137. Lothrop, *Coclé Part II*, 60.

PL302/INT/G1  
PMHU 33-42-20/894  
grave program: Fig. 7.5



Photograph by author.

This interior painting is Black-and-White-on-Red ware. Just one asymmetrical Figural motif appears in the painting.

The plate was broken and upright in Grave 1.<sup>138</sup> It is now repaired with most of the original sherds. It is identified in this dissertation as a broken/complete vessel. The interior painting was an Above-member of the grave program. In contrast, the exterior is plain. The plate was underneath PL297 in the northern side of the grave.<sup>139</sup> Thus, this interior painting was actually obscured by the plate resting on it as well as the concentration of broken carafes and plates (285-299) in the area.

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138. PMHU, CER 33-42, Box 10, I-33 Grave D.

139. *Ibid.*

PL305/NT/G1  
 33-42-20/897  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was unavailable for examination at the PMHU. This interior painting is Early Polychrome ware.<sup>140</sup> Orange, black, and white are the colors. Lothrop identified the subject matter as a Full-Face Turtle viewed from above.<sup>141</sup> Helms suggested that it was a mammal.<sup>142</sup>

There are three Figural motifs. In terms of the symmetry, they form two designs ( $d1+d2$ ). Two Figural motifs are mirror reflected ( $d2$ ). The Figural motif in the center of the painting is mirror reflected ( $d1$ ). Regarding irregular symmetry, one Figural motif A has a shape irregularity in the little tail between the legs (irregular  $d2$ ). No color or motion irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>143</sup> This interior painting was a Below-member of the grave program. The grave plan indicates that the sherds were in the northwestern corner of Grave 1. The sherds were dispersed and some overlapped others. They did not take a tight plate formation.

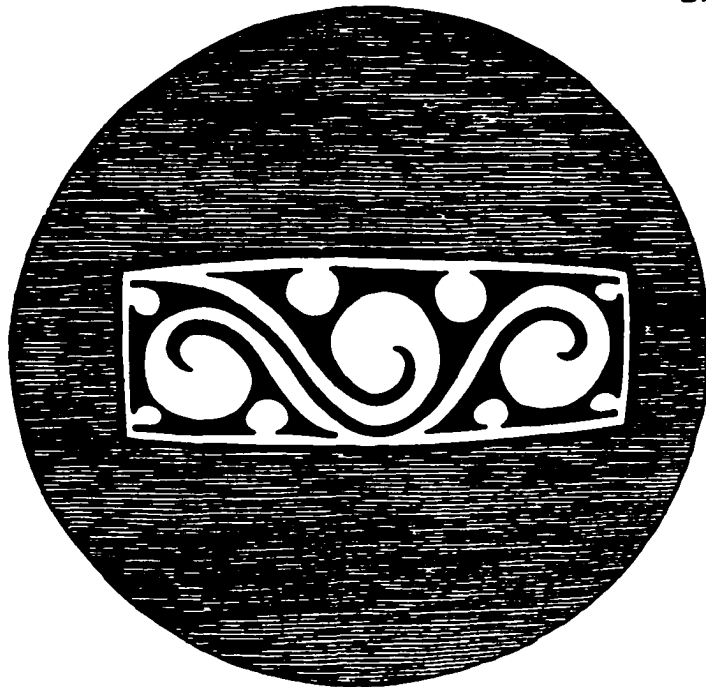
140. Lothrop, *Coclé Part II*, 36.

141. *Ibid.*, 35.

142. Helms, *Creations of the Rainbow Serpent*, 56.

143. PMHU, CER 33-42, Box 10, I-33 Grave D.

PL309/INT/G1  
 PMHU 33-42-20/901  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Panelled Red.<sup>144</sup> Red, black, and white are the colors. One Abstract motif occupies the center. It is an asymmetrical Clefts-and-Waves motif.

The plate was broken and inverted in Grave 1.<sup>145</sup> It has been repaired with original sherds and replacements. It is identified as a broken/complete vessel in this dissertation. The interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above. Yet since the plate was underneath PL324 and over PL325 and PL332 in the concentration of vessels (285-299), the interior painting was only partially visible to Below.<sup>146</sup>

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144. Lothrop, *Coclé Part II*, 150.

145. *Ibid.*

146. *Ibid.*

B312/NT/G1  
PMHU 33-42-20/904  
grave plan: Fig. 2.2



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Panelled Red ware. Orange, black, and white are the colors. One symmetrical Abstract motif fills one half of the interior: Clefts-and-Waves. In terms of symmetry, one mirror axis makes this motif bilaterally symmetrical (*d1*). The square mouth with teeth amidst the Clefts-and-Waves motif links that motif to the face painting displayed by human effigies. In other words, the painting presents a painted human face. No color, motion, or shape irregularity occurs in this painting.

The field notes regarding this flaring bowl reported traces of food, yet this author encountered no additional evidence;<sup>147</sup> this vessel might be a good candidate for residue testing. The bowl was broken in Grave 1.<sup>148</sup> It is identified as a broken/complete vessel in this dissertation. The bowl's position was not recorded in the field notes and thus the paintings orientation cannot be reconstructed.

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147. *Ibid.*

148. *Ibid.*

PL313/INT/G1  
 PMHU 33-42-20/905  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.5



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>149</sup> Red, orange, black, and white are the colors. Lothrop identified it as a dancing crocodile god.<sup>150</sup> Helms presented this painting as the "key figure" of her iconographic analysis. The two Figural motifs form one continuous bicephalic boa constrictor (the red V-shapes are two jaws swallowing the curassow's barred tail).

A Figural motif is rotated (c2). Regarding irregular symmetry, numerous shape irregularities occur between the two copies, primarily in the quantity of claws, torso markings, and limb ligatures (irregular c2). No color or motion irregularity occurs in this painting.

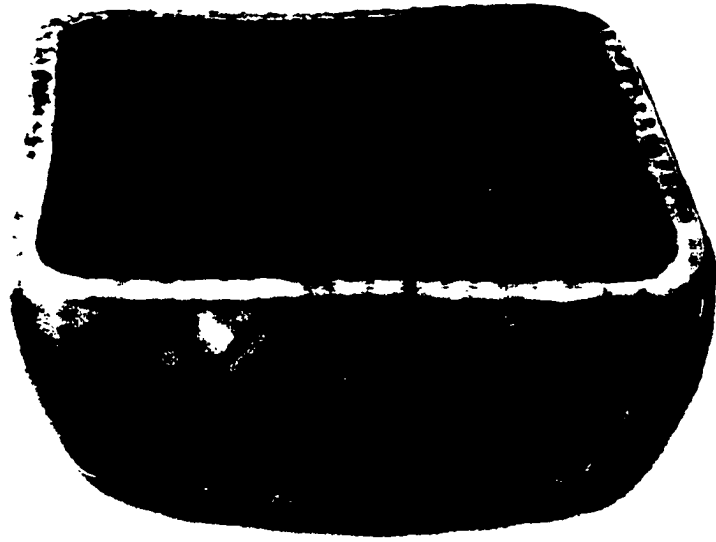
The plate was broken and upright in Grave 1.<sup>151</sup> It has been repaired with original sherds. It is identified as a broken/complete vessel in this dissertation. This interior painting acted as an Above-member of the grave program. In contrast, the plain exterior faced Below. The plan indicated that the sherds were on top of many vessels in the northwestern corner of the grave (CF315, PL326, PL327, and PL337).

149. Lothrop, *Coclé Part II*, 187.

150. *Ibid.*

151. PMHU, CER 33-42, Box 10, I-33 Grave D.

SQB321/EXT/G1  
 PMHU 33-42-20/913  
 grave plan: Fig. 2.2



Photograph by author.

This exterior painting is Panelled Red ware. Red, black, and white are the colors. There are two versions of the Clefts-and-Waves motif (A, B). In terms of symmetry, both are rotated (c2). They most resemble the Clefts-and-Waves motif on PL309/INT/G1 (Cat. no. 54) and suggest that they were stamped onto the rectangular surface. No color, motion, or shape irregularity occurs in this painting.

The bowl was broken and inverted in Grave 1.<sup>152</sup> It is now repaired with original sherds. It is identified in this dissertation as a broken/complete vessel. The exterior painting of this square bowl was oriented to the sides rather than Above or Below. The bowl was against the northern wall and on top of many plates.<sup>153</sup> This square bowl is one in the study that Lothrop identified as a pair (Cat. no. 66).<sup>154</sup> However, they were not painted identically nor were they in great proximity in Grave 1, although both were in the same general northern area.

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152. *Ibid.*

153. *Ibid.*

154. Lothrop, *Coclé Part II*, 10.

PL327/INT/G1  
 PMHU 33-42-20/919  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.5

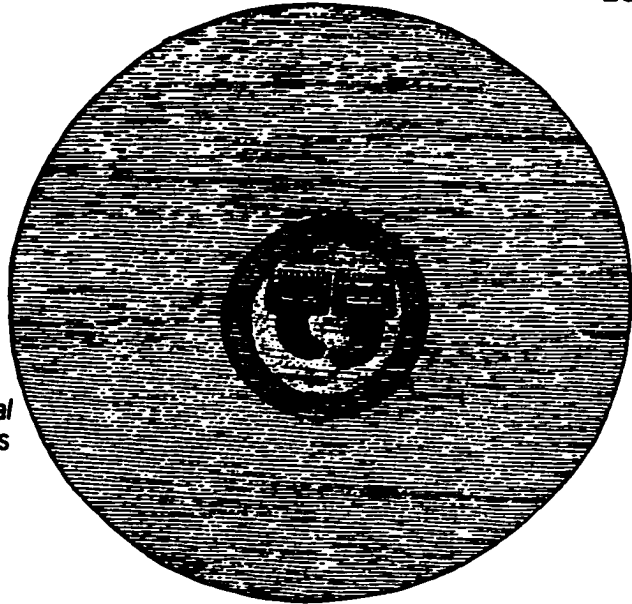


Figure 278, Samuel Kirkland Lothrop, *Coclé: An Archaeological Study of Central Panama Part II* (1942) *Memoirs of the Peabody Museum of Archaeology and Ethnology*, Vol. 8. Reprinted courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University.

This interior painting is Black-and-Red-on-Red ware.<sup>155</sup> Orange, black, and white are the colors. One bilaterally symmetrical Figural motif is (*d1*) at the center. No color, motion, or shape irregularity occurs in this painting.

The plate was broken and upright in Grave 1.<sup>156</sup> It has been repaired with original sherds and replacements. Thus, this interior painting acted as an Above-member of the grave program. The plate was against the north wall underneath B326.<sup>157</sup> The bowl it obscured the interior painting from Above. In contrast, the plain exterior faced Below. Lothrop noted that this plate was one of a pair in Grave 1 with the same painting.<sup>158</sup> However, the mate was not identified in the course of data collection at the PMHU.

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155. *Ibid.*, 143.

156. PMHU, CER 33-42, Box 10, I-33 Grave D.

157. *Ibid.*

158. Lothrop, *Coclé Part II*, 148.



PL331/INT/G1  
 PMHU 33-42-20/923  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>159</sup> Red, orange, black, and white are the colors. Figural and Abstract motifs fill the five bands. These motifs form one-dimensional patterns ( $p1m1+pmm2$ ). The Figural motif is translated and mirror reflected across a horizontal axis ( $p1m1$ ). The Cleft motif is reflected across horizontal and vertical axes and is rotated twofold ( $pmm2$ ). Regarding irregular symmetry, two copies of the Figural motif upset the repetition with unequal numbers of legs (irregular  $p1m1$ ). No color or motion irregularity occurs in this painting

The plate was broken and inverted in Grave 1.<sup>160</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as a Below-member of the grave program. Lothrop proposed that PL331 and PL166 (Cat. no. 23) were a pair based upon style despite different motifs and exterior paintings.<sup>161</sup> If so, their relationship was strained by their locations (southwestern PL166 and northwestern PL331). On the other hand, both were Below-members of the grave program.

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159. Lothrop, *Coclé Part II*, 184.

160. *Ibid.*

161. Lothrop, *Coclé Part II*, 186.

PL331/EXT/G1  
 PMHU 33-42-20/923  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.5



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This exterior painting is Early Polychrome ware.<sup>162</sup> Red, orange, black, and white are the colors. Helms identified the motifs as shrimp and a crab.<sup>163</sup> She made the Quatrefoil for a modified cross-section of a cacao pod.<sup>164</sup> This aquatic and floral relationship appears in Maya art.<sup>165</sup> Figural and Abstract motifs are in this painting. In terms of symmetry, they are two designs ( $d2+d4$ ). Figural motifs A and B are mirror reflected ( $d2$ ) and the Quatrefoil is reflected four fold ( $d4$ ). No color, motion, or shape irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>166</sup> It is identified in this dissertation as a broken/complete vessel. This exterior painting acted as an Above-member of the grave program. Yet vessels on top of it hampered this painting's visibility.

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162. Lothrop, *Coclé Part II*, 184.

163. Helms, *The Curassow's Crest*, 114–21.

164. Helms, *Creations of the Rainbow Serpent*, 75.

165. This plaque is illustrated in Arturo Gómez-Pompa, José Salvador Flores, and Mario Aliphat Fernández, "The Sacred Cacao Groves of the Maya," *Latin American Antiquity* 1 (3) 1990: Fig. 4. Mark Miller Graham and Cynthia Kristin Graham brought this article to my attention during a seminar at Emory in 1995.

166. PMHU, CER 33–42, Box 10, I-33 Grave D.

PL332/INT/G1  
 PMHU 33-42-20/924  
 grave plan: Fig. 2.2  
 grave program: Fig. 7.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware;<sup>167</sup> red, black, and white are the colors. Helms interpreted the motifs as a crab encircled by serpentness.<sup>168</sup>

Two motifs, fill this interior painting. In terms of symmetry, these two motifs form design and pattern ( $d1+pl1$ ). The Figural motif is mirror reflected ( $d1$ ). The Clefts-and-Waves motif is glide reflected ( $pl1$ ). No color, motion, or shape irregularity occurs in this painting.

The plate was broken and inverted in Grave 1.<sup>169</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as a Below-member of the grave program. However, it was partly over PL331.<sup>170</sup> Thus, little of this interior painting was visible to Below and the rest interfaced with the exterior painting of PL331. In contrast, the plain exterior faced Above.

167. Lothrop, *Coclé Part II*, 19.

168. Helms, *Creations of the Rainbow Serpent*, 37.

169. PMHU, CER 33-42, Box 10, I-33 Grave D.

170. *ibid.*

PL335/INT/G1  
 PMHU 33-42-20/927  
 grave program: Fig. 7.5



Photograph by author.

This interior painting is the only Black-White-and-Purple-on-Red ware in this dissertation.<sup>171</sup> One unusual Figural motif is stationed at the center. Lothrop identified it as a plumed serpent,<sup>172</sup> but no one has offered another suggestion. It is treated as a Figural motif in this dissertation, as if the creature should be oriented with the two legs as support and its head turned to the side. This motif is asymmetrical.

The plate was broken and upright in Grave 1.<sup>173</sup> It is identified as a broken/complete vessel in this dissertation. This interior painting acted as an Above-member of the grave program.<sup>174</sup> Yet it was underneath PL334 in the north-northwestern corner,<sup>175</sup> a location that obscured it from Above. In contrast, the plain exterior faced Below.

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171. Lothrop, *Coclé Part II*, 146.

172. *Ibid.*

173. PMHU, CER 33-42, Box 10, I-33 Grave D.

174. *Ibid.*

175. *Ibid.*

PL338/INT/G1  
PMHU 33-42-20/930  
grave plan: Fig. 2.2



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was one of the vessels that could not be examined at the PMHU and therefore it is known from the drawing published in Lothrop's site report. This interior painting is Early Polychrome ware.<sup>176</sup> Red, orange, black, and white are the colors. Lothrop identified the motif as a double-headed bird-crocodile.<sup>177</sup>

There are Figural and Abstract motifs in this painting. In terms of symmetry, the Figural motif and the Cleft motif are both mirror reflected (*d2*). Regarding irregular symmetry, the Figural motif has different quantities of head projections ("antlers") and the shape issuing from the mouth is also different (irregular *d2*). The Cleft motif does not reflect identically; one Cleft is missing at the center and the Cleft in the right corner is connected to the top of the mouth unlike all of the others in the same place (irregular *d2*).

The plate was broken in Grave 1.<sup>178</sup> The position was unrecorded in the field notes and thus the painting's orientation cannot be reconstructed. The plate was located on its edge against the north wall.<sup>179</sup> The grave plan indicates that at least some of the sherds were together forming an edge of the plate, but the rest was hidden underneath PL331 (Cat. nos. 59, 60).

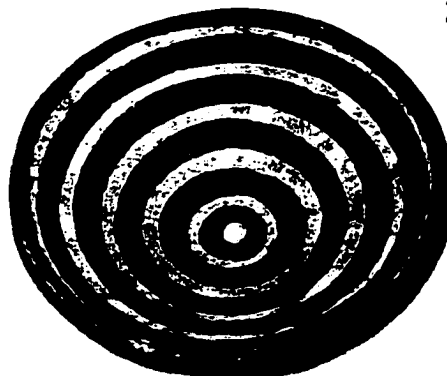
176. Lothrop, *Coclé Part II*, 33.

177. *Ibid.*

178. PMHU, CER 33-42, Box 10, I-33 Grave D.

179. *Ibid.*

B340/INT/G1  
 PMHU 33-42-20/932  
 grave program: Fig. 7.6



Photograph by author.

This interior painting is Early Polychrome ware.<sup>180</sup> Red, orange, black, and white are the colors. Lothrop identified this motif as a Geometric motif.<sup>181</sup> In terms of symmetry, the stripe is organized into one of the three-color one-dimensional patterns (p111[3]) in this dissertation. Eleven white, red, and orange Stripe motifs alternate from the center to the rim. They resemble ligatures (cf. Cat. nos. 2, 56) albeit in a circular configuration. No color, motion, or shape irregularity occurs in this painting.

The bowl was broken and inverted in Grave 1.<sup>182</sup> It is classified as a broken/complete vessel in this dissertation. It has been repaired, but Lothrop noted that the unevenness was created by the restorers.<sup>183</sup> This interior painting acted as a Below-member of the grave program. The plain exterior faced Above. The bowl was deposited underneath two plates.<sup>184</sup> Thus, this interior painting was deposited to be nonexistent from Above, but visible from Below. Lothrop noted that this bowl was a member of a pair.<sup>185</sup> This dissertation identified its mate (Cat. no. 20). Although they are identical in painting, the bowls were separated in Grave 1: B340 was directed to Below in the north-northwest while B162 was directed to Above in the south. Thus, unity was downplayed in favor of balance the two.

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180. Lothrop, *Coclé Part II*, 46.

181. *Ibid.*

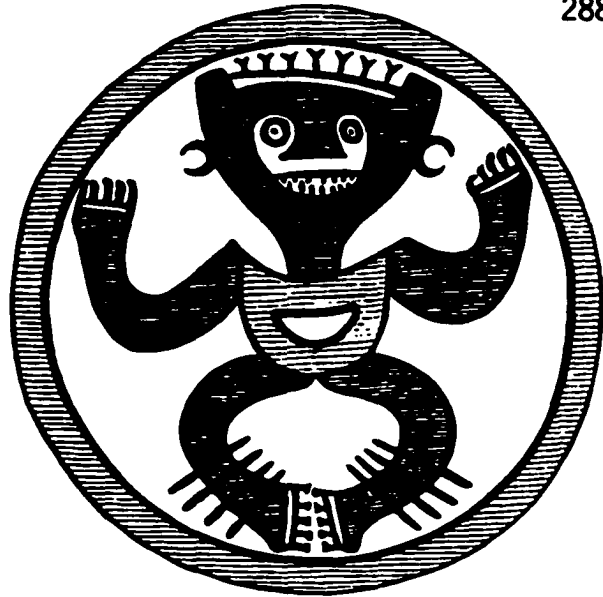
182. PMHU, CER 33-42, Box 10, I-33 Grave D.

183. Lothrop, *Coclé Part II*, 46.

184. PMHU, CER 33-42, Box 10, I-33 Grave D.

185. Lothrop, *Coclé Part II*, 46.

B341/INT/G1  
PMHU 33-42-20/933



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>186</sup> Red, orange, black, and white are the colors. Lothrop identified this motif as a turtle god and Helms proposed that it was a female whose contained wrist ligatures and uncontained ankle ligatures denoted her transformations between a human (contained ligatures) and animal (uncontained) ligatures.<sup>187</sup>

This painting consists of one bilaterally symmetrical (*d1*) Figural motif. Lothrop proposed that the same painter created Cat. no. 7 based upon stylistic similarities; the most obvious similarity is the creature's pose and physiognomy.

The bowl was broken in Grave 1. It is repaired with its original sherds. It is identified as a broken/complete vessel in this dissertation. The position of this bowl was unrecorded in the field records and thus the painting's orientation cannot be reconstructed.

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186. Lothrop, *Coclé Part II*, 52.

187. *ibid.*; Helms, *Creations of the Rainbow Serpent*, 17.

SQB362/EXT/G1  
PMHU 33-42-20/644a



Photograph by author.

This exterior painting is Panelled Red ware.<sup>188</sup> Red, black, and white are the colors. In terms of symmetry, the Clefts-and-Waves motifs are organized to form two designs ( $c2+d1$ ). One is rotated twofold ( $c2$ ) and the other is mirror reflected ( $d1$ ). No color, motion, or shape irregularity occurs in this painting.

The bowl was broken in Grave 1.<sup>189</sup> It is now repaired with the original sherds. It is identified as a broken/complete vessel in this dissertation. There is no record of its burial position. The "a" at the end of its PMHU catalogue number links it to SJ17 (PMHU catalogue number 33-42-20/644) which was located in the southeastern corner with numerous vessels. This is one of two square bowls (Cat. no. 57) that Lothrop identified as a pair.<sup>190</sup> They are not identical in design. Nor were they placed in proximity in Grave 1. If SQB362 was placed in the southeastern corner, it was at the opposite side from SQB321 in the northwestern corner. Deposition stressed the balancing of the two directions.

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188. Lothrop actually catalogued this bowl as Early Polychrome ware, but to this author, the painting is Panelled Red ware. Lothrop, *Coclé Part II*, 10.

189. PMHU, CER 33-42, Box 10, I-33 Grave D.

190. Lothrop, *Coclé Part II*, 10.



B364/INT/G1  
PMHU 33-42-20/665a



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This flaring bowl was one of the vessels that could not be examined at the PMHU and therefore it is known from the drawing published in Lothrop's site report. This interior painting is Early Polychrome ware.<sup>191</sup> Red, orange, black, and white are the colors. Lothrop ended up identifying the solid black line with a fringed frame as the primary motif and he linked it to both Zoomorphic (crocodile scales or bird feathers) and Geometric (the Zigzag) motifs.<sup>192</sup>

For this dissertation, the black lines are the Abstract Stripe motif. They are identified as motifs related to body decoration, particularly the linear markings in other paintings (Cat. nos. 32, 39, 49). In terms of symmetry, this motif is mirror reflected (*d2*). No color, motion, or shape irregularity is present in this painting.

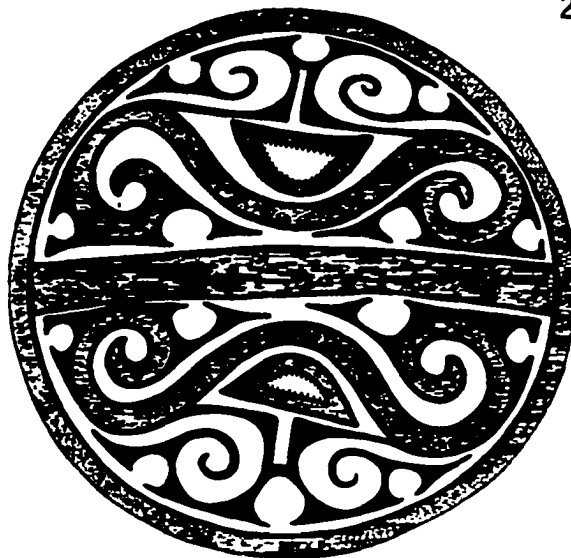
There is no documentation about the deposition of this bowl in Grave 1. It was not listed in the field notes and it was not illustrated in the grave plan.

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191. Lothrop, *Coclé Part II*, 46.

192. *Ibid.*

B372/INT/G1  
PMHU 33-42-20/871b



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This flaring bowl was one of the vessels that could not be examined at the PMHU and therefore it is known from the drawing published in Lothrop's site report. It is Early Polychrome ware.<sup>193</sup> Orange, black, and white are the colors. Lothrop identified the motif as a Face Scroll with a mouth that resembles those of to the Crocodile god, turtle, and serpent.<sup>194</sup>

The Clets-and-Waves motif is related to body decoration. The hemispherical mouth with teeth suggests that it is an abstract image of a painted anthropomorphic face. In terms of symmetry, this motif is mirror reflected (*d2*) across the orange bar that splits the field in halves. Regarding irregular symmetry, the vertical reflection axis does not exactly line up with the centers of each motif, constituting a motion irregularity (*irregular d2*). No color or shape irregularity occurs in this painting.

No documentation exists about the deposition of this flaring bowl in Grave 1. Neither the field notes nor the grave plan provide any data about its condition, position, or location.

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193. Lothrop, *Coclé Part II*, 49.

194. *Ibid.*, 48.

PL373/NT/G1  
PMHU 33-42-20/871c



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware. Red, orange, purple, black, and white are the colors. Lothrop identified this motif as a Face Scroll, Type C, notable for the Waves turned away from each other; this particular example was also distinguished by the "naturalistic" treatment of the mouth and eyes.<sup>197</sup> Helms identified double-headed serpents on either side of a face.<sup>198</sup>

The eyes, mouth, and teeth amidst the Clefts-and-Waves motif suggest that this is an abstract image of a painted human face. In terms of symmetry, the motif is reflected ( $d2$ ). Regarding irregular symmetry, there is one motion irregularity: the vertical bar of hooks at the center between the eyes is non-reflective (irregular  $d2$ ). There also is at least one shape irregularity in the shape of the eyes (irregular  $d2$ ). No color irregularity occurs in this painting

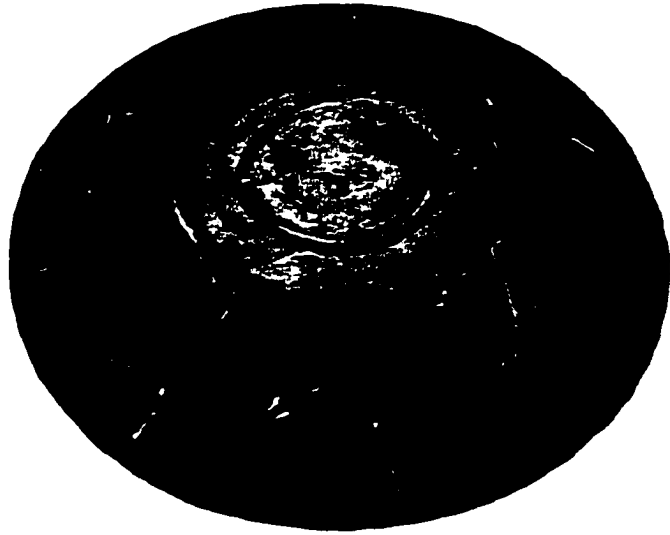
The bowl was broken in Grave 1. It is identified as a broken/complete vessel in this dissertation. No record exists of its position in Grave 1 and thus the painting's orientation cannot be reconstructed. The vessel was not recorded in the field notes, but the "c" at the end of the museum catalogue number links it to PL277 (catalogue number 33-42-20/871) located in the northern area against the wall.

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197. *Ibid.*, 26.

198. Helms, *Creations of the Rainbow Serpent*, 35–37.

PL373/EXT/G1  
PMHU/33-42-20/871c



Photograph by author.

This exterior painting was classified as the Isolated Panel type of Panelled Red ware. In terms of symmetry, the Figural motif is asymmetrical and the Hook motif is one-dimensional pattern (*c1+pm11*). The poor condition of the paintings makes it difficult to compare the motif copies for shape irregularity. No color or motion irregularity occurs in this painting.

The bowl was broken in Grave 1. It is identified as a broken/complete vessel in this dissertation. There is no record of the position and thus the painting's orientation cannot be reconstructed. The vessel was not recorded in the field notes, but the "c" at the end of its PMHU catalogue number links it to PL277 (PMHU catalogue number 33-42-20/871) located in the northern area against the wall.

PL375/INT/G1  
FMNH 191568



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>197</sup> Orange, black, and white are the colors. Lothrop identified the motif as the Chevron.<sup>198</sup>

These Chevron motif resembles those painted on the arms and heads of human effigy vessels. In terms of symmetry, they form two-color one-dimensional patterns (*p'1m1*). Chevron B in Bands 2, 4, and 6 as a two-color version of the same pattern (*p'1m1*). Regarding irregular symmetry, this plate has two color irregularities: The Chevron Bands 4 and 6 switches from orange to black. There is a shape irregularity at the edge of Band 3: just one-half of the Chevron is painted. No motion irregularity occurs in this painting.

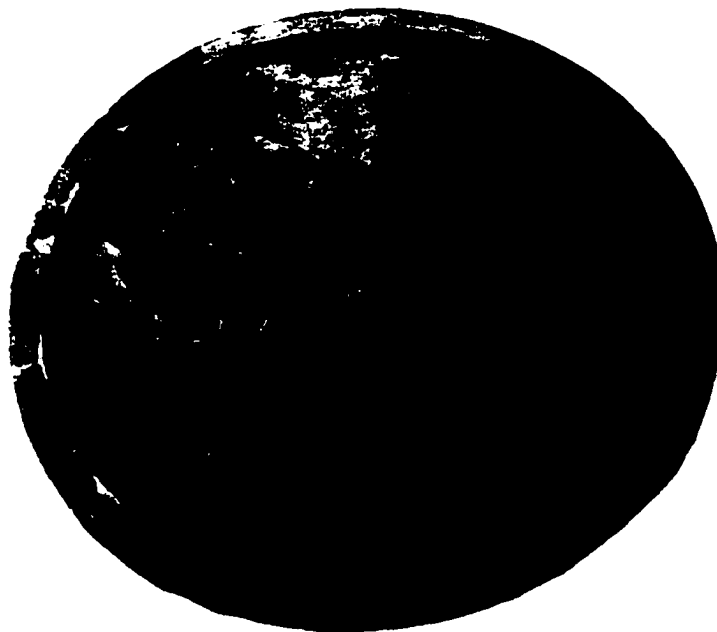
The plate was broken in Grave 1. It is repaired with original and replacement sherds. It is identified as a broken/complete vessel in this dissertation. There was no field record of the burial position nor location. The "a" at the end of its PMHU catalogue number suggests that it was mixed with the sherds of PMHU catalogue number 33-42-20-875. However, this catalogue number does not appear in the list for Grave 1 in Lothrop's report even though the number sequentially belonged in Grave 1.

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197. Lothrop, *Coclé Part II*, 15.

198. *Ibid.*

PL376/INT/G1  
PMHU 33-42-20/877a



Photograph by author.

This interior painting is Black-and-White-on-Red ware. The square central panel likely contained motif. The plate was broken in Grave .<sup>199</sup> It is repaired with original sherds and replacements. It is identified in this dissertation as a broken/complete vessel. No record of its position exists and therefore the painting's orientation cannot be reconstructed. The plate was not included in the field notes, but the "a" at the end of the museum catalogue number links it to B283 (PMHU catalogue number 33-42-20/877), located in the northern area underneath PL282 and PL278.

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199. Lothrop, *Coclé Part I*, Fig. 205.

PL4/INT/G7  
 PMHU C-12671  
 grave plan: Fig. 2.3  
 grave program: Fig. 7.8



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was unavailable for examination at the PMHU. This interior painting is Early Polychrome ware.<sup>200</sup> Red, orange, black, and white are the colors. Lothrop identified the motif as birds with and without tails.<sup>201</sup> Helms linked them to the wattled guan.<sup>202</sup>

The Figural motif is a bipedal creature. The Abstract motifs are two Clefts-and-Waves (A and B). The subject matter includes one creature and motifs related to body decoration. In terms of symmetry, the motifs form two designs and a one-dimensional pattern ( $c4+c2+p1a1$ ). The Figural motif is rotated ( $c4$ ). Clefts-and-Waves A is rotated ( $c2$ ). Clefts-and-Waves B is glide reflected ( $p1a1$ ). Regarding irregular symmetry, Clefts-and-Waves B has one Wave that heads in the opposite direction of the others (irregular  $p1a1$ ). No color or shape irregularity occurs in this painting.

The grave plan shows that plate was broken and inverted in Grave 7. It is classified as a broken/complete vessel in this dissertation since the excavation records demonstrate that the sherds were in tight plate formation. This interior painting acted as a Below-member of the grave program.

200. Lothrop, *Coclé Part II*, 31.

201. *Ibid.*

202. Helms, *Creations of the Rainbow Serpent*, 49.

B18/INT/G7  
 PMHU C-12687  
 grave plan: Fig. 2.3  
 grave program: Fig. 7.8

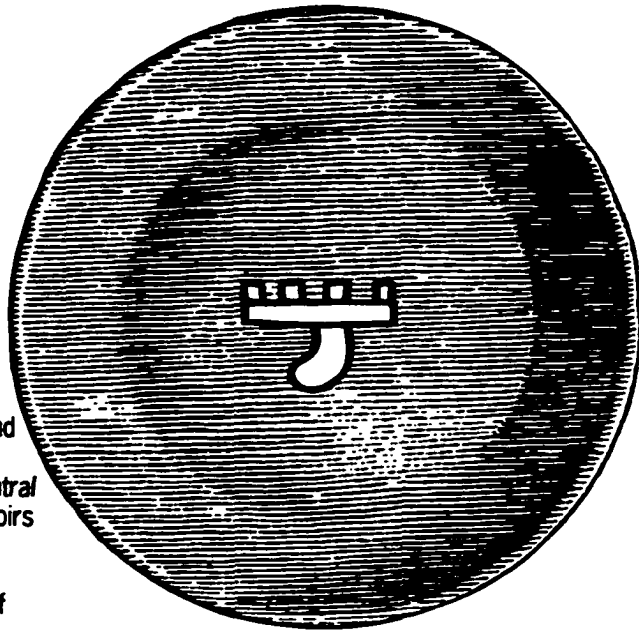


Figure 282d, Samuel Kirkland Lothrop, *Coclé: An Archaeological Study of Central Panama Part II* (1942) *Memoirs of the Peabody Museum of Archaeology and Ethnology*, Vol. 8. Reprinted courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University.

Lothrop classified this interior painting as Black-and-White -on-Red ware.<sup>203</sup> One asymmetrical Figural motif is at the center of the painting. This bowl was broken and upright in Grave 7.<sup>204</sup> It is identified as a broken/complete vessel in this dissertation. The grave plan shows that the sherds were together in tight bowl formation to the south of the deceased. This interior painting acted as an Above-member of the grave program. In contrast, the plain exterior faced Below.

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203. Lothrop, *Coclé Part II*, 144.

204. Lothrop, *Coclé Part I*, Fig. 226



PL22/INT/G7  
 BM 33.448-27  
 grave plan: Fig. 2.3  
 grave program: Fig. 7.8



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>205</sup> Red, orange, black, and white are the colors. Lothrop identified the subject matter in the two hemispheres to be an unusual kind of Face Scrolls because the mouths face outward toward the rim.<sup>206</sup>

The Clefts-and-Waves motif may represent a painted face given the addition of the mouth with teeth. In terms of symmetry, the motifs are one-color design and three-color one-dimensional pattern ( $d2+p1m1[3]$ ). The former is reflected across horizontal and vertical axes ( $d2$ ). The latter is translated twenty-two and one-half times across the center. The color of the Chevron motif is alternated orange, black, and white. This situation makes this motif one of three examples of three-color one-dimensional pattern ( $p1m1[3]$ ).

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205. Lothrop, *Coclé Part I*, 27.

206. Lothrop, *Coclé Part II*, 26.

Regarding irregular symmetry, the incomplete black Chevron at the end of the band is a shape irregularity (irregular  $p1m1[3]$ ). No color or motion irregularity occurs in this painting.

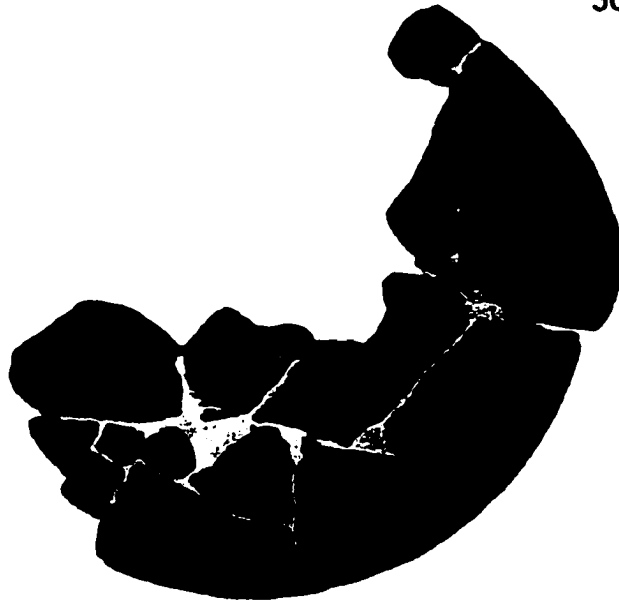
This plate was broken and inverted in Grave 7.<sup>207</sup> There is a discrepancy between the sources regarding its deposition. The grave plan gives the impression that about one half of the vessel was missing. A photograph taken during clearing shows this vessel minus one sherd.<sup>208</sup> The vessel is complete except for one sherd. It is identified as a broken/complete vessel in this dissertation since the majority of the plate sherds were together to the south of the deceased. It has been repaired with original sherds and one filling that is painted to conform with the original painting. This interior painting acted as a Below-member of the grave program without any obstruction.

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207. Lothrop, *Coclé Part I*, Fig. 226.

208. PMHU, CER 33-42, Box 9, Grave I-B.

B23/INT/G7  
 PMHU C-12692  
 grave plan: Fig. 2.3  
 grave program: Fig. 7.8



Photograph by author.

The flaring bowl, or approximately one-half of a whole, is too incomplete to analyze for symmetry. The interior painting appears to be Early Polychrome ware. Red, purple, black, and white are the colors. One Figural motif, perhaps similar to that in B198/INT/G1 (Cat. no. 38) fills the interior. If that was the case, it probably was an asymmetrical motif.

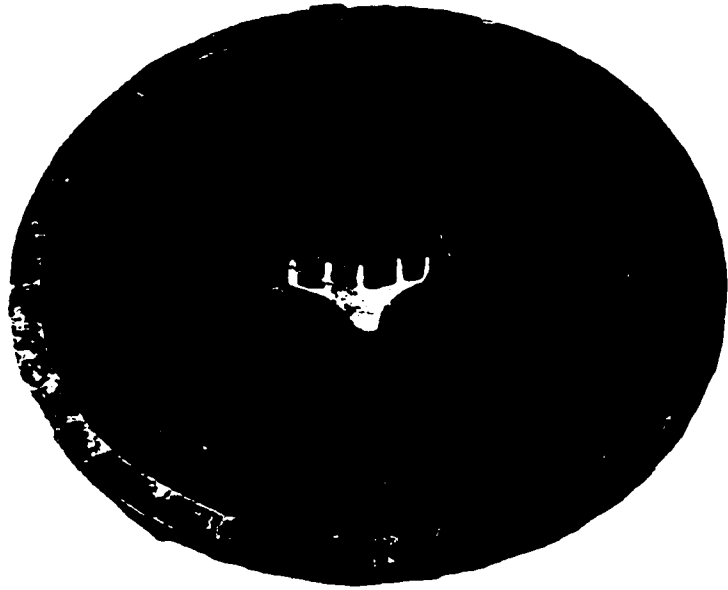
The bowl was broken and inverted in Grave 7.<sup>209</sup> According to the grave plan, the bowl sherds were together to the east of the body, partly resting on the head of Young Adult Male. It is identified as a broken/complete vessel because it clearly was so when an excavation photograph was taken.<sup>210</sup> Today, some sherds are missing from the vessel. This interior painting acted as a Below-member of the grave program. It faced the young man (oriented downward) and Below. This bowl possibly formed a plate-and-carafe pair with the decorated carafe (field number 25).

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209. Lothrop, *Coclé Part I*, Fig. 226.

210. PMHU, CER 33-42, Box 9 Grave I-B.

PL1/INT/G13-L8  
PMHU 33-42-20/1277  
grave plan: Fig. 2.4  
grave program: Fig. 7.3



Photograph by author.

This interior painting is Black-and-White-on-Red ware. Just one bilaterally symmetrical Figural motif fills the interior painting. No irregularity occurs in this painting. The plate was broken and inverted in Grave 13-Layer 8.<sup>211</sup> It is now repaired with many original sherds and replacement plaster. It is identified as a broken/complete vessel in this dissertation as the sherds were together in the southwest corner, but they were scattered. This interior painting acted as one of two Below-members of Layer 8's program along with B20/INT (Cat. no. 78).

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211. PMHU, CER 33-42, Box 10, Gill 33G.

B20/INT/G13-L8  
 PMHU 33-42-20/1295  
 grave plan: Fig. 2.4  
 grave program: Fig. 7.3



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>212</sup> Orange, black, and white are the colors. Lothrop identified this motif as a standing turtle god.<sup>213</sup> Helms rightly pointed out that it possesses female genitalia. She suggested that it was a mammal (Spectacled Bear) whose serpentine nature is displayed by the alternating sets of vertical and horizontal stripes that refer to the boa constrictor's skin.<sup>214</sup> However, the rectangles attached to her upper limbs suggest the wing membrane of bats.

One mirror reflected (*d1*) Figural motif is in this painting. Regarding irregular symmetry, shape irregularities abound in the quantities of its digits and linear body marking. No color or motion irregularity occurs in this painting.

The bowl was broken and inverted in Layer 8.<sup>215</sup> It has been repaired with all of its original sherds. It is identified as a broken/complete vessel in this dissertation since all sherds were close together in the southwestern corner. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above.

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212. Lothrop, *Coclé Part II*, 53.

213. *Ibid.*, 52.

214. Helms, *Creations of the Rainbow Serpent*, 57.

215. PMHU, CER 33-42, Box 10, Gill 33G.

PL171/INT/G13-L8  
 PMHU 33-42-20/1421  
 grave plan: Fig. 2.4  
 grave program: Fig. 7.3



Figure 386b, Samuel Kirkland Lothrop, *Coclé: An Archaeological Study of Central Panama Part II* (1942) *Memoirs of the Peabody Museum of Archaeology and Ethnology*, Vol. 8. Reprinted courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University.

The plate was unavailable for examination at the PMHU. This interior painting is classified as Early Polychrome ware.<sup>216</sup> Orange, black, and white are the colors. Lothrop identified the subject matter is turtles.<sup>217</sup>

Figural and Abstract motifs occur in this painting. In terms of the symmetry, the motifs form design, and one-dimensional pattern ( $c1+d4+pm11$ ). The Figural motif in the center of the painting is asymmetrical ( $c1$ ). The Figural motif around the center is mirror reflected fourfold ( $d4$ ). The small Hook motif is translated and mirror reflected ( $pm11$ ). No color, motion, or shape irregularity occurs in this painting.

The plate was broken and inverted in Grave 13-Layer 8.<sup>218</sup> According to the grave plan, the plate sherds were together in the northeast corner. Some maintained a tight plate formation, but some other sherds were scattered within the immediate area. It is identified as a broken/complete vessel in this dissertation. This interior painting was a Below-member of the grave program.

216. Lothrop, *Coclé Part II*, 192.

217. *Ibid.*

218. PMHU, CER 33-42, Box 10, Gill 33G.

T6/INT/G13-L6  
 PMHU 33-42-20/1282  
 grave plan: Fig. 2.4  
 grave program: Fig. 7.11

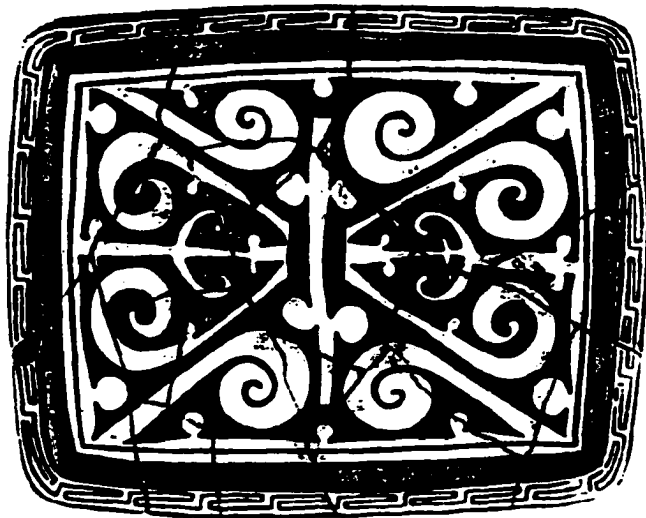
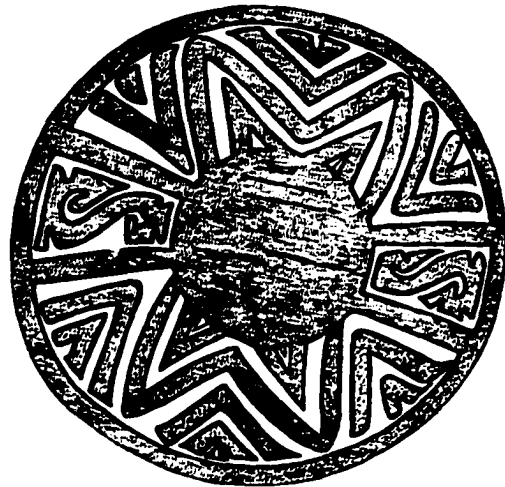


Figure 1b, Samuel Kirkland Lothrop, *Coclé: An Archaeological Study of Central Panama Part II* (1942) *Memoirs of the Peabody Museum of Archaeology and Ethnology*, Vol. 8. Reprinted courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University.

This tray was unavailable for examination at the PMHU. This interior painting is Early Polychrome ware. Red, black, and white are the colors. Two Abstract motifs are in the painting: Clefts-and-Waves and Fret. In terms of the symmetry, this interior painting is a design and one-dimensional pattern ( $d2+p112$ ). The Clefts-and-Waves motif is mirror reflected twofold ( $d2$ ). The Fret motif is translated and rotated twofold ( $p112$ ). No color, motion, or shape irregularity occurs in this painting.

The tray was broken and upright in Grave 13-Layer 6. According to the grave plan, the tray sherds were together in the southeastern corner, but they did not exactly maintain the rectangular shape; some were displaced especially at one end of the tray. Overall, it is identified as a broken/complete vessel in this dissertation. This interior painting was an Above-member of the grave program.

B22/INT/G13-L6  
 PMHU 33-42-20/1296  
 grave plan: Fig. 2.4  
 grave program: Fig. 7.11



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This bowl was unavailable for examination at the PMHU. Lothrop classified the interior painting as Early Polychrome ware.<sup>219</sup> Red, black, and white are the colors.

All of the motifs in this painting are Abstract: Stripe, Chevron, and Clefts-and-Waves. In terms of symmetry, they form two one-color designs ( $c2+d2$ ). The Stripe and Chevron are mirror reflected twofold ( $d2$ ). The Clefts-and-Waves motif is rotated twofold ( $c2$ ). Regarding irregular symmetry, the Chevron displays shape irregularities (irregular  $d2$ ). No color or motion irregularity occurs in this painting.

This bowl was broken and inverted in Layer 6. According to the grave plan, the sherds were together in the southwestern corner but they only added up to approximately one half of a bowl. It appears that the bowl was broken/incomplete, although this requires confirmation from the bowl itself. The interior painting is a Below-member of the grave program. It also was partly overlapping PL24 and thus the interior painting was partly obscured from Below.

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219. Lothrop, *Coclé Part II*, 58.



PL24/INT/G13L6  
 PMHU 33-42-20/1297  
 grave plan: Fig. 2.4  
 grave program: Fig. 7.11



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was unavailable for examination at the PMHU. Lothrop classified the interior painting as Early Polychrome ware.<sup>220</sup> Red, black, and white are the colors. He identified the two motifs as crab and Double YC scroll.<sup>221</sup>

Figural and Abstract motifs occur in this painting. In terms of symmetry, they form one-dimensional patterns ( $plal+plm1$ ). The Figural motifs is translated and mirror reflected ( $plm1$ ) and the Clefts-and-Waves is mirror reflected ( $plal$ ). Regarding irregular symmetry, the Wave of the Clefts-and-Waves has a motion irregularity in that one of the Waves at the end of the band heads in the opposite direction of the others (*irregular plal*). The Figural motif has shape irregularities and one switches to solid black, solid white in another, and black with a white center in yet another copy (*irregular plm1*).

The plate was broken and upright in Grave 13-Layer 6.<sup>222</sup> The grave plan indicates the the plate sherds were together in the southwestern corner, although it is impossible to determine if the plate is complete because part of it was underneath B22. This interior painting was an Above-member of the grave program. Yet since it was partly underneath B22, this interior painting was obscured from Above.

220. *ibid.*, 43.

221. *ibid.*

222. PMHU, CER 33-42, Box 10, Gill 33G.

B28/INT/G13-L6  
 PMHU 33-42-20/1299  
 grave program: Fig. 7.11



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is an early example of Late Polychrome.<sup>223</sup> Red, purple, black, and white are the colors. This is an interesting classification because the majority of Grave 13's paintings were classified as Early Polychrome ware. Lothrop linked the print to crocodiles.<sup>224</sup> Helms emphasized that it was a mammalian plantigrade foot possibly of the Spectacled Bear.<sup>225</sup>

The motif was rotated sixfold and the color is alternated red and purple, making a two-color design (c6). Regarding irregular symmetry, the only irregularity is the motif's shape: two motifs have five digits and the others have four.

The bowl was broken and upright in Grave 13-Layer 6.<sup>226</sup> It is now repaired with the original sherds. It is identified as a broken/complete vessel in this dissertation. Thus, the interior painting was an Above-member of the grave program. In contrast, the plain exterior faced Below.

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223. Lothrop, *Coclé Part II*, 59.

224. *Ibid*, 45.

225. Helms, *Creations of the Rainbow Serpent*, 59–60.

226. PMHU, CER 33–42, Box 10, Gill 33G.

PL30/INT/G13-L6  
 PMHU 33-42-20/1301  
 grave plan: Fig. 2.4  
 grave program: Fig. 7.11



Photograph by author.

This interior painting is Early Polychrome ware.<sup>227</sup> Orange, black, and white are the colors. Lothrop identified the motifs as Face scrolls, Types B and D.<sup>228</sup> Since his identifications, no researcher addressed this painting, although the motifs corresponded to Helms' serpent markers.<sup>229</sup>

The Abstract motifs include one Wave and three versions of the Clefts-and-Waves motif (A, B, C). In terms of symmetry, the motifs form a design and one-dimensional pattern ( $c2+pm11$ ). First, the Wave motif is rotated ( $c2$ ). Clefts-and-Waves A is rotated ( $c2$ ). Clefts-and-Waves B and C are translated and reflected across vertical axes ( $pm11$ ). No color, motion, or shape irregularity occurs in this painting.

The plate was broken and upright in Layer 6.<sup>230</sup> It is identified as a broken/complete vessel in this dissertation. The grave plan indicates that the sherds were slightly dispersed in the southwestern corner. The plate was underneath PL29.<sup>231</sup> Thus, this painting acted as an Above-member of the grave program, but obscured by PL29.

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227. Lothrop, *Coclé Part II*, 27.

228. *Ibid.*

229. Helms, *Creations of the Rainbow Serpent*, 29-31.

230. PMHU, CER 33-42, Box 10, Gill 33G.

231. *Ibid.*

PL30/EXT/G13-L6  
PMHU 33-42-20/1301  
grave plan: Fig. 1.  
grave program: Fig. 4.



Photograph by author.

This exterior painting is Early Polychrome ware. Like the interior painting, orange, black, and white are the colors. Two Abstract motifs occur in this painting: Clefts-and-Waves A and B. In contrast to the interior painting, no motif appears in the center. Thus, this exterior painting displays motifs related to body decoration. In terms of the symmetry, both motifs are translated and reflected across vertical axes (*pm11*). No color, motion, or shape irregularity occurs in this painting.

The plate was broken and upright in Grave 13-Layer 6.<sup>232</sup> Therefore, this exterior painting acted as a Below-member of the grave program.

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232. *ibid.*

B34/INT/G13-L6  
 PMHU 33-42-20-1305  
 grave plan: Fig. 2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This bowl was unavailable for examination at the PMHU. This interior painting is an example of the Isolated Panel type of the Panelled Red ware. Lothrop identified the single motif at the center as a crocodile-headed bird.<sup>233</sup>

One asymmetrical Figural motif is in this interior painting. The bowl was broken in Grave 13-Layer 6. The grave plan indicates that the sherds were dispersed along the wall, so that they did not maintain a tight bowl formation in the grave. The position of the bowl was unrecorded.

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233. Lothrop, *Coclé Part II*, 148.

PL48/53/59/INT/G13-L8  
PMHU 33-42-20/1319



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was unavailable for examination at the PMHU. This interior painting is Early Polychrome ware.<sup>234</sup> Red, black, and white are the colors. Lothrop identified the motifs as turtles and scrolls.<sup>235</sup>

Three motifs are in this interior painting. In terms of the symmetry, they form three designs ( $c7+d2+d4$ ). The Figural motif is mirror reflected twofold ( $d2$ ). The Clefts-and-Waves motif is also reflected twofold ( $d2$ ). The Hook motif, deployed in sets of ten, is mirror reflected fourfold ( $d4$ ). The Hook motif is in the center of the painting rotated sevenfold ( $c7$ ). No color, motion, or shape irregularity occurs in this painting.

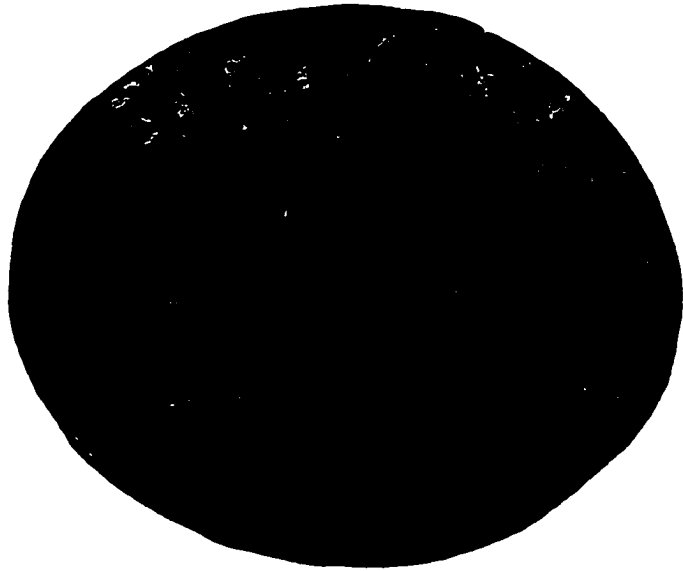
This plate was broken and its sherds were widely dispersed in different areas of Grave 13-Layer 6 so that they were assigned three field numbers during excavation. The position is unrecorded and therefore the painting's orientation cannot be reconstructed.

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234. Lothrop, *Coclé Part II*, 35

235. *Ibid.*

PL55/93/107/INT/G13-L6  
PMHU 33-42-20/1353  
grave plan: Fig. 2.4



Photograph by author.

This interior painting is Early Polychrome ware. Red, orange, black, and white are the colors. The wear is especially concentrated in the center so only the periphery of the painting is visible. It is most likely that the Figural motif is rotated (c4). For the same reason, little information about irregular symmetry can be found in what remains of this painting.

The sherds were dispersed in Layer 6 so they were assigned three different field numbers during excavation. According to the grave plan, SHS93 and SHS107 rested against the western wall. It is identified as a broken/complete vessel in this dissertation. No record of the position exists and therefore the painting's orientation cannot be reconstructed.

PL55/93/107/EXT/G13-L6  
 PMHU 33-42-20/1353  
 grave plan: Fig. 2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This exterior painting is Early Polychrome ware.<sup>236</sup> Red, black, and white are the colors. Lothrop classified the motif as a "bird-which-looks-back."<sup>237</sup> Helms identified this avian motif as a curassow.<sup>238</sup>

The two motifs represent two designs ( $c4+d4$ ). The Figural motif is rotated ( $c4$ ). The Quatrefoil is mirror reflected ( $d4$ ). The restoration makes it impossible to compare the copies of the Figural motif for shape irregularities. No color or motion irregularity occurs in this painting.

The plate was broken and the sherds were so widely dispersed that they were assigned three field numbers during excavation. According to the grave plan, SHS93 and SHS107 rested against the western wall. No record of the vessel position exists and therefore the painting's orientation cannot be reconstructed.

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236. Lothrop, *Coclé Part II*, 29.

237. *Ibid.*

238. Helms, *Creations of the Rainbow Serpent*, 40-44.



B86/INT/G13-L6  
 PMHU 33-42-20/1346  
 grave plan: Fig. 2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>239</sup> Orange, purple, black, and white are the colors. Lothrop linked the Triangle motif to the pattern of armadillo bands, most likely the Nine-banded Armadillo.<sup>240</sup>

Two Abstract motifs are in this painting. In terms of the symmetry, both motifs form designs ( $d1+d2$ ). The Wave is bilaterally symmetrical ( $d1$ ) and the Triangle motif deployed as set is reflected ( $d2$ ). Regarding irregular symmetry, the sets of Triangle motif are unequal (irregular  $d2$ ). No color or motion irregularity occurs in this painting.

The bowl was broken in Grave 13-Layer 6.<sup>241</sup> It is now repaired with the original sherds and filling, the latter painted to conform to the original. According to the grave plan, the bowl was in the west-central area of Layer 6. The sherds generally maintained tight bowl formation, although a few were slightly scattered from the majority of the sherds. No record of the bowl's position exists and therefore the painting's orientation cannot be reconstructed.

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239. Lothrop, *Coclé Part II*, 58.

240. *Ibid.*

241. PMHU, CER 33-42, Box 10, GIII 33G.

B86/EXT/G13-L6  
 PMHU 33-42-20/1346  
 grave plan: Fig. 2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This exterior painting is Early Polychrome ware; red, purple, black, and white are the colors. Helms identified the Wave motif as numerous bicephalic serpents interlocked by their heads and tails.<sup>242</sup>

Three Abstract motifs are in this exterior painting: Clefts-and-Waves A and B and Wave. In terms of symmetry, they all are one-color designs. Clefts-and-Waves A at the rim is rotated (c5) counterclockwise. Clefts-and-Waves B at the center is rotated counterclockwise (c5). The Wave motif is also rotated clockwise (c5). Regarding irregular symmetry, both Clefts-and-Waves motifs have shape irregularities. No color or motion irregularity occurs in this painting.

The bowl was broken in Grave 13-Layer 6. It is now repaired with the original sherds and modern filling, the latter painted to conform with the originals. The bowl was in the west-central area of Layer 6. The sherds generally maintained tight bowl formation, although a few were slightly scattered from the majority of the sherds. No record of the bowl's position exists and therefore the painting's orientation cannot be reconstructed.

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242. Helms, *Creations of the Rainbow Serpent*, 37.

B92/INT/G13-L6  
 PMHU 33-42-20/1352  
 grave plan: Fig. 2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This bowl was unavailable for examination at the PMHU. The interior painting is Early Polychrome ware.<sup>243</sup> Red, orange, black, and white are the colors. Lothrop identified the creature as a Crocodile-headed bird.<sup>244</sup>

One asymmetrical Figural motif is in this interior painting. The bowl was broken in Grave 13-Layer 6.<sup>245</sup> The grave plan indicates that the bowl's sherds were along the western wall. They did not maintain tight bowl formation in any way. The bowl's position was not recorded and therefore the painting's orientation cannot be reconstructed.

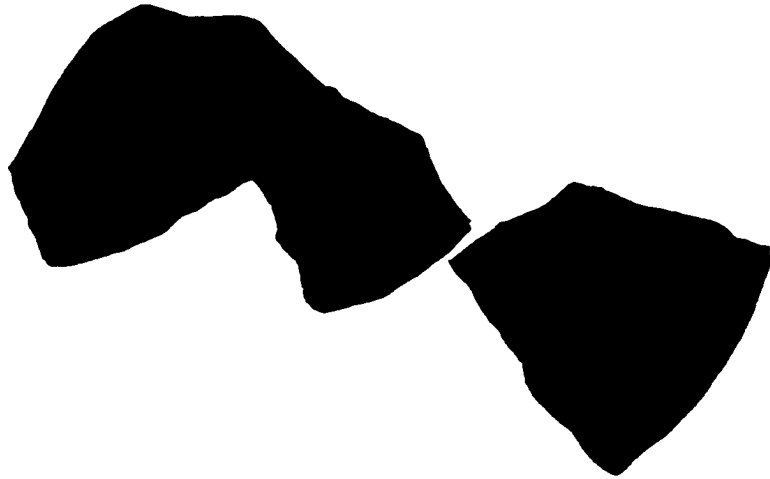
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243. Lothrop, *Coclé Part II*, 50.

244. *Ibid.*

245. PMHU, CER 33-42, Box 10, Gill 33G.

PL94/INT/G13-L6  
PMHU 33-42-  
20/1354  
grave plan: Fig. 2.4



Photograph by author.

Only three sherds remain of this plate with an everted rim. The interior painting is Black-on-Red ware. One asymmetrical Figural motif is in the painting. The exterior is plain. The plate was broken in Grave 13-Layer 6. It is identified as a broken/incomplete vessel in this dissertation. According to the grave plan, these sherds were located along the western wall of the grave. The excavators did not record the position and therefore the painting's orientation is unknown.

B109/INT/G13-L6  
PMHU 33-42-20/1367  
grave plan: Fig. 2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>246</sup> Red, black, and white are the colors. Lothrop identified this motif as a turtle god.<sup>247</sup> One bilaterally symmetrical (*d1*) Figural motif fills the interior painting. Regarding irregular symmetry, the shape irregularity involves the slightly differently shaped noses. The upper limbs also are not identical in shape. In contrast, the exterior is unpainted.

The bowl was broken in Grave 13-Layer 6. It has been repaired with the original sherds and two replacement fillings. It is identified in this dissertation as a broken/complete vessel. According to the grave plan, the bowl was located in the western area of Layer 6. The sherds did not maintain tight bowl formation, but rather were scattered and overlapping one another. The excavators did not record the position.

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246. Lothrop, *Coclé Part II*, 52.

247. *ibid.*

PL116/INT/G13L6  
PMHU 33-42-20/1374  
grave plan: Fig. 2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>248</sup> Red, black, and white are the colors. Lothrop identified both creatures as turtles.<sup>249</sup> In contrast, Helms identified both as mammals.<sup>250</sup>

Both Figural motifs are reflected across horizontal and vertical axes ( $d_2$ ). Regarding irregular symmetry, one motif displays nonreflective tails, a motion irregularity. The copies of have two differently shaped torsos (irregular  $d_2$ ). The other motif has irregular aspects, such as the differently shaped feet (irregular  $d_2$ ). No color irregularity occurs in this painting. The exterior is plain.

The plate was broken in Grave 13-Layer 6. It is now repaired with the original sherds and filling. The sherds were against the northwestern wall.<sup>251</sup> The sherds did not maintain tight plate formation; they were bunched against the wall on top of each other.

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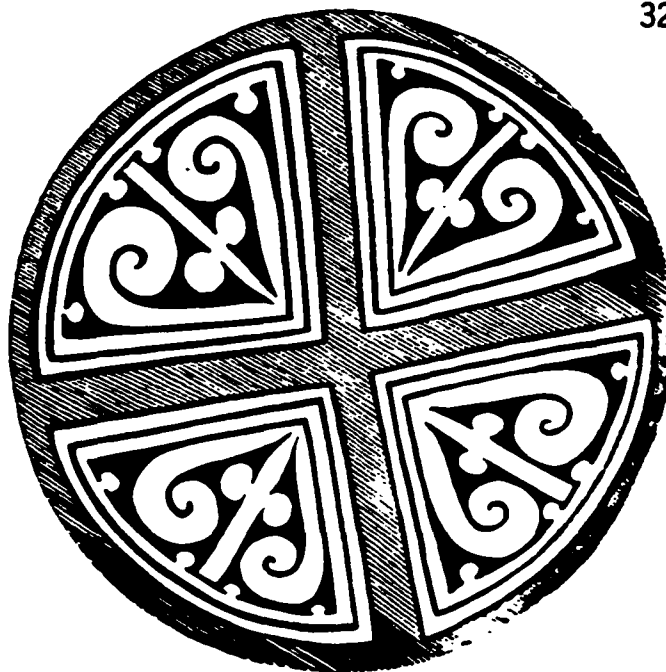
248. Lothrop, *Coclé Part II*, 35.

249. *Ibid.*

250. Helms, *Creations of the Rainbow Serpent*, 55.

251. PMHU, CER 33-42, Box 10, Gill 33G.

B125/INT/G13-L6  
PMHU 33-42-20/1382  
grave plan: Fig. 2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This bowl was unavailable for examination at the PMHU. The interior painting is Early Polychrome ware;<sup>252</sup> red, black, and white are the colors. Lothrop identified the motif as Type B Face Scrolls.<sup>253</sup>

One Abstract motif is in this painting: Clefts-and-Waves. In terms of the symmetry, the motif is mirror reflected (d4). No irregularity occurs in this painting.

The bowl was broken in Grave 13-Layer 6.<sup>254</sup> According to the grave plan, the sherds partly maintained a bowl formation. It also indicates that the bowl was incomplete, amounting to about one half of a bowl. At least two other bowls with similar interior paintings were mixed together with these bowl sherds (Cat. nos. 97, 98). No record of the vessel's position exists and therefore the painting's orientation cannot be reconstructed.

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252. Lothrop, *Coclé Part II*, 55.

253. *ibid.*

254. *ibid.*

B125a/INT/G13-L6  
 PMHU 33-42-  
 20/1382a



Photograph by author.

This interior painting is Early Polychrome ware. Orange, black, and white are the colors. The motif of Type B Face scrolls.<sup>255</sup> One Abstract motif is in the painting: Clefts-and-Waves. Thus, the subject matter is related to body decoration. In terms of the symmetry, this motif is mirror reflected (*d4*). In contrast, the exterior is plain red.

No information about this vessel was in the field notes. Just about one half of this flaring bowl remains. The sherds likely were mixed among the sherds of B125 and B125b (Cat. nos. 96, 98). If so, they were with those vessels in the western area of Layer 6. It possibly was part of a pair along with B125/INT/G13-L6 (Cat. no. 96) in light of their identical paintings and proximity.

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255. Lothrop, *Coclé Part II*, 26.



B125b/INT/G13-L6  
PMHU 33-42-20/1382b



Photograph by author.

Although this vessel is incomplete, it seems that it was a bowl with an interior painting of the Panelled Red ware. The motif around the rim is a version of the Clefts-and-Waves. A motif resembling the feet or claws is also present. The floor of the vessel either was solid red or had a motif(s) as well. It is impossible to reconstruct the symmetry. In contrast, the exterior is plain red.

Only a few sherds remain of this bowl. It clearly was a broken/incomplete vessel. It was probably mixed with B125 and B125a (Cat. nos. 96, 97) in the western area of Layer 6 because it shares the same field and museum catalogue numbers.

B127a/INT/G13-L6  
PMHU 33-42-20/1385



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting represents the Isolated Panel Type of the Panelled Red ware.<sup>256</sup> Lothrop identified the motif as a crocodilian and it is indeed similar to those of other paintings (Cat. nos. 127, 145). Just one asymmetrical Figural motif is in the center. In contrast, the exterior is plain.

The circumstances of its deposition in Grave 13-Layer 6 were not recorded in the field notes nor the grave plan. The field number suggests that this bowl was buried near or mixed with SJ127. It clearly was broken and is now repaired with the original sherds and filling.

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256. Lothrop, *Coclé Part II*, 148.

B131/INT/G13-L6  
 PMHU 33-42-20/1389  
 grave plan: Fig. 2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>257</sup> Orange, black, and white are the colors. Lothrop classified it as a serpent whose contrary feet displayed the painter's horror vacui and "supreme disregard for nature."<sup>258</sup>

One asymmetrical Figural motif occupies the painting. Interestingly, both limbs are at the opposite ends yet same side of the body. In contrast, the exterior plain.

The bowl was broken in Grave 13-Layer 6. It has been repaired with original sherds and replacements. The grave plan indicates that at least some sherds were bunched against the western wall.<sup>259</sup> Thus, the sherds did not maintain tight bowl formation. The excavators did not record the position and therefore the painting's orientation cannot be reconstructed.

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257. Lothrop, *Coclé Part II*, 55.

258. *Ibid.*

259. PMHU, CER 33-42, Box 10, GIII 33G.

B132/INT/G13-L6  
PMHU 33-42-20/1390



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is the Isolated Panel Type of the Panelled Red ware.<sup>260</sup> Lothrop identified the motif as a turtle with a bill suggesting a bird.<sup>261</sup> One asymmetrical Figural motif is in this painting. In contrast, the exterior is plain.

This bowl was broken in Grave 13-Layer 6; the field notes describe this vessel as fragments.<sup>262</sup> Today, many sherds are missing. It is identified as a broken/incomplete vessel in this dissertation. According to the field records, the sherds were in the central area of Layer 6, under eight celts and just to the west of the shoulder of Aged Male I. Lothrop suggested that this bowl was made by the same artist as B127a/INT (Cat. no. 99) because they were identical in shape, size, and design layout.<sup>263</sup> Unfortunately, the burial of these two vessels cannot be compared as that of B127a was undocumented in the field notes (aside from the possibility that it was in proximity to SJ127).

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260. Lothrop, *Coclé Part II*, 148.

261. Lothrop, *Coclé Part II*, 149.

262. PMHU, CER 33-42, Box 10, G11 33G.

263. *Ibid.* He suggested that the same artist made B34/INT/G13-L6 (Cat. no. 86).

B134/INT/G13-L6  
PMHU 33-42-20/1392



Photograph by author.

This exterior painting is Early Polychrome ware. Red, black, and white are the colors. The exterior has a Figural motif, possibly one, resembling two paintings in Grave 1 (Cat. nos. 41, 51). The interior is plain.

No data regarding the deposition of this bowl was in the field notes nor the grave plan. The bowl was broken in Grave 13-Layer 6 and has been repaired with original sherds and filling.

PL147/INT/G13L6  
PMHU 33-42-20/1404



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was unavailable for examination at the PMHU. This interior painting is Early Polychrome ware.<sup>264</sup> Red, orange, black, and white are the colors. Lothrop identified the creature as the needle or houndfish.<sup>265</sup> This creature exemplifies Olga Linares's theory that creatures with dangerous body parts were selected because they displayed attributes that would serve a warrior in warfare.

Figural and Abstract motifs occur in this painting. In terms of the symmetry, the three motifs form a design and two one-dimensional patterns ( $c2+p111+pmm2$ ). One Figural motif is rotated twofold ( $c2$ ). The other Figural motif (print) is translated ( $p111$ ). The Hook is a one-dimensional pattern of horizontal and vertical mirror reflection and twofold rotation ( $pmm2$ ). Regarding irregular symmetry, the drawing indicates that a shape irregularity of the Figural motif occurs in the number of sharp projections from the bodies. A shape irregularity of the Figural motif (print) occurs in the number of digits of each copy (*irregular p111*). No color or motion irregularity occurs in this painting.

This plate was broken in Grave 13-Layer 6.<sup>266</sup> The field notes record that the sherds were both upright and inverted.<sup>267</sup> Thus, pieces of the interior painting were Above-members of the grave program while other pieces were Below-members of the program. The plate was underneath PL146 so therefore parts of the painting were obscured from that direction.

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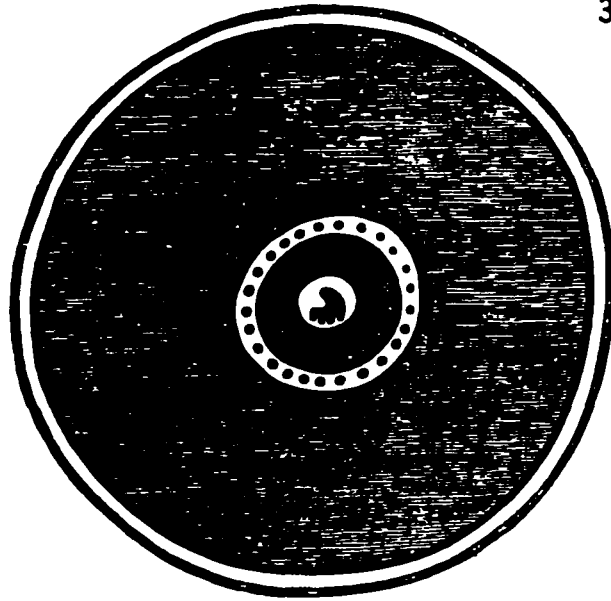
264. Lothrop, *Coclé Part II*, 45.

265. *Ibid.*

266. PMHU, CER 33-42, Box 10, Gill 33G.

267. *Ibid.*

B163/INT/G13-L6  
PMHU 33-42-20/1413  
grave plan: Fig. 2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Black-and-White-on-Red ware.<sup>268</sup> Three motifs, are confined to the center of the bowl. In terms of the symmetry, they make an asymmetrical figure and two one-dimensional patterns ( $cl+pm11+pmm2$ ). The Figural motif is asymmetrical. The Hook motif is translated and reflected across vertical axes ( $pm11$ ). The Circle is vertically and horizontally reflected and rotated twofold ( $pmm2$ ).

In contrast, the exterior is plain. No color, motion, or shape irregularity occurs in this painting.

The bowl was broken in Grave 13-Layer 6.<sup>269</sup> It is now repaired with original sherds and filling. The bowl is identified as a broken/complete vessel in this dissertation. The grave plan indicates that the sherds were not dispersed in the grave, but instead they maintained bowl formation in the northern area and just to the side of Aged Man's head.

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268. Lothrop, *Coclé Part II*, 145.

269. *ibid.*

PL165/INT/G13-L6  
 PMHU 33-42-20/1420  
 grave plan: Fig. 1



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This plate was unavailable for examination at the PMHU. This interior painting is Early Polychrome ware.<sup>270</sup> The motifs are examples of Lothrop's Double YC scrolls.<sup>271</sup> Helms interpreted the motifs as serpent bodies.<sup>272</sup>

Two Abstract motifs are in this painting: Clefts-and-Waves A and B. In terms of the symmetry, the two motifs make a figure and design ( $c1+c2$ ). Clefts-and-Waves A is rotated ( $c2$ ) and Clefts-and-Waves B is asymmetrical. No color, motion, or shape irregularity occurs in the Clefts-and-Waves A motif

This bowl was broken in Grave 13-Layer 6.<sup>273</sup> Furthermore, the sherds were dispersed and did not maintain tight bowl formation in the grave. Some sherds were in the northeastern corner and others were in the northwestern one. In terms of position, the sherds numbered 165 were oriented in two directions, some to above and others to Below.<sup>274</sup> Above and Below the position of the sherds numbered 170 was not recorded.

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270. Lothrop, *Coclé Part II*, 19.

271. *Ibid.*

272. Helms, *Creations of the Rainbow Serpent*, 35.

273. *Ibid.*

274. *Ibid.*



PL169/INT/G13-L6  
 PMHU 33-42-20/1419  
 grave plan: Fig.2.4



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>275</sup> Orange, black, and white are the colors. Helms developed a complicated interpretation of this painting. The Figural motif is a crab, specifically a megalop (larval crab) or scorpion, oriented around a cross-section of the Tree of Life or boa constrictor separated by four serpent symbols.<sup>276</sup> By working these motifs in the third-dimension, she found the shape of a four-sided serpent column with a cacao center. To her, it is the Tree of Life, a creator to some Native Americans such as the Talamancans who live in Costa Rica.

Four motifs, are in this painting. In terms of symmetry, they make one-color designs ( $c2+d4$ ).

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275. Lothrop, *Coclé Part II*, 23.

276. Helms, *Creations of the Rainbow Serpent*, 78–79; Helms, *The Curassow's Crest*, 114–20.

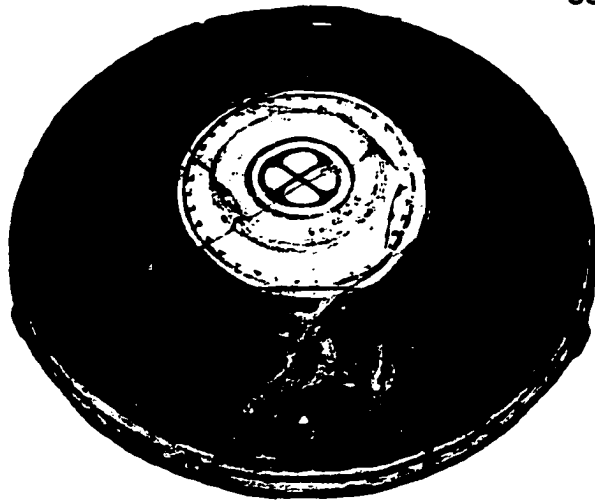
Both Clefts-and-Waves motifs are rotated (c2). The Figural motif and Quatrefoil admit mirror reflections (d4). Regarding irregular symmetry, the copies of the Figural motif vary slightly in size, but display no other shape irregularity. No color or motion irregularity is present in this painting.

The plate was broken in Grave 13-Layer 6.<sup>277</sup> The grave plan illustrates some of the sherds in the northeastern area underneath EJ167. It is identified as broken/complete vessel in this dissertation. The grave plan indicates that the sherds did not maintain a tight plate formation in the grave, but were dispersed.

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277. PMHU, CER 33-42, Box 10, Gill 33G.

PL169/EXT/G13-L6  
PMHU 33-42-20/1419



Photograph by author.

This exterior painting is the Isolated Panel Type of Panelled Red ware. Orange, black, and red are the colors. The Quatrefoil is one motif that Lothrop did not classify or identify, but Helms linked it to the cacao pod.<sup>278</sup>

In terms of symmetry, they form a design and one-dimensional pattern ( $d4+pm11$ ). The Quatrefoil is reflected ( $d4$ ). The Hook motif is translated at least thirty-four times and reflected across vertical axes ( $pm11$ ). No color, motion, or shape irregularity is present in this painting.

The plate was broken in Grave 13-Layer 6.<sup>279</sup> The grave plan illustrates some of the sherds in the northeastern area underneath EJ167. It is identified as broken/complete vessel in this dissertation. The grave plan also indicates that the sherds did not maintain a tight plate formation in the grave, but were dispersed.

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278. Helms, *Creations of the Rainbow Serpent*, 74–76.

279. PMHU, CER 33–42, Box 10, Gill 33G.

B206/INT/G13-L6  
PMHU 33-42-20/1350a



Photograph by author.

This interior painting appears to be Polychrome. Red, orange, black, and white are the colors. The motif seems to be a Figural motif. It most likely was an asymmetrical motif. Unfortunately, neither the field notes nor grave plan provide any data about its deposition in Grave 13-Layer 6.

PL6/INT/G17  
 PMHU 33-42-20/1059  
 grave plan: Fig. 2.15  
 grave program: Fig. 7.7



Figure 382b, Samuel Kirkland Lothrop, *Coclé: An Archaeological Study of Central Panama Part II* (1942) *Memoirs of the Peabody Museum of Archaeology and Ethnology*, Vol. 8. Reprinted courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University.

This interior painting is Early Polychrome ware, Style F (Scroll-filled Style of Grave 32);<sup>280</sup> red, black, and white are the colors. Lothrop identified the subject as a turtle god.<sup>281</sup>

The Figural motif is most likely either asymmetrical with its head turned to the side or bilaterally symmetrical (*d1*) with a frontal head. Numerous asymmetrical Cleft-and-Waves motifs are scattered around and attached to the Figural motif. Regarding irregular symmetry, the Clefts-and-Waves motif in the Figural motif upsets the mirror reflection. No color or motion irregularity occurs in this painting. In contrast, the exterior is plain.

The plate was broken and upright in Grave 17.<sup>282</sup> The field notes report that only a fragment of a plate was found in the grave.<sup>283</sup> It is identified in this dissertation as a broken/incomplete vessel. The grave plan indicates the sherds were generally together in the center of Grave 17 and they maintained the round plate shape. The field notes indicate that these plate sherds were underneath IB4 and partly over IB3, IB4, and PL7.<sup>284</sup> As such, this incomplete interior painting faced Above, albeit obscured by IB4.

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280. Lothrop, *Coclé Part II*, 189.

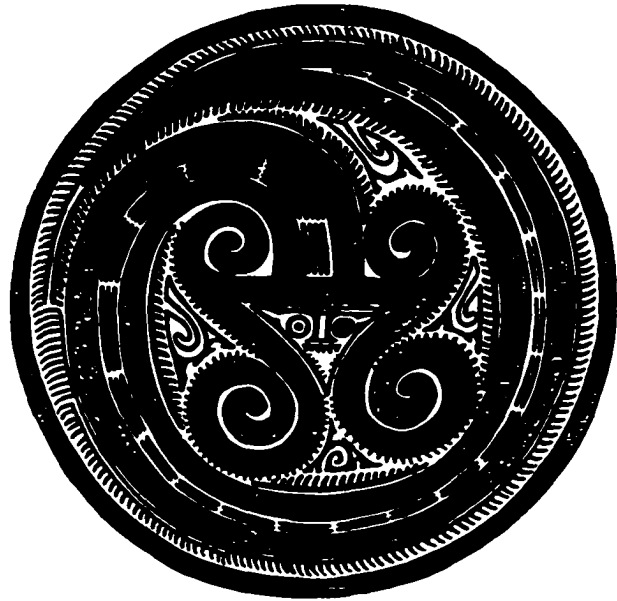
281. *Ibid.*, 189–90.

282. PMHU, CER 33–42, Box 10, #33 Grave B

283. *Ibid.*

284. *Ibid.*

PL7/INT/G17  
 PMHU 33-42-20/1060  
 grave plan: Fig. 2.15  
 grave program: Fig. 7.7



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware;<sup>285</sup> orange, black, and white are the colors. Lothrop identified the subject as a coiled serpent with a plumed head.<sup>286</sup> The motif is an asymmetrical Figural motif. In contrast, the exterior is plain.

The plate was broken and inverted in Grave 17.<sup>287</sup> It is identified as a broken/incomplete vessel in this dissertation. The field notes indicate that PL7 was overlapped by IB3, IB4, and PL6 and crushed over B8 and B9.<sup>288</sup> The grave plan confirms this in showing the plate sherds dispersed around B8 and B9. This interior painting was a Below-member of the grave program, yet with considerable interference by other vessels. This plate is nearly identical in subject matter to PL12/INT/G17 (Cat. no. 113) and furthermore they share in common shape, broken condition, and inverted position; they probably were a pair.

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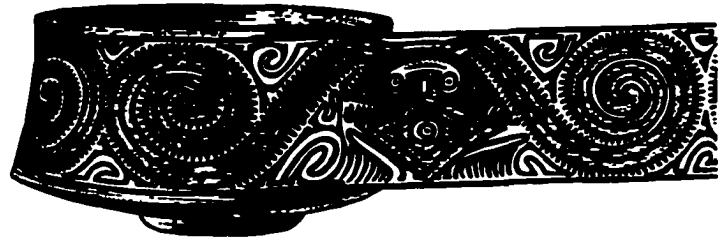
285. Lothrop, *Coclé Part II*, 44.

286. *Ibid.*

287. PMHU, CER 33-42, Box 10, III33 Grave B.

288. *Ibid.*

B8/EXT/G17  
PMHU 33-42-20/1061  
grave plan Fig. 2.15



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This exterior painting is Early Polychrome ware.<sup>289</sup> Orange, black, and white are the colors. The plain interior displays considerable wear as if used as a container. Lothrop identified the subject as a turtle motif.<sup>290</sup>

One Figural and Abstract motif are in this painting. In terms of symmetry, the motifs form two designs ( $c6+d2$ ). The Figural motif is mirror reflected twofold ( $d2$ ). The Clefts-and-Waves motif is rotated sixfold around the bowl along the top and the bottom ( $c6$ ). Regarding irregular symmetry, the Figural motif is imperfectly reflected via changes in head and torso shape (irregular  $d2$ ). The Clefts-and-Waves motif changes direction (irregular  $c6$ ). No color irregularity occurs in this painting.

The bowl is identified as an intact/complete vessel in this dissertation. The field notes record that this bowl was in an upright position underneath PL7 which was broken over it.<sup>291</sup> Thus, this exterior painting faced the sides rather than either Above or Below. This bowl also was part of a pair with B9/INT/G17 given their similar shape and position and contrasting motifs and condition. Their proximity enhanced their visibility as a pair.

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289. Lothrop, *Coclé Part II*, 60.

290. *Ibid.*

291. PMHU, CER 33-42, Box 10, III-33 Grave B; PMHU, Lothrop papers. 996-20, Sitio Conte, Tr. I, Gr. 17,18.

B9/EXT/G17  
 PMHU 33-42-20/1062  
 grave plan: Fig. 1.



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This exterior painting is Early Polychrome ware.<sup>292</sup> Orange, black, and white are the colors. Lothrop identified the subject as a Scroll and suggested that it represented a conventionalized turtle with the central scroll standing for the turtle's head and body.<sup>293</sup>

Two Abstract motifs are in this painting: Wave and Clefts-and-Waves. Together they form two designs (c6+d1). The orange Wave motif is mirror reflected twofold (d2). The small black Clefts-and-Waves motif is rotated sixfold along the top and bottom (c6). Regarding irregular symmetry, the Clefts-and-Waves motif changes its rotation direction (irregular c6). In contrast, the plain interior displays wear like B8/INT/G17.

The bowl was broken and upright in Grave 17.<sup>294</sup> It is identified as a broken/complete vessel in this dissertation. The grave plan indicates that the bowl sherds maintained the shape of the bowl in the northwestern side of the pottery square. In fact, a photograph taken during excavation shows that the vessel's broken walls remained upright.<sup>295</sup> Thus, this exterior painting faced to the sides. This bowl also was part of a pair with B8/INT/G17 given their similar shape and position and contrasting motifs and condition. Their proximity enhanced their visibility as a pair.

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292. Lothrop, *Coclé Part II*, 62.

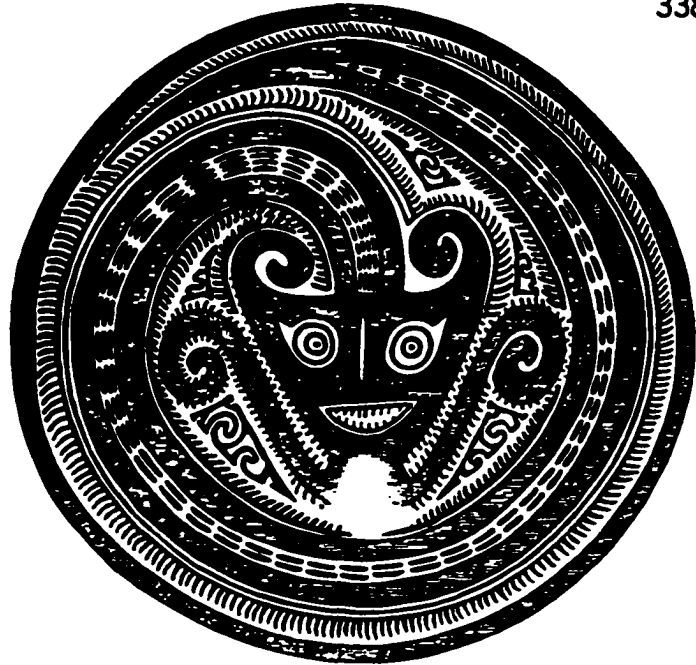
293. *ibid.*

294. PMHU, CER 33-42, Box 10, III 33 Grave B.

295. PMHU, CER 33-42, Box 10, Trench III 33, Graves A and B.



PL12/INT/G17  
 PMHU 33-42-20/1064  
 grave plan: Fig. 2.15  
 grave program: Fig. 7.7



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Early Polychrome ware.<sup>296</sup> Orange, black, and white are the colors. Lothrop identified this motif as a coiled serpent with a plumed head.<sup>297</sup> One asymmetrical Figural motif occurs in the painting.

The plate was broken and inverted in Grave 17.<sup>298</sup> It is identified as a broken/incomplete vessel in this dissertation. Thus, this interior painting was a Below-member of the grave program. In contrast, the plain exterior faced Above. This plate also is part of a pair. It is nearly identical to PL7/INT/G17 in terms of shape and subject matter. Furthermore, the plate's condition and position was identical to PL7/INT/G17. Lastly, they sat next to each other in the grave. For all of these reasons, they likely were a pair.

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296. Lothrop, *Coclé Part II*, 44.

297. *ibid.*

298. PMHU, CER 33-42, Box 10, Ill-33 Grave B.

B13/INT/G17  
 PMHU 33-42-20/1065  
 grave program: Fig. 7.7



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This flaring bowl was unavailable for examination at the PMHU. This interior painting is Early Polychrome ware.<sup>299</sup> Orange, black, and white are the colors. Lothrop identified the subject as a crocodile-headed bird.<sup>300</sup> Helms described it as a creature with serpent qualities exhibited by the boa constrictor markings on its torso and legs.<sup>301</sup> The motif is asymmetrical.

This plate was broken, upright, and beneath PL12 in Grave 17.<sup>302</sup> Thus, this interior painting acted as an Above-member of the grave program obscured by PL12 directly above it.

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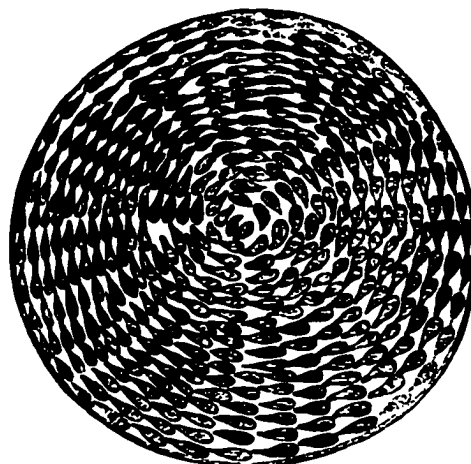
299. Lothrop, *Coclé Part II*, 50.

300. *Ibid.*

301. Helms, *Creations of the Rainbow Serpent*, 29.

302. PMHU, CER 33-42, Box 10, III 33 Grave B.

B15/INT/G17  
 PMHU 33-42-20/1068  
 grave plan: Fig. 2.15  
 grave program: Fig. 7.7



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Red-Line.<sup>303</sup> Lothrop noted that this Abstract motif, which he called a teardrop, was frequently painted on Red-Line vessels.<sup>304</sup> This motif is also painted on anthropomorphic faces and therefore it is related to skin decoration. In terms of the symmetry, the Oval motif is clearly rotated in a counter-clockwise sense, but the repetition rate for each row is undetermined due to the missing sherds and repairs.

This bowl was broken in Grave 17.<sup>305</sup> It has been repaired with original sherds and filling painted to concur with the originals. It is identified as a broken/complete vessel in this dissertation. Seven more sherds of this bowl were found with J18 during data collection at the PMHU. Thus, the bowl sherds were dispersed within Grave 17. Even the few sherds illustrated in the grave plan indicate that they did not maintain a tight bowl formation. Moreover, about one half of the sherds were upright and the other half were inverted.<sup>306</sup> This unique positioning directed a part of the interior painting to Above and Below.

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303. Lothrop, *Coclé Part II*, 131.

304. *Ibid.*

305. PMHU, CER 33-42, Box 10, III-33 Grave B.

306. *Ibid.*

PB23/INT/G23  
PMHU 33-42-20/1482  
grave plan: Fig. 2.5



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Late Polychrome.<sup>307</sup> Red, purple, black, and white are the colors. According to Lothrop, it was an example of Late Period Style B, Purple and Red Sloping Bowl.<sup>308</sup> He described the subject matter as a bird.<sup>309</sup>

Figural and Abstract motifs are in this painting. In terms of the symmetry, they form two designs (c3+c4). The Figural motif is rotated threefold (c3) and the Hook is rotated fourfold (c4). Regarding irregular symmetry, the Figural motif has a few shape irregularities: the different eyes and the different mouth emanations. No color or motion irregularity occurs in this painting. In contrast, the exterior is plain.

This pedestal bowl was broken in Grave 23.<sup>310</sup> It is now repaired with original sherds. It is identified as a broken/complete vessel in this dissertation. The grave plan does not indicate that the sherds maintained the bowl shape. The plan and field notes indicate that it was at the northeastern corner of the grave amidst stone points (field numbers 19-25).<sup>311</sup> No record of the vessel's position exists and therefore the painting's orientation cannot be reconstructed.

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307. Lothrop, *Coclé Part II*, 195.

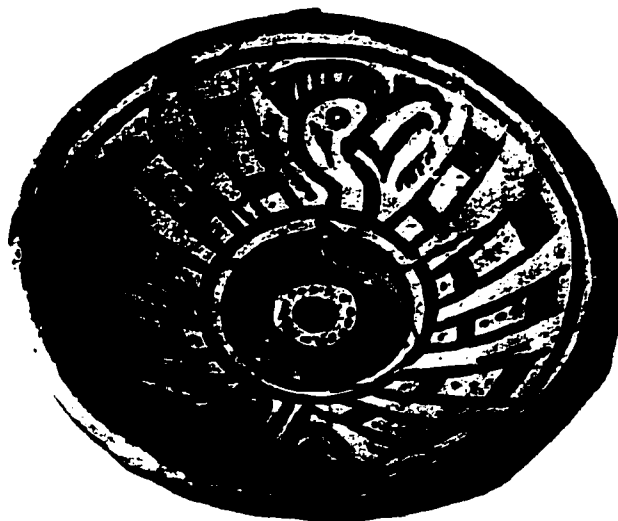
308. *Ibid.*, 194.

309. *Ibid.*, 195.

310. PMHU, CER 33-42, Box 10, N-33 Grave C.

311. *Ibid.*

B34/INT/G23  
 PMHU 33-42-20/1488  
 grave plan: Fig. 2.5



Photograph by author.

This interior painting is Late Polychrome.<sup>312</sup> Red, purple, black, and white are the colors. Lothrop identified the subject as a spread-eagle bird and Helms tentatively identified this bird as an eagle.<sup>313</sup>

One asymmetrical Figural motif is in the painting. The painter indicated that the bird is flying by displaying the bird's flight feathers; perhaps this is a view of the bird from underneath. In contrast, the exterior is plain.

The bowl was broken in Grave 23.<sup>314</sup> It is repaired with original sherds and filling. It is identified as a broken/complete vessel in this dissertation. The grave plan only shows a few sherds in the southeastern corner mixed with SJ33.<sup>315</sup> Thus, the sherds did not maintain tight bowl formation in the grave, but rather were scattered in the immediate area. No record of the vessel's position exists and therefore the painting's orientation cannot be reconstructed.

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312. Lothrop, *Coclé Part II*, 86.

313. *Ibid.*, 87; Helms, *Creations of the Rainbow Serpent*, 54.

314. PMHU, CER 33-42, Box 10, N-33 Grave C.

315. *Ibid.*

B51/NT/G23  
PMHU 33-42-20/1501  
grave plan: Fig. 2.5



Photograph by author.

This interior painting, or what remains of it, is Polychrome ware, indicated by the red rim and central purple circle. It is impossible to identify the motif(s), but it included a large purple circle.

The bowl was broken in Grave 23.<sup>316</sup> It has since been repaired with the original sherds and a small amount of filling. It is identified as a broken/complete vessel in this dissertation. The grave plan shows that the sherds maintained a tight bowl formation partly over the leg of Aged Man I. The grave plan also shows that this bowl was inverted in Grave 23. Thus, this interior painting was a Below-member of the grave program. In contrast, the plain exterior faced Above. The field notes also report that the sherds were partly underneath the sherds of J9 and a serpentine point (field number 20).<sup>317</sup>

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316. PMHU, CER 33-42, Box 10, IV 33 Grave C.

317. *ibid.*

B1/INT/G43  
 PMHU 33-42-20/1008  
 grave plan: Fig. 2.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This bowl was unavailable for examination at the PMHU. Lothrop classified the interior painting as Early Polychrome ware.<sup>318</sup> He described the subject as a “monkey-like crocodile god.”<sup>319</sup> Helms described the motif as a “sloth-like monkey” with boa constrictor markings filling the tail.<sup>320</sup> This bipedal Figural motif is asymmetrical.

The grave plan shows that this bowl was broken and inverted in Grave 43. It is identified as a broken/complete vessel in this dissertation. The plan shows that the sherds maintained a tight bowl formation except for the side where a carafe partly rested on top. This interior painting was a Below-member of the grave program. This bowl was also part of the quartet of vessels (bowls and carafes) in the northeast corner along with B5, CF2, and CF3. Within this group, it probably was also conceived as a plate-and-carafe pair with decorated CF3 which rested on one side of this bowl.

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318. Lothrop, *Coclé Part II*, 87.

319. *Ibid.*

320. Helms, *Creations of the Rainbow Serpent*, 28

B5/INT/G43  
PMHU 33-42-20/1012  
grave plan: Fig. 2.6



Lothrop, *Pre-Columbian Designs from Panama*, Dover.

This interior painting is Late Polychrome ware.<sup>321</sup> Red, purple, black, and white are the colors. The two avian motifs are examples of Lothrop's Birds-which-look-ahead and Birds-which-look-back.<sup>322</sup>

Four motifs are in this painting: three Figural motifs and an Abstract Cleft. In terms of the symmetry, they form design, two-color design, and one-dimensional pattern ( $c2+c4'+p1a1$ ). Both bipedal Figural motifs are rotated ( $c2$  and  $c4'$ ). The color of one is reversed red-purple. The central band of Clefts and polypedal Figural motifs is formed by glide reflection ( $p1a1$ ). The wear makes it difficult to compare the motif copies for shape irregularities, but no color or motion irregularity occurs in this painting.

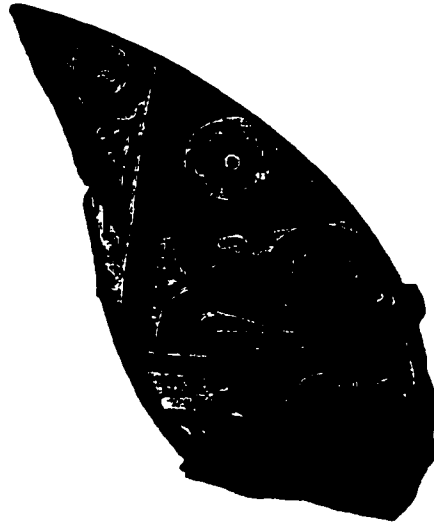
321. Lothrop, *Coclé Part II*, 85.

322. *Ibid.*, 86.



The grave plan indicates that this bowl was broken and inverted in Grave 43. It is now repaired with the original sherds. It is identified as a broken/complete vessel in this dissertation. The plan shows that the sherds maintained a tight bowl formation except for a few on one side that were slightly displaced from the group. This interior painting was a Below-member of the small grave program. Nothing underneath it obscured the view of the interior painting from Below. This bowl also was part of the quartet of vessels (bowls and carafes) in the northeast corner along with B1, CF2, and CF3. Within this group, it probably was also conceived as a plate-and-carafe pair with decorated CF2 which rested just to the side of this bowl.

PL8a/INT/G43  
PMHU 33-42-20/1016



Photograph by author.

The interior painting is Late Polychrome ware.<sup>323</sup> Orange, purple, black, and white are the colors. The original sherds are joined by a few replacement sherds, the latter have been painted to agree with the originals. In fact, more areas have been filled in along the edge opposite the rim since the photograph published in Lothrop's site report. Thus, the repainting casts doubt over the composition as it appears today.

One Figural motif consisting of a head with a long purple and orange crest and at least one orange limb is visible. One Abstract motif, a purple Circle, is also present. Presumably, these two motifs were repeated with symmetry motions in the rest of the painting. Lothrop speculated that the crocodile repeated four times.<sup>324</sup> In contrast, the exterior is plain.

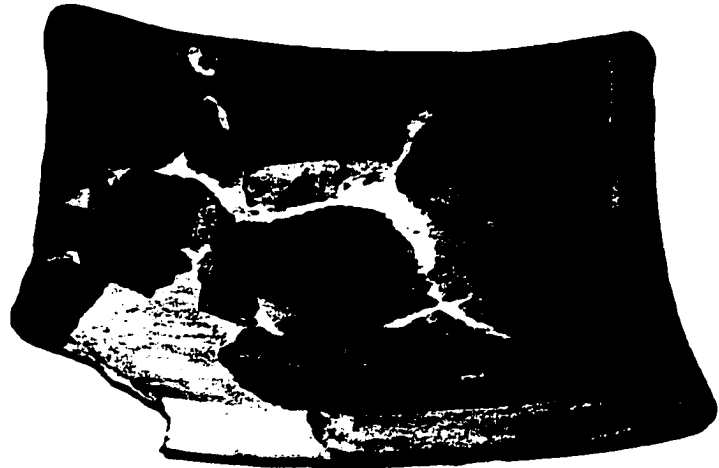
This plate is identified as a broken/incomplete vessel in this dissertation. Many sherds are dispersed elsewhere, either in Grave 43 or outside of it. These plate sherds are not illustrated in the grave plan, but they were likely deposited with COV8 in the northwestern corner of Grave 43.

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323. Lothrop, *Coclé Part II*, 78.

324. *ibid.*

PT12a/INT/BU7  
 UPM 40-15-190  
 burial plan: Fig 2.7  
 burial program: Fig. 7.9



Photograph by author.

This interior painting is Polychrome ware; red and purple are the colors. At the center is one Figural motif: a purple torso with four red limbs. This motif is mirror reflected across a horizontal and vertical mirror axes (d2). Regarding irregular symmetry, the motif's limbs are imperfect reflections at slightly different angles. The rim carries alternating purple, red, and white rectangles which Lothrop identified as a representation of coral snake skin.<sup>325</sup>

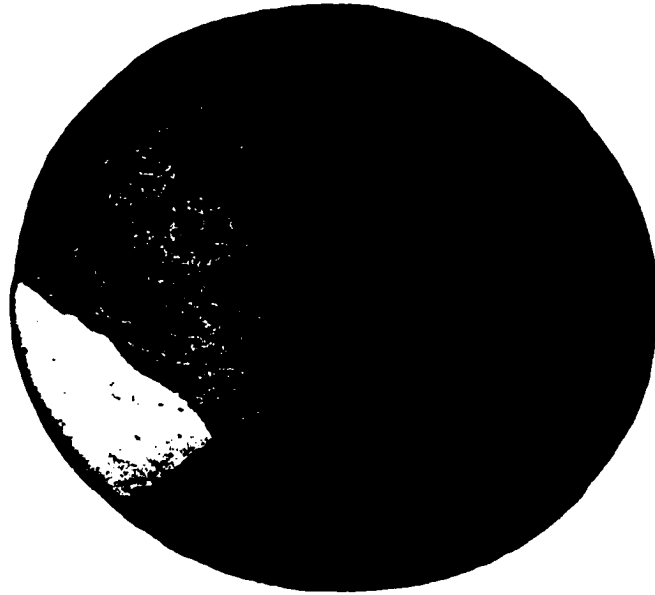
The pedestal tray was broken and inverted in Burial 7.<sup>326</sup> It is repaired with most of its original sherds and filling. It is identified as a broken/incomplete vessel in this dissertation. According to the burial plan and Merrill's sketch, the sherds maintained a tight tray formation between Adult Woman A and Adult Man B and partly underneath J11a. This interior painting was a Below-member of the burial program. In contrast, the plain exterior faced Above.

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325. *Ibid.*

326. UPM, SCER, Field Notes, Object Cards (1940), T2-B7 card 2.

B14/INT/BU7  
UPM 40-16-192  
burial plan: Fig. 2.7  
burial program: Fig. 7.9



Photograph by author.

This interior painting is Polychrome ware; red, purple, black, and white are the colors. Most likely one purple motif is at the center with many long and then black leg-like projections. It is bilaterally symmetrical (*d1*). The poor condition of the painting makes it difficult to discern irregularity.

The bowl only has one major fracture running from rim to rim; this is now repaired with original sherds and one filling. Thus, the bowl is identified as a broken/complete vessel in this dissertation. The burial plan shows that the sherds maintained a tight bowl formation, just north of Adult Man B's head. According to field notes, this bowl was upright and slightly tilted.<sup>327</sup> Thus, this interior painting was an Above-member of the burial program, the only one facing in that direction. In contrast, the plain exterior faced Below.

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327. UPM, SCER, Field Notes, Mason, Diary (1940), Wednesday Feb. 14.

PL19a/INT/BU7  
 UPM 40-16-37  
 burial plan: Fig. 2.7  
 burial section: Fig. 2.8  
 burial program: Fig. 7.9



Drawing by Rose Milovich

This interior painting is Polychrome ware; red, orange, black, and white are the colors. Three Figural and one Abstract motifs are in this painting. They form three designs ( $c2+d1+d2$ ). The rotation ( $c2$ ) of the bipedal Figural motif is in a clockwise sense, yet the sense is tempered by the backward-looking head. The Figural motif at the center is bilaterally symmetrical ( $d1$ ). The quadrupedal Figural motif is mirror reflected twofold ( $d2$ ). The Abstract Hook motif is reflected as a set to cover two sides of the plate ( $d2$ ). Regarding irregular symmetry, the quantity of Hook motifs in each set is unequal (irregular  $d2$ ). No color or motion irregularity occurs in this painting.

The plate was broken and inverted in Burial 7.<sup>328</sup> It is repaired with the original sherds, yet one is missing from the center. It is identified as broken/complete vessel in this dissertation. The burial plan shows the sherds together to south of Man C and partly on his arm where they maintained tight plate formation. This interior painting acted as a Below-member of the grave program. In contrast, the plain exterior faced Above. The plate also was a member of a plate-and-carafe pair with plain red CF19b on top of it.

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328. UPM, SCER, Field Notes, Object Cards (1940), T2-B7 card 4.

PL22a/INT/BU7  
 UPM 40-16-199  
 burial plan: Fig. 2.7  
 burial section: Fig. 2.8



Photograph by author.

This interior painting is Polychrome ware; red, orange, black, and white are the colors. Two motifs are discernible. In terms of symmetry, they most likely form ( $d1+p1a1$ ). The Clefts-and-Waves motif likely is a twofold one-color design ( $c2$  or  $d2$ ). The Figural seems to be glide reflected ( $p1a1$ ). An insufficient amount of the painting remains for identifying irregular symmetry. In contrast, the exterior is plain.

The sherds of about one quarter of this plate were together in Burial 7. It is identified as a broken/incomplete vessel in this dissertation. These sherds were together at the western side of the burial underneath an earth pillar. The missing sherds were dispersed elsewhere in Burial 7. Perhaps they are among the bags of sherds. They possibly ended up outside of Burial 7.

PL23/INT/BU7  
 UPM 40-15-201  
 burial plan: Fig. 2.7  
 burial section: Fig. 2.9  
 burial sketches: Figs. 7.10  
 burial program: Fig. 7.9  
 burial nest: Fig. 7.15



Drawing by Rose Milovich

This interior painting is Polychrome ware with red, orange, and purple. The Figural motif resembles Lothrop's Late Polychrome serpents.<sup>329</sup> Helms links the head to the boa constrictor, although it is similar to her hammerhead sharks.<sup>330</sup> Helms' a similar Figural motif as a female hunter/creator with serpentine essence.<sup>331</sup> In addition to zoological markers, this Figural motif spawns from its legs a pair of creatures different from itself. In terms of symmetry, the Figural motif is bilaterally symmetrical (*d1*). The poor condition makes it difficult to detect irregularity. The exterior is plain.

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329. Lothrop, *Coclé Part II*, 77.

330. Helms, *The Curassow's Crest*, 105–09.

331. Mary Helms, "Color and Creativity, Interpretation of Themes and Design Styles on a Panamanian Conte Bowl," *RES* 29/30 (Autumn 1996): 294–99.

The plate was broken in Burial 7.<sup>332</sup> It has been repaired with the original sherds. It is identified as a broken/complete vessel in this dissertation. The burial plan indicates that the sherds were north of Man C. The majority of the plate was inverted partly against north wall, partly flat on floor, and partly over PL24. Thus, this interior painting was a Below-member of the burial program. However, the sherd with the motif's mouth and eye was upright.<sup>333</sup> This plate also was a member of Nest 23-29 to the north of Man C.

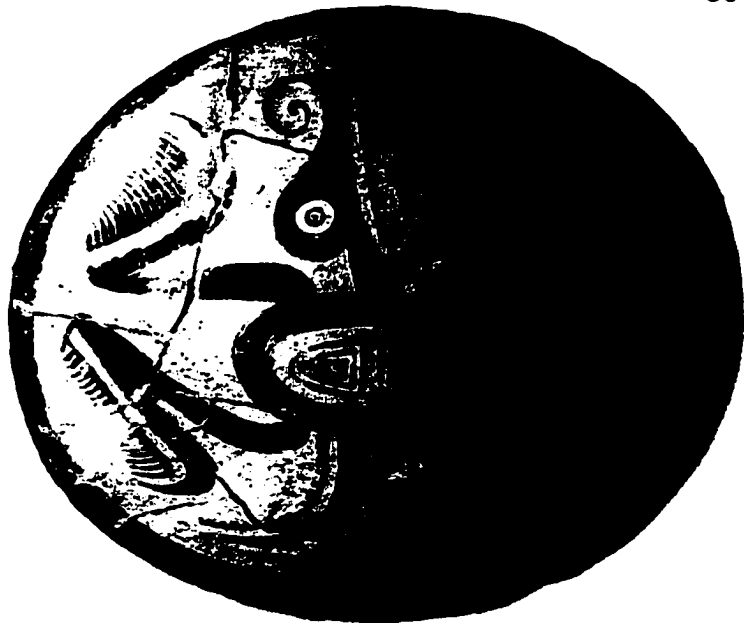
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332. UPM, SCER, Field Notes, Object Cards (1940), T2-B7 card 5.

333. UPM, SCER, Field Notes, Mason, Diary (1940), Wednesday Feb. 14.



B26a/NT/BU7  
 UPM 40-15-204  
 burial plan: Fig. 2.7  
 burial program: Fig. 7.9  
 burial nest: Fig. 7.15



Photograph by author.

This interior painting is Polychrome ware; red, orange, black, and white are the colors. There is one asymmetrical Figural motif. Although it resembles Lothrop's turtle, the painter gave emphasis to the mouth and tail (each occupies a little less than one half of the surface), the crocodile's two most powerful and dangerous attributes.

The bowl was broken and inverted in Burial 7.<sup>334</sup> It has been repaired with the original sherds. It is identified as a broken/complete vessel in this dissertation. The burial plan indicates that the sherds were to the north of Man C. Most sherds were together in a bowl formation, although a few were scattered. This interior painting was a Below-member of the burial program, albeit with obstruction from the vessels partly underneath it. In contrast, the plain exterior faced Above. This bowl also was a member of Nest 23-29, crushed and shingled with other vessels.<sup>335</sup>

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334. UPM, SCER, Field Notes, Object Cards (1940), T2-B7 card 5.

335. UPM, SCER, Field Notes, Mason, Diary (1940), Wednesday Feb. 14.

PL27/INT/BU7  
 UPM 40-15-206  
 burial plan: Fig. 2.7  
 burial program: Fig. 7.9  
 burial nest: Fig. 7.15



Drawing by Rose Milovich

This interior painting is Polychrome ware; red, purple, black, and white are the colors. Lothrop did not illustrate nor describe a zoomorphic motif resembling this one. In terms of symmetry, the Figural motif is rotated (*c4*) in a clockwise sense. Regarding irregular symmetry, one of the copies possesses one more Hook projecting from its tail than the others (irregular *c4*).

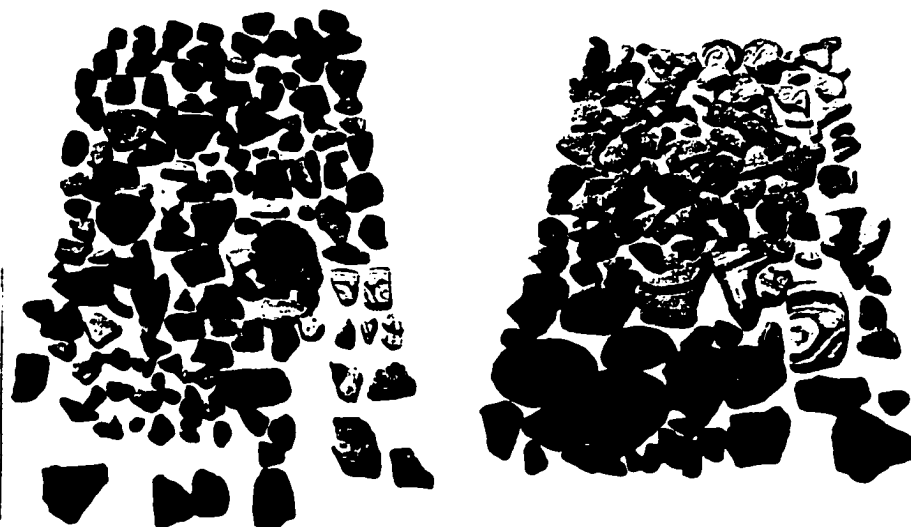
The plate was broken and inverted in Burial 7.<sup>336</sup> It is now repaired with the original sherds and filling. It is identified as a broken/complete vessel in this dissertation. The plan shows that the sherds were together in tight plate formation. This interior painting was a Below-member of the burial program. In contrast, the plain exterior faced ABove. This plate also was a member of Nest 23-29, shingled and crushed with the other vessels.<sup>337</sup>

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336. UPM, SCER, Field Notes, Object Cards (1940), T2-B7 card 5.

337. UPM, SCER, Field Notes, Mason, Diary (1940), Wednesday Feb. 14.

SHS37/BU7  
 UPM 40-16-1262/BAG 1  
 UPM 40-16-1263/BAG 2



Photograph by author.

These bags are two of twelve bags full of sherds collected in and around Burial 7 during excavation.<sup>338</sup> Sherds of plain Red ware dominate. The sherds come in all shapes and sizes. Many sherds are pieces of globular carafe bodies, although some belong to plain Red plates. There also are fragments of carafe necks painted with the black and white Clefts-and-Waves motif. A few of the sherds no more than ten total, carry Polychrome motifs. Of these, two sherds carry parts of profile heads of Figural motifs. None of the ten sherds appears to belong to the broken/incomplete vessel identified in Burial 7 (Cat. no.125). Therefore, the conclusion may be drawn that most of the sherds in these bags belonged to vessels that were not actually deposited in Burial 7.

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338. UPM, SCER, Field Notes, Object Cards (1940), T2-B7 card 6.

PL6/INT/BU12-L2  
UPM 40-16-551



drawing by Rose Milovich

This interior painting is Polychrome ware; red, orange, purple, black, and white are the colors. One Figural motif is an example of Lothrop's spread-eagle bird and the other at the center (now missing except for the numerous pairs of legs) is probably a crab.

Two Figural motifs are in this painting. In terms of the symmetry, the motifs form two one-color designs ( $c4+d1$ ). The bipedal motif is rotated ( $c4$ ). The central motif is mirror reflected ( $d1$ ). The condition makes it difficult to compare the motif copies for irregular symmetry. In contrast, the exterior is plain.

The plate was broken in Burial 12. It is now repaired with original sherds, although a few belonging in the center are missing. It is identified as a broken/complete vessel in this dissertation. According to Merrill's sketches, this plate was part of both layers of densely crushed pottery in Burial 12.

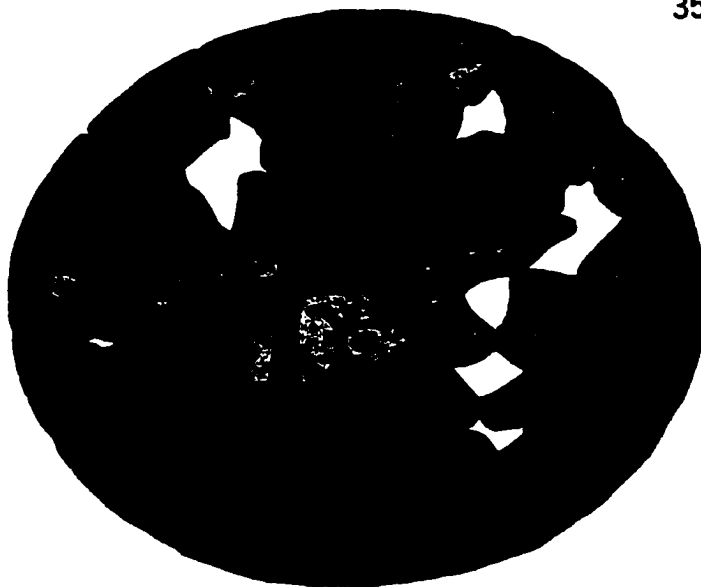
PL13/INT/BU12-L2  
UPM 40-16-558



Photograph by author.

This interior painting is Polychrome ware; red, orange, black, and white are the colors. Four pairs of limbs alternating red and orange color at the plate's rim spawn heads that belong to Figural motifs, somewhat like the Figural motif in PL23/INT/BU7 (Cat. no. 126). The painting is too incomplete to determine the symmetry. In contrast, the exterior is plain. It is identified as a broken/incomplete vessel in this dissertation. According to Merrill's sketches, it was in the top layer of Burial 12.

PL23/INT/BU12-L1  
UPM 40-16-1539



Photograph by author.

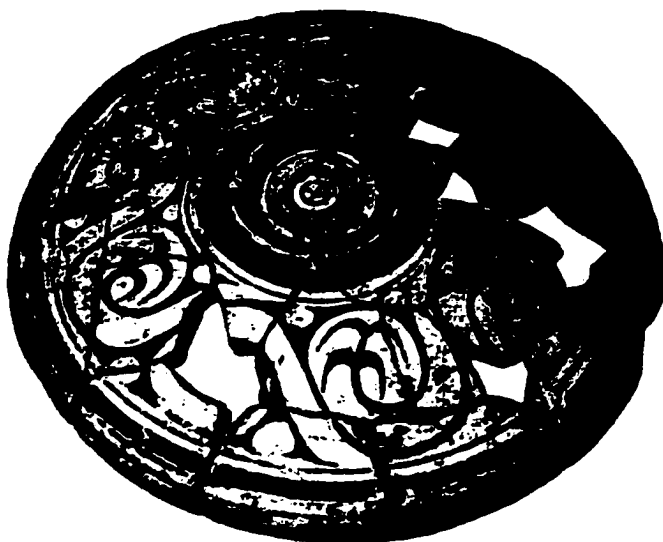
This interior painting is Polychrome ware; red, purple, black, and white are the colors. Figural and Abstract motifs fill the grid. In terms of symmetry, the motifs form design and two-dimensional pattern ( $d2+pgg$ ). The Abstract Cleft motif is mirror reflected ( $d2$ ). The two Figural motifs come closest to two-dimensional pattern ( $pgg$ ); they are glide reflected at right angles to each other with twofold rotation centers between the axes.<sup>339</sup> Yet they diverge from the pattern of reflection and rotation to form motion irregularity. No color irregularity occurs in this painting.

The plate was broken in Burial 12. It is now repaired with original sherds, although a few are missing. It is identified as a broken/complete vessel in this dissertation. According to Merrill's sketch, this plate was in the bottom layer of Burial 12.

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339. Washburn and Crowe, *Symmetries of Culture*, 188.

PL23/EXT/BU12-L1  
UPM 40-16-1539



Photograph by author.

This exterior painting is Polychrome ware; red, black, and white are the colors. Two Abstract motifs are in this painting: Quatrefoil and Clefts-and-Waves. In terms of the symmetry, they form design and one-dimensional pattern ( $d4+p1a1$ ). The Quatrefoil motif is reflected ( $d4$ ) and the Clefts-and-Waves motif is glide reflected ( $p1a1$ ): The glide reflection is only partly reconstructed due to the wear and missing sherds. Regarding symmetry irregularity, the Clefts-and-Waves motif displays a motion irregularity in that one wave moves in the opposite direction of the others (*irregular p1a1*). The Cleft is unique as four shoots, possibly a form of vegetation, spring from their tails much like the motifs in two other paintings (Cat. nos. 7, 8).

The plate was broken in Burial 12. It is now repaired with original sherds, although a few are missing. It is identified as a broken/complete vessel in this dissertation. According to Merrill's sketch, this plate was in the bottom layer of Burial 12.

PL24/25/INT/BU12-L1  
UPM 40-16-570



Photograph by author.

This interior painting is Polychrome ware; red, orange, black, and white are the colors. Figural and Abstract motifs are in this painting. They form design, pattern, and two-color pattern ( $c2+c4+pmm2+p'mm2$ ). First, the set of three Figural (print) motifs is rotated ( $c2$ ). Second, Clefts-and-Waves is rotated ( $c4$ ). Third, the Cleft is one-dimensional pattern based on translation, horizontal and vertical mirror reflection, and twofold rotation with translation reversing the color black-red ( $p'mm2$ ). The Circle motif is the same pattern except without the color reversal ( $pmm2$ ). Regarding irregular symmetry, the hooks of the Circle motif make a shape irregularity by their different quantities (*irregular pmm2*). No color or motion irregularity is evident in this painting. In contrast, the exterior is plain.

The plate was broken in Burial 12. It is now repaired with original sherds although several are missing. This dissertation joins the sherds of field numbers 24 and 25. It is identified as a broken/incomplete vessel in this dissertation. According to Merrill's sketches, PL24/25 was underneath the sherds of PL23.



B27/28/INT/BU12-L1  
UPM 40-16-1542  
UPM 40-16-572



Photograph by author.

This interior painting is Polychrome ware; red, orange, black, and white are the colors. One Figural motif, similar to that in B26a/INT/BU7 (Cat. no. 127) fills the interior. It is most likely bilaterally symmetrical (*d1*) or the tail curves to render it asymmetrical. In contrast, the exterior is plain.

Just six sherds of approximately one half of this flaring bowl were in Burial 12. Also included are with these sherds are two sherds assigned field number 27 as they likely belonged with this "bowl" based upon similarities in painting. Moreover, the field numbers were in proximity in Burial 12. This bowl is identified as a broken/incomplete vessel in this dissertation.

PL29/INT/BU12-L1  
UPM 40-15-1544



Photograph by author.

The interior painting is Polychrome ware; red, orange, purple, black, and white are the colors. Based upon comparison with other paintings in the dissertation, the motif might have been a Figural motif similar to that in PL23/INT/BU7 (Cat. no. 126). They have similar facial features and neck. Also suggesting this identification is that this motif has an incomplete Figural motif sprouting from the partly visible left limb (note the purple eye and red mouth). In contrast, the exterior is plain.

Approximately one third of this plate was deposited in Burial 12. It is identified as a broken/incomplete vessel in this dissertation. According to Merrill's sketch, PL29 was partly underneath B27/28.

PL32a/INT/BU12-L1  
UPM 40-16-1547

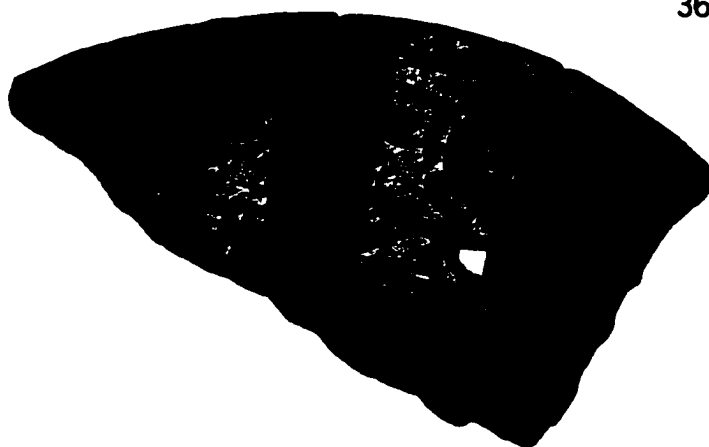


Photograph by author.

This interior painting is Polychrome ware; red, orange, purple, black, and white are the colors. Figural and Abstract motifs occur in this painting. In terms of symmetry, they form design, two-color designs, and one-dimensional pattern ( $c2'+d2+d2'+p111$ ). The bipedal Figural motif is rotated with color likely reversed red-purple ( $c2'$ ), although the second one is no longer present. The set of the Abstract Hook motif is reflected ( $d2$ ) to the opposite side (see Cat. no. 124). The quadrupedal Figural motif is mirror reflected with its color reversed by one reflection and preserved by the other with the rotation reversing color ( $d2'$ ). Finally, the Figural (print) motif translates seven times ( $p111$ ). Regarding irregular symmetry, the motifs' condition makes it impossible to compare the copies for irregularities. The two sets of the Hook motif are not exactly identical (irregular  $d2$ ). No color or motion irregularity occurs in this painting. In contrast, the exterior is plain.

The plate was broken in Burial 12. It is identified as a broken/incomplete vessel in this dissertation. The sequence of field numbers suggests that PL32a was in the bottom layer, possibly near PL31a and J31b.

B42/43/INT/BU12-L1  
 UPM 40-16-586  
 UPM 40-15-1552  
 UPM 40-15-1553



Photograph by author.

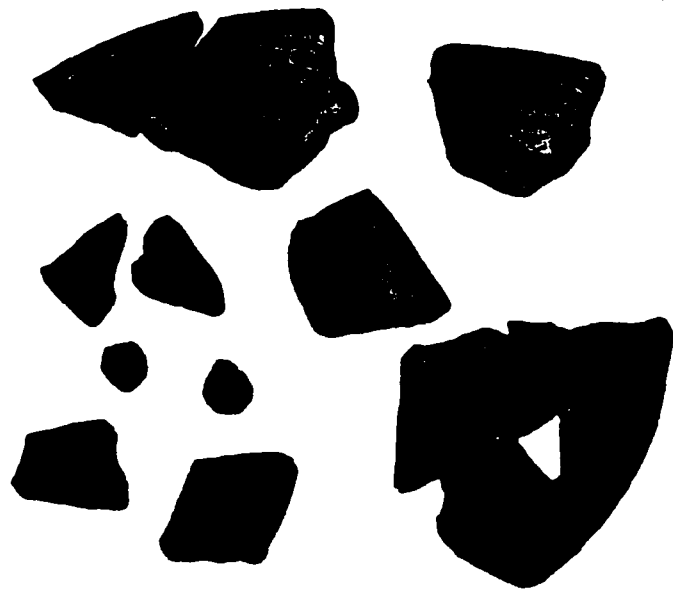
The sherds of this interior painting are Polychrome ware; red, orange, black, and white are the colors. Two Figural motifs occur in this painting. In terms of symmetry, this painting likely is asymmetrical and symmetrical design ( $c1+c4$ ). At the center is asymmetrical Print Figural motif which is surrounded by the bipedal Figural motif rotated ( $c4$ ). Too little of this painting remains to document irregular symmetry. In contrast, the exterior is plain.

Approximately one half of the flaring bowl was in Burial 12. It is identified as a broken/incomplete vessel in this dissertation. According to Merrill's sketch, this bowl was in the bottom layer of Burial 12 underneath PL20.

**139**

366

PL53/54/INT/BU12-L1  
UPM 40-16-596, 40-16-567



Photograph by author.

This incomplete interior painting is Polychrome ware; red, orange, purple, black, and white are the colors. Figural and Abstract motifs occur in this painting. In terms of symmetry, the Quadrupedal Figural motif is mirror reflected ( $d4$ ). The Polypedal Figural motif is translated and reflected across a horizontal axis ( $p1m1$ ). The Chevron motif may form the other band mirror reflected twofold as a set ( $d2$ ).

This plate is identified as a broken/incomplete vessel in this dissertation. Two sherds with more of the Polypedal Figural motif were identified in one of the bags of miscellaneous sherds from Burial 12 (see Cat. no. 140). The sherds were scattered in Burial 12.

**140**

SHS61/BU12-L1  
UPM 40-16-602

367



Photograph by author.

This bag contains mostly Polychrome sherds and a few Red pieces from Burial 12. The Polychrome sherds belong to plates or bowls given their flatness or slight curvature. Many Abstract motifs can be grasped by scanning the collection: Waves, Clefts, Quatrefoil, zigzag Stripe. This group also consists of purple Polypedal Figural motifs that belonged to an broken/incomplete vessel in Burial 12 (Cat. no. 139). No more sherds have been linked to the other broken/incomplete vessels in Burial 12.

SHS82/BU12  
UPM 40-16-620



Photograph by author.

This bag contains large Polychrome sherds and a few Red pieces from Burial 12. The Polychrome sherds belong to plates or bowls given their flatness or slight curvature. Parts of Figural and Abstract motifs are visible in the collection. None has been linked to the vessels identified as broken/incomplete in Burial 12.

B11/INT/BU19  
UPM 40-16-917



Photograph by author.

This interior painting is Polychrome ware; orange, black, and white are the colors. One asymmetrical Figural motif occurs in this painting. Perhaps it represents a deer given the pair of antlers. However, Lothrop identified a similar motif as a crocodile-headed bird with antlers.<sup>340</sup> In contrast, the exterior is plain.

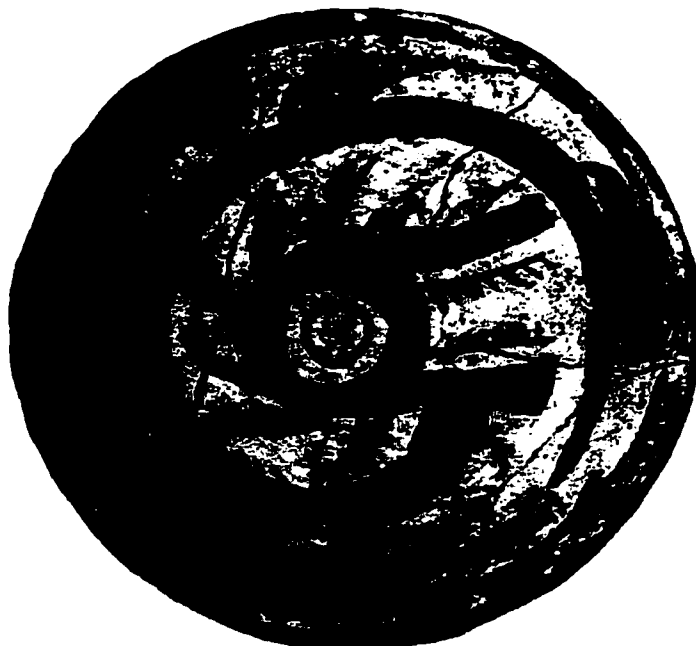
The bowl was broken in Burial 19. It has been repaired with the original sherds. It is identified as a broken/complete vessel in this dissertation. The position was not recorded and thus the painting's orientation cannot be reconstructed.

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340. Lothrop, *Coclé Part II*, 50.



B13/NT/BU19  
UPM 40-16-919  
burial plan: Fig.  
2.10

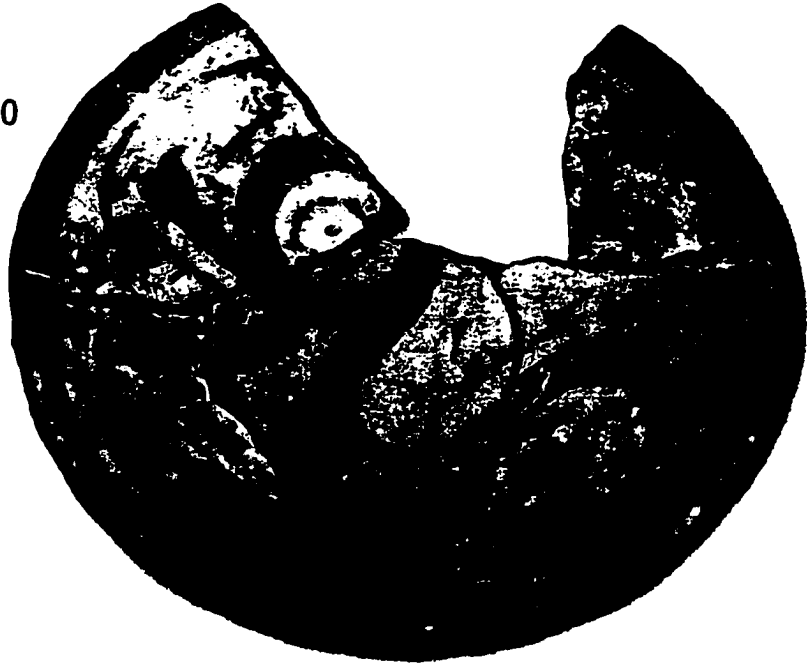


Photograph by author.

This interior painting is Polychrome ware; red, orange, purple, black, and white are the colors. The Figural motif is asymmetrical. It appears to be a coiled red snake with numerous teeth and large and prominent purple scales or perhaps feathers. In contrast, the exterior is plain.

The bowl was broken in Burial 19. It is identified as a broken/complete vessel in this dissertation. According to the burial plan, the sherds did not maintain tight bowl form as some of them rested against the eastern wall under vessels such as CF17. The position was not recorded and thus the painting's orientation cannot be reconstructed.

B19/INT/BU19  
UPM 40-16-1780  
burial plan: Fig. 2.10



Photograph by author.

This interior painting is Polychrome ware; orange, purple, black, and white are the colors. It is an asymmetrical motif. In contrast, the exterior is plain. The bowl was broken in Burial 19. It is identified as a broken/complete vessel in this dissertation. According to the burial plan, the sherds did not maintain a tight bowl formation in the eastern side of the burial.

B36/INT/BU19  
UPM 40-16-939  
burial plan: Fig. 2.10

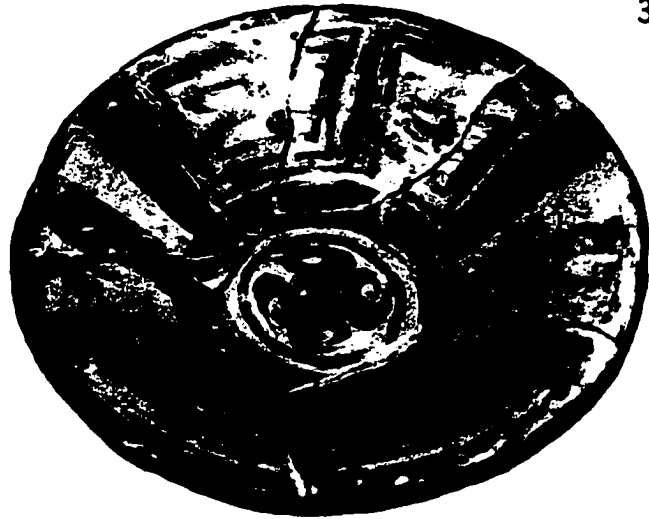


drawing by Rose Milovich

This interior painting is Polychrome ware; red, orange, black, and white are the colors. An asymmetrical Figural motif, likely a crocodile with the triangular mouth full of teeth and tail, is in the painting. In contrast, the exterior is plain.

The bowl was broken in Burial 19. It is identified as a broken/complete vessel in this dissertation. According to the burial plan, it was deposited in the southeastern corner. The sherds did not maintain the bowl form in the southeastern corner; just one sherd is shown alongside the wall. No record of the bowl's position in Burial 19 exists and therefore the painting's orientation cannot be reconstructed.

PB105/INT/BU19  
 UPM 40-16-994  
 burial plan: Fig. 2.10



Photograph by author.

This interior painting is Polychrome ware; red, purple, black, and white are the colors. Three Abstract motifs occur in this painting: Fret, Stripe, and Circle. In terms of symmetry, they form three designs ( $c2+c4+d2$ ). The Fret is rotated ( $c2$ ) in an unspecified sense. The Circle at the center is rotated ( $c4$ ). The set of five Stripes is reflected ( $d2$ ). In terms of irregular symmetry, the rotation of the Fret involves a shape irregularity in the orientation of the hooks. No color or motion irregularity occurs in this painting.

The pedestal bowl was broken in Burial 19. It is identified as a broken/complete vessel in this dissertation. The sherds maintained tight bowl formation in the northeastern corner, partly on top of J106. Two photographs of Burial 19 taken during excavation indicate that this pedestal bowl was deposited in an upright position;<sup>341</sup> this is the only painted plate or bowl in Burial 19 with recorded position. Thus, the interior painting acted as an Above-member of the burial program. In contrast, the plain exterior faced Below.

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341. UPM, Photographic Archives, Neg. # S5-36783 and Neg. # S5-36785.

PPL114/INT/BU19  
UPM 40-16-996  
burial plan: Fig. 2.10



Photograph by author.

This interior painting is Polychrome ware; red, purple, black, and white are the colors. One bilaterally symmetrical (*d1*) Figural motif occurs in this painting. Lothrop identified similar motifs as turtle gods,<sup>342</sup> yet nothing about this one conveys its "turtleness." It is commonly embossed on Sitio Conte gold plaques that Elizabeth Benson hypothesized were creators and/or culture heroes.<sup>343</sup> Following this proposal, Helms identified it as a human (square teeth) transforming into a spectacled bear (broad head and clawed plantigrade feet).<sup>344</sup> The painting is too worn to compare the Figural motif's two sides for shape irregularity. No color or motion irregularity occurs in this painting. In contrast, the exterior is plain.

The pedestal plate was broken in Burial 19. It is identified as a broken/complete vessel in this dissertation. According to the burial plan, the pedestal plate rested in the northwestern corner, partly underneath J77. The plan indicates that the sherds maintained a plate formation, although only part of it appears in the plan because the rest lies underneath the jar.

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342. Lothrop, *Coclé Part II*, 189.

343. Elizabeth P. Benson, "The Iconography of Sitio Conte Gold Plaques," in *River of Gold, Precolumbian Treasures from Sitio Conte*, Pamela Hearne and Robert J. Sharer, eds. (Philadelphia: The University Museum, 1992), 30-31.

344. Helms, *Creations of the Rainbow Serpent*, 69, 114 (footnote 8).

PL116/INT/BU19  
 UPM 40-16-998  
 burial plan: Fig. 2.10

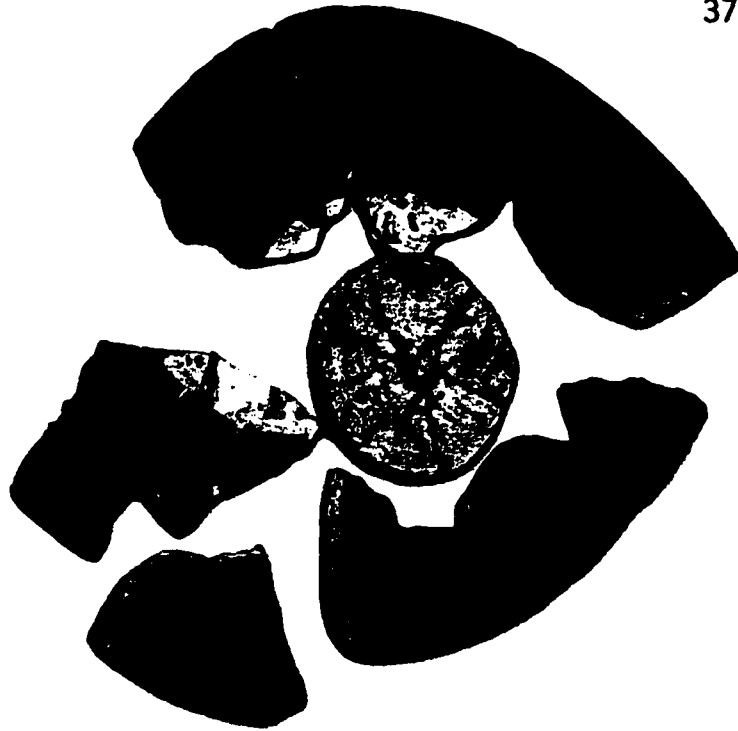


Photograph by author.

This interior painting is Polychrome; red, orange, black, and white are the colors. Figural and Abstract motifs occur in this painting. In terms of symmetry, they form design and one-dimensional pattern (*d1+p1a1*). The Figural motif is bilaterally symmetrical (*d1*). Based upon similar paintings in this dissertation (Cat. no. 61), the Clefts-and-Waves motif appears glide reflected (*p1a1*). However, the numerous missing sherds only allow portions to be analyzed. No irregularity is observable on the remaining pieces. In contrast, the exterior is plain.

The plate was broken in Burial 19. It is identified as a broken/complete vessel in this dissertation. According to the burial plan, the plate was deposited in the southeastern area of Burial 19. The plan does not indicate that the sherds maintained tight plate formation. No record of the position exists and therefore the painting's orientation cannot be reconstructed.

PL117/INT/BU19  
UPM 40-16-999  
burial plan: Fig. 2.10



Photograph by author.

This interior painting represents the Isolated Panel Type of Panelled Red ware. One bilaterally symmetrical (*d1*) Figural motif fills the central area. It resembles motifs that Lothrop identified as turtle gods (Cat. no. 147). In contrast, the exterior is plain.

The plate was broken in Burial 19. It is identified as a broken/complete vessel in this dissertation. According to the burial plan, this plate was in the eastern side of Burial 19. The plan does not illustrate that the plate sherds maintained a tight plate formation.

B118/NT/BU19  
UPM 40-16-1779



Photograph by author.

This interior painting is Polychrome ware; red, black, and white are the colors. One asymmetrical Figural motif occurs in this painting, it probably represents a type of bird. In contrast, the exterior is plain.

The bowl was broken in Burial 19. It is identified as a broken/complete vessel in this dissertation. The excavators did not record the position of this bowl and therefore the painting's orientation cannot be reconstructed.



B125/NT/BU19  
UPM 40-16-1003  
burial plan: Fig. 2.10



Photograph by author.

This interior painting is Polychrome ware. Red, purple, black, and white are the colors. One asymmetrical Figural motif with deer antlers and a crocodilian mouth occurs in this painting. In contrast, the exterior is plain.

Unlike the majority of vessels in this dissertation, this bowl has just one fracture. It is identified as a broken/complete vessel in this dissertation. According to the burial plan, the bowl was deposited in the southeastern corner partly underneath a metate (field number 33). The excavators made no record of the bowl's position and therefore the painting's orientation cannot be reconstructed.

SHS133g/BU19  
UPM 40-16-1015



Photograph by author.

This bag of miscellaneous sherds was one of seventeen gathered in Burial 19 (133a-q). It contains 196 Polychrome plate sherds. Many sherds have recognizable parts of Figural and Abstract motifs. Pieces of Abstract motifs include a Cleft of Clefts-and-Waves, Wave head, zigzag Stripe, and three-fourths of a Quatrefoil. However, none looks as if it belongs to a broken/incomplete vessel identified in Burial 19.

## APPENDIX 1

### SYMMETRY NOTATION

This appendix reviews symmetry notation as presented by Washburn and Crowe in their book *Symmetries of Culture: Theory and Practice of Plane Pattern Analysis*. The discussion of symmetrical designs and patterns is followed by an explanation of the notation used in this dissertation for paintings that have more than one symmetrical motif.

#### Symmetrical Designs

One-color designs, generated by rotation and/or reflection, have an infinite number of classes, one for every rotation by  $1/n$ th of 360 degrees. Symmetrical motifs are class  $cn$ , if just rotated, or  $dn$ , if reflected and rotated.

Turning to the alteration of color in designs, there are three, each indicated by the location of the prime ('). The first is  $cn'$ ; when  $n$  is even, rotation reverses the color. The second is  $d'n$ ; reflections reverse the color and rotations preserve it. The third is  $dn'$ ; when  $n$  is even, half of the reflections reverse the color, half preserve it, and rotations reverses it.

### Symmetrical Patterns

One-color, one-dimensional pattern notation is based upon the widely accepted letter combination  $pxyz$ .<sup>1</sup> Translation, the common motion of patterns, is represented by  $p$ . If a vertical reflection is performed,  $x$  becomes  $m$ . If a horizontal reflection is performed,  $y$  becomes  $m$ . If a twofold rotation is performed,  $z$  becomes  $2$ . If a reflection or twofold rotation is not performed the corresponding letter(s) becomes  $1$ . Thus, translation ( $p$ ) is class  $p111$ . Translation, vertical reflection, horizontal reflection, and twofold rotation together are class  $pmm2$ . The only other aspect is a glide reflection but no horizontal reflection. In this case,  $y$  becomes  $a$ . Hence, glide reflection is class  $p1a1$ . There are seven one-color one-dimensional pattern classes:  $p111$ ,  $p1a1$ ,  $p112$ ,  $p1m1$ ,  $pm11$ ,  $pmm2$ , and  $pma2$  (Fig. 3.5).

A prime attached to the alphabetical or numerical notation element indicates that the corresponding motion causes color symmetry. For instance, the translation of class  $p'1m1$  reverses motif color.<sup>2</sup> There are fifteen three-color one-dimensional patterns,<sup>3</sup> but just two classes are relevant to Sitio Conte painting:  $p111[3]$  and  $p1m1[3]$ .

There are seventeen one-color two-dimensional pattern classes (Fig. 3.6). To be a two-dimensional pattern, the motif must translate in more than one direction and form at least two rows each two motifs long. Washburn and Crowe present the short notation in the *International Tables*

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<sup>1</sup> Washburn and Crowe, *Symmetries of Culture*, 57.

<sup>2</sup> *Ibid.*, 68–70.

<sup>3</sup> Grünbaum and Shephard, *Tilings and Patterns*, Figs. 8.2.3 and 8.3.6.

for *X-Ray Crystallography*, Vol. 1.<sup>4</sup> Only two Sitio Conte paintings have two-dimensional motifs of classes *pgg* and *pmm*.

### Multiple Symmetries

The author of this dissertation created a notation for paintings with multiple motifs of different symmetries because Washburn and Crowe did not offer one. It treats these paintings like addition equations in that it adds up the classes: Figure (*c1*)+design(*cn* and/or *dn*)+pattern(*p*). Design classes are added by their repetition rates (e.g. *cn* always precedes *dn* and then *c2* precedes *c4* and one-dimensional pattern classes are added by a standard sequence: *p111*, *p1a1*, *p112*, *p1m1*, *pm11*, *pmm2*, and *pma2* (Fig. 3.5). The very rare two-dimensional pattern classes are the last elements in the notation for paintings with multiple symmetries.

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<sup>4</sup> *Ibid.*, 58.

APPENDIX 2  
THE FIELD MUSEUM OF NATURAL HISTORY COLLECTION

**PMHU GRAVE 1**

CF8	PMHU 33-42-20/637	FMNH 191556
B296	PMHU 33-42-20/889	FMNH 191567
PL375	PMHU 33-42-20/875a	FMNH 191568

**PMHU GRAVE 2**

CF78	PMHU 33-42-20/501	FMNH 191557
B39	PMHU 33-42-20/469	FMNH 191562

**PMHU GRAVE 4**

B50	PMHU C/13128	FMNH 191566
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**PMHU GRAVE 5**

CF1	PMHU C/13225	FMNH 191573
ECF12	PMHU C/13236	FMNH 191572
MPPL168	PMHU 33-42-20/412	FMNH 191561

**PMHU GRAVE 16**

PL26	PMHU 33-42-20/1106	FMNH 191570
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**PMHU GRAVE 24**

ECOV25	PMHU 33-42-20/2003	FMNH 191565
IB72	PMHU 33-42-20/2043	FMNH 191563
PS87	PMHU 33-42-20/2056	FMNH 191560

**PMHU GRAVE 26**

B73	PMHU 33-42-20/1662	FMNH 191571
MB252	PMHU 33-42-20/1810	FMNH 191564
EJ411	PMHU 33-42-20/1935	FMNH 191574

**UNKNOWN DEPOSIT**

SCF	PMHU 33-42-20/1189	FMNH 191558
SFLUCF	PMHU 33-42-20/406	FMNH 191559
PL	PMHU C/12089, C/12097	FMNH 191569
STAMP	PMHU C/12337	FMNH 191555

APPENDIX 3  
THE BROOKLYN MUSEUM OF ART COLLECTION

**PMHU GRAVE 4**

PB4	PMHU C/13083	BMA 33.448-32
PL5	PMHU C/13084	BMA 33.448-24
CF11	PMHU C/13090	BMA 33.448-55
CF12	PMHU C/13091	BMA 33.448-33
SJ26	PMHU C/13105	BMA 33.448-40
CF28	PMHU C/13107	BMA 33.448-52
J33	PMHU C/13112	BMA 33.448-79
PS35/36	PMHU C/13114	BMA 33.448-56
B42	PMHU C/13120	BMA 33.448-60
EB44	PMHU C/13122	BMA 33.448-68
CUP55	PMHU C/13133	BMA 33.448-43
PL56	PMHU C/13134	BMA 33.448-25
PL59	PMHU C/13137	BMA 33.448-39

**PMHU GRAVE 5**

J2	PMHU C/13226	BMA 33.448-80
J4	PMHU C/13228	BMA 33.448-70
J8	PMHU C/13232	BMA 33.448-35
PL9	PMHU C/13233	BMA 33.448-26
B30	PMHU C/13254	BMA 33.448-59
J33	PMHU C/13257	BMA 33.448-72
EJ42	PMHU C/13266	BMA 33.448-57
PL66	PMHU C/13290	BMA 33.448-48
SJ89	PMHU C/13313	BMA 33.448-77
PB92	PMHU C/13316	BMA 33.448-73
B96	PMHU C/13320	BMA 33.448-46
J101	PMHU C/13325	BMA 33.448-75
IB110	PMHU C/13334	BMA 33.448-62
SQB114	PMHU C/13338	BMA 33.448-42
CF117	PMHU C/13341	BMA 33.448-64
J119	PMHU C/13343	BMA 33.448-78
CF225	PMHU C/13373	BMA 33.448-71



**PMHU GRAVE 6**

J12	PMHU C/12905	BMA 33.448-30
J23	PMHU C/12916	BMA 33.448-45
PL35	PMHU C/12932	BMA 33.448-50
J85	PMHU C/12985	BMA 33.448-31
B20	PMHU C/12739	BMA 33.448-38
B21	PMHU C/12740	BMA 33.448-28
CF23	PMHU C/12742	BMA 33.448-54
EJ29	PMHU C/12749	BMA 33.448-47
MB38a	PMHU C/12760	BMA 33.448-67
J66	PMHU C/12966	BMA 33.448-34

**PMHU GRAVE 7**

PL22	PMHU C/12691	BMA 33.448-27
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**PMHU GRAVE 8**

CF8	PMHU C/12581	BMA 33.448-63
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**PMHU GRAVE 31**

B1	PMHU C/13396	BMA 33.448-69
B2	PMHU C/13397	BMA 33.448-44
B31	PMHU C/13424	BMA 33.448-65

**PMHU GRAVE 55**

PL4	PMHU C/13044	BMA 33.448-49
PL5	PMHU C/13045	BMA 33.448-74
CF8	PMHU C/13048	BMA 33.448-61

**PMHU GRAVE 58**

B8	PMHU C/12800	BMA 33.448-53
B9	PMHU C/12801	BMA 33.448-51
J14	PMHU C/12806	BMA 33.448-76
J16	PMHU C/12808	BMA 33.448-41

**PMHU CACHE 27**

EJ9	PMHU C/13039	BMA 33.448-58
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**UNKNOWN DEPOSIT**

PB

PMHU C/13464 BMA 33.448-29

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